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**POCKETGUIDE**  
*for* **FAMILY PLANNING**  
**SERVICE PROVIDERS**

**1996 • 1998**

Second Edition

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The JHPIEGO Corporation (a Johns Hopkins University program for international education in reproductive health) is a nonprofit organization dedicated to improving the health of women and families globally. JHPIEGO works to increase the number of qualified health professionals trained in modern reproductive health care, especially family planning. JHPIEGO's main office is located in Baltimore, Maryland, USA.

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### Second Edition (June 1996)

The popularity of and demand for the first edition of the *PocketGuide* quickly exhausted the supply. As health care providers around the world have used the *PocketGuide*, they have given us many comments on ways to improve its content and format. In addition, recent updates of consensus documents have provided up-to-date information that was not available at the time that the first edition was published. For these reasons, we decided to produce a second edition rather than simply reprint the first. In order to facilitate the publication of the second edition, review was limited to the select reviewers listed below. Special thanks go to Drs. Enrique Lu (JHPIEGO), Willibrord Shasha (JHPIEGO) and Jeffrey Smith (Johns Hopkins Bayview Medical Center) for their extensive review of the second edition.

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# REVIEWERS

## First Edition (May 1995)

This *PocketGuide* was reviewed by the participants at the East and Southern Africa Regional Workshop, "Improving Quality of Care and Access to Contraception: Reducing Medical Barriers," held in Harare, Zimbabwe in February 1994 and at the Nepal Contraceptive Technology Update held in Kathmandu during September 1994.

In addition, during the past 2 years numerous drafts have been reviewed by many health professionals from:

Africa (Kenya, Uganda and Zimbabwe)

Asia/Near East (Indonesia, Nepal, Papua New Guinea, Thailand and Turkey)

Latin America (Brazil, Bolivia and Peru)

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## ABBREVIATIONS

<b>AIDS:</b> acquired immunodeficiency syndrome	<b>NSAID:</b> nonsteroidal anti-inflammatory drug
<b>BBT:</b> basal body temperature	<b>PIC:</b> progestin-only injectable contraceptive
<b>BP:</b> blood pressure	<b>PID:</b> pelvic inflammatory disease
<b>BPM:</b> beats per minute	<b>PMNs:</b> polymorphonuclear neutrophil leukocytes
<b>BTB/S:</b> breakthrough bleeding/spotting	<b>POC:</b> progestin-only contraceptive
<b>CIC:</b> combined injectable contraceptive	<b>POP:</b> progestin-only pill (minipill)
<b>CIS:</b> carcinoma in situ	<b>RPR:</b> rapid plasma reagin
<b>CNS:</b> central nervous system	<b>STD:</b> sexually transmitted disease
<b>COC:</b> combined oral contraceptive	<b>TSS:</b> toxic shock syndrome
<b>CPR:</b> cardiopulmonary resuscitation	<b>UTI:</b> urinary tract infection
<b>CVD:</b> cardiovascular disease	<b>VDRL:</b> the standard nontreponemal antigen serologic test for syphilis
<b>DMPA:</b> depot-medroxyprogesterone acetate	<b>VS:</b> voluntary sterilization
<b>EE:</b> ethinyl estradiol	<b>WBC:</b> white blood cells
<b>E/P:</b> estrogen/progestin	
<b>FH:</b> familial hyperlipidemia	
<b>GC:</b> <i>Neisseria gonorrhoeae</i>	
<b>GNIDs:</b> Gram negative intracellular diplococci	
<b>GTI:</b> genital tract infection	
<b>H<sub>2</sub>O:</b> water	
<b>Hb/Hct:</b> hemoglobin/hematocrit	
<b>HBV:</b> hepatitis B virus	
<b>hCG:</b> human chorionic gonadotropin	
<b>HDL:</b> high density lipoprotein	
<b>HIV:</b> human immunodeficiency virus	
<b>HLD:</b> high-level disinfection	
<b>HPV:</b> human papillomavirus	
<b>HSV:</b> herpes simplex virus	
<b>IM:</b> intramuscular	
<b>IP:</b> infection prevention	
<b>IUD:</b> intrauterine device	
<b>IV:</b> intravenous	
<b>KOH:</b> potassium hydroxide	
<b>LAM:</b> lactational amenorrhea method	
<b>LGV:</b> lymphogranuloma venereum	
<b>LMP:</b> last menstrual period	
<b>LNG:</b> levonorgestrel	
<b>mIU:</b> milli international units	
<b>N/A:</b> not applicable	
<b>NET-EN:</b> norethindrone enanthate	
<b>NFP:</b> natural family planning	

## PREFACE

The *PocketGuide for Family Planning Service Providers* is designed to provide clinicians with easily accessible, clinically-oriented information for use in family planning service provision. It is intended to be used by those who need immediate answers to questions about a client's condition or a contraceptive method but cannot wait for an answer until getting to a library or other reference material.

### HOW TO USE THE POCKETGUIDE

The information in the *PocketGuide* is organized according to two types of clinical situations:

- When the clinician is faced with a **client with special needs**, such as a woman with a medical problem (e.g., diabetes) or who may need emergency contraception. Guidance is provided for commonly encountered **clinical conditions** as well as rare medical problems.
- When **information** about a specific **contraceptive method** is required. For each method, information such as the mechanism of action, characteristics and conditions requiring precaution is followed by instructions for management of common side effects and other problems. We have divided method characteristics into benefits and limitations; such divisions are subjective and while our decisions were based on field experience, for some clients our choices may not hold true.

In addition, the user is provided with supplemental information on counseling, client assessment and client instructions which s/he will need when working in the clinic or office.

Finally, essential information has been included for reference when providing services which involve:

- procedures requiring use of recommended infection prevention practices; or
- STDs, including genital tract infections (GTIs).

### DESIGN OF THE POCKETGUIDE

More information exists on family planning methods, especially combined oral contraceptives (COCs) and IUDs, than for almost any medical subject. Unfortunately, this information is not always easily accessible, nor is it written and arranged in a "user friendly" manner. To correct these problems, the information in the *PocketGuide* is limited to the essentials, and a format called center-indexing is used to make it easier to find **what** is needed **when** it is needed. The **center index** and **icons** used for each chapter help direct the user to the appropriate section for a given clinical situation while cross-referencing guides the user to additional information. Other features include:

- Alphabetical listing of diseases in the **Medical Problems** chapter for ease in locating them
- Organization of the material in each contraceptive method chapter in the **same sequence**, starting with general information and ending with management of side effects and other problems

#### MEDICAL CRITERIA FOR USE OF CONTRACEPTIVE METHODS

A **contraindication** is a condition or a disease that makes a drug or treatment **unsafe** or **inadvisable** for a client. In the past, to protect the client from contraceptive complications, lists of contraindications had been developed for each contraceptive method. Although such lists were produced with the best interest of the client in mind, potentially serious, but often rare, complications were overemphasized.

In addition, while **contraindications** change over time, the **lists** tend to become permanent. (The same is true to a certain extent for lists of indications.) Moreover, what may be an appropriate contraindication in one country may not be appropriate when applied to a setting that has different reproductive health characteristics. Finally, in many countries, new information is slow in arriving and the **contraindication** list remains the standard for many years.

In the *PocketGuide*, we have chosen to replace contraindications with conditions requiring precaution. Making this change, however, does not solve the problem of “lists” entirely. Therefore, in addition to listing the indications and those conditions requiring precaution, a brief statement is included explaining the rationale for categorizing the condition as such.

#### WORLD HEALTH ORGANIZATION CLASSIFICATION SYSTEM

During 1994–95, a series of working group meetings was held at the World Health Organization (WHO) to review medical criteria for initiation and continuation of all commonly available methods of contraception including voluntary sterilization (VS). The members of these scientific working groups developed a classification system and applied it to all methods of contraception (a separate system was developed for VS procedures—see the **Voluntary Sterilization** chapter). In the resulting classification system, the suitability of different contraceptive methods is determined by weighing the health risks and benefits relative to specific “conditions.” (A **condition** is defined to include both a woman’s **biologic characteristics** such as age or reproductive history and any known, pre-existing **medical problem(s)** such as diabetes or hypertension.)

The presence of a specific **condition** affecting eligibility for using a contraceptive method falls into one of four categories:

**Table 1. WHO Classification System**

<b>WHO CLASS</b>	<b>DEFINITION</b>	<b>EXAMPLE (FOR COCs)</b>
<b>Class 1:</b> Use the method in any circumstance.	A condition for which there is <b>no restriction</b> for the use of the contraceptive method.	Varicose veins
<b>Class 2:</b> Generally use the method.	A condition where the <b>benefits</b> of using the method generally <b>outweigh</b> the theoretical or proven <b>risks</b> .	Blood pressure < 160/100
<b>Class 3:</b> Use of the method not usually recommended unless other more appropriate methods are not available or acceptable.	A condition where the theoretical or proven <b>risks usually outweigh the benefits</b> of using the method.	Blood pressure ≥ 160/100
<b>Class 4:</b> Method should not be used.	A condition which represents an <b>unacceptable health risk</b> associated with the use of the contraceptive method.	Pregnancy

**Assessing Unexplained Vaginal Bleeding**

Serious pathologic problems (tumors and cancer) are uncommon in women of reproductive age, especially those younger than age 35. For example, **unexplained vaginal bleeding** in women of this age group is most often due to a **pregnancy-related problem** (e.g., spontaneous or incomplete abortion or a tubal pregnancy) or a **functional disorder** such as anovulation. Therefore, only women with unexplained vaginal bleeding that the service provider **strongly feels** could be caused by a serious problem need to be evaluated before starting a contraceptive method. Women with **irregular menstrual bleeding patterns**, which are **not** suspected of being serious, can use any contraceptive method without restriction (WHO class 1).

### Special Note on Combined Injectable Contraceptives (CICs)

With the second edition of the *PocketGuide*, we have included CICs (Cyclofem and Mesigyna) for the first time. Although CICs, which contain an estrogen and a progestin, are a relatively new contraceptive method, there is little epidemiologic data on their long-term effects. There is, however, no reason to believe that clients will have more problems with CICs than with COCs—only different and perhaps less serious problems. For example, with CICs, unlike COCs, estrogen is only available during the first 8–11 days following an injection and the levels more closely mimic those during the normal menstrual cycle. As a consequence, cycle control is not quite as good (more breakthrough spotting and bleeding days and amenorrhea) as compared with COCs (see **Figure 4, Client Assessment** chapter). However, the more physiologic estrogen dose in CICs has been found to cause less change in blood pressure, blood clotting, lipid metabolism and liver function. On the other hand, while COCs can be stopped immediately, the effect of CICs continues for some time after the last injection.

### HARMONIZING THE POCKETGUIDE WITH INTERNATIONAL MEDICAL CRITERIA

Throughout the *PocketGuide*, every effort has been made to harmonize the existing information in order to provide clear guidance to the service provider on the provision of family planning services and management of side effects and other problems. By providing updated knowledge and consistency among different sources of information, it is hoped that:

- the **competence** and **confidence** of service providers will improve when assisting clients in making contraceptive choices,
- the quality of family planning will improve (e.g., increased client satisfaction), and
- access to quality contraceptive services will increase.

The *PocketGuide* complements the WHO classification system. For example, like the WHO system, the *PocketGuide* includes a brief rationale for **why** a particular condition is assigned to one of the four categories. (For the reader's convenience, the WHO classification for each condition is included throughout the *PocketGuide*.)

The rationales included in this *PocketGuide* are adapted not only from those presented in the most recent WHO document but also from those provided in the manual, *Recommendations for Updating Selected Practices in Contraceptive Use* (Volume I), produced by the USAID Technical Guidance Working Group (November 1994), and selected references from the international literature on contraceptive technology.

# COUNSELING

Counseling is a **vital** part of family planning. It helps clients to:

- arrive at an informed choice of reproductive options,
- select a contraceptive method with which they are satisfied, and
- use the chosen method safely and effectively.

Good counseling focuses on the individual client's needs and situation. Good counselors are willing to listen and respond to the client's questions and concerns.

## **Keys to good counseling**

A good counselor:

- Understands and respects the client's rights
- Earns the client's trust
- Understands the benefits and limitations of all contraceptive methods
- Understands the cultural and emotional factors that affect a woman's (or a couple's) decision to use a particular contraceptive method
- Encourages the client to ask questions
- Uses a nonjudgmental approach which shows the client respect and kindness
- Presents information in an unbiased, client-sensitive manner
- Actively listens to the client's concerns
- Understands the effect of nonverbal communication
- Recognizes when s/he cannot sufficiently help a client and refers the client to someone who can

To be effective, counseling must be based on the establishment of trust and respect between the client and counselor.

In serving clients, it is important to remember that they have:

- the right to decide whether or not to practice family planning,
- the freedom to choose which method to use,
- the right to privacy and confidentiality, and
- the right to refuse any type of examination.

Also, while many contraceptive methods are highly effective, method failure can occur. In the case of method failure, the client should be counseled, informed about the available options and referred for appropriate services.

# COUNSELING

## COUNSELING PROCESS

In discussing contraceptive options with clients, service providers should briefly review all available methods, even if a client knows which method s/he wants.

Service providers should be aware of a number of factors about each client that may be important, depending on the method in question. These are:

- reproductive goals of the woman or couple (spacing or timing births);
- personal factors including the time, travel costs, pain or discomfort likely to be experienced;
- accessibility and availability of other products that are necessary to use the method; and
- the need for protection against GTIs and other STDs (e.g., HBV, HIV/AIDS).

Counseling can be divided into three phases (see **Figure 1. Steps in Counseling**):

- **initial counseling** at reception (all methods are described and the client is helped to choose the method most appropriate for her/him);
- **method-specific counseling** prior to and immediately following service provision (the client is given instructions on how to use the method and common side effects are discussed); and
- **followup counseling** (during the return visit, use of the method, satisfaction and any problems that may have occurred are discussed).

The provision of counseling, however, should be part of **every interaction** with the client.

## WHO SHOULD PROVIDE COUNSELING?

Information and counseling commonly will come from more than one source. Therefore, **all staff** should be knowledgeable about **all** available contraceptive methods.

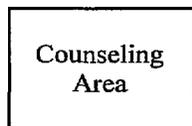
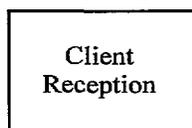
## FAMILY PLANNING INFORMATION

Following are a table (**Table 2**) and figures (**Figures 2 and 3**) that provide information that will help staff and clinicians in educating and counseling clients about all contraceptive methods.

**Note:** While all methods of contraception can be started anytime you can be reasonably sure the client is not pregnant (see **Client Assessment** chapter), the recommended time to start each method is provided in **Table 2**.

**Figure 1. Steps in Counseling**

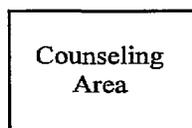
**Initial Counseling**



- Greet the client by introducing yourself and warmly welcoming her to the clinic.
- Provide general education about family planning.
- Provide information about all contraceptive choices available and the risks and benefits of each. Explain the difference between reversible and permanent contraception. Correct false rumors or misinformation about all methods.

- Obtain basic information (name, address, etc.).
- Ask the client about her reproductive goals and possible need for protection against GTIs and other STDs, including HBV and HIV/AIDS. Ask her if she wants to space or limit births.
- Discuss the client's needs, concerns and fears in a thorough and sympathetic manner. Explore any attitudes or cultural or religious beliefs that either favor or eliminate one or more methods.
- Help the client begin to choose an appropriate method.

**Method-Specific Counseling**



Once she chooses a method:

- Make sure there is no medical condition that would be a problem or require more frequent followup.
- Clearly discuss the characteristics of the method emphasizing the following points:
  - Effectiveness
  - Use
  - Convenience, comfort and reversibility
  - Protection against GTIs and other STDs, including HBV and HIV/AIDS.
- Explain common side effects or problems associated with the method, especially any changes in the menstrual bleeding pattern; and be sure they are fully understood.
- If the client is at risk for STDs, inform her that she should also use a barrier contraceptive.

# COUNSELING

## Method-Specific Counseling (*continued*)

Procedure/  
Examination  
Area



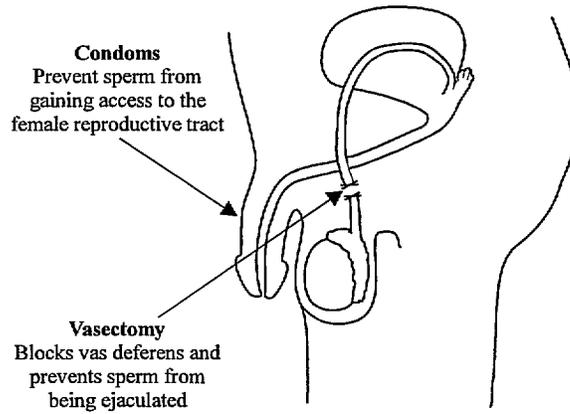
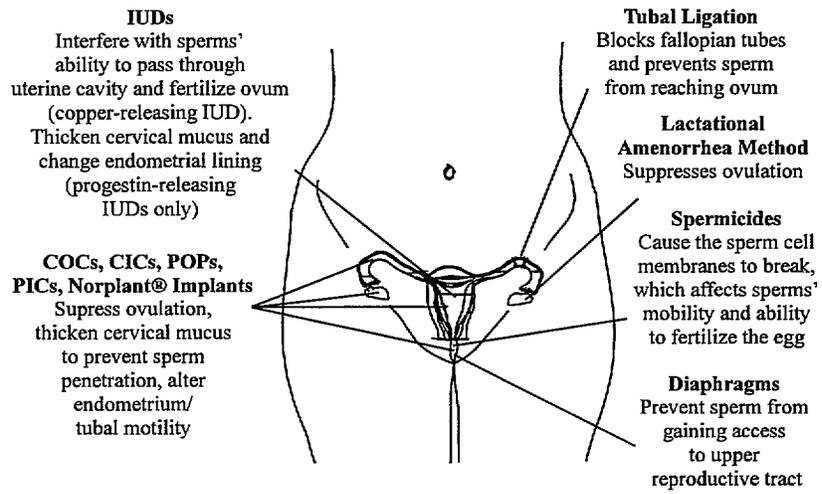
- Review client assessment data to determine if the client is an appropriate candidate for the method or if she has any problems that should be monitored more frequently while using it.
- Give counseling, including how to use the method and what to do if she experiences any problems or side effects. Special emphasis should be given to menstrual bleeding changes.
- Provide information on warning signs for medical problems and the need to return to the clinic immediately should any occur.
- Assure the client she can return to the clinic at any time to receive advice and medical attention.
- Have the client repeat the instructions.
- Answer any remaining client questions.
- Complete the client record.

## Followup/Return Visit Counseling

Counseling/  
Examination  
Area

- Check whether the client is satisfied.
- Inquire about problems and respond to concerns about side effects or any problems.
- Repeat client instructions for use of the selected method.

**Figure 2. Mechanisms of Action**



# COUNSELING

**Table 2. Method Characteristics**

<b>METHOD</b>	<b>PREGNANCY RATES<sup>a</sup> (TYPICAL USE)</b>	<b>WHEN TO START<sup>b</sup> (Days of the menstrual cycle)</b>
Vasectomy	0.1–0.15	Not related to menstrual cycle
Tubal Occlusion	0.2–0.4 <sup>c</sup>	Days 6–13
Implants	0.2–1	Days 1–7
CICs	0.1–0.4	Days 1–7
PICs	0.3–1	Days 1–7
IUDs (copper- and hormone-releasing)	0.5–1	Days 1–7
POPs	0.5–10	Day 1
COCs	0.1–8	Days 1–7
LAM	1–2 <sup>d</sup>	Postpartum with breastfeeding
Condoms	2–12	Anytime (must be used with each act of intercourse)
Spermicides	3–21	Anytime (must be used with each act of intercourse)
Withdrawal (Coitus Interruptus)	4–18	Anytime (must be used with each act of intercourse)
Diaphragms with Spermicides	6–18	Anytime (must be used with each act of intercourse)
NFP	9–20	Once client is trained in use of the method

<sup>a</sup> Range of pregnancy rates per 100 women during first year of use.

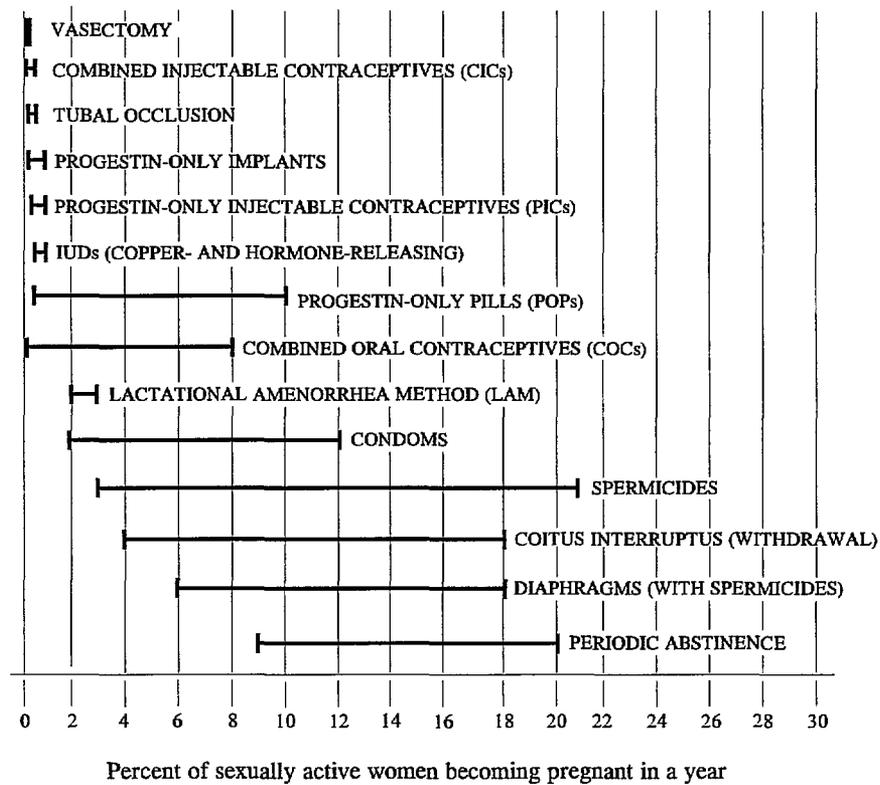
<sup>b</sup> All methods can be started anytime you can be reasonably sure the client is not pregnant.

<sup>c</sup> Recent data suggest that failure rates at 5 and 10 years are higher depending on the woman's age at the time of the procedure and the method of sterilization used.

<sup>d</sup> If fully breastfeeding, no vaginal bleeding and infant less than 6 months old.

*Adapted from:* Labbok, Cooney and Coly 1994; Trussel 1990; WHO 1993.

**Figure 3. Range of Theoretical and Typical Use Pregnancy Rates per 100 Women During First Year of Use**



*Adapted from:* Labbok, Cooney and Coly 1994; Population Action International 1991; Trussel 1990; WHO 1993.

# NOTES



# CLIENT ASSESSMENT

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The **primary objectives** of assessing clients prior to providing family planning services are to determine:

- that the client is not pregnant,
- whether any conditions requiring precaution exist for a particular method, and
- whether there are any special problems that require further assessment, treatment or regular followup.



These usually can be accomplished by asking a few key questions. Unless specific problems are identified, the safe provision of most contraceptive methods, except IUDs and voluntary sterilization, does **not** require performing a **physical or pelvic examination** because:

- The currently available low-dose<sup>1</sup> combined (estrogen and progestin) contraceptives, such as COCs and CICs, are quite safe. They are safer and have fewer serious side effects than older products and only rarely do they make existing medical problems worse.
- Progestin-only implants, injectables and pills are free of estrogen-related effects and the amount of progestin delivered per day is lower than with COCs.

Where resources are limited, requiring medical evaluation and/or laboratory testing (e.g., blood sugar and hemoglobin) before providing modern contraceptive methods is **not** justifiable. Where demand for family planning services is high, medical requirements that are **not** essential to the provision of specific contraceptives act as a major barrier to contraceptive choice and access to services. To enable clients to obtain the contraceptive method of their choice, **only** those procedures that are essential and mandatory for **all** clients in **all** settings should be required.

With the exception of condoms (and diaphragms to a lesser degree) no contraceptive method provides protection against GTIs or other STDs (e.g., HBV, HIV/AIDS). All clients should be made aware of the risks of GTI and STD transmission (see **STDs and Family Planning** chapter for details on client screening).

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<sup>1</sup> Low-dose combined contraceptives contain 30–35 µg ethinyl estradiol.

# CLIENT ASSESSMENT

## HOW TO BE REASONABLY SURE A CLIENT IS NOT PREGNANT<sup>2</sup>

You can be reasonably sure a client is not pregnant if she has no signs or symptoms of pregnancy (e.g., breast tenderness or nausea) and:



- has not had intercourse since her last menses; or
- has been correctly and consistently using a reliable contraceptive method; or
- is within the first 7 days after the start of her menses (days 1–7); or
- is within 4 weeks postpartum (for nonbreastfeeding women); or
- is within the first 7 days postabortion; or
- is fully breastfeeding, less than 6 months postpartum and has had no menstrual bleeding.

When a woman is **more than 6 months postpartum** you can still be reasonably sure she is not pregnant if:

- she has kept her **breastfeeding frequency high**,
- has still had **no menstrual bleeding** (amenorrheic), and
- has **no clinical signs or symptoms of pregnancy**.

**Pelvic examination is seldom necessary**, except to rule out pregnancy of greater than 6 weeks, measured from the last menstrual period (LMP).

**Pregnancy testing** is unnecessary except in cases where:

- it is difficult to confirm pregnancy (i.e., 6 weeks or less from the LMP); or
- the results of the pelvic examination are equivocal (e.g., the client is overweight, making sizing the uterus difficult).

In these situations, a sensitive urine pregnancy test (i.e., detects < 50 mIU/ml of hCG) may be helpful, if readily available and affordable. If pregnancy testing is **not** available, counsel the client to use a temporary contraceptive method or abstain from intercourse until her menses occur or pregnancy is confirmed.

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<sup>2</sup> *Adapted from:* Technical Guidance Working Group 1994.

## CLIENT ASSESSMENT CHECKLISTS

The following tables provide:

- sample client assessment checklists for reversible methods (hormonals and IUDs),
- guidelines for assessing the suitability of clients to have voluntary sterilization in ambulatory health care facilities, and
- a summary of client assessment requirements for all methods.



### USING THE CLIENT ASSESSMENT CHECKLISTS FOR REVERSIBLE METHODS

For either checklist if the client answers “NO” to all questions, and pregnancy is **not** suspected, the client may go directly for method-specific counseling, pelvic examination (required for IUDs only) and provision of the contraceptive. If the client answers “YES,” however, she may need further counseling and possible evaluation before making a final decision.

**Note:** Clients may not always have exact information about or recall the answers to the conditions listed in the **Client Assessment Checklists**. To be as certain as possible about the accuracy of information, it may be necessary to restate the question(s) in several different ways. Also, it is important to take into account any social, cultural or religious factors that might influence how the client responds.

# CLIENT ASSESSMENT

The findings from the **Client Assessment Checklist** determine whether a physical examination is necessary (i.e., if the client answers “YES,” a brief physical examination or additional questions may be necessary).

**Table 3. Hormonal Methods Checklist (pills, injectables and implants)**

	YES	NO
Breastfeeding baby less than 6 weeks old <sup>a,b</sup>		
Bleeding/spotting between periods or after intercourse		
Jaundice (abnormal yellow skin or eyes)		
Smoker over age 35 <sup>b</sup>		
Diabetes		
Severe headaches or blurred vision		
Severe pain in calves, thighs or chest, or swollen legs (edema) <sup>b</sup>		
High blood pressure (history of) <sup>b</sup>		
Heart attack, stroke or heart disease (history of)		
Breast cancer or suspicious (firm, nontender or fixed) lump in the breast		
Taking drugs for epilepsy (phenytoin and barbiturates) or tuberculosis (rifampin) <sup>c</sup>		

<sup>a</sup> Combined estrogen/progestin contraceptives (COCs and CICs) are the methods of last choice for breastfeeding women, especially in the first 6–8 weeks postpartum.

<sup>b</sup> Does not apply to progestin-only contraceptives (implants, PICs and POPs).

<sup>c</sup> Does not apply to PICs.

**Table 4. IUD Checklist**

	YES	NO
Client (or partner) has other sex partners		
Sexually transmitted genital tract infection (GTI) or other STD (e.g., HBV, HIV/AIDS) within the last 3 months		
Pelvic infection (PID) or ectopic pregnancy (within the last 3 months)		
<b>Heavy</b> menstrual bleeding (twice as long or twice as much as normal) <sup>a</sup>		
<b>Prolonged</b> menstrual bleeding (> 8 days) <sup>a</sup>		
<b>Severe</b> menstrual cramping (dysmenorrhea) requiring analgesics and/or bed rest <sup>a</sup>		
Bleeding/spotting between periods or after intercourse		
Symptomatic valvular heart disease <sup>b</sup>		



<sup>a</sup> Does not apply to progestin-releasing IUDs.

<sup>b</sup> Give prophylactic antibiotics if not on long-term antibiotics at the time of IUD insertion. (See IUDs chapter for additional information.)

## CLIENT ASSESSMENT

Voluntary sterilization procedures, including minilaparotomy and laparoscopy, generally can be provided safely in ambulatory health care facilities. The guidelines presented in the following tables are intended for use in selecting healthy clients who can have a VS procedure in an ambulatory health care facility (see **Voluntary Sterilization** chapter for details). **Not acceptable** indicates that the procedure probably should be performed in a facility where additional assistance and backup services are available (e.g., more experienced physician). It does not relate to the appropriateness of the client's decision to undergo VS.

**Table 5. Female Voluntary Sterilization Guidelines**

CATEGORY	SELECTION CRITERIA	
	Acceptable	Not Acceptable
General health (assessed by history and limited physical examination)	Normal history and no current symptomatic heart, lung or kidney disease	Uncontrolled diabetes or history of bleeding disorder; current symptomatic heart, lung or kidney disease, etc.
Emotional state	Calm	Unresolved fear or anxiety
Blood pressure	< 160/100 mm/Hg	≥ 160/100 mm/Hg
Weight	Maximum weight: 80 kg (176 lb) Minimum weight: 35 kg (77 lb)	> 80 kg < 35 kg
Previous abdominal/pelvic surgery	Cesarean sections—only if mobile abdominal scar and normal pelvic examination	Other abdominal surgery, fixed scar or abnormal pelvic examination
Previous pelvic disease (PID, ectopic pregnancy) or ruptured appendix	No history and normal abdominal/pelvic examination	Abnormal abdominal/pelvic examination
Anemia <sup>a</sup>	Hemoglobin ≥ 7 g/dl	Hemoglobin < 7 g/dl

<sup>a</sup> WHO eligibility criteria recommend caution in performing voluntary sterilization if hemoglobin is 7–10. (The procedure is normally conducted in a routine setting, but with extra preparation and precautions.)

**Note:** A successful VS program in an ambulatory facility depends on clinicians and staff who are trained and confident working with awake or lightly sedated clients.



**Table 6. Male Voluntary Sterilization Guidelines**

CATEGORY	SELECTION CRITERIA	
	Acceptable	Not Acceptable
General health (assessed by history and limited physical examination)	Normal history and no current symptomatic heart, lung or kidney disease	Uncontrolled diabetes or history of bleeding disorder; current symptomatic heart, lung or kidney disease, etc.
Emotional state	Calm	Unresolved fear and anxiety
Blood pressure	< 160/100 mm/Hg	≥ 160/100 mm/Hg
Scrotal/inguinal infection or abnormalities (undescended testes, hernia)	Normal examination	Infection of scrotal or inguinal area, balanitis or anatomic abnormalities
Anemia <sup>a</sup>	Hemoglobin ≥ 7 g/dl	Hemoglobin < 7 g/dl

<sup>a</sup> WHO eligibility criteria recommend caution in performing voluntary sterilization if hemoglobin is 7–10. (The procedure is normally conducted in a routine setting, but with extra preparation and precautions.)

# CLIENT ASSESSMENT

**Table 7. Summary: Client Assessment Requirements for All Contraceptive Methods**



ASSESSMENT	NFP, LAM OR WITHDRAWAL	BARRIER METHODS (Condom or Diaphragm) OR SPERMICIDES
Reproductive Health Background	Yes	Yes
GTIs/STDs History	No	No
<b>Physical Examination</b>		
Female General (including BP)	No	No
Abdominal	No	No
Pelvic Speculum	No	No
Pelvic Bimanual	No	Yes <sup>a</sup>
Male (groin, penis, testes and scrotum)	No	No

<sup>a</sup> Required to size/fit diaphragm.

<b>HORMONAL METHODS (COCs, CICs, POPs, PICs or Implants)</b>	<b>IUDs</b>	<b>VOLUNTARY STERILIZATION (Female/Male)</b>
Yes (See Client Assessment Checklist)	Yes (See Client Assessment Checklist)	Yes (See Guidelines for Assessing Clients)
No	Yes	Yes
No <sup>b</sup>	No <sup>b</sup>	Yes
No <sup>b</sup>	Yes	Yes
No <sup>b,c</sup>	Yes	Yes
No <sup>c</sup>	Yes	Yes
N/A	N/A	Yes

- <sup>b</sup> If screening checklist responses all negative (NO), examination is not necessary.  
<sup>c</sup> Only necessary if pregnancy is suspected and pregnancy test is not available.

# CLIENT ASSESSMENT

## MENSTRUAL BLEEDING PATTERNS WITH HORMONAL CONTRACEPTIVES AND IUDS



Most modern contraceptive methods (pills, injectables, implants and IUDs) affect the menstrual bleeding pattern. In general, methods in which the bleeding pattern closely mimics that of noncontracepting women are more acceptable to women. Unfortunately, all of the reversible, modern methods may alter the menstrual bleeding pattern relative to:

- the number of bleeding/spotting days,
- the number of bleeding/spotting periods, or
- a combination of the two.

### Vaginal Bleeding: Definitions

Throughout the *PocketGuide*, in describing changes in menstrual bleeding patterns for each contraceptive method, the characteristics of vaginal bleeding have been defined as follows:

**Bleeding:** Any bloody vaginal discharge requiring use of sanitary protection (pads, cloths or tampons)<sup>3</sup>

- **Heavy:** Twice as long or twice as much as normal
- **Prolonged:** More than 8 days (duration)

**Spotting:** Minimal pink, brown or red discharge which requires no sanitary protection

### Amenorrhea:

- **Primary:** No uterine bleeding/spotting by age 16 (if no secondary sexual development) or by age 18 (if secondary sexual development)
- **Secondary:** No uterine bleeding/spotting for at least 3 consecutive months

**Oligomenorrhea:** Menstrual interval > 35 days but < 3 months (may or may not be ovulatory)

**Polymenorrhea:** Menstrual interval 21 days or less (strongly suggests anovulation)

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<sup>3</sup> The amount of blood lost during a **normal** menstrual period is about 50–80 ml.

Because of the direct association between vaginal bleeding patterns and reasons for stopping a contraceptive, a clear understanding of the types of bleeding changes is important in order to counsel clients adequately and to manage bleeding problems better in continuing users.

To help clinicians better appreciate the impact of modern contraceptive methods on menstrual bleeding patterns, their varying effects are illustrated in **Figure 4**. For the figure, the 5 types of **clinically important bleeding changes** (amenorrhea, infrequent bleeding, frequent bleeding, irregular bleeding and prolonged bleeding) for each method were compared to those of nearly 4000 noncontracepting, menstruating women (controls).

As shown in **Figure 4**, 85–90% of the control group had an “acceptable” bleeding pattern (cycle control).<sup>4</sup> As shown in this figure, continued use of low-dose COCs improved cycle control to nearly 95% by the end of the first year of use (gray bars) whereas for DMPA users only 8–9% had an “acceptable” bleeding pattern. It is important to note that some patterns considered unacceptable (e.g., amenorrhea or infrequent bleeding) may be considered acceptable, and even desirable, to some women. In addition, by the fourth reference period 50–60% of DMPA users were amenorrheic or had infrequent bleeding rather than the irregular or prolonged bleeding which characterized the bleeding during the first 90-day reference period.

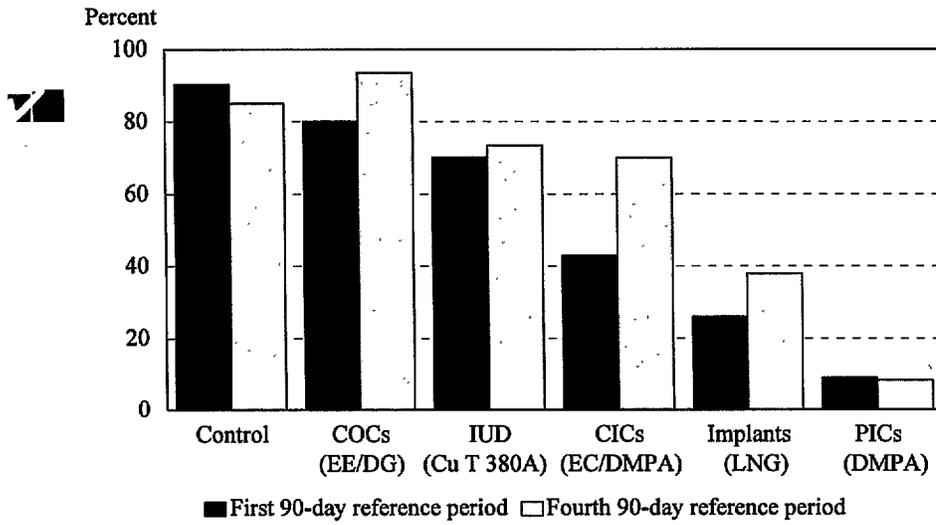
Understanding the effect of each contraceptive method on cycle control is important because it enables clients to make a better selection of a contraceptive method, thus increasing client satisfaction.

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<sup>4</sup> An acceptable cycle is defined as the absence of the **clinically important bleeding changes** during consecutive 90-day reference periods.

# CLIENT ASSESSMENT

**Figure 4. Women with Acceptable Bleeding Patterns**  
(First and Fourth 90-Day Reference Periods)



COCs (30 µg EE and 150 µg desogestrel); CICs (5 mg estradiol cypionate and 25 mg DMPA); Levonorgestrel (LNG); PICs (150 mg DMPA)

*Adapted from:* Fraser 1994; Sastrawinata et al 1991; Walling 1994.

## MEDICAL PROBLEMS

Women with medical problems, even if chronic or quite serious, may need contraception. Providing a contraceptive method in such circumstances, however, can be complicated because the underlying medical problem may limit the number of methods that are appropriate for use. As a consequence, special knowledge about the interaction between a given medical problem and various contraceptive methods is required on the part of the service provider. In addition, women with medical problems need special counseling to guide them in choosing an appropriate contraceptive method.

Although some of the problems presented in this chapter are uncommon, they are included to provide clinicians with the most up-to-date and complete information possible. Only in this way can clients with these medical problems be helped in choosing safe and effective contraception.

The risk of pregnancy to a woman with a serious medical problem, such as high blood pressure, always must be weighed against the low risk associated with using a particular contraceptive method.<sup>1</sup>

**Note:** Sometimes the most dangerous contraceptive is **no contraceptive**.

Finally, postpartum women with serious medical problems should be encouraged to fully breastfeed their infants. Clearly, breastfeeding according to LAM is an effective, short-term method of contraception and is one of the safest methods for a mother with medical problems.

In the following pages the key factors relevant to contraceptive use in clients with **medical problems** are outlined. They are arranged in alphabetical order. For those conditions where one (or more) contraceptive method is **most** appropriate, it appears in boldface.

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<sup>1</sup> For women with life-threatening medical problems who are in mutually faithful relationships, vasectomy often is the safest long-term method for the couple.

# MEDICAL PROBLEMS

PROBLEM	METHODS WHICH SHOULD BE USED WITH CAUTION
<b>Breast lumps</b>	<b>COCs, CICs and POCs:</b> Only clients with suspicious breast lumps (firm, nontender or fixed and which do not change during the menstrual cycle) need to be evaluated before using COCs, CICs or POCs.



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## Cancer (continued on next page)

<i>Breast</i>	<b>COCs, CICs, Implants and PICs:</b> Women with breast cancer should not use these methods. (WHO class 4)  <b>POPs:</b> Women with breast cancer should avoid using POPs unless other more appropriate methods are not available or acceptable. (WHO class 3)
<i>Cervical</i>	<b>IUDs:</b> Women awaiting or undergoing treatment should not use an IUD. (WHO class 4)

**APPROPRIATE  
CONTRACEPTIVE  
METHODS<sup>2</sup>**

(WHO Class 1, 2)

- LAM
- COCs/CICs
- POCs
- **IUDs**
- Barriers
- Spermicides
- NFP
- Withdrawal
- **Voluntary sterilization**

**COMMENTS**

The vast majority of breast lumps in women of reproductive age are benign (not cancerous). For women with benign breast disease, use of hormonal methods (COCs, CICs and POCs) is appropriate.



- LAM
- IUDs
- Barriers
- Spermicides
- NFP
- Withdrawal
- Voluntary sterilization

Although there is no evidence that estrogens or progestins (COCs, CICs and POCs) cause breast cancer, it is a hormonally sensitive tumor.

WHO recommends that women with a **history** of breast cancer **but no evidence of current disease** avoid using COCs, CICs and POCs unless other more appropriate methods are not available or acceptable. (WHO class 3)

- LAM
- COCs/CICs
- POCs
- Barriers
- Spermicides
- NFP
- Withdrawal
- Voluntary sterilization

In general, treatment of cervical cancer causes the woman to be sterile.

IUDs may increase the risk of infection or excessive bleeding which may make the condition appear worse prior to treatment.

There is little concern that COCs, CICs or POCs increase the risk of progression of carcinoma-in-situ (CIS) to invasive cancer.

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<sup>2</sup> Most appropriate methods are boldfaced.

# MEDICAL PROBLEMS

## PROBLEM

## METHODS WHICH SHOULD BE USED WITH CAUTION

### Cancer (*continued*)

*Endometrial and Ovarian* IUDs: Women awaiting or undergoing treatment should not use an IUD. (WHO class 4)



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### Cirrhosis

COCs: Women with severe cirrhosis should not use COCs. (WHO class 4)

Women with mild cirrhosis should avoid using COCs unless other more appropriate methods are not available or acceptable. (WHO class 3)

CICs and POCs: Women with severe cirrhosis should avoid using CICs or POCs unless other more appropriate methods are not available or acceptable. (WHO class 3)

Women with mild cirrhosis generally may use CICs or POCs. (WHO class 2)

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### Congenital uterine anomalies (bicornate or double uterus or cervix)

IUDs: Women with any type of congenital uterine anomaly should not use IUDs. (WHO class 4)

**APPROPRIATE  
CONTRACEPTIVE  
METHODS<sup>2</sup>**  
(WHO Class 1, 2)

**COMMENTS**

<ul style="list-style-type: none"> <li>• LAM</li> <li>• COCs/CICs</li> <li>• POCs</li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• Voluntary sterilization</li> </ul>	<p>In general, treatment of endometrial and ovarian cancers causes the woman to be sterile.</p> <p>IUDs may increase the risk of infection or excessive bleeding which may make the condition appear worse prior to treatment.</p> <p>COC use reduces the risk of developing either endometrial or ovarian cancer while POC use reduces the risk of endometrial cancer.</p>
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<ul style="list-style-type: none"> <li>• LAM</li> <li>• <b>IUDs</b></li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• <b>Voluntary sterilization</b></li> </ul>	<p>COCs may be used by women who are asymptomatic (i.e., liver function has been normal for 3 months). Because COCs and CICs are metabolized by the liver, their use may alter the course of existing disease. The concern with CICs is less than that with COCs because the first-pass effect on the liver is eliminated. (The hormones in CICs initially pass directly from the injection site to the heart without first passing through the liver.)</p>
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<ul style="list-style-type: none"> <li>• LAM</li> <li>• COCs/CICs</li> <li>• POCs</li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• Voluntary sterilization</li> </ul>	<p>Uterine anomalies distort the cavity and can cause difficulties in insertion, increase the risk of expulsion and decrease the effectiveness of an IUD.</p>
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<sup>2</sup> Most appropriate methods are boldfaced.

# MEDICAL PROBLEMS

PROBLEM	METHODS WHICH SHOULD BE USED WITH CAUTION
<b>Depression</b> (history, severe or recurrent)	<b>COCs, CICs and POCs:</b> Women with a history of depression, especially if severe or recurrent, should use these methods with caution.



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<b>Diabetes</b>	<b>COCs and CICs:</b> Only women with diabetes of long-standing (> 20 years), who have <b>arterial vascular problems</b> (e.g., heart attack, stroke, kidney failure or retinopathy), should avoid using COCs or CICs. (WHO class 3/4)  <b>PICs:</b> Women with diabetes of long-standing (> 20 years), who have <b>arterial vascular problems</b> , should avoid using PICs unless other more appropriate methods are not available or acceptable. (WHO class 3)
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## Drug Interactions *(continued on next page)*

<i>Antibiotics</i>	<b>COCs, CICs, Implants and POPs:</b> Women with problems requiring long-term use of <b>rifampin</b> or <b>griseofulvin</b> <sup>3</sup> should avoid using these methods unless other more appropriate methods are not available or acceptable. (WHO class 3)  There is no restriction for use with other antibiotics. (WHO class 1)
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<sup>2</sup> Most appropriate methods are boldfaced.

**APPROPRIATE  
CONTRACEPTIVE  
METHODS<sup>2</sup>**

(WHO Class 1, 2)

**COMMENTS**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• LAM</li> <li>• IUDs</li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• <b>Voluntary sterilization</b></li> </ul> | <p>Depression may be related to the progestin in COCs, CICs and POCs. If a woman thinks depression has worsened while using COCs, CICs or POCs, help her choose another method.</p> <p>For women with a history of severe or recurrent episodes of depression, a trial of POPs may be preferable before giving implants or PICs because these methods cannot be stopped easily.</p> |
|---|---|



- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• LAM</li> <li>• COCs/CICs</li> <li>• <b>POPs/Implants</b></li> <li>• <b>IUDs</b></li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• <b>Voluntary sterilization</b></li> </ul> | <p>POPs and implants have a lower dose of progestin than PICs. They do not, therefore, pose an additional risk of blood clotting problems (estrogen effect).</p> <p>Although carbohydrate tolerance may change (slight decrease in glucose tolerance and increased insulin levels), COCs and CICs can be used safely. It is the progestin component (type and dose) of COCs and CICs that mainly is responsible for the effects on carbohydrate metabolism.</p> <p>Fortunately, the small changes induced by low-dose COCs, CICs, implants and POPs do not appear to be clinically significant.</p> |
|---|---|

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• LAM</li> <li>• <b>PICs</b></li> <li>• <b>IUDs</b></li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• Voluntary sterilization</li> </ul> | <p><b>Long-term</b> use of rifampin for tuberculosis causes the liver to metabolize estrogens and progestins more rapidly and may decrease the effectiveness of all hormonal methods except PICs. (The blood levels of progestins with use of PICs are sufficient to compensate for the increased metabolism.)</p> |
|--|--|

<sup>3</sup> Because griseofulvin usually is used only for a short period of time (2 to 4 weeks), women taking it for fungal infections can continue to use these methods. They should use a backup method while taking griseofulvin and until the start of the next menstrual period after stopping the antibiotic.

# MEDICAL PROBLEMS

## PROBLEM

## METHODS WHICH SHOULD BE USED WITH CAUTION

### Drug Interactions (*continued*)

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#### *Anticoagulants*

**COCs and CICs:** Women with problems requiring long-term use of anticoagulants should avoid using COCs and CICs unless other more appropriate methods are not available or acceptable. (WHO class 3)



#### *Antiseizure drugs* (barbiturates, carbamazepine and phenytoin but **not** valproic acid)

**COCs, CICs, Implants and POPs:** Women using antiseizure drugs should avoid using these methods unless other more appropriate methods are not available or acceptable. (WHO class 3)

**APPROPRIATE  
CONTRACEPTIVE  
METHODS<sup>2</sup>**  
(WHO Class 1, 2)

**COMMENTS**

- LAM
- **POCs**
- **IUDs**
- Barriers
- Spermicides
- NFP
- Withdrawal
- **Voluntary sterilization**

The use of COCs or CICs in these women poses an additional risk of blood clotting problems (estrogen effect).

- LAM
- **PICs**
- **IUDs**
- Barriers
- Spermicides
- NFP
- Withdrawal
- Voluntary sterilization

**Long-term** use of drugs for epilepsy (**except** valproic acid) causes the liver to metabolize estrogens and progestins more rapidly and may decrease the effectiveness of all hormonal methods **except** PICs. Overall, neither estrogens nor progestins appear to alter seizure activity and can be provided with caution.

Development of intermenstrual bleeding or spotting may indicate a decreased level of sex steroid hormones (estrogens and progestin) due to interactions with antiseizure drugs. If this occurs, consider using a COC with a higher estrogen level (50 µg EE) or help the client choose another method (COC, CIC, implants or POP).

The effectiveness of PICs is **not** decreased because blood levels of the progestins are sufficient to compensate for the increased metabolism.

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<sup>2</sup> Most appropriate methods are boldfaced.

# MEDICAL PROBLEMS

## PROBLEM

## METHODS WHICH SHOULD BE USED WITH CAUTION

Ectopic pregnancy (history)

**Implants, POPs and inert and progestin-releasing IUDs:** Because POPs and both inert and progestin-releasing (Progestasert®) IUDs do not consistently block ovulation, women choosing these methods may have an even higher risk of another ectopic pregnancy. By contrast, the risk of ectopic pregnancy with copper-releasing IUDs (e.g., TCU 380A) and the LNG-releasing IUD is extremely low.

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Familial hyperlipidemia (FH)

**COCs and CICs:** Women with **diagnosed** FH probably should avoid using COCs or CICs unless other more appropriate methods are not available or acceptable. (WHO class 2/3)

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Gall bladder problems (biliary tract disease)

**COCs and CICs:** Women with gall bladder disease, including those being treated medically, should avoid using COCs or CICs unless other more appropriate methods are not available or acceptable. (WHO class 3)

**APPROPRIATE  
CONTRACEPTIVE  
METHODS<sup>2</sup>**  
(WHO Class 1, 2)

**COMMENTS**

- LAM
- **COCs/CICs**
- **PICs**
- IUDs
- Barriers
- Spermicides
- NFP
- Withdrawal
- Voluntary sterilization

A woman who has had a prior ectopic pregnancy is at increased risk for another and should use a very effective contraceptive method, preferably one that blocks ovulation (e.g., COCs or injectables).

Overall, the risk of ectopic pregnancy is extremely low with the TCu 380A IUD. Therefore, if the woman is not at high risk for GTIs, a copper-releasing IUD is appropriate.

The risk of a subsequent ectopic pregnancy in women using no method of contraception is about 20% while in women using IUDs it is about 1–2%. Therefore, all methods provide more protection against ectopic pregnancy than using no method.

- LAM
- POCs
- **IUDs**
- Barriers
- Spermicides
- NFP
- Withdrawal
- **Voluntary sterilization**

Although FH is a risk factor for vascular disease, routine screening is **not** indicated because of the **rarity** of this disease.

Risk of vascular problems (e.g., heart attack, stroke, pulmonary embolism or blood clotting disorders) is increased if COCs or CICs are used by patients with FH.

- LAM
- POCs
- **IUDs**
- Barriers
- Spermicides
- NFP
- Withdrawal
- Voluntary sterilization

Although COCs and CICs do **not** appear to cause gall bladder disease, they may shorten the time until the onset of disease in women with subclinical cases. This is most likely to occur within the first year of use.

<sup>2</sup> Most appropriate methods are boldfaced.

# MEDICAL PROBLEMS

PROBLEM	METHODS WHICH SHOULD BE USED WITH CAUTION
Headaches (migraine)	COCs and CICs: Only women with <b>migraine headaches</b> that cause <b>focal neurologic symptoms</b> should not use COCs or CICs. (WHO class 4)
Hepatitis	COCs and CICs: Women with <b>active</b> (symptomatic) hepatitis should not use COCs or CICs. (WHO class 4)  POCs: Women with <b>active</b> (symptomatic) hepatitis should avoid using POCs unless other more appropriate methods are not available or acceptable. (WHO class 3)
High blood pressure (continued on next page)	COCs and CICs: Women with blood pressure (BP): <ul style="list-style-type: none"><li>• <b>&gt; 180/110</b> should not use COCs or CICs. (WHO class 4)</li><li>• <b>≥ 160/100</b> but <b>&lt; 180/110</b> should avoid using COCs or CICs unless other more appropriate methods are not available or acceptable. (WHO class 3)</li><li>• <b>&lt; 160/100</b> can use COCs or CICs. (WHO class 2)</li></ul> COCs and CICs: Women with <b>arterial vascular disease</b> as well as high BP should not use either COCs or CICs. (WHO class 4)

**APPROPRIATE  
CONTRACEPTIVE  
METHODS<sup>2</sup>**  
(WHO Class 1, 2)

**COMMENTS**

<ul style="list-style-type: none"> <li>• LAM</li> <li>• POCs</li> <li>• <b>IUDs</b></li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• Voluntary sterilization</li> </ul>	<p>In women with severe, recurrent vascular (migraine) headaches who also have focal neurological symptoms (e.g., unable to speak for short intervals, temporary weakness or blurred vision), use of COCs and CICs may pose an additional risk for stroke (estrogen effect).</p>
<ul style="list-style-type: none"> <li>• LAM</li> <li>• <b>IUDs</b></li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• <b>Voluntary sterilization</b></li> </ul>	<p>For women prone to severe headaches, POPs are recommended over implants (which cannot be stopped easily) and PICs (their effects persist for several months after injection).</p>
<ul style="list-style-type: none"> <li>• LAM</li> <li>• <b>IUDs</b></li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• <b>Voluntary sterilization</b></li> </ul>	<p>COCs, CICs and POCs may be used by women who are asymptomatic (i.e., liver function has been normal for 3 months) or are carriers.</p>
<ul style="list-style-type: none"> <li>• LAM</li> <li>• POPs/Implants</li> <li>• <b>IUDs</b></li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• <b>Voluntary sterilization</b></li> </ul>	<p>Low-dose COCs and CICs cause little or no BP change in healthy clients. It is reasonable to consider their use in women who already have high BP. Use should be stopped if monitoring during the first few months reveals a marked increase in BP or if vascular disease develops.</p> <p>In hypertensive women with underlying <b>arterial vascular disease</b>, COC or CIC use poses an additional risk for venous blood clotting problems (estrogen effect).</p>

<sup>2</sup> Most appropriate methods are boldfaced.

# MEDICAL PROBLEMS

## PROBLEM

## METHODS WHICH SHOULD BE USED WITH CAUTION

**High blood pressure**  
(*continued*)

**PICs:** Women with BP > 180/110 should avoid using PICs unless other more appropriate methods are not available or acceptable. (WHO class 3)



**HIV/AIDS**

**IUDs:** Women with HIV/AIDS should avoid using IUDs unless other more appropriate methods are not available or acceptable. (WHO class 3)

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**Ischemic heart disease or  
Stroke (current or history)**

**COCs and CICs:** Women with underlying arterial vascular disease should not use COCs or CICs. (WHO class 4)

**Implants and PICs:** Because these methods **theoretically** pose an additional risk, their use should be avoided unless other more appropriate methods are not available or acceptable. (WHO class 3)

**APPROPRIATE  
CONTRACEPTIVE  
METHODS<sup>2</sup>**  
(WHO Class 1, 2)

**COMMENTS**

Because of the higher blood levels of progestin with use of PIDs, high-density lipoproteins (HDLs) may be lowered. As a consequence there is **theoretical concern** about this action in women with underlying high blood pressure and arterial vascular problems (e.g., ischemic heart disease, neuropathy or retinopathy).




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<ul style="list-style-type: none"> <li>• LAM</li> <li>• COCs/CICs</li> <li>• POCs</li> <li>• <b>Barriers</b></li> <li>• <b>Spermicides</b></li> <li>• NFP</li> <li>• Withdrawal</li> <li>• Voluntary sterilization</li> </ul>	<p>WHO recommends <b>not</b> using an IUD because these women, who already are immunosuppressed, may <b>theoretically</b> be at more risk of getting GTIs and other STDs (e.g., HBV) with an IUD in place.</p> <p>Individuals seropositive for HIV, or who have AIDS, <b>always</b> should use a condom (male or female) to reduce the risk of spreading the disease.</p>
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<ul style="list-style-type: none"> <li>• LAM</li> <li>• POPs</li> <li>• <b>IUDs</b></li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• <b>Voluntary sterilization</b></li> </ul>	<p>In women with documented arterial vascular disease (heart attack or stroke), use of COCs or CICs may pose an additional risk (estrogen effect).</p> <p>Some studies have reported decreased HDLs with use of POCs, especially DMPA. The <b>clinical significance</b> of these findings is <b>not known</b> at present.</p>
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<sup>2</sup> Most appropriate methods are boldfaced.

# MEDICAL PROBLEMS

## PROBLEM

## METHODS WHICH SHOULD BE USED WITH CAUTION

**Liver tumors** (adenoma and hepatoma)

**COCs and CICs:** Women with liver tumors should not use COCs or CICs. (WHO class 4)

**POCs:** Women with liver tumors should avoid using these methods unless other more appropriate methods are not available or acceptable. (WHO class 3)



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**Malaria** (acute)

**Voluntary sterilization:** Should be delayed until the client is recovered.

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**Schistosomiasis** (acute)

**Voluntary sterilization:** Should be delayed until the client is recovered.

**APPROPRIATE  
CONTRACEPTIVE  
METHODS<sup>2</sup>**

(WHO Class 1, 2)

**COMMENTS**

- LAM
- **IUDs**
- Barriers
- Spermicides
- NFP
- Withdrawal
- **Voluntary sterilization**

COCs and CICs may increase the risk of benign liver tumors and substantially increase the risk of hepatoma. Because liver tumors (benign and malignant) are rare in women of reproductive age, routine screening (e.g., ultrasound) is not needed. The concern with CICs is less than that with COCs because the first-pass effect on the liver is eliminated. (The hormones in CICs initially pass directly from the injection site to the heart without first passing through the liver.)



According to WHO, progestins (POCs) do **not** increase the risk of benign liver tumors; however, it is not clear whether progestins increase the risk of hepatoma.

- LAM
- COCs/CICs
- POCs
- IUDs
- **Barriers**
- **Spermicides**
- NFP
- Withdrawal
- Voluntary sterilization

**All** reversible contraceptive methods can be used.

Although VS is a minor surgical procedure, it should not be performed when the client is sick.

- LAM
- COCs/CICs
- POCs
- IUDs
- Barriers
- Spermicides
- NFP
- Withdrawal
- Voluntary sterilization

Despite **theoretical** concern about an increase in blood loss during initial months of both IUD and POC use, no reversible contraceptive methods pose an increased risk.

Although VS is a minor surgical procedure, it should not be performed when the client is sick.

<sup>2</sup> Most appropriate methods are boldfaced.

# MEDICAL PROBLEMS

## PROBLEM

## METHODS WHICH SHOULD BE USED WITH CAUTION

Seizure disorders  
(epilepsy)

**COCs, CICs, Implants and POPs:** Women using antiseizure drugs should avoid using these methods unless other more appropriate methods are not available or acceptable. (WHO class 3)



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Sickle cell disease and  
trait

**APPROPRIATE  
CONTRACEPTIVE  
METHODS<sup>2</sup>**  
(WHO Class 1, 2)

**COMMENTS**

- LAM
- **PICs**
- **IUDs**
- Barriers
- Spermicides
- NFP
- Withdrawal
- Voluntary sterilization

COCs do not affect either the frequency or severity of seizures. POPs and PICs may reduce seizure occurrence.

**Long-term** use of antiseizure drugs causes the liver to metabolize estrogens and progestins more rapidly and may decrease the effectiveness of all hormonal methods except PICs. The effectiveness of **PICs** is **not** decreased because blood levels of the progestins are sufficient to compensate for the increased metabolism.

Development of intermenstrual bleeding or spotting may indicate a decreased level of sex steroid hormones (estrogen and progestin) due to interactions with antiseizure drugs. If this occurs in a client using a COC containing 30–35 µg EE, consider using a COC with a higher estrogen level (50 µg EE) or help her choose another method. If using a CIC or POP, help client choose another method.

- 
- LAM
  - COCs/CICs
  - **POCs**
  - IUDs
  - Barriers
  - Spermicides
  - NFP
  - Withdrawal
  - **Voluntary sterilization**

All contraceptive methods can be used.

POCs are recommended. Implants and PICs are preferred over POPs, especially if the woman frequently is ill and not eating or drinking regularly. (Use of PICs and possibly implants may decrease the frequency of attacks.)

For women with **sickle cell disease**, prevention of unwanted pregnancy is very important for health reasons.

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<sup>2</sup> Most appropriate methods are boldfaced.

# MEDICAL PROBLEMS

## PROBLEM

## METHODS WHICH SHOULD BE USED WITH CAUTION

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**Smoker and age 35 years  
or older**

**COCs:** Client should not use COCs. (WHO class 4)

**CICs:** Client should avoid using CICs unless other more appropriate methods are not available or acceptable. (WHO class 3)



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**Symptomatic valvular  
heart disease**  
(rheumatic or congenital)

**COCs and CICs:** Women with symptomatic valvular heart disease should not use COCs or CICs. (WHO class 4)

**IUDs:** Prior to inserting an IUD, prophylactic antibiotics are advised if the woman is not **already** receiving long-acting antibiotics.

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**Thromboembolic  
disorders (e.g., blood  
clots in legs, lungs or  
eyes)**

**COCs and CICs:** Women with blood clotting disorders (current or history of) should not use COCs or CICs. (WHO class 4)

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<sup>2</sup> Most appropriate methods are boldfaced.

**APPROPRIATE  
CONTRACEPTIVE  
METHODS<sup>2</sup>**  
(WHO Class 1, 2)

**COMMENTS**

<ul style="list-style-type: none"> <li>• LAM</li> <li>• POCs</li> <li>• IUDs</li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• <b>Voluntary sterilization</b></li> </ul>	<p>Women 35 years or older who smoke (heavy or light<sup>4</sup>) <b>already</b> are at increased risk of heart attack, stroke and other blood clotting problems. Use of COCs or CICs by these women poses an additional risk of blood clotting problems (estrogen effect). Help client choose another (nonestrogen) method.</p> <p>Women 35 years or older who stop smoking and have no other risk factors may use COCs or CICs.</p>
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<ul style="list-style-type: none"> <li>• LAM</li> <li>• POCs</li> <li>• IUDs</li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• <b>Voluntary sterilization</b></li> </ul>	<p>Use of COCs or CICs with symptomatic valvular heart disease poses an additional risk for blood clotting problems (estrogen effect).</p> <p>The use of prophylactic antibiotics reduces the risk of infection and possible subacute bacterial endocarditis during IUD insertion.</p> <p>Clients with Class III–IV heart disease should consider <b>voluntary sterilization</b>. Even if one pregnancy has been successful, further pregnancies are extremely risky.</p>
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<ul style="list-style-type: none"> <li>• LAM</li> <li>• POCs</li> <li>• IUDs</li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• <b>Voluntary sterilization</b></li> </ul>	<p>While COCs and CICs only slightly increase the risk of venous blood clotting problems in healthy women, this increased risk may have substantial impact on women already at risk for venous thromboembolism (e.g., women with current or past blood clots or recovering from major surgery with prolonged bed rest).</p> <p>POCs do not increase a woman's risk for venous blood clotting problems.</p>
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<sup>4</sup> Definitions of **heavy smoking** vary internationally. Throughout this *PocketGuide* the WHO definition, 20 cigarettes or more per day, is used.

# MEDICAL PROBLEMS

## PROBLEM

## METHODS WHICH SHOULD BE USED WITH CAUTION

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### Tuberculosis

**COCs, CICs, Implants and POPs:** Women using rifampin for tuberculosis should avoid using these methods unless other more appropriate methods are not available or acceptable. (WHO class 3)

(See the **Drug Interaction** table in the **Combined Estrogen/Progestin Contraceptives** chapter for additional information.)

**IUDs:** Women with known pelvic TB should not use an IUD. (WHO class 4)

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### Uterine fibroids

**IUDs:** Women with uterine fibroids or scar tissue in the endometrium (uterine synechiae) that distort the uterine cavity should not use IUDs. (WHO class 4)

**APPROPRIATE  
CONTRACEPTIVE  
METHODS<sup>2</sup>**

(WHO Class 1, 2)

**COMMENTS**

<ul style="list-style-type: none"> <li>• LAM</li> <li>• <b>PICs</b></li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• Voluntary sterilization</li> </ul>	<p><b>Long-term</b> use of rifampin for tuberculosis causes the liver to metabolize estrogens and progestins more rapidly and may decrease the effectiveness of all hormonal methods except PICs.</p> <p>Development of intermenstrual spotting or bleeding may indicate a decreased level of sex steroid hormones (estrogen and progestin) due to interactions with rifampin. If this occurs, consider using a COC with a higher estrogen level (50 µg EE) or help client choose another method (COC, CIC, implants or POP).</p> <p>The effectiveness of <b>PICs</b> is <b>not</b> decreased because blood levels of the progestins are sufficient to compensate for the increased metabolism.</p> <p>Use of an IUD may increase risk of secondary infection and uterine bleeding.</p>
<ul style="list-style-type: none"> <li>• LAM</li> <li>• COCs/CICs</li> <li>• <b>POCs</b></li> <li>• Barriers</li> <li>• Spermicides</li> <li>• NFP</li> <li>• Withdrawal</li> <li>• Voluntary sterilization</li> </ul>	<p>Large fibroids, especially if they are submucous, and uterine synechiae distort the uterine cavity and can cause difficulties in insertion, increase the risk of IUD expulsion and decrease effectiveness.</p> <p>Although estrogens can stimulate growth of uterine fibroids, low-dose COCs (30–35 µg EE) do not appear to cause them to grow.</p>

<sup>2</sup> Most appropriate methods are boldfaced.

# NOTES

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# POSTPARTUM CONTRACEPTION

Many postpartum women want no more children or would like to delay pregnancy for at least 2 years. Unfortunately, too few women leave obstetrical delivery services having received counseling about family planning or contraceptive methods. All postpartum women should be provided with family planning options. The International Planned Parenthood Federation (IPPF) recommends the following guidelines for counseling postpartum women:

- Encourage full breastfeeding for all postpartum women.
- Do not discontinue breastfeeding to begin use of a contraceptive method.
- Contraceptive methods used by breastfeeding women should not adversely affect breastfeeding or the health of the infant.

## POSTPARTUM INFERTILITY

Following delivery every woman experiences a period of infertility. In **nonbreastfeeding** women it may be less than 6 weeks (on average, the first ovulation occurs 45 days postpartum). For **breastfeeding** mothers, the period of infertility is longer because frequent suckling blocks ovulation. The return of fertility, however, is not predictable (conception can occur before the woman has any signs or symptoms of the first menses).



## LACTATIONAL AMENORRHEA METHOD (LAM)

It has long been recognized that breastfeeding could be an effective, temporary contraceptive if a woman could reliably know when she is no longer protected. LAM provides the means to do this. It provides effective contraception for a breastfeeding mother if she is fully or nearly fully breastfeeding, her menses have **not** returned (lactational amenorrhea), and she is less than 6 months postpartum. If these criteria are met, then LAM will provide more than 98% protection from pregnancy during the first 6 months following delivery. When any one of these criteria changes, however, another contraceptive method—one that does not interfere with breastfeeding—should be started if the woman does not want to become pregnant. In addition, use of LAM enables both mother and infant to take full advantage of the numerous other benefits of breastfeeding. (See **LAM** and **Client Instructions** chapters for details on LAM.)

## WHEN TO START CONTRACEPTION

While all methods of contraception are appropriate for postpartum women, the time for starting each method depends on a woman's breastfeeding status. Methods that can be used whenever a couple resumes sexual intercourse, even in the immediate postpartum period, include:

# POSTPARTUM CONTRACEPTION

- Spermicides
- Condoms (lubricated condoms may help overcome vaginal dryness)
- Withdrawal (both condoms and withdrawal prevent seminal fluid from being deposited in the vagina)

A diaphragm cannot be used until after 6 weeks postpartum because it cannot be properly fitted. Attempting to do so earlier than this may cause discomfort, especially in women who have had an episiotomy.

## Breastfeeding Women

Women who are breastfeeding do not need contraception for at least 6 weeks postpartum—up to 6 months if they are using LAM. **Figure 5** shows the recommended time of starting contraception for breastfeeding women. If a breastfeeding woman decides to use contraception other than LAM, she should be counseled about the potential effect of some contraceptives on breastfeeding and the health of the infant. For example, COCs and CICs are considered to be the methods of last choice for any woman who is breastfeeding. All COCs, even low-dose pills (30–35  $\mu\text{g}$  EE) decrease breastmilk production, and there is theoretical concern that they may affect the normal growth of a baby during the first 6 to 8 weeks postpartum.<sup>1</sup> Waiting at least 8 to 12 weeks postpartum before starting COCs or CICs has the advantage of permitting breastfeeding to be better established.

## Nonbreastfeeding Women

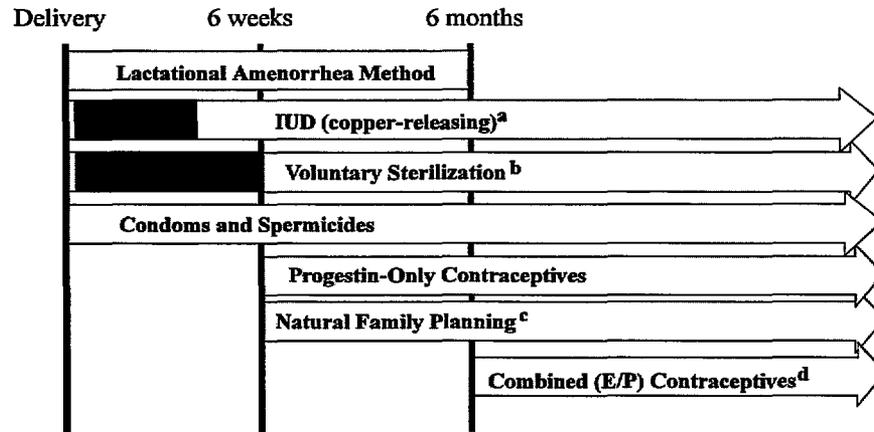
Although most nonbreastfeeding women will resume menstrual cycles within 4 to 6 weeks after delivery, only about one-third of first cycles will be ovulatory and even fewer will result in pregnancy. If a couple wishes to avoid all risk of pregnancy, however, contraception should be started at the time of (barriers, spermicides, withdrawal) or before (hormonals, IUDs or VS) the first sexual intercourse. Because the pregnancy-induced risk of blood clotting problems (elevated coagulation factors) is still present until 2 to 3 weeks postpartum, COCs and CICs should not be started before that time. By contrast, POCs can be started immediately postpartum because they do not increase the risk of blood clotting problems. Other differences in the recommended time for starting contraception in nonbreastfeeding women are depicted in **Figure 6**.

The following pages provide additional information about the use of contraceptive methods by postpartum women.

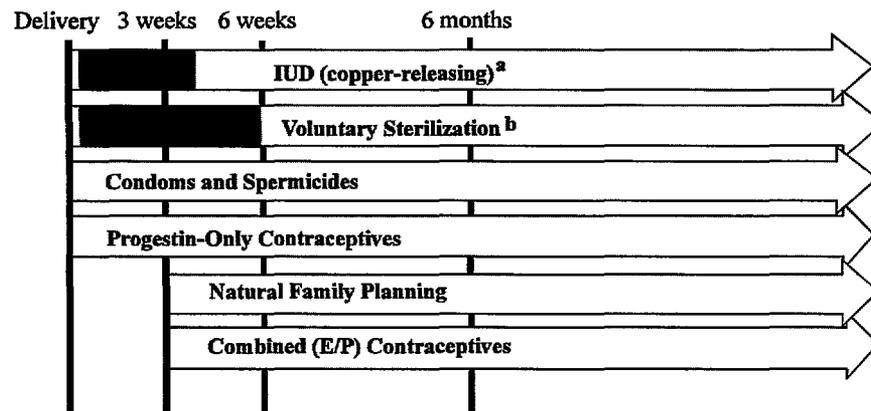
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<sup>1</sup> These restrictions do not apply to women who are only doing token (i.e., minimal) breastfeeding.

**Figure 5. Recommended Time to Start for Breastfeeding Women**



**Figure 6. Recommended Time to Start for Nonbreastfeeding Women**



<sup>a</sup> If delivery is in a hospital or other health care facility, immediate postplacental or postpartum (< 48 hours) IUD insertion is appropriate under certain circumstances (i.e., with adequate counseling and a specially trained service provider).

<sup>b</sup> Vasectomy can be performed at any time.

<sup>c</sup> NFP may be harder for breastfeeding women to use because reduced ovarian function makes fertility signs (e.g., mucus change, basal body temperature) more difficult to interpret. As a result, NFP can require prolonged periods of abstinence during breastfeeding.

<sup>d</sup> During the first 6 months postpartum, COCs and CICs may affect the quantity of breastmilk and the healthy growth of the infant. If a mother is breastfeeding but not using LAM, she may start COCs or CICs as soon as 6 weeks postpartum if other methods are not available or acceptable. (WHO class 3)

*Adapted from:* Family Health International 1994 (both figures).

# POSTPARTUM CONTRACEPTION

## COUNSELING OUTLINE

METHOD	TIMING AFTER DELIVERY
<b>Lactational Amenorrhea Method (LAM)</b>  (Also see <b>Lactational Amenorrhea Method</b> chapter)	Should begin breastfeeding immediately after delivery.  Highly effective for up to 6 months if fully breastfeeding and no menstrual bleeding (amenorrheic).
 <b>COCs and CICs</b>  (Also see <b>Combined [Estrogen/ Progestin] Contraceptives</b> chapter)	If breastfeeding, COCs or CICs: <ul style="list-style-type: none"><li>• should not be used during the first 6–8 weeks postpartum. (WHO class 4)</li><li>• should be avoided from 6 weeks to 6 months postpartum unless other more appropriate methods are not available or acceptable. (WHO class 3)</li></ul> If using LAM, delay for 6 months. Start COCs or CICs when weaning begins. (WHO class 2)  If <b>not</b> breastfeeding, COCs or CICs can be started after 3 weeks postpartum.
<b>POCs (implants, PICs and POPs)</b>  (Also see <b>Progestin-Only Contraceptives</b> chapter)	Before 6 weeks postpartum, breastfeeding women should avoid using POCs unless other more appropriate methods are not available or acceptable. (WHO class 3)  If using LAM, POCs may be delayed until 6 months postpartum. (WHO class 1)  If <b>not</b> breastfeeding, can be started immediately.  If <b>not</b> breastfeeding and more than 6 weeks postpartum or already menstruating, start POCs only if reasonably sure the woman is not pregnant. (WHO class 1)

**RELATED METHOD  
CHARACTERISTICS**

**REMARKS**

Considerable health benefits for both mother and infant. For greatest effectiveness, must be fully breastfeeding.

Gives time to choose and arrange for surgical or other contraceptive methods. Effectiveness declines as weaning takes place or breastfeeding is supplemented.

---

During the first 6–8 weeks postpartum, COCs and CICs decrease the amount of breastmilk and may affect the healthy growth of the infant. (This effect may continue for up to 6 months.) COCs and CICs should be the last choice for breastfeeding clients.

During the first 3 weeks postpartum, the estrogen in COCs and CICs slightly increases the risk of blood clotting problems. COCs and CICs may be given for women who were pre-eclamptic or had hypertension during pregnancy as long as BP is in normal range when starting COCs or CICs.

If client has resumed menses and sexual activity, start COCs or CICs only if reasonably sure she is not pregnant. There is no increased risk of blood clotting beyond the 3rd week postpartum.

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During the first 6 weeks postpartum, progestin may affect the healthy growth of the infant. Irregular bleeding may occur with POC use, even in lactating women.

No effect on quantity or quality of breastmilk or health of infant.

# POSTPARTUM CONTRACEPTION

## COUNSELING OUTLINE

METHOD	TIMING AFTER DELIVERY
<b>IUDs (copper-releasing)<sup>2</sup></b> (Also see <b>IUDs</b> chapter)	May be inserted immediately postplacental, after caesarean section or postpartum (within 48 hours of delivery). (WHO class 1)  If not inserted postplacentally or within 48 hours postpartum, insertion should be delayed until 4–6 weeks postpartum. (WHO class 3)  If breastfeeding and menses have resumed, insert only if reasonably sure the client is not pregnant.
<hr/> <b>Nonfitted Barriers (condoms) and Spermicides (foam, cream, film, suppositories, tablets)</b>  (Also see <b>Barriers and Spermicides</b> chapter)	May be used any time postpartum.
<hr/> <b>Fitted Barriers Used with Spermicides (diaphragm with foam or cream)</b>  (Also see <b>Barriers and Spermicides</b> chapter)	It is best to wait until the immediate postpartum period is over (6 weeks postpartum) before fitting diaphragm.

---

<sup>2</sup> Progestin-releasing IUDs should not be inserted until after 6 weeks postpartum. (WHO class 3)

**RELATED METHOD  
CHARACTERISTICS**

**REMARKS**

No effect on quantity or quality of breastmilk or health of infant. Require provider trained in postplacental or postpartum insertion.

Fewer postinsertion side effects (bleeding, pain) when IUD inserted in breastfeeding women. Clients should be screened and counseled during prenatal period for postplacental insertion.

First year IUD removal rates are lower among breastfeeding women.

Spontaneous expulsion rate higher (6–10%) than for interval insertion (lowest rates if inserted high in fundus within 10 minutes after placenta delivered).

After 4–6 weeks postpartum, the provider does not have to be trained in postpartum IUD insertion (technique same as for interval client).

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No effect on quantity or quality of breastmilk or health of infant. Lubricated condoms and spermicides help overcome vaginal dryness during intercourse (common problem in breastfeeding women).

Useful as interim methods if initiation of another chosen method must be postponed.

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No effect on quantity or quality of breastmilk or health of infant. Require fitting (pelvic exam) by service provider. Diaphragm fitted prior to pregnancy may be too small due to changes in vaginal tissue or cervix after delivery.

Use of spermicides helps overcome vaginal dryness during intercourse (common problem in breastfeeding women).

# POSTPARTUM CONTRACEPTION

## COUNSELING OUTLINE

METHOD	TIMING AFTER DELIVERY
<b>Natural Family Planning</b>  (Also see <b>Natural Family Planning</b> chapter)	Not recommended until resumption of regular menses. Client may begin charting at 6 weeks postpartum but should continue to use LAM.
<hr/>	
<b>Withdrawal (Coitus Interruptus) or Abstinence</b>  (See <b>Withdrawal</b> chapter)	May be used any time.
<hr/>	
<b>Tubal Occlusion</b>  (See <b>Voluntary Sterilization</b> chapter)	May be performed immediately postpartum or within 48 hours.  If not performed within 48 hours, should be delayed until 6 weeks postpartum.  <b>Ideal timing:</b> After recovery from delivery and once the health of the infant is more certain.
<hr/>	
<b>Vasectomy</b>  (See <b>Voluntary Sterilization</b> chapter)	Can be performed anytime after delivery.  <b>Ideal timing:</b> Once the health of the infant is more certain.

**RELATED METHOD  
CHARACTERISTICS**

**REMARKS**

No effect on quantity or quality of breastmilk or health of infant. Cervical mucus difficult to “read” until menses have resumed and are regular (ovulatory).

Basal body temperature fluctuates when mother awakens at night to breastfeed. Thus, measuring “early morning” basal body temperature elevation after ovulation may not be reliable.

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No effect on quantity or quality of breastmilk or health of infant. Some couples find withdrawal or long periods of postpartum abstinence difficult.

100% effective (abstinence). Acceptable in cultures in which postpartum abstinence is traditional.

Counsel the couple about the need for a backup method if they decide to resume intercourse.

---

No effect on quantity or quality of breastmilk or health of infant. Perform using local anesthesia/sedation. This minimizes risk to the mother and possible prolonged separation of mother and child due to anesthetic complications.

Postpartum minilaparotomy is easiest to perform within first 48 hours of delivery because the position of the uterus makes the fallopian tubes easier to find and see. Ideally, counseling and informed consent should take place prior to labor and delivery (during prenatal period).

---

Not immediately effective. An interim method should be provided for 3 months (or at least 20 ejaculations) if the couple is sexually active. In cultures in which postpartum abstinence is traditional, vasectomy performed at this time leads to less disruption of intercourse for the couple.

Partner’s contact with health care system may be a good time for man to use services.

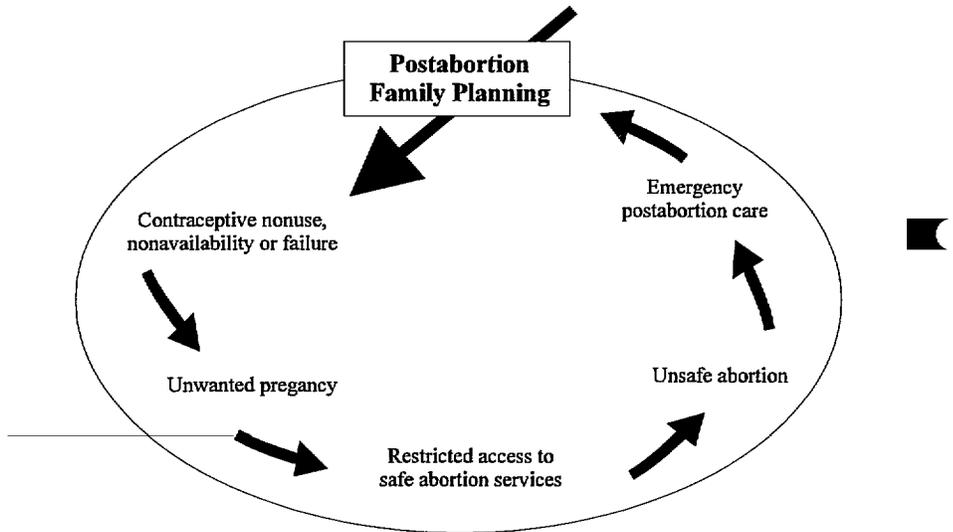
# NOTES



# POSTABORTION CONTRACEPTION

Throughout the developing world, many women are trapped in a dangerous cycle of repeat unwanted pregnancy and unsafe, often illegal abortion. Although the importance of linking postabortion care and family planning services seems obvious, these two types of care rarely are offered together. Typically, emergency treatment services for postabortion complications do not include provision of or referral to family planning counseling and method delivery. As a consequence, women are denied access to the means of preventing future unwanted pregnancies as well as being exposed to the risk of additional unsafe abortions, both of which contribute to the poor overall health status of women in many countries. **Figure 7** shows the way in which postabortion family planning can break the cycle of unsafe abortion.

**Figure 7. Breaking the Cycle of Unsafe Abortion**



*Source:* IPAS 1993.

## LINKING POSTABORTION CARE TO FAMILY PLANNING

Provision of emergency postabortion care may be one of the few occasions when a woman and her partner come into contact with the health care system. Therefore, it represents an important opportunity for providing contraceptive information and services.

# POSTABORTION CONTRACEPTION

Postabortion family planning should include the following components:

- Counseling about contraceptive needs in terms of the client's reproductive goals
- Information and counseling about all available methods, their characteristics, effectiveness and side effects
- Choices among methods (e.g., short- and long-term, hormonal and nonhormonal)
- Assurance of contraceptive resupply
- Access to followup care
- Information about the need for protection against sexually transmitted diseases (STDs)

Postabortion family planning should also be based on an individual assessment of each woman's situation:

- her personal characteristics,
- clinical condition, and
- the service delivery capabilities in the community where she lives.

## WHEN TO START

Postabortion family planning services need to be initiated immediately because ovulation may occur as early as 11 days following treatment of incomplete abortion and usually occurs before the first menstrual bleeding. At a minimum, all women receiving postabortion care need **counseling and information** to ensure they understand:

- they can become pregnant again before the next menses,
- there are safe contraceptive methods to prevent or delay pregnancy, and
- where and how they can obtain family planning services and methods.

## WHICH CONTRACEPTIVE METHODS CAN BE USED

All modern methods of contraception are appropriate for use after incomplete abortion as long as the service provider:

- screens the woman for the standard precautions for use of a particular method, and
- gives adequate counseling.

It is recommended that women not have intercourse until postabortal bleeding stops.

Recommendations for contraceptive use following **first trimester** abortion (up to 14 weeks from LMP) are similar to those for interval use (i.e., women who have not been pregnant within the last 4 to 6 weeks and are not breastfeeding). Recommendations for contraceptive use following **second trimester** spontaneous or incomplete abortion are more similar to those for the postpartum period.

The following pages (adapted from *Postabortion Care: A Reference Manual for Improving Quality of Care*) outline the factors relevant to the **postabortal** use of various contraceptive methods.

# POSTABORTION CONTRACEPTION

## COUNSELING OUTLINE

METHOD	TIMING AFTER ABORTION
<p>COCs and POCs</p> <p>(Also see <b>Combined [Estrogen/ Progestin] Contraceptives and Progestin-Only Contraceptives</b> chapters)</p>	<p>Start COC or POC use immediately, preferably on the day of treatment. (WHO class 1)</p>
<hr/>	
<p>IUDs</p> <p>(Also see <b>IUDs</b> chapter)</p>	<p><b>First Trimester:</b></p> <p>IUDs can be inserted immediately if risk or presence of infection can be ruled out. (WHO class 1)</p> <p>Delay insertion until serious injury is healed, hemorrhage is controlled and acute anemia improves. (WHO class 4)</p> <p><b>Second Trimester:</b></p> <p>Delay for 4–6 weeks <b>unless</b> equipment and expertise (trained provider) are available for immediate postabortal insertion. (WHO class 2)</p> <p>Be sure there is no uterine infection. If infection suspected, delay insertion until the infection has been resolved for 3 months. (WHO class 4)</p>
<hr/>	
<p><b>Nonfitted Barriers</b> (condoms) and <b>Spermicides</b> (foam, cream, film, suppositories, tablets)</p> <p>(Also see <b>Barriers and Spermicides</b> chapter)</p>	<p>Start use as soon as intercourse is resumed.</p>

**RELATED METHOD  
CHARACTERISTICS**

**REMARKS**

Can be started immediately even if infection is present.

Highly effective.

Immediately effective.

Minimize blood loss (i.e., improve anemia), especially COCs.

If adequate counseling and informed decision-making cannot be guaranteed, delay first injection (CICs or PICs) or insertion (implants) and provide a temporary interim method.

For implants, access to a provider skilled in insertion and removal is necessary.

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If adequate counseling and informed decision-making cannot be guaranteed, delay insertion and provide a temporary interim method.

Access to a provider skilled in insertion and removal is necessary.

Following second trimester abortion, the uterine cavity is larger and the risk of perforation during insertion is greater.

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Good interim methods if initiation of another method must be postponed.

# POSTABORTION CONTRACEPTION

## COUNSELING OUTLINE

METHOD	TIMING AFTER ABORTION
<b>Fitted Barriers Used with Spermicides</b> (diaphragm with foam or cream)  (Also see <b>Barriers and Spermicides</b> chapter)	Diaphragm can be fitted immediately after first trimester abortion. After second trimester abortion, fitting should be delayed until uterus returns to prepregnancy size (4–6 weeks).
<b>Natural Family Planning</b>  (Also see <b>Natural Family Planning</b> chapter)	NFP is not recommended for immediate postabortion use.
<b>Tubal Occlusion</b>  (Also see <b>Voluntary Sterilization</b> chapter)	Technically, tubal occlusion (minilaparotomy) can be performed immediately after treatment of abortion complications unless infection or severe blood loss is present.  Do not perform until infection is fully resolved (3 months) or injury healed.
<b>Vasectomy</b>  (Also see <b>Voluntary Sterilization</b> chapter)	May be performed at any time.  Timing is not related to abortion.

**RELATED METHOD  
CHARACTERISTICS**

**REMARKS**

Diaphragm fitted prior to a second trimester pregnancy loss may be too small due to change in the vaginal tissue or cervix.

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The first ovulation after an abortion will be difficult to predict and the method is unreliable until after a regular menstrual pattern has resumed.

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Minilaparotomy after a first trimester incomplete abortion is similar to an interval procedure; after a second trimester incomplete abortion it is similar to a postpartum procedure.

Adequate counseling and informed decision-making and consent **must precede** voluntary sterilization procedures (tubal occlusion); this often is not possible at the time of emergency care.

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Not immediately effective; therefore, an interim contraceptive method must be used.

Adequate counseling and informed decision-making and consent **must precede** voluntary sterilization procedures (vasectomy); this often is not possible at the time of emergency care.

# POSTABORTION CONTRACEPTION

## GUIDELINES FOR CONTRACEPTIVE USE BY CLINICAL CONDITION

CLINICAL CONDITION	PRECAUTION
<b>Confirmed or Presumptive Diagnosis of Infection</b> <ul style="list-style-type: none"><li>• Signs and symptoms of sepsis/ infection</li><li>• Signs of unsafe or unclean induced abortion</li><li>• Unable to rule out infection</li></ul>	<b>IUDs:</b> Do not insert until risk of infection ruled out or infection fully resolved (approximately 3 months). <b>Female voluntary sterilization:</b> Do not perform procedure until risk of infection ruled out or infection fully resolved (approximately 3 months).
<b>Injury to Genital Tract</b> <ul style="list-style-type: none"><li>• Uterine perforation (with or without bowel injury)</li><li>• Serious vaginal or cervical injury, including chemical burns</li></ul>	<b>IUDs:</b> Do not insert until serious injury healed. <b>Diaphragm:</b> Do not use until vaginal or cervical injury healed. <b>Spermicides:</b> Do not use until vaginal or cervical injury healed. <b>Female voluntary sterilization:</b> Do not perform procedure until serious injury healed.
<b>Severe Bleeding (hemorrhage) and Related Severe Anemia (Hb &lt; 7 g/dl or Hct &lt; 20)</b>	<b>Implants:</b> Delay insertion until acute anemia improves. <b>PICs:</b> Delay injection until acute anemia improves. <b>POPs:</b> Use with caution until acute anemia improves. <b>IUDs (inert or copper-bearing):</b> Delay insertion until acute anemia improves. <b>Female voluntary sterilization:</b> Do not perform procedure until the cause of hemorrhage or anemia resolved.

## RECOMMENDATION

**COCs and CICs:** can begin use immediately.

**POCs:** can begin use immediately.

**Barriers and Spermicides:** can be used when sexual activity is resumed.

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**COCs and CICs:** can begin use immediately.

**POCs:** can begin use immediately.

**Condoms:** can be used when sexual activity is resumed.

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**COCs and CICs:** can begin use immediately (beneficial when hemoglobin is low).

**IUDs (progestin-releasing):** can be used with severe anemia (decrease menstrual blood loss).

**Barriers and Spermicides:** can be used when sexual activity is resumed.

# NOTES



# EMERGENCY CONTRACEPTION

When sexual intercourse occurs without contraceptive protection, unplanned and undesired pregnancy can result. Fortunately, because there are effective methods to prevent such pregnancies, clients need not be turned away to anxiously await their menstrual period. Unfortunately, few clients are aware of the availability and safety of such methods. To correct this, health care providers should routinely educate clients about emergency contraception. In addition, family planning programs may want to consider providing emergency contraception as a preventive measure.

While most contraceptives are appropriate **before** intercourse, several methods also can be used within a short time **after** unprotected intercourse. In the past they were often called “morning after pills,” however, they are better named **secondary** or **emergency contraceptives**. These new names remove the idea that the user must wait until the morning after unprotected intercourse to start treatment, or that she will be too late if she cannot obtain the pills or an IUD until the afternoon or night after intercourse.

Currently there are two types of emergency contraceptives: mechanical and chemical. The only mechanical method is the IUD. When inserted up to 5 days after unprotected intercourse, copper-releasing IUDs can prevent a pregnancy from becoming established. In terms of chemical methods, many regimens using oral contraceptives are said to exist, but only a few have been adequately studied and are recommended for widespread use. In some countries increased demand for emergency contraception has led to special packaging of oral contraceptives (COCs and POPs) for this use.

## RISK OF ALREADY BEING PREGNANT

Before providing emergency contraception assess to see if the client is already pregnant (i.e., she might have become pregnant in the previous month). Symptoms of early pregnancy may include:

- Breast tenderness
- Nausea
- Change in the last menses (light flow, short duration, etc.)

If pregnancy is suspected, **before** providing emergency contraception, counsel the client regarding her options and the small risk of potential problems if she is already pregnant.

## BREASTFEEDING WOMEN

If a woman is fully breastfeeding, amenorrheic and less than 6 months postpartum (using LAM), she should not need emergency contraception (see LAM chapter). If she is breastfeeding but not using LAM and thinks she might be pregnant, emergency contraception may be used. The effect on lactation and risk to the infant are minimal.

# EMERGENCY CONTRACEPTION

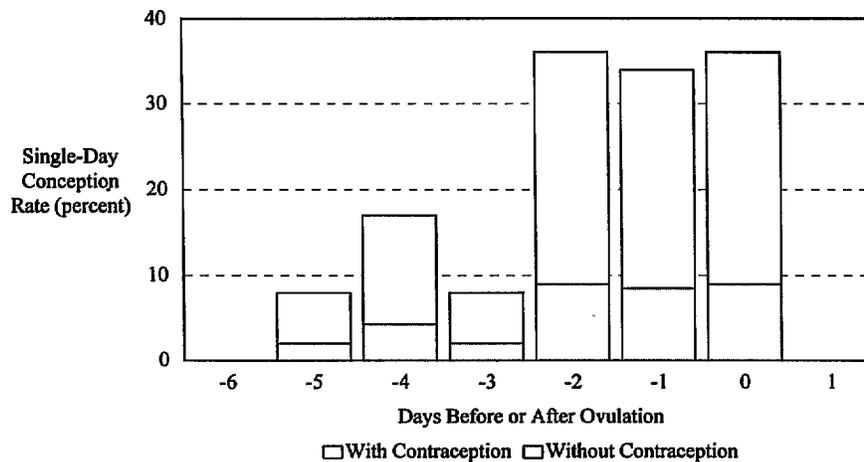
## RISK TO CLIENTS WITH VASCULAR PROBLEMS

Women who are at increased risk of vascular problems (current or past blood clotting problems, heart attack or stroke) should be advised of a slight additional risk of a serious complication if they use the high-dose (50 µg) estrogen regimens (COCs or estrogen-only pills). COCs taken for a short duration (2 days) by a physically active client even one with these risks, however, are highly unlikely to cause a serious problem; therefore, do not withhold treatment if client requests it.

## RISK OF BECOMING PREGNANT

The risk of becoming pregnant depends on the day of the woman's cycle in relation to ovulation. Calculating the exact risk is best done using data in which only a single act of intercourse potentially could have led to conception. On the basis of 129 such cycles, Wilcox et al (1995) observed that the risk of pregnancy increased from 8% at 5 days before ovulation to 36% on the day of ovulation (see white bars in **Figure 8**). These new data indicate that the fertile period lasts only about 6 days, is clustered around a 2 to 3 day interval (days -2 to 0) and ends on the day of ovulation (i.e., cycle days 9 to 14 of a 28-day cycle). The decrease in fertility immediately following ovulation (day 0) suggests a short survival time for ova (less than 24 hours) as well as a rapid change in the cervical mucus that may prevent entry of new sperm.

**Figure 8. Probability of Conception by Cycle Day**



*Adapted from: Wilcox et al 1995.*

Use of emergency contraception during the fertile period reduces the risk of pregnancy by at least 75%. For example, as shown in **Figure 8** (gray bars) a 36% risk might be reduced to about 9%. Overall, however, only 1–3% of women using emergency contraception become pregnant during that cycle. In practice, because the fertile period for a given cycle can only be estimated, it is often difficult to assess accurately a woman's risk of becoming pregnant. Fortunately, because all emergency contraceptives are quite safe, their use is appropriate **any time** in the cycle a woman is concerned she might be pregnant.



# EMERGENCY CONTRACEPTION

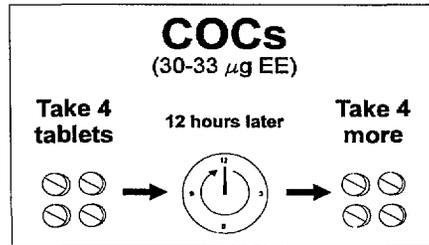
## METHOD

## TIMING IN RELATION TO UNPROTECTED INTERCOURSE

COCs (Morning After Pills)

Should be taken within 72 hours of unprotected intercourse.

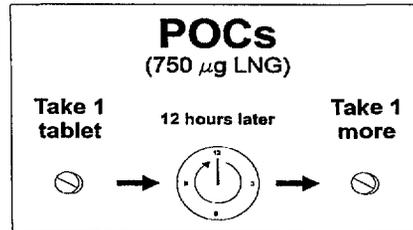
(Also see **Combined [Estrogen/ Progestin] Contraceptives** chapter)



Progestin-Only Pills (POPs)

Should be taken within 48 hours of unprotected intercourse.

(Also see **Progestin-Only Contraceptives** chapter)



## REMARKS

## CLIENT INSTRUCTIONS

Effective (2% become pregnant).

Side effects:

- Nausea ( $\leq$  1 day)
- Vomiting (see last page of this chapter for management)
- Breast tenderness

If pregnancy is not prevented, counsel client regarding options.

Take four tablets of a low-dose COC (30–35  $\mu\text{g}$  EE) orally within 72 hours of unprotected intercourse. Take four **more** tablets in 12 hours. (Total = 8 tablets)<sup>1</sup>

**OR**

Take two tablets of a high-dose COC (50  $\mu\text{g}$  EE) orally within 72 hours of unprotected intercourse. Take two **more** tablets in 12 hours. (Total = 4 tablets)

If no menses within 3 weeks, consult clinic or service provider to check for possible pregnancy.

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Effective (< 3% become pregnant).

Same side effects as with COCs but significantly less severe.

If pregnancy is not prevented, counsel client regarding options.

These regimens have not yet been as widely studied as those using COCs.

Take 1 Postinor<sup>®</sup> tablet (750  $\mu\text{g}$  of levonorgestrel each) or 20 Ovrette<sup>®</sup> tablets (75  $\mu\text{g}$  norgestrel each) orally within 48 hours of unprotected intercourse. Take 1 or 20 **more** tablets in 12 hours. (Total = 2 Postinor or 40 Ovrette tablets)

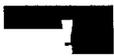
If no menses within 3 weeks, consult clinic or service provider to check for possible pregnancy.

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<sup>1</sup> If COCs are not available, high-dose estrogen can be substituted. The recommended dose of each medication (2.5 mg EE, 10 mg conjugated estrogens or 5 mg esterone) must be taken twice daily (e.g., 5 mg EE) for 5 consecutive days.

# EMERGENCY CONTRACEPTION

METHOD	TIMING IN RELATION TO UNPROTECTED INTERCOURSE
IUDs (Also see IUDs chapter)	Should be inserted within 5 days of unprotected intercourse.



**REMARKS**

**CLIENT INSTRUCTIONS**

Very effective (< 1% become pregnant).

If no menses within 3 weeks, consult clinic or service provider to check for possible pregnancy.

Few side effects.

Failure increases with longer interval between unprotected intercourse and insertion.

If pregnancy not prevented, counsel client regarding options.

Insertion requires a minor procedure that must be performed by a trained service provider.

Provides long-term contraception as well.

Should **not** be inserted in women at risk for GTIs and other STDs (e.g., HBV, HIV/AIDS).

May not be advisable for nulliparous clients.



# EMERGENCY CONTRACEPTION

## MANAGEMENT OF NAUSEA AND VOMITING

Because of the high total dose of estrogen in COCs, nausea is a common side effect. If accompanied by vomiting within the first 2 hours, the effectiveness of COCs when used for emergency contraception may be decreased.

- To minimize nausea and vomiting, advise clients to take each dose with food. If appropriate, taking the first dose at bedtime may reduce nausea and vomiting.
- While there is some decrease in nausea and vomiting if anti-emetics are taken prophylactically, routine use is not recommended. They are of no help if given after vomiting has started.
- If vomiting occurs within 2 hours of taking the first or second dose:
  - the client may repeat the dose, or
  - consider administering the dose vaginally.
- An **extra treatment** (e.g., 8 COC tablets containing 30–35  $\mu\text{g}$  EE each) may be given to clients for use as backup.

## CLIENT INFORMATION FOR COCs

- There is no reported harm to the woman or developing embryo from the small amount of estrogen and progestin in COCs taken for 2 days. It is, however, unwise for a woman to take **any drugs** in early pregnancy unless absolutely necessary.
- If a client is pregnant at the time she takes COCs, their use will not cause an abortion.
- COCs taken for a short duration (2 days) are highly unlikely to cause a serious problem even in women at risk for vascular problems (current or past blood clotting problems, heart attack or stroke).
- About 8% of women using COCs for emergency contraception will have spotting during the treatment cycle. About 50% will get their menses at the expected time and most others will start menses earlier than expected.
- Emergency contraception should not be used on a regular basis (from month to month) because it is much less effective than other methods.
- Tell client **how** and **when** to start her chosen contraceptive method.

## When to Return

A client should return to the clinic if she has:

- no menses within 3 weeks (check for normal or ectopic pregnancy)
- any concerns

## ADOLESCENTS

**Sexually active adolescents** are in need of safe and effective contraception. Studies show that large numbers of teens are sexually active, at least occasionally. In addition, teenagers tend to have unpredictable lifestyles which revolve around such issues as asserting their independence, convenience and acceptance among their peers. Their relationships may be temporary and multiple sexual partners are likely. As a consequence, they may be exposed to considerable risk of contracting GTIs and other STDs (e.g., HBV, HIV/AIDS). Finally, many teens do not use effective contraceptive methods, and those who do are likely to use them infrequently or incorrectly. This often leads to early childbearing which is associated with poor health in both young mothers and their infants.

Although parents would prefer teenagers not to be sexually active until they are able to appreciate the risk fully, often they do not wait. Adolescents need access to family planning regardless of their marital status, and services for teens should avoid unnecessary clinical procedures that may discourage teens from using them (e.g., pelvic examinations for teens requesting COCs). Furthermore, because teens frequently have unplanned, unprotected intercourse, it is important that they have access to emergency contraceptive services (see **Emergency Contraception** chapter).

In the following pages, only factors relevant to the use of specific contraceptive methods by **adolescents** are provided.



# ADOLESCENTS

## COUNSELING OUTLINE

METHOD	REMARKS
<b>Oral Contraceptives (COCs and POPs)</b>	Conditions requiring precautions are rare in teens
(Also see <b>Combined [Estrogen/ Progestin] Contraceptives</b> and <b>Progestin-Only Contraceptives</b> chapters)	Forgetfulness increases failure (common among teens)
	Most popular method among teens
	Although there has been concern about the use of COCs by young adolescents (theoretical effect on growth), they may be safely used once a teen has started menstruating.
<hr/>	
<b>Implants (Norplant)</b>	Side effects such as irregular bleeding/ spotting, acne and weight gain may be particularly bothersome to teens. Thorough counseling is essential.
(Also see <b>Progestin-Only Contraceptives</b> chapter)	Implants will be in place for periods of time when teen is temporarily not sexually active.
	Highly recommended for teens who want long-term contraception, especially if they had trouble using another method.



## COUNSELING OUTLINE

METHOD	REMARKS
<b>CICs and PICs</b>  (Also see <b>Combined [Estrogen/Progestin] Contraceptives</b> and <b>Progestin-Only Contraceptives</b> chapters)	<p>Side effects such as irregular bleeding/spotting, acne and weight gain may be particularly bothersome to teens. Thorough counseling is required.</p> <p>Lack of need for supplies and non-visibility make these methods attractive to teens.</p> <p>Highly recommended for teens who require intermediate-duration contraception.</p> <p>Some studies show that use of DMPA in teens within 2 years of menarche may pose an additional long-term risk for osteoporosis.</p>
<hr/> <b>IUDs</b>  (Also see <b>IUDs</b> chapter)	<p>Not recommended for teens with multiple sex partners. Thorough counseling is essential.</p>
<hr/> <b>Condoms</b>  (Also see <b>Barriers and Spermicides</b> chapter)	<p>Provide immediate protection but require planning (coitus-related).</p> <p>Should be easily available as teens are likely to have unplanned intercourse.</p> <p>Only method that protects against GTIs and other STDs (e.g., HBV, HIV/AIDS).</p>

# ADOLESCENTS

## COUNSELING OUTLINE

METHOD	REMARKS
<b>Diaphragm</b>  (Also see <b>Barriers and Spermicides</b> chapter)	Generally not recommended for teens because it requires fitting (i.e., pelvic examination) and continued motivation to use with each act of intercourse.  Best accepted by women who can predict acts of intercourse and who are highly motivated to avoid pregnancy.  Offers some protection against GTIs and other STDs (e.g., HBV, HIV/AIDS).
<b>Voluntary Sterilization</b> (tubal occlusion and vasectomy)  (Also see <b>Voluntary Sterilization</b> chapter)	Not appropriate for adolescents in most circumstances.
<b>Withdrawal</b> (Coitus Interruptus) and <b>Abstinence</b>  (Also see <b>Withdrawal</b> chapter)	Withdrawal may be the only method available to many teens. Be sure they are fully informed about technique.  Abstinence should be encouraged.
 <b>Emergency Contraception</b>  (Also see <b>Emergency Contraception</b> chapter)	Should be available as teens are likely to have unplanned, unprotected intercourse.  All methods effective and safe for use in teenagers.  IUDs are less desirable.

## WOMEN OVER 35

Women over the age of 35 are in need of safe and effective contraception because they are at increased health risk (morbidity and mortality) should they become pregnant.

In the past, because the dose of estrogen in COCs was high ( $\geq 50 \mu\text{g EE}$ ), women over 35 were considered to be at increased risk for serious complications (heart attack, stroke and blood clotting problems). Recent data, however, based on women using the newer low-dose COCs (30–35  $\mu\text{g EE}$ ) or CICs, show that older women now can safely use either method until they are menopausal and beyond, if they have **no additional** risk factors.

Although some women are concerned about the risk of breast cancer if they continue to use hormonal methods after age 35, current data show no overall association between breast cancer and increasing duration of COC or CIC use. In fact, studies suggest that use of these methods may lead to decreased levels of breast cancer among older women. Moreover, long-term use of COCs or CICs (5 to 10 years) leads to decreased risk of both endometrial and ovarian cancer and offers other health benefits. **Women over 35** who smoke, however, should be encouraged to stop smoking for health reasons **regardless of whether they are using COCs or CICs.**<sup>1</sup>

In summary, women over 35 can continue to use most contraceptive methods, including COCs and the newly developed CICs.

In the following pages **only** those factors relevant to the use of specific contraceptives by women over 35 are discussed.

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<sup>1</sup> Definitions of **heavy smoking** vary internationally. Throughout this *PocketGuide* the WHO definition, 20 cigarettes or more per day, is used.

# WOMEN OVER 35

## COUNSELING OUTLINE

METHOD	REMARKS
<b>COCs and CICs</b>  (Also see <b>Combined [Estrogen/ Progestin] Contraceptives</b> chapter)	<p>COCs should not be used by women over 35 who smoke. (&gt; 20 cigarettes per day—WHO class 4; ≤ 20—WHO class 3)</p> <p>Women over 35 who are heavy smokers should avoid using CICs unless other methods are not available or acceptable. (WHO class 3)</p> <p>Low-dose COCs may be a source of estrogen replacement during perimenopause.</p>
<b>POCs (implants, PICs and POPs)</b>  (Also see <b>Progestin-Only Contraceptives</b> chapter)	<p>POCs can be used in the perimenopausal years (40s–50s).</p> <p>POCs can be used safely by women over 35, even if they are heavy smokers. (WHO class 1)</p>
<b>IUDs</b>  (Also see <b>IUDs</b> chapter)	<p>Implants are highly recommended for women over 35 who want long-term contraception, especially if client has had trouble using another method or does not want voluntary sterilization.</p> <p>May be used safely by older women if not at risk for GTIs and other STDs (e.g., HBV, HIV/AIDS).</p> <p>May be the preferred method for older women because newer IUDs (copper- and progestin-releasing):</p> <ul style="list-style-type: none"><li>• are highly effective,</li><li>• require no followup care unless there are problems, and</li><li>• are long-term methods (TCu 380A effective up to 10 years).</li></ul>

## COUNSELING OUTLINE

METHOD	REMARKS
<b>Condoms</b>  (Also see <b>Barriers and Spermicides</b> chapter)	Only method that protects against GTIs and other STDs (e.g., HBV, HIV/AIDS).  Best used by women who can predict acts of intercourse and who are highly motivated to avoid pregnancy.
<b>Diaphragms</b>  (Also see <b>Barriers and Spermicides</b> chapter)	Best used by women who can predict acts of intercourse and who are highly motivated to avoid pregnancy.  Offers some protection against GTIs and other STDs (e.g., HBV, HIV/AIDS).
<b>Voluntary Sterilization</b> (tubal occlusion and vasectomy)  (Also see <b>Voluntary Sterilization</b> chapter)	Appropriate for clients/couples who are certain about desire for permanent contraception.



# LACTATIONAL AMENORRHEA METHOD

## COUNSELING OUTLINE

### METHOD

Method that utilizes the temporary infertility that occurs during breastfeeding

#### *Mechanism of Action*

Suppresses ovulation

### APPROPRIATE FOR

LAM is effective for women who:

- are fully or nearly fully breastfeeding,
- have not had return of menses, **and**
- are less than 6 months postpartum.<sup>1</sup>

**Fully breastfeeding** is characterized by:

- Breastfeeding whenever baby desires (at least every 4 hours during the day)
- Nighttime feedings (at least every 6 hours)
- Not substituting other food or liquids for a breastmilk meal



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<sup>1</sup> WHO recommends supplementation at 6 months. If it is begun earlier, LAM is not as effective.

## METHOD CHARACTERISTICS

### BENEFITS

Effective (1–2 pregnancies per 100 women during first 6 months of use)

Effective immediately

Does not interfere with intercourse

No systemic side effects

No medical supervision necessary

No supplies required

No cost involved

### *Noncontraceptive Benefits*

For child:

- Passive immunization (transfer of protective antibodies)
- Best source of nutrition
- Decreased exposure to contaminants in water, other milk or formulas, or on utensils

For mother:

- Decreased postpartum bleeding

### LIMITATIONS

User-dependent (requires following instructions regarding breastfeeding practices)

May be difficult to practice due to social circumstances

Highly effective only until menses return or up to 6 months

Does not protect against GTIs or other STDs (e.g., HBV, HIV/AIDS)

# LACTATIONAL AMENORRHEA METHOD

## PROBLEMS REQUIRING ACTION

PROBLEM	ACTION
Client has resumed her menses	Help client choose another method. <sup>2</sup>
Client's baby does not suckle frequently (> 4 hours between feedings during the day; > 6 hours at night)	Help client choose another method. <sup>2</sup>
Client has added regular supplementary feedings (replacing a breastfeeding meal) to her baby's diet	Help client choose another method. <sup>2</sup>
Client's baby is 6 months old or older	Help client choose another method. <sup>2</sup>



<sup>2</sup> Client should be encouraged to continue to breastfeed, even if another contraceptive method is needed.

## RATIONALE

Menses indicate resumption of ovulation **and** return of fertility. Pregnancy is likely if another contraceptive method is not used.

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Decreased breastfeeding frequency allows ovaries to resume normal functioning (ovulation may no longer be suppressed).

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Decreased breastfeeding frequency allows ovaries to resume normal functioning (ovulation may no longer be suppressed).

**Note:** "Supplementary" does not include tiny amounts of liquids or food; supplementary refers to liquid or food that **substitutes** for breastfeeding.

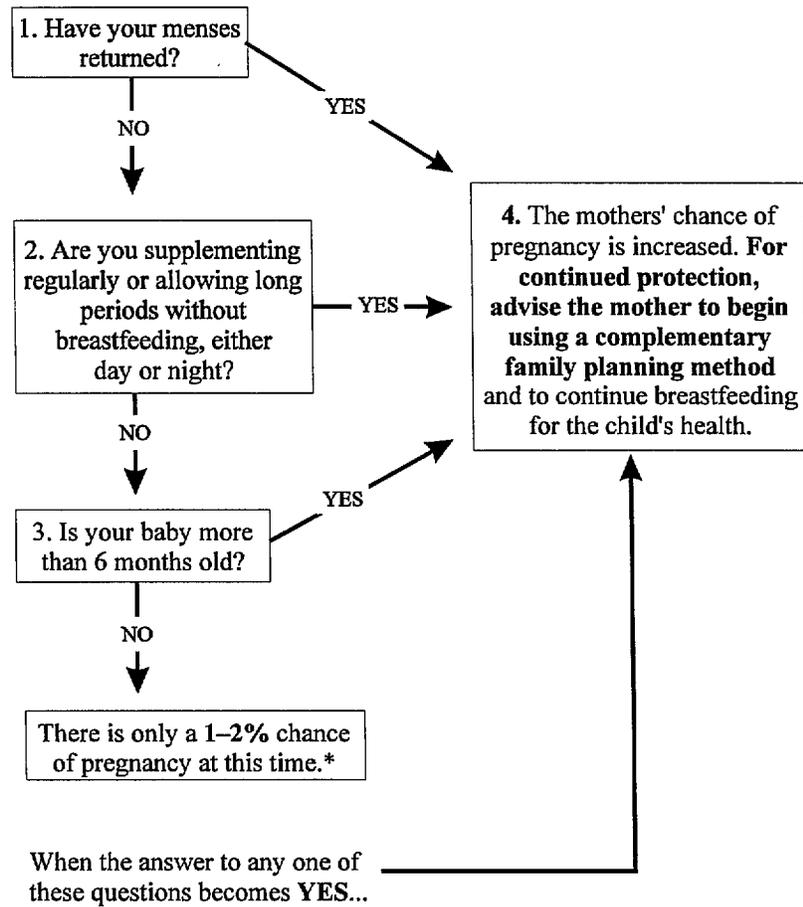
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At 6 months, supplementary foods should be introduced into the baby's diet, which may decrease the frequency of suckling. This reduces the likelihood that breastfeeding alone will effectively prevent pregnancy (see above, **Client's baby does not suckle frequently**).

# LACTATIONAL AMENORRHEA METHOD

Figure 9. LAM Algorithm

Ask the mother, or advise her to ask herself these 3 questions:



\*The mother, however, may choose to use a complementary method *at any time*.

Source: Labbok, Cooney and Coly 1994.

# NOTES

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# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

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## COUNSELING OUTLINE—All Types

METHOD	APPROPRIATE FOR
<p>Combined oral and injectable contraceptives contain both an estrogen (E) and progestin (P)</p> <p><i>Types</i></p> <p><b>Combined Oral Contraceptives (COCs)</b></p> <p><b>Combined Injectable Contraceptives (CICs)</b></p> <p><i>Mechanisms of Action</i></p> <ul style="list-style-type: none"> <li>• Suppress ovulation</li> <li>• Thicken cervical mucus, preventing sperm penetration</li> <li>• Change endometrium, making implantation less likely</li> <li>• Reduce sperm transport in upper genital tract (fallopian tubes)</li> </ul> <p><i>When to Start</i></p> <ul style="list-style-type: none"> <li>• Anytime you can be reasonably sure the client is not pregnant (see <b>Client Assessment</b> chapter)</li> <li>• Days 1–7 of the menstrual cycle</li> <li>• Postpartum:               <ul style="list-style-type: none"> <li>- after 6 months if using LAM</li> <li>- after 3 weeks if not breastfeeding</li> </ul> </li> <li>• Postabortion (immediately or within 7 days)</li> </ul>	<p>Women of any reproductive age or parity who want highly effective protection against pregnancy</p> <p>Breastfeeding mothers (6 months or more postpartum) or when supplementation of infants' diet begins (if before 6 months)</p> <p>Postpartum women who are not breastfeeding (may begin after third week postpartum)</p> <p>Postabortion clients (may begin immediately)</p> <p>Women with anemia</p> <p>Women with severe menstrual cramping</p> <p>Women with irregular menstrual cycles</p> <p>Women with histories of ectopic pregnancy</p>



## METHOD CHARACTERISTICS

### BENEFITS

Highly effective

Effective immediately

Pelvic examination not required prior to use

Do not interfere with intercourse

Few side effects

Can be provided by trained nonmedical staff

*Noncontraceptive Benefits*

Decrease menstrual flow (lighter, shorter periods)

Decrease menstrual cramps

May improve anemia

Protect against ovarian and endometrial cancer

Decrease benign breast disease and ovarian cysts

Prevent ectopic pregnancy

Protect against some causes of PID

### LIMITATIONS

Some nausea, dizziness, mild breast tenderness or headaches as well as spotting or light bleeding (usually disappear within 2 or 3 cycles/injections)

Effectiveness may be lowered when certain drugs are taken (see table **Interactions with Other Drugs** in this chapter)

Can delay return to fertility

Serious side effects possible (rare): heart attack, stroke, blood clots in lungs or brain (1, 3 and 11 per 100,000 women using COCs, respectively); also, rarely, benign and malignant liver tumors

Resupply must be available

Do not protect against GTIs or other STDs (e.g., HBV, HIV/AIDS)



# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

## COUNSELING OUTLINE—Combined Oral Contraceptives

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### METHOD

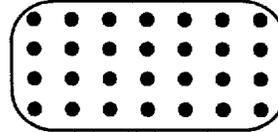
#### Combined Oral Contraceptives (COCs)

*Types* (See Table 8 for specific examples)

**Monophasic:** All 21 active pills contain same amount of E/P

**Biphasic:** 21 active pills contain 2 different E/P combinations (e.g., 10/11)

**Triphasic:** 21 active pills contain 3 different E/P combinations (e.g., 6/5/10)



## COUNSELING OUTLINE—Combined Injectable Contraceptives (CICs)

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### METHOD

### APPROPRIATE FOR

**Combined Injectable Contraceptives (CICs)**

Women who cannot remember to take a pill every day

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#### *Examples*

**Cyclofem®:** 25 mg depot-medroxyprogesterone acetate and 5 mg estradiol cypionate injected (IM) once a month

**Mesigyna®:** 50 mg norethindrone enanthate and 5 mg estradiol valerate injected (IM) once a month



**SPECIFIC METHOD CHARACTERISTICS**

**BENEFITS**

**LIMITATIONS**

Highly effective when taken daily (0.1–8 pregnancies per 100 women during the first year of use)

User-dependent (require continued motivation and daily use)

Forgetfulness increases failure

Convenient and easy to use

Client can stop use

*Noncontraceptive Benefits*

May lead to more regular menstrual cycles

**SPECIFIC METHOD CHARACTERISTICS**

**BENEFITS**

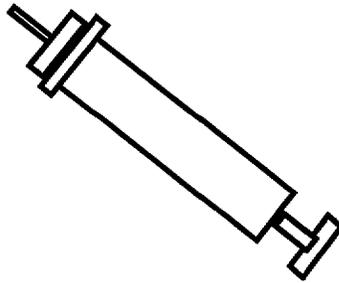
**LIMITATIONS**

Highly effective (0.1–0.4 pregnancies per 100 women during the first year of use)

Cause changes in menstrual bleeding pattern (irregular bleeding/spotting initially) in some women

No supplies needed by client

User-dependent (client must return for injection every 30 days)



# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

**Table 8. Commonly Available<sup>a</sup> Hormonal Composition**

NAME(S)
<b>Monophasic Pills (per pill)</b>
Eugynon, Ovral
Lo-Femenal (USAID), Lo/Ovral
Microgynon, Nordette, Levien, Ovranette
Neogynon
Noriday (USAID), Ortho 1/50, Norinyl 1/50
Norminest (USAID), Brevicon, Modicon
Norquest (USAID)
Desogen, Orthocept, Marvelon, Novelon, (Mercilon 20 $\mu$ g EE)
Orthocyclen, Cilest <sup>b</sup>
Femodene, Femovan, Ginoden, Gynara, Minulet <sup>b</sup>
<b>Triphasic Pills (per pill)</b>
Logynon, Trinordiol, Triphasil, Tri-Levlen, Tri-Quilar 6 brown tablets 5 white tablets 10 yellow tablets
Ortho 7/7/7 7 white tablets 7 light peach tablets 7 peach tablets
<b>Injectables (per monthly injection)</b>
Cyclofem
Mesigyna

<sup>a</sup> Most readily available monophasic COCs, so-called "low-dose" pills, contain 30–35  $\mu$ g ethinyl estradiol (EE). "High-dose" COCs are those containing 50  $\mu$ g EE or more.

<sup>b</sup> Triphasic pills containing norgestimate (Tri-Cyclen) and gestodene (Tri-Minulet and Tri-Nova) are available as are combiphasic pills containing desogestrel (Gracial).



# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

## CONDITIONS REQUIRING PRECAUTIONS

CONDITION	PRECAUTION
<b>Pregnancy</b> (known or suspected)	<p>COCs and CICs should <b>not</b> be used during pregnancy and should be stopped if intrauterine pregnancy is confirmed and will be carried to term. (WHO class 4)</p> <p>If the possibility of pregnancy <b>cannot</b> be excluded by examination or pregnancy testing, use of COCs or CICs should be delayed until the next menstrual period. In the interim, help the client choose another method (e.g., condoms and spermicide).</p>
<b>Breastfeeding</b>	<p>Breastfeeding mothers fewer than 6–8 weeks postpartum should not use COCs or CICs. (WHO class 4)</p> <p>Fully breastfeeding mothers (6 weeks to 6 months postpartum) should avoid using COCs or CICs unless other more appropriate methods (e.g., IUD or POCs) are not available or acceptable. (WHO class 3)</p>
<b>Nonbreastfeeding</b>	<p>Nonbreastfeeding mothers fewer than 3 weeks postpartum should avoid using COCs or CICs unless other more appropriate methods are not available or acceptable. (WHO class 3)</p>
<b>Unexplained vaginal bleeding</b> (only if serious problem suspected)	<p>Women with unexplained vaginal bleeding, which could be due to pregnancy or caused by a serious problem, should avoid using COCs or CICs until the cause is determined and treated, if possible. (WHO class 3)</p>



## RATIONALE

There is no reported harm to the woman or developing fetus from the small amount of estrogen and progestin in CICs or current (low-dose) COCs. It is, however, unwise for a woman to take **any drugs** in early pregnancy unless absolutely necessary.

---

COCs and CICs decrease the amount of breastmilk and may affect the healthy growth of the infant. Waiting at least 6–8 weeks postpartum also permits breastfeeding to be better established.

Fully breastfeeding mothers whose menses have not returned (amenorrhea) and who are fewer than **6 months** postpartum are at low risk for pregnancy (< 2% failure rate; see LAM chapter).

---

Until after **3 weeks** postpartum, women are at increased risk for pregnancy-related blood clotting problems. Use of COCs or CICs during this time may further increase the risk. (Because even nonbreastfeeding women less than 6–8 weeks postpartum are at low risk for conception, neither COCs nor CICs need to be started prior to the third week following delivery.)

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Because COCs and CICs can cause intermenstrual spotting or bleeding, an underlying problem (e.g., normal or ectopic pregnancy, cervicitis, other pelvic pathology and, rarely, cancer of the genital tract) may be masked. **None** of the above conditions, however, are worsened—and some are prevented—by use of COCs or CICs.



# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

## CONDITIONS REQUIRING PRECAUTIONS

CONDITION	PRECAUTION
<b>Jaundice</b> (symptomatic viral hepatitis, gall bladder disease or cirrhosis)	<p>COCs should not be used until clients have <b>fully</b> recovered from hepatitis (i.e., until either 3 months after becoming asymptomatic or normal liver function returns). Help client choose another method. (WHO class 4)</p> <p>Use of CICs should be avoided unless other more appropriate methods are not available or acceptable. (WHO class 3)</p> <p>Women with symptomatic gall bladder disease should avoid using COCs unless other more appropriate methods are not available or acceptable. (WHO class 3)</p>
<b>Smoker and age 35 years or older</b>	<p>Client should not use COCs or CICs if heavy (WHO class 4) or light smoker. (WHO class 3)<sup>1</sup></p> <p>Use of CICs should be avoided unless other more appropriate methods are not available or acceptable. (WHO class 3)</p>
<b>Ischemic heart disease or Stroke</b> (current or history of)	<p>Women with underlying arterial vascular disease should not use COCs or CICs. (WHO class 4)</p>
<b>Blood clotting disorders</b> (deep vein thrombophlebitis or pulmonary embolus)	<p>Women with blood clotting disorders (current, history of or recovering from major surgery with <b>prolonged</b> bed rest) should not use COCs or CICs. (WHO class 4)</p>

<sup>1</sup> Definitions of **heavy smoking** vary internationally. Throughout this *PocketGuide* the WHO definition, 20 cigarettes or more per day, is used.



## RATIONALE

The hormones in COCs and CICs, especially the estrogen, may be poorly metabolized in women with impaired liver function; therefore, their use may affect the health of these women. In addition, COCs and CICs may accelerate development of symptoms of gall bladder disease in asymptomatic women. The concern with CICs, however, is less than that with COCs. The hormones in CICs initially pass directly from the injection site to the heart without first passing through the liver (no first-pass effect).

---

Women 35 years or older who smoke (heavily or lightly) already are at increased risk of heart attack, stroke and other blood clotting problems. Use of COCs or CICs by these women poses an additional risk of blood clotting problems (estrogen effect).

Women 35 years or older who stop smoking and have no other risk factors may use COCs or CICs.

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In women with documented arterial vascular disease (heart attack or stroke), use of COCs or CICs may pose an additional risk (estrogen effect).

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While COCs and CICs only slightly increase the risk of blood clotting problems in healthy women, this increased risk may have substantial impact on women already at risk. Preliminary results suggest that users of COCs containing the new progestins desogestrel and gestodene have a higher risk of venous blood clotting problems than those using COCs containing levonorgestrel or norethindrone. WHO advises that until further information is available, COCs containing progestins other than desogestrel and gestodene are preferred.



# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

## CONDITIONS REQUIRING PRECAUTIONS

CONDITION	PRECAUTION
<b>Diabetes</b> (> 20 years duration; vascular problems, or CNS, kidney or visual disease)	Women with advanced or long-standing diabetes should not use COCs or CICs. (WHO class 3/4)  Insulin- and noninsulin-dependent diabetics without serious problems generally can use COCs or CICs. (WHO class 2)
<b>Headaches</b> (migraine)	Women with migraine headaches that cause focal neurologic symptoms should not use COCs or CICs. (WHO class 4)
<b>High blood pressure</b> (with or without vascular problems)	Women with BP: <ul style="list-style-type: none"><li>• &gt; 180/110 should not use COCs or CICs. (WHO class 4)</li><li>• <math>\geq 160/100</math> but &lt; 180/110 should avoid using COCs or CICs unless other more appropriate methods are not available or acceptable. (WHO class 3)</li></ul> Women with vascular disease as well as high BP should not use either COCs or CICs. (WHO class 4)

### **RATIONALE**

Use of COCs or CICs by women with advanced or long-standing (> 20 years) diabetes may worsen venous vascular problems and possibly increase the risk of blood clotting problems (estrogen effect).

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In women with severe, recurrent vascular (migraine) headaches who also have focal neurologic symptoms (e.g., unable to speak for short intervals, temporary weakness or blurred vision), use of COCs or CICs may pose an additional risk for stroke (estrogen effect).

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Although use of COCs or CICs causes only small changes in the BP of healthy women, in hypertensive women, use poses an additional risk for venous blood clotting problems (estrogen effect). Use should be stopped if monitoring during the first few months reveals a marked increase in BP or arterial vascular disease develops.



# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

## CONDITIONS REQUIRING PRECAUTIONS

CONDITION	PRECAUTION
<b>Breast cancer</b>	Women with breast cancer should not use COCs or CICs. (WHO class 4)  Women with a history of breast cancer and no current evidence of disease should avoid using COCs or CICs unless other more appropriate methods are not available or acceptable. (WHO class 3)
<b>Liver tumors (adenoma and hepatoma)</b>	Women with liver tumors should not use COCs. (WHO class 4)  Women with liver tumors should avoid using CICs unless other more appropriate methods are not available or acceptable. (WHO class 3)
<b>Major surgery with prolonged bed rest</b>	Women who are to undergo major elective surgery should switch to another more appropriate method. (WHO class 4)
<b>Taking drugs for epilepsy (phenytoin or barbiturates) or tuberculosis (rifampin)</b>	Clients taking drugs for these disorders should be counseled about the potential reduction in the effectiveness of COCs and CICs.  Use of COCs or CICs should be avoided unless other more appropriate methods are not available or acceptable. (WHO class 3)

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## RATIONALE

There is no evidence that COCs or CICs cause breast cancer. Because it is a hormonally-sensitive tumor, there is concern that the risk of progression may be increased among women with a past history or current breast cancer.

**Note:** Clients with suspicious breast lumps (firm, nontender or fixed and which do not change during the menstrual cycle) need to be evaluated before using COCs or CICs.

---

The hormones in COCs and CICs, especially the estrogen, are metabolized by the liver and their use may alter the course of existing disease. Because liver tumors (benign and malignant) are rare in women of reproductive age, routine screening (e.g., ultrasound) is not needed. The concern with CICs is less than that with COCs because the first-pass effect on the liver is eliminated. The hormones in CICs initially pass directly from the injection site to the heart without first passing through the liver.

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Prolonged bed rest increases the risk of venous blood clotting problems in healthy women. If possible, COCs should be stopped for 4 weeks before and 2 weeks after major elective surgery requiring prolonged bed rest.

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**Long-term** use of drugs for epilepsy (except valproic acid) and tuberculosis causes the liver to metabolize estrogens and progestins more rapidly and may decrease the effectiveness of COCs or CICs.<sup>2</sup> Overall, COCs and CICs do **not** appear to alter seizure activity and can be provided with caution.

Development of intermenstrual spotting or bleeding may indicate a decreased level of sex steroid hormones (estrogen and progestin). If this occurs, consider switching to a COC with a higher estrogen level (50 µg EE) or help client choose another method (COC or CIC).

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<sup>2</sup> Because griseofulvin, which increases estrogen and progestin metabolism, usually is used only for a short period of time (2–4 weeks), women taking it for fungal infections can continue to use COCs or CICs. They should use a backup method while taking griseofulvin and until the start of the next menstrual period after stopping the antibiotic.



# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

## CONDITIONS FOR WHICH THERE ARE NO RESTRICTIONS

	CONDITION
Age	
<hr/>	
<b>Diabetes</b> (uncomplicated or < 20 years duration)	
<hr/>	
<b>Endometriosis</b>	
<hr/>	
<b>Genital tract cancers</b> (cervical, endometrial or ovarian)	
<hr/>	
<b>High blood pressure</b> (mild hypertension)	
<hr/>	
<b>Pregnancy-related benign jaundice</b> (cholestasis)	
<hr/>	
<b>Trophoblastic disease</b> (benign or malignant)	



## RATIONALE

Sexually active adolescents, regardless of how young they are, may safely use COCs or CICs.

Use of COCs or CICs by women over age 35 is not associated with increased health risk unless one of the following risk factors is present:

- smoking;
- diabetes;
- a mother, father, sister or brother who had a heart attack or stroke before age 50;  
or
- family history of increased lipids (hyperlipidemia).<sup>3</sup>

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Although glucose (carbohydrate) tolerance (and insulin requirements) may change slightly, both insulin-dependent and noninsulin-dependent diabetics can use COCs or CICs (WHO class 2) **unless** they have or develop vascular disease or have had diabetes for more than 20 years. (WHO class 4)

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COCs and CICs do not worsen endometriosis and may decrease symptoms (pelvic pain and dysmenorrhea). (WHO class 1)

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COCs and CICs significantly decrease the risk of endometrial and ovarian cancers and there is little concern that they affect the course of these cancers. In addition, there is only theoretical concern that they increase the risk of progression of cervical cancer (CIS to invasive cancer).

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Women with BP < 160/100 can use COCs or CICs. (WHO class 2)

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Although a history of benign jaundice in pregnancy may predict an increased risk of developing COC- or CIC-related cholestasis, there is **no known** risk for using COCs or CICs in clients with this history. (COCs—WHO class 2; CICs—WHO class 1)

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There is no evidence that use of COCs or CICs alters progression of the disease; these women need highly effective contraception. (WHO class 1)

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<sup>3</sup> Although familial hyperlipidemia is a risk factor for vascular disease, routine screening is **not** indicated because of its **rarity**.



# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

## MANAGEMENT OF SIDE EFFECTS

### SIDE EFFECT

**Amenorrhea** (absence of vaginal bleeding or spotting)

### ASSESSMENT

**COCs:** Ask how she has been taking her pills. Has she missed any pills in the cycle?

Check for pregnancy (intrauterine or ectopic) by history, checking symptoms and performing a pelvic examination (speculum and bimanual) or a pregnancy test, if indicated and available.

Is she using a low-dose pill (30–35  $\mu\text{g}$  EE)?

Has she stopped taking the pill?

**CICs:** Check for pregnancy by history, checking symptoms and performing a pelvic examination (speculum and bimanual) or a pregnancy test, if indicated and available.



## MANAGEMENT

Missed pills or pills taken late increase risk of pregnancy. Clients using 21-day packs may forget to leave a pill-free week for menses. If pills are taken continuously, amenorrhea may result. This is not harmful. If the client is not satisfied, switch to a high-dose estrogen pill (50  $\mu\text{g}$  EE) if available and no conditions requiring precaution exist.

If **not pregnant**, no treatment is required except counseling and reassurance. Explain that blood does not build up inside her uterus or body with amenorrhea. The continued action of small amounts of progestin shrinks the endometrium, leading to decreased menstrual bleeding and, in some women, no bleeding at all. If she continues low-dose COCs (30–35  $\mu\text{g}$  EE), amenorrhea usually will persist. Advise client to return to clinic if amenorrhea continues to be a concern.

If **intrauterine pregnancy** is confirmed, counsel client regarding options.<sup>4</sup> If pregnancy will be continued, stop use of COCs and assure her that the small dose of estrogen and progestin in the COCs will have no harmful effect on the fetus.

If client is **taking COCs correctly**, reassure. Explain that absent menses is most likely due to lack of buildup of uterine lining. If the client is not satisfied, switch to a high-dose estrogen (50  $\mu\text{g}$  EE) pill if available and no conditions requiring precaution exist.

If **intrauterine pregnancy** is confirmed, counsel client regarding options.<sup>4</sup> If pregnancy will be continued, stop the CIC and assure her that the small dose of estrogen and progestin in the CIC will have no harmful effect on the fetus.

If **not pregnant**, no treatment is required except counseling and reassurance. Advise client to return to clinic if amenorrhea continues to be a concern.

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<sup>4</sup> If pregnancy cannot be confirmed by pelvic exam (and pregnancy testing is not available), either refer the client for a pregnancy test or ask her to return in 2–4 weeks for repeat examination.



# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

## MANAGEMENT OF SIDE EFFECTS

SIDE EFFECT	ASSESSMENT
<b>High blood pressure (&gt; 160/100)</b>	Ask if this is the first time anyone has told her that she has high blood pressure.  Allow 15 minutes rest, then repeat BP reading.
<b>Nausea/Dizziness/Vomiting</b>	If taking COCs, find out if pills are taken in morning or on an empty stomach.  Check for pregnancy.  No cause found.
<b>Bleeding/Spotting</b>  (See <b>Flowchart: Management of Bleeding/Spotting for COCs</b> in this chapter and definitions of bleeding and spotting in the <b>Client Assessment</b> chapter)	Has client recently begun COCs or a CIC?  Check for gynecologic conditions (e.g., intrauterine or ectopic pregnancy, incomplete abortion, PID).  Is client taking a new drug (e.g., rifampin)?  <b>COCs:</b> Ask if she has missed <b>1 or more</b> pills or if she takes pills at a different time every day.



## MANAGEMENT

If BP increases in a client with normal BP who is using COCs or CICs, follow closely. If any warning signs (severe headaches, chest pain, blurred vision) occur or BP > 160/100, the method should be stopped.

If COCs or CICs are stopped, help client choose another (nonestrogen) method. Tell her that high BP due to COCs or CICs usually goes away within 1 to 3 months. Take BP monthly to be sure it returns to normal. If after 3 months it has not, refer for further evaluation.

---

Advise client to take pill with evening meal or before bedtime.

If pregnant, manage as above (see **Amenorrhea**).

Counsel that it will probably decrease over the first 3 months of COC or CIC use. If she is using a COC and symptoms persist, switch to a lower-dose estrogen pill (20  $\mu$ g EE) if available. If problem is intolerable, stop COC or CIC and help client choose another (nonestrogen) method.

---

If yes, reassure. Advise that breakthrough bleeding/spotting (BTB/S) is common during the first 3 months of COC or CIC use and decreases markedly in most women by the fourth month of use. If BTB/S persists and is bothersome, switch to another COC or help client choose another method (COC or CIC).

If gynecologic problems are present, refer or manage according to clinic guidelines.

If yes, give client a higher dose COC (50  $\mu$ g EE) or help her choose another method (COC or CIC).

If yes, review instructions. If she continues to miss pills, she may need to switch methods to minimize risk of pregnancy. (See **Missed Pills** in this chapter.)



# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

## MANAGEMENT OF OTHER PROBLEMS

PROBLEM	ASSESSMENT
<b>Acne</b>	Ask how and how often she cleans her face. Ask if she is currently under great stress.
<b>Breast fullness or tenderness (mastalgia)</b>	<p>Check for pregnancy.</p> <p>Check breasts for:</p> <ul style="list-style-type: none"><li>• Lumps or cysts</li><li>• Discharge or galactorrhea (leakage of milk-like fluid), if not breastfeeding</li></ul> <p>Ask whether client notices fullness only at a certain time of the month (e.g., just before menses).</p> <p>If she is breastfeeding and breast(s) is tender, examine for breast infection.</p>
<b>Chest pain (especially if it occurs with exercise)</b>	<p>Assess for possible cardiovascular disease (CVD). Also, check:</p> <ul style="list-style-type: none"><li>• Blood pressure</li><li>• Heart for irregular beats (arrhythmias)</li></ul>
<b>Depression (mood change or loss of libido)</b>	Discuss changes in mood or libido.



## MANAGEMENT

Acne usually is improved with use of COCs or CICs; however, in some clients it can worsen or remain the same. Recommend cleaning face twice a day and avoiding use of heavy facial creams. Counsel as appropriate. If condition is not tolerable, help client choose another (nonhormonal) method.

---

If **pregnant**, manage as above (see Amenorrhea).

If **not pregnant**, breast tenderness usually improves within 3 months of starting COCs or a CIC.

Do **not stop** COCs or the CIC unless client requests it after counseling.

If physical examination shows lump or discharge suspicious for cancer (e.g., firm, nontender or fixed and which does not change during the menstrual cycle), refer to appropriate source for diagnosis. If no abnormality, reassure.

Advise client to avoid caffeine, chocolate, etc., and counsel her that cyclic changes in breast fullness or tenderness are related to the estrogen/progestin but are not a problem. If taking a COC, switch to a lower estrogen pill if not already on lowest estrogen COC. If the symptomatic management is not helpful, help client choose another method.

If breast(s) is not infected, recommend a bra that provides additional support.

If breast infection, use warm compresses, advise to continue breastfeeding and give antibiotics as appropriate.

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If evidence of CVD, refer for further evaluation. Consider stopping COCs or CIC and help client choose another method.

---

Depression or loss of libido may be related to the progestin in COCs and CICs. If COCs or CICs have not caused depression to worsen or libido to decrease, they can be continued. If the client thinks her depression has worsened or libido decreased while using COCs or CICs, help her choose another method.



# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

## MANAGEMENT OF OTHER PROBLEMS

PROBLEM	ASSESSMENT
<b>Headache</b> (especially with blurred vision)	Ask if there has been a change in pattern or severity of headaches <b>since</b> beginning the COCs or CIC.  Perform physical examination, measure blood pressure.  Examine as appropriate: <ul style="list-style-type: none"><li>• Eyes (fundoscopic)</li><li>• Neurologic system</li></ul>
<b>Jaundice</b>	If jaundice occurs <b>after</b> starting COCs or a CIC, check for: <ul style="list-style-type: none"><li>• Active liver disease (hepatitis)</li><li>• Gall bladder disease</li><li>• Benign or malignant liver tumors</li></ul>
<b>COCs: Diarrhea or vomiting</b> (for more than 24 hours)	Ask if it has lasted for more than 24 hours (then 2 pills will have been missed).
<b>COCs: Missed active pills</b>	Has client missed <b>only 1</b> pill?  Has client missed <b>2 or more</b> consecutive pills?
<b>COCs: Missed inactive</b> (“reminder”) pills (28-day pack only)	Has client missed <b>reminder</b> pills in week 4?

## MANAGEMENT

If headaches are mild, treat with analgesics and reassure. Re-evaluate after 1 month if mild headaches persist.

If headaches have changed since starting the COCs or CIC (e.g., numbness or tingling accompanied by loss of speech, visual changes or blurred vision), stop COCs or CIC and help client choose another (nonhormonal) method.

---

The hormones (estrogen and progestin) in COCs and CICs have little effect on liver function. If client has jaundice due to **viral hepatitis**, stop COCs or the CIC and help client choose another method until she is fully recovered (i.e., either 3 months after becoming asymptomatic or when normal liver function returns).

If jaundice is due to **gall bladder** disease, stop COCs or the CIC and help client choose another method unless other methods are not available or acceptable.

If jaundice is due to a **liver tumor** or **cirrhosis**, stop COCs or the CIC and refer for further evaluation. Help client choose another method.

---

Acute vomiting and diarrhea may interfere with the effectiveness of the pill. In these cases, a backup method should be used until the client has taken 7 active pills.

---

Advise client to take the missed pill when she remembers, even if it means taking 2 pills in the same day, and complete pack as usual. No backup method is necessary.

Advise client to take 2 pills per day until she is back on schedule and to use a backup method if she has sex during the next 7 days. (If she has started bleeding, advise her to stop taking pills and start a new pack 7 days later.)

---

Advise client to throw away missed pills and complete pack as usual. No backup method is necessary for clients who miss any of the “reminder” pills in week 4 (28-day packs only).



# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

## MANAGEMENT OF OTHER PROBLEMS

PROBLEM	ASSESSMENT
CICs: Presents early for next injection	Is she more than 3 days early?
<hr/>	
CICs: Presents late for next injection	Is she more than 3 days late?
<hr/>	
Starting COCs or a CIC after day 7 of the menstrual cycle	Check for pregnancy by symptoms, physical examination or pregnancy test, if indicated and available.



## MANAGEMENT

Giving injections early is not ideal but can be done when necessary. Reschedule the next injection for 30 days from current injection.

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It is acceptable to give CICs up to 3 days late. If the client is **more than 3 days late** but the possibility of pregnancy can be ruled out, give next injection. Reschedule the next injection for 30 days from current injection. If pregnancy cannot be ruled out, ask her to use a barrier method until her next menses.

---

Advise client that her regular bleeding pattern may be altered. She should use a backup method if she has sex during the next 7 days. Suppression of follicular development does not occur until 7 days after receiving an injection of a CIC or starting a COC.



# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

**Table 9. Interactions with Other Drugs**

COMMONLY USED OR PRESCRIBED DRUGS
<p><b>Analgesics</b> Acetaminophen (Tylenol, Paracetamol and others)</p>
<p><b>Antibiotics*</b>—Griseofulvin and Rifampin * No documented clinical effect or significance has been established for penicillins, tetracyclines, cephalosporins and other commonly used antibiotics. Hormonal methods may be used and no backup method is routinely necessary with these antibiotics.</p>
<p><b>Antidepressants</b> (Elavil, Norpramin, Tofranil and others)</p>
<p><b>Antihypertensives</b> Methyldopa (Aldoclor, Aldomet and others)</p>
<p><b>Antiseizure</b> Barbiturates (Phenobarbitol and others) Carbamazepine (Tegretol) Phenytoin (Dilantin) Primidone (Mysoline)</p>
<p><b>Beta-blockers</b> (Corgard, Inderal, Lopressor, Tenormin)</p>
<p><b>Bronchodilators</b> Theophylline (Bronkotabs, Marax, Primatene, Quibron Tedral, Theor-Dur and others)</p>
<p><b>Hypoglycemics</b> (Diabinese, Orinase, Tolbutamide, Tolinase)</p>
<p><b>Tranquilizers</b> Benzodiazepine (Ativan, Librium, Serax, Tranxene, Valium, Xanax and others)</p>

*Adapted from: Rizack and Hillman 1985.*



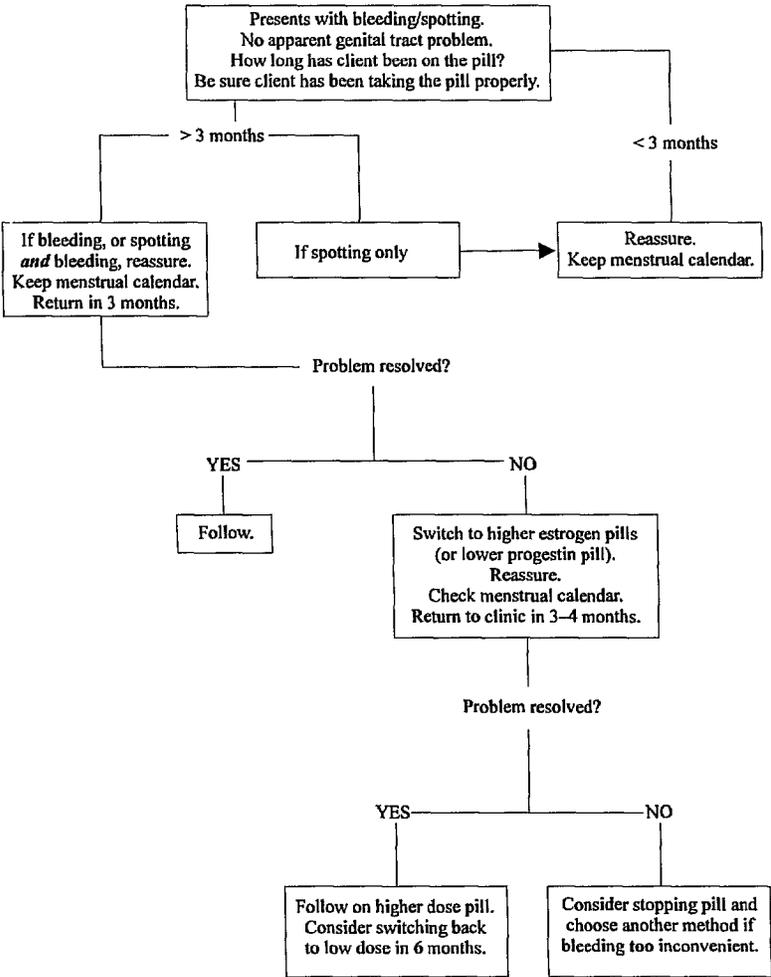
ADVERSE EFFECTS	COMMENTS AND RECOMMENDATIONS
Possible decreased pain-relieving effect (increased drug excretion)	Monitor pain-relieving response.
Decreased contraceptive effect with COCs and CICs, especially with low-dose COCs, 30–35 $\mu\text{g}$ ethinyl estradiol (EE)	Help client choose another method or use higher estrogen pill (50 $\mu\text{g}$ EE) or backup method (e.g., condoms). <sup>a</sup>
Possible increased antidepressant effect	Use with caution. Low doses are probably safe.
Possible decreased antihypertensive effect	Use COCs and CICs with caution, monitor BP.
Decreased contraceptive effect with COCs and CICs, especially if lowest dose COC used  Possible increased phenytoin effect	Help client choose another method or use higher dose pill (50 $\mu\text{g}$ EE) or backup method (e.g., condoms).
Possible increased beta-blocker effect	Monitor cardiovascular status.
Increased theophylline effect	Monitor for symptoms of theophylline overdose.
Possible decreased hypoglycemic effect	Monitor blood glucose as for any diabetic patient.
Possible increased or decreased tranquilizer effects including psychomotor impairment	Use with caution. Commonly prescribed dosages are unlikely to result in significant effects.

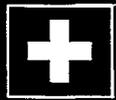
<sup>a</sup> Because griseofulvin usually is used only for a short period of time (2–4 weeks), women taking it for fungal infections can continue to use COCs or CICs. They should use a backup method while taking griseofulvin and until the start of the next menstrual period after stopping the antibiotic.

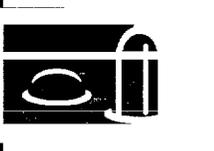
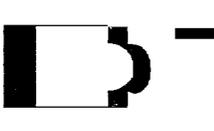
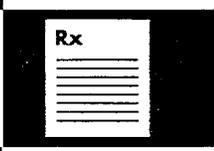
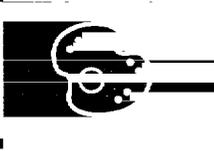


# COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES

Figure 10. Management of Bleeding/Spotting for COCs



<b>PREFACE</b>	<b>PREFACE</b>
	<b>COUNSELING</b>
	<b>CLIENT ASSESSMENT</b>
	<b>MEDICAL PROBLEMS</b>
	<b>POSTPARTUM CONTRACEPTION</b>
	<b>POSTABORTION CONTRACEPTION</b>
	<b>EMERGENCY CONTRACEPTION</b>
<b>&lt; 18</b>	<b>ADOLESCENTS</b>
<b>&gt; 35</b>	<b>WOMEN OVER 35</b>
	<b>LACTATIONAL AMENORRHEA METHOD</b>
	<b>COMBINED (ESTROGEN/PROGESTIN) CONTRACEPTIVES</b>

<p><b>PROGESTIN-ONLY CONTRACEPTIVES</b> (implants, injectables, minipills)</p>	
<p><b>INTRAUTERINE DEVICES (IUDs)</b></p>	
<p><b>BARRIERS AND SPERMICIDES</b></p>	
<p><b>NATURAL FAMILY PLANNING</b></p>	
<p><b>WITHDRAWAL</b></p>	
<p><b>VOLUNTARY STERILIZATION</b> (tubal occlusion, vasectomy)</p>	
<p><b>CLIENT INSTRUCTIONS</b></p>	
<p><b>INFECTION PREVENTION</b></p>	
<p><b>SEXUALLY TRANSMITTED DISEASES</b></p>	
<p><b>REFERENCES</b></p>	
<p><b>WHO BIBLIOGRAPHY</b></p>	



# PROGESTIN-ONLY CONTRACEPTIVES

## COUNSELING OUTLINE—All Types

METHOD	APPROPRIATE FOR
All progestin-only contraceptives (POCs)	Women of any reproductive age or parity who want protection against pregnancy
<i>Types</i>	
<b>Subdermal implants:</b> levonorgestrel (Norplant® implants)	Breastfeeding mothers (6 weeks or more postpartum) who need contraception
<b>Progestin-only injectables (PICs):</b> depot-medroxyprogesterone acetate (DMPA) and norethindrone enanthate (NET-EN)	Postpartum women who are not breastfeeding (may start immediately)
<b>Progestin-only pills (minipills, POPs):</b> levonorgestrel, norgestrel or norethindrone	Postabortion clients (may start immediately)
<b>IUDs:</b> progesterone- and levonorgestrel-releasing	Women who have blood pressure < 180/110, blood clotting problems or sickle cell disease
<i>Mechanisms of Action</i>	Women with moderate to severe menstrual cramping
<ul style="list-style-type: none"><li>• Thicken cervical mucus, preventing sperm penetration</li><li>• Change endometrium, making implantation less likely</li><li>• Reduce sperm transport in upper genital tract (fallopian tubes)</li><li>• Suppress ovulation (PICs)</li></ul>	Women who smoke (any age, any amount)
	Woman who prefer not to or should not use estrogen



## METHOD CHARACTERISTICS

### BENEFITS

Rapidly effective (< 24 hours)

Pelvic examination not required prior to use (except progestin-releasing IUDs)

Do not interfere with intercourse

Do not affect breastfeeding

Few side effects

Contain no estrogen

### *Noncontraceptive Benefits*

May decrease menstrual cramps

May decrease menstrual bleeding

May improve anemia

Protect against endometrial cancer

Decrease benign breast disease

Protect against some causes of PID

### LIMITATIONS

Cause changes in menstrual bleeding patterns of nearly all users during the first year

Some weight gain (primarily with PICs) or loss may occur

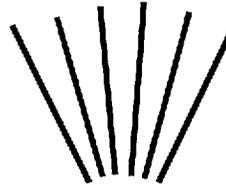
Do not protect against GTIs or other STDs (e.g., HBV, HIV/AIDS)



# PROGESTIN-ONLY CONTRACEPTIVES

## COUNSELING OUTLINE—Implants

METHOD	APPROPRIATE FOR
<b>Implants</b>	Women of any reproductive age or parity who want long-term, highly effective, reversible contraception that does not require daily action
<i>Examples</i>	
<b>Implants</b> (e.g., Norplant implants): six thin, flexible capsules filled with levonorgestrel (LNG) which are inserted just under the skin (subdermal) of a woman's upper arm	Women with desired family size who do not want voluntary sterilization
<i>When to Start</i>	Women with histories of ectopic pregnancy
<ul style="list-style-type: none"><li>• Anytime you can be reasonably sure the client is not pregnant (see <b>Client Assessment</b> chapter)</li><li>• Days 1–7 of the menstrual cycle</li><li>• Postpartum:<ul style="list-style-type: none"><li>· after 6 months if using LAM</li><li>· after 6 weeks if breastfeeding but not using LAM</li><li>· immediately or within 6 weeks if not breastfeeding</li></ul></li><li>• Postabortion (immediately or within 7 days)</li></ul>	Women who cannot remember to take a pill every day





## SPECIFIC METHOD CHARACTERISTICS

### BENEFITS

Highly effective (0.2–1 pregnancies per 100 women during the first year of use)

Long-term method (up to 5 years protection)

Immediate return of fertility on removal

Client needs to return to clinic only if problems

No supplies needed by client

Can be provided by trained nonphysician (nurse or midwife)

### *Noncontraceptive Benefits*

Decrease ectopic pregnancy

### LIMITATIONS

Cause changes in menstrual bleeding pattern

- Irregular bleeding/spotting (60–70%)
- Amenorrhea (< 10%)

Require trained provider for insertion and removal

Woman must return to health care provider or clinic for insertion of another set of capsules or removal

Woman cannot stop whenever she wants (provider-dependent)

Effectiveness may be lowered when certain drugs are taken (see **Taking drugs for epilepsy or tuberculosis** in this chapter)

Cost-effectiveness dependent on length of use (i.e., more cost-effective if used for 3 or more years)



## PROGESTIN-ONLY CONTRACEPTIVES

### COUNSELING OUTLINE—Progestin-Only Injectable Contraceptives

METHOD	APPROPRIATE FOR
<b>Progestin-Only Injectable Contraceptives (PICs)</b>	Women of any reproductive age or parity who want highly effective, reversible contraception
<i>Examples</i>	
<b>DMPA (Depo-Provera®):</b> 150 mg of depot-medroxyprogesterone acetate given every 3 months	Women with desired family size who do not want voluntary sterilization
<b>NET-EN (Noristerat®):</b> 200 mg of norethindrone enanthate given every 2 months	Women taking drugs for epilepsy (phenytoin and barbiturates) or tuberculosis (rifampin)
<i>When to Start</i>	Women with histories of ectopic pregnancy
<ul style="list-style-type: none"><li>• Anytime you can be reasonably sure the client is not pregnant (see <b>Client Assessment</b> chapter)</li><li>• Days 1–7 of the menstrual cycle</li><li>• Postpartum:<ul style="list-style-type: none"><li>• after 6 months if using LAM</li><li>• after 6 weeks if breastfeeding but not using LAM</li><li>• immediately or within 6 weeks if not breastfeeding</li></ul></li><li>• Postabortion (immediately or within 7 days)</li></ul>	Women who cannot remember to take a pill every day



### SPECIFIC METHOD CHARACTERISTICS

#### BENEFITS

Highly effective (0.3–1 pregnancies per 100 women during the first year of use)

Intermediate-term method (2 or 3 months per injection)

No supplies needed by client

Can be provided by trained nonmedical staff

#### *Noncontraceptive Benefits*

Decrease sickle cell crises

#### LIMITATIONS

Cause changes in menstrual bleeding pattern

- Irregular bleeding/spotting (60–70%)
- Amenorrhea (50–80% with DMPA; less with NET-EN)

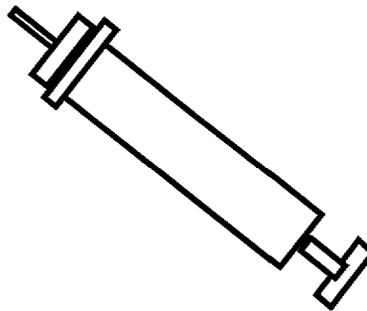
User-dependent (must return for injection every 2 or 3 months)

Weight gain (2 kg) is common, especially with DMPA

Delay in return of fertility (DMPA only)

Resupply must be available

Excessive vaginal bleeding in rare instances (fewer than 1 per 1000 users), primarily with DMPA

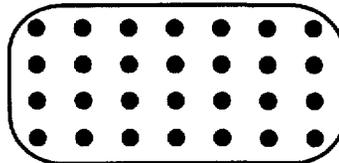




# PROGESTIN-ONLY CONTRACEPTIVES

## COUNSELING OUTLINE—Progestin-Only Pills

METHOD	APPROPRIATE FOR
<b>Progestin-Only Pills (POPs, minipills)</b>	Women who want a POC but do not want injections or implants or should not use IUDs (high risk for GTIs and other STDs)
<i>Types</i>	
<b>35-pill pack:</b> 300 $\mu$ g levonorgestrel or 350 $\mu$ g norethindrone	
<b>28-pill pack:</b> 75 $\mu$ g norgestrel	
<i>Examples</i>	
<b>Levonorgestrel</b> (Microlut)	
<b>Norethindrone</b> (Micronor®)	
<b>Norgestrel</b> (Ovrette)	
<i>When to Start</i>	
<ul style="list-style-type: none"><li>• Day 1 of the menstrual cycle</li><li>• Anytime you can be reasonably sure the client is not pregnant (see <b>Client Assessment</b> chapter)</li><li>• Postpartum:<ul style="list-style-type: none"><li>· after 6 months if using LAM</li><li>· after 6 weeks if breastfeeding but not using LAM</li><li>· immediately or within 6 weeks if not breastfeeding</li></ul></li><li>• Postabortion (immediately)</li></ul>	





**SPECIFIC METHOD CHARACTERISTICS**

**BENEFITS**

**LIMITATIONS**

Effective when taken at the <b>same time</b> every day (0.5–10 pregnancies per 100 women during the first year of use)	User-dependent (require continued motivation and daily use)
Immediately effective (< 24 hours)	Must be taken <b>at the same time</b> every day
Immediate return of fertility when stopped	Forgetfulness increases failure
Convenient and easy-to-use	Resupply must be available
Client can stop use	Effectiveness may be lowered when certain drugs are taken (see <b>Taking drugs for epilepsy or tuberculosis</b> in this chapter)
Can be provided by trained nonmedical staff	

*Noncontraceptive Benefits*

Decrease ectopic pregnancy

**Table 10. POP Compositions**

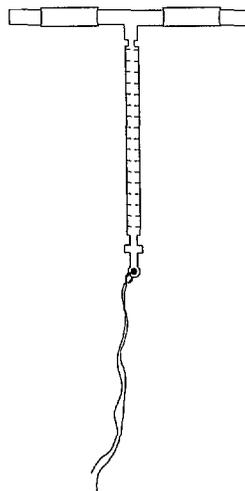
PROGESTIN-ONLY PILLS		PROGESTIN CONTENT	
			<i>µg</i>
Microlut	35 pills	Levonorgestrel	300
Micronor	35 pills	Norethindrone	350
Ovrette (USAID)	28 pills	Norgestrel	75



# PROGESTIN-ONLY CONTRACEPTIVES

## COUNSELING OUTLINE—Progestin-Releasing IUDs

METHOD	APPROPRIATE FOR
<b>Progestin-Releasing IUDs</b>	Women of any reproductive age or parity who want long-term, highly effective, reversible contraception that does not require daily action
<i>Examples</i>	
Progestosterone-releasing (Progestasert®)	Women with desired family size who do not want voluntary sterilization
Levonorgestrel-releasing (LevoNova®)	Women with histories of ectopic pregnancy (LevoNova IUD only)
<i>When to Start</i>	
<ul style="list-style-type: none"><li>• Anytime you can be reasonably sure the client is not pregnant (see <b>Client Assessment</b> chapter)</li><li>• Days 1–7 of the menstrual cycle</li><li>• Postpartum (immediately following delivery, during the first 48 hours postpartum or after 4 to 6 weeks; after 6 months if using LAM)</li><li>• Postabortion (immediately or within 7 days) provided no evidence of pelvic infection</li></ul>	





## SPECIFIC METHOD CHARACTERISTICS

### BENEFITS

LevoNova: Highly effective (0.2–0.5 pregnancies per 100 women during the first year of use)

Progestasert: Effective (2–6 pregnancies per 100 women during the first year of use)

LevoNova effective for 5 years

#### *Noncontraceptive Benefits*

May decrease menstrual cramps

For additional information on Benefits, see IUDs chapter

### LIMITATIONS

Cause changes in menstrual bleeding pattern

- Irregular bleeding/spotting (60–70%)
- Amenorrhea (50–80%)

Pelvic examination required and GTI screening recommended prior to insertion

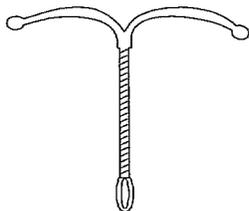
Available only in a few countries

Expensive

Progestasert only effective for 1 year

Higher ectopic pregnancy rate (Progestasert only) than copper-releasing and LevoNova IUDs

For additional information on Limitations, see IUDs chapter





# PROGESTIN-ONLY CONTRACEPTIVES

## CONDITIONS REQUIRING PRECAUTIONS

CONDITION	PRECAUTION
<b>Pregnancy</b> (known or suspected)	<p>POCs should <b>not</b> be used during pregnancy and should be stopped if intrauterine pregnancy is confirmed and will be carried to term. (WHO class 4)</p> <p>If the possibility of pregnancy <b>cannot</b> be excluded by history, examination or pregnancy testing, use of a POC should be delayed until the next menstrual period. In the interim, help the client choose another method (e.g., condoms and spermicide).</p>
<b>Breastfeeding</b> (< 6 weeks postpartum)	<p>During the first 6 weeks postpartum, breastfeeding mothers should avoid using POCs unless other more appropriate methods are not available or acceptable. (WHO class 3)</p>
<b>Unexplained vaginal bleeding</b> (only if serious problem suspected)	<p>Until the cause of the unexplained bleeding (between menses or after intercourse) is determined and any serious problems treated, the client should not use implants or PICs. (WHO class 4)</p> <p>Women with unexplained vaginal bleeding, which could be due to pregnancy or caused by a serious problem, should avoid using POPs until the cause is determined and treated, if possible. (WHO class 3)</p>



### RATIONALE

Current data show that the low dose of progestin in implants, PICs, POPs and progestin-releasing IUDs does **not** cause any significantly increased risk of birth defects, spontaneous abortion or stillbirths. Although the amount of progestin is small, it is unwise for a woman to take **any drugs** in early pregnancy unless absolutely necessary.

---

There is **only** theoretical concern that the newborn may be at risk due to exposure to progestins during the first 6 weeks postpartum.

**After** 6 weeks, studies have detected no clinically significant effects on the health or growth of breastfeeding babies whose mothers are using POCs. (WHO class 1)

---

Because POCs can cause intermenstrual spotting or bleeding, an underlying problem (e.g., normal or ectopic pregnancy, cervicitis, other pelvic pathology and, rarely, cancer of the genital tract) may be masked. **None** of the above conditions, however, are worsened—and some are prevented—by use of a POC.

It is only because implants and PICs cannot be easily stopped that WHO recommends not starting them if a serious problem is suspected.



# PROGESTIN-ONLY CONTRACEPTIVES

## CONDITIONS REQUIRING PRECAUTIONS

CONDITION	PRECAUTION
<b>Jaundice</b> (symptomatic viral hepatitis or cirrhosis)	Use of POCs should be avoided unless other more appropriate methods are <b>not</b> available or acceptable. (WHO class 3)
<b>High blood pressure</b> (with or without vascular problems)	Women with BP > 180/110 should avoid using PICs unless other more appropriate methods are not available or acceptable. (WHO class 3)
<b>Breast cancer</b>	<p>Women with breast cancer should not use implants or PICs. (WHO class 4)</p> <p>They should avoid using POPs or progestin-releasing IUDs unless other more appropriate methods are not available or acceptable. (WHO class 3)</p> <p>Women with a history of breast cancer and no current evidence of disease should avoid using POCs unless other more appropriate methods are not available or acceptable. (WHO class 3)</p>
<b>Diabetes</b> (> 20 years duration; vascular problems, or CNS, kidney or visual disease)	<p>Women with advanced or long-standing diabetes should avoid using PICs unless other more appropriate methods are not available or acceptable. (WHO class 3)</p> <p>Insulin- and noninsulin-dependent diabetics without serious problems generally can use POCs. (WHO class 2)</p>



### RATIONALE

There is **no** evidence that progestins cause liver disease (e.g., benign or malignant tumors or cirrhosis), hepatitis or gall bladder problems (see **Conditions for Which There Are No Restrictions** in this chapter). Although progestins may be poorly metabolized in women with impaired liver function, POCs (especially POPs) are not likely to worsen clinically the liver disease and are safer than when pregnancy occurs in women with active hepatitis.

**Note:** For women who are **asymptomatic** (fully recovered or carriers), there is **no** restriction on the use of POCs. (WHO class 1)

---

Because of the higher blood levels of progestin with use of PICs, levels of high-density lipoproteins (HDLs) may be lowered. As a consequence there is **theoretical concern** about this action in women with underlying high blood pressure and vascular problems (e.g., neuropathy or retinopathy). Implants, POPs and progestin-releasing IUDs do not exert any significant effect on lipid metabolism.

---

There is no evidence that low-dose progestins cause breast cancer. Because it is a hormonally-sensitive tumor, there is concern that the risk of progression may be increased among women with a past history or current breast cancer. (According to WHO, theoretical concerns are less for POPs than for implants, PICs or progestin-releasing IUDs.)

**Note:** Clients with suspicious breast lumps (firm, nontender or fixed and which do not change during the menstrual cycle) need to be evaluated before using a POC.

---

Because of their low dose, implants and POPs can be used safely by diabetics with arterial or venous vascular disease. PICs, due to their higher daily dose, are **not** recommended for use in diabetics **with vascular problems** because of a **theoretical** concern about their effect on lipid metabolism and possible progression of the vascular disease.

POCs affect carbohydrate metabolism only slightly if at all, and they do not pose an additional risk of thrombosis (estrogen effect) in noninsulin- or insulin-dependent diabetics. (Their use may, however, require more medication or insulin to maintain control of diabetes.)



# PROGESTIN-ONLY CONTRACEPTIVES

## CONDITIONS REQUIRING PRECAUTIONS

CONDITION	PRECAUTION
Taking drugs for <b>epilepsy</b> (phenytoin and barbiturates) or <b>tuberculosis</b> (rifampin)	Clients taking drugs for these disorders should be counseled about the potential reduction in the effectiveness of some POCs.  They should avoid using implants and POPs unless other more appropriate methods are not available or acceptable. (WHO class 3)  PICs generally may be used because they deliver a higher dose of progestin. (WHO class 2)
Women who cannot tolerate any <b>changes in their menstrual bleeding pattern</b>	Women who express concern regarding changes in their menstrual pattern (irregular or more frequent bleeding) may want to consider trial use of POPs (3 months) before using another POC or they may choose another method.
<b>POPs:</b> Unable to remember to take pills every day <b>at the same time</b>	Counsel about the importance of taking one pill, <b>at the same time</b> , each day.  If the POP is taken <b>more than 3 hours late</b> , its protective benefits are greatly decreased and a backup method of contraception must be used for the next 48 hours.



## RATIONALE

**Long-term** use of drugs for epilepsy (**except** valproic acid) and tuberculosis causes the liver to metabolize progestins more rapidly and may decrease the effectiveness of all hormonal methods except PICs.<sup>1</sup> Overall, neither estrogens nor progestins appear to alter seizure activity and can be provided with caution.

Development of intermenstrual spotting or bleeding may indicate a decreased level of progestin. Because blood levels of progestins with use of implants and POPs are quite low to begin with, women using these drugs may require more frequent followup and/or a backup method. The effectiveness of PICs is not reduced because they deliver higher doses of progestins.

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Changes in the menstrual pattern are the most frequent reason for stopping POCs.

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POPs reach their peak effect on cervical mucus within 3 to 4 hours after being taken but their effect is almost gone within 24 hours.

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<sup>1</sup> Because griseofulvin, which increases progestin metabolism, usually is used only for a short period of time (2–4 weeks), women taking it for fungal infections can continue to use POCs. They should use a backup method while taking griseofulvin and until the start of the next menstrual period after stopping the antibiotic.



## PROGESTIN-ONLY CONTRACEPTIVES

### CONDITIONS REQUIRING MORE FREQUENT FOLLOWUP CARE

CONDITION	ACTION
<b>Diabetes</b>	Diabetics who choose a POC should be followed to be sure the disease is controlled. (WHO class 2)
<b>Headaches</b> (severe, recurrent vascular or migraine)	Women with a history of severe vascular or migraine headaches should be followed to be sure their headaches do not worsen with use of POCs. (WHO class 2)
<b>Depression</b>	Women with a history of depression should be followed when using POCs. Help the client choose another method if depression worsens or recurs to a serious degree.



#### **RATIONALE**

POCs affect carbohydrate metabolism only slightly if at all, and they do not pose an additional risk of thrombosis (estrogen effect) in noninsulin- or insulin-dependent diabetics. (Their use may, however, require more medication or insulin to maintain control of diabetes.)

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Little or no information is available on changes in severe headaches when POCs are used. If headaches worsen (e.g., are more frequent, last longer or cause blurred vision), help the client choose another method.

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Depression may be related to the progestin in POCs.



## PROGESTIN-ONLY CONTRACEPTIVES

### CONDITIONS FOR WHICH THERE ARE NO RESTRICTIONS

#### CONDITION

**Blood Pressure** (< 180/110)

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**Diabetes** (uncomplicated or < 20 years duration)

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**Pre-eclampsia** (history of)

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**Smoking** (any age, any amount)

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**Surgery** (with or without prolonged bed rest)

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**Thromboembolic disorders** (e.g., blood clots in the legs, lungs or eyes), superficial thrombophlebitis and varicose veins

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**Valvular heart disease** (symptomatic or asymptomatic)



### RATIONALE

Women with blood pressure < 180/110 can use POCs. (WHO class 1) There have been no statistically significant trends of increased blood pressure in POC users.

---

Although glucose (carbohydrate) tolerance (and insulin requirements) may change slightly, both insulin-dependent and noninsulin-dependent diabetics can use POCs (WHO class 2) **unless** they have or develop vascular disease or have had diabetes for more than 20 years. (WHO class 3—PICs only)

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In the absence of any pre-existing vascular disease, POCs may be used. (WHO class 1)

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Because progestins do **not** increase the risk of cardiovascular disease, women (of any age) who smoke and have no other risk factors can use POCs. (WHO class 1)

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Because POCs do not increase the risk of blood clotting problems, there is no restriction for use. (WHO class 1)

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Most experts now believe it is estrogens, not progestins, that cause blood clotting; therefore, women with current or past thromboembolic disorders can safely use all types of POCs. (WHO class 1)

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Because POCs do not increase the risk of blood clotting problems, including embolism, even women with complications such as pulmonary hypertension, irregular heart rhythm (arrhythmia) or history of subacute bacterial endocarditis can use POCs. (WHO class 1)

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# PROGESTIN-ONLY CONTRACEPTIVES

## MANAGEMENT OF SIDE EFFECTS

### SIDE EFFECT

**Amenorrhea** (absence of vaginal bleeding or spotting)

### ASSESSMENT

If taking POPs, ask how she has been taking her pills. Has she missed any pills in the cycle? Has she stopped taking the pills?

Check for pregnancy (intrauterine or ectopic) by history, checking symptoms and performing a pelvic examination (speculum and bimanual) or a pregnancy test, if indicated and available.



## MANAGEMENT

Amenorrhea, though less common in implants users (about 7%), occurs in up to 40% of DMPA users and 20–30% of LevoNova IUD users by the end of the first year of use. It is rare in POP users. Amenorrhea for 6 weeks or more, **especially** after a pattern of regular menses, may signal pregnancy and should be evaluated regardless of the contraceptive method used.<sup>2</sup>

If **not pregnant**, no treatment is required except counseling and reassurance. Explain that blood does not build up inside her uterus or body with amenorrhea. The continued action of small amounts of progestin shrinks the endometrium, leading to decreased menstrual bleeding and, in some women, no bleeding at all. Finally, advise client to return to clinic if amenorrhea continues to be a concern.

If **intrauterine pregnancy** is confirmed, counsel client regarding options. If pregnancy will be continued, stop use of the POC and assure her that the small dose of progestin in the POC will have no harmful effect on the fetus.

If **miscarriage** (spontaneous abortion) occurs, it is not necessary to stop the POC.

If **ectopic pregnancy** suspected, refer at once for complete evaluation.

Do **not** give hormonal treatment (COCs) to induce withdrawal bleeding. It is **not** necessary and usually is not successful unless 2 or 3 cycles of COCs are given.

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<sup>2</sup> If pregnancy cannot be confirmed by pelvic exam (and pregnancy testing is not available), either refer the client for a pregnancy test or ask her to return in 2 to 4 weeks for repeat examination.



# PROGESTIN-ONLY CONTRACEPTIVES

## MANAGEMENT OF SIDE EFFECTS

SIDE EFFECT	ASSESSMENT
<b>Bleeding/Spotting</b> (prolonged spotting or moderate bleeding)	Perform pelvic examination (speculum and bimanual) to be sure bleeding is not due to other causes (e.g., genital tract problems such as vaginitis, cervicitis, cervical polyps or uterine fibroids).
Prolonged spotting: (> 8 days)	
Moderate bleeding: ( $\geq$ normal menses, 50–80 ml)	If pregnancy (intrauterine or ectopic) or incomplete abortion is suspected, examine and perform pregnancy test if indicated and available.

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<b>Bleeding</b> (prolonged or heavy bleeding) <i>(continued on next page)</i>	Perform pelvic examination (speculum and bimanual) to be sure bleeding is not due to other causes (e.g., genital tract problems such as vaginitis, cervicitis, cervical polyps or uterine fibroids).
Prolonged bleeding: (> 8 days)	
Heavy bleeding: (twice as long or twice as much as normal)	If pregnancy (intrauterine or ectopic) or incomplete abortion is suspected, examine and perform pregnancy test if indicated and available.
	If no genital tract abnormality noted, check for significant anemia (pale conjunctiva or nail beds, low hematocrit or hemoglobin).



## MANAGEMENT

If an abnormality of the genital tract is found, treat the problem and counsel the client or refer for further evaluation. Do **not** stop use of POC. Advise client to return for additional counseling after management of problem(s).

See **Amenorrhea** for management of pregnancy-related conditions.

Reassure client that light, intermenstrual bleeding or spotting occurs in many women using POCs (50–80% of PIC, implants and progestin-releasing IUD users during the first few cycles of use and 15–20% of POP users). It is not serious and usually does not require treatment. Most women can expect the altered bleeding pattern to become more regular after 6 to 12 months.

If the client is not satisfied after counseling and reassurance, but wants to continue using POCs, two treatment options are recommended:

- a cycle of COCs (30–35  $\mu\text{g}$  EE), or
- ibuprofen (up to 800 mg 3 times daily for 5 days) or other NSAID.

Be sure to tell the client to expect bleeding during the week after completing the COCs (21-pill pack) or during the last 7 pills if 28-pill pack.

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If an abnormality of the genital tract is found, treat the problem and counsel the client or refer for further evaluation. Do **not** stop use of the POC. Advise client to return for additional counseling after management of problem(s).

See **Amenorrhea** for management of pregnancy-related conditions.

For hemoglobin < 9 g/dl or hematocrit < 27, give iron ( $\text{FeSO}_4$ , 1 tablet containing at least 100 mg elemental iron, daily for 1 to 3 months) and nutritional counseling. If anemia persists or client requests, stop use of the POC and help client choose another method.

**Note:** Despite increased frequency of bleeding in some women, monthly blood loss in POC users usually is less than with normal menses in noncontracepting women. In some users, hemoglobin levels increase over time. (More women have increases than decreases in hemoglobin.)



# PROGESTIN-ONLY CONTRACEPTIVES

## MANAGEMENT OF SIDE EFFECTS

SIDE EFFECT	ASSESSMENT
<b>Bleeding</b> (prolonged or heavy bleeding) ( <i>continued</i> )	No other cause found, but client has prolonged bleeding or amount is more than normal menses.  No other cause found, but bleeding is: <ul style="list-style-type: none"><li>• not reduced in 3–5 days, or</li><li>• much heavier (1–2 pads per hour).</li></ul>
<b>Lower abdominal/pelvic pain</b> (with or without symptoms of pregnancy)	Take history, perform abdominal and pelvic (speculum and bimanual) examinations.  Check vital signs: <ul style="list-style-type: none"><li>• Pulse</li><li>• Blood pressure</li><li>• Temperature</li></ul> Examine to rule out: <ul style="list-style-type: none"><li>• Ectopic pregnancy</li><li>• PID</li><li>• Appendicitis</li><li>• Ovarian cysts</li></ul> Do lab tests for Hb/Hct and pregnancy test if indicated and available.
<b>Weight gain or loss</b> (change in appetite)	Compare weight prior to POC use (if known) and current weight.  Check for pregnancy.  Check that the client is eating and exercising properly.



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## MANAGEMENT

If the client is not satisfied after counseling and reassurance, but wants to continue using POCs, two treatment options are recommended:

- a cycle of COCs (30–35  $\mu\text{g}$  EE), or
- ibuprofen (up to 800 mg 3 times daily for 5 days) or other NSAID.

Be sure to tell the client to expect bleeding during the week after completing the COCs (21-pill pack) or during the last 7 pills if 28-pill pack.

If client wants to continue using a POC give:

- 2 COC pills per day for the remainder of the cycle (at least 3 to 7 days) followed by 1 cycle (1 pill per day) of COCs, or
- give 50  $\mu\text{g}$  EE-containing COC or 50  $\mu\text{g}$  EE or 1.25 mg conjugated estrogen (Premarin) for 14–21 days.

**Note:** Check to be sure bleeding has decreased within 3 days.

---

**Refer immediately** if the client has any of the following:

- Moderate to severe lower abdominal tenderness (rebound)
  - Elevated resting pulse ( $> 100$  BPM)
  - Decreased blood pressure ( $< 90/60$ )
  - Elevated temperature ( $> 38^\circ\text{C}$ )
  - Suspected/confirmed pregnancy and acute anemia (e.g.,  $< 9$  g/dl Hb or  $< 27$  Hct)
- 

In some women using POCs, ovarian follicles develop and their shrinkage (atresia) is sometimes delayed. In these instances, the follicle may continue to grow beyond the size it would attain in a normal cycle. These enlarged follicles cannot be distinguished from ovarian cysts. They usually occur during the first 6 months of use, generally are asymptomatic and often are palpable.

In most cases the enlarged follicles disappear spontaneously and should not require treatment or stopping use of the POC. Rarely, they may twist or rupture, sometimes causing abdominal pain, and surgical intervention may be required.

---

Counsel client that fluctuations of 1–2 kg (2–4 lbs) may occur, especially with use of PICs.

Review diet if weight change is excessive ( $\pm 2$  kg or more). If weight gain (or loss) is unacceptable, even after counseling, stop use and help client choose another method.



# PROGESTIN-ONLY CONTRACEPTIVES

## MANAGEMENT OF OTHER PROBLEMS

PROBLEM	ASSESSMENT
Acne	Ask how and how often she cleans her face. Ask if she is currently under great stress.
<b>Breast fullness or tenderness (mastalgia)</b>	Check for pregnancy.  Check breasts for: <ul style="list-style-type: none"><li>• Lumps or cysts</li><li>• Discharge or galactorrhea (leakage of milk-like fluid), if not breastfeeding</li></ul> If she is breastfeeding and breast(s) is tender, examine for breast infection.
<b>Chest pain</b> (especially if it occurs with exercise)	Assess for possible cardiovascular disease (CVD). Also, check: <ul style="list-style-type: none"><li>• Blood pressure</li><li>• Heart for irregular beats (arrhythmias)</li></ul>
<b>Depression</b> (mood changes or loss of libido)	Discuss changes in mood or libido.
<b>Excess hair growth (hirsutism) or hair loss</b>	Review history, before and after beginning use of POC.



## MANAGEMENT

In some women, POC use can make acne worse. Recommend cleaning face twice a day and avoiding use of heavy facial creams. Counsel as appropriate. If condition is not tolerable, help client choose another (nonhormonal) method.

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If **pregnant**, manage as above (see **Amenorrhea**).

If **not pregnant**, breast tenderness usually improves within 3 months of starting POCs.

**Do not** stop POC unless client requests it after counseling.

If physical examination shows lump or discharge suspicious for cancer (e.g., firm, nontender or fixed and which does not change during the menstrual cycle), refer to appropriate source for diagnosis. If no abnormality, reassure.

If breast(s) is not infected, recommend a bra that provides additional support.

If breast infection, use warm compresses, advise to continue breastfeeding and give antibiotics as appropriate.

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If evidence of CVD, refer for further evaluation. Low-dose progestins do not increase the risk for CVD; therefore, stopping the POC is not necessary unless client requests it.

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Depression or loss of libido may be related to the progestin in POCs; therefore, if client thinks her depression has worsened while using a POC, help her choose another method. If the POC has not caused depression to worsen or libido to decrease, it can be continued.

---

Pre-existing conditions such as excess facial or body hair might be worsened by POC use. Changes usually are not excessive, may improve over time, and **do not** require stopping POC unless client requests it after counseling.



# PROGESTIN-ONLY CONTRACEPTIVES

## MANAGEMENT OF OTHER PROBLEMS

PROBLEM	ASSESSMENT
<b>Headache</b> (especially with blurred vision)	Ask if there has been a change in pattern or severity of headaches <b>since</b> beginning the POC.  Perform physical examination, measure blood pressure.  Examine as appropriate: <ul style="list-style-type: none"><li>• Eyes (fundoscopic)</li><li>• Neurologic system</li></ul>
<b>High blood pressure</b> (> 180/110)	Ask if this is the first time anyone has told her that she has high blood pressure.  Allow 15 minutes rest then repeat BP reading.
<b>Implants: Capsule coming out</b>	Check for partial or complete expulsion of capsule(s).



## MANAGEMENT

If headaches are mild, treat with analgesics and reassure. Re-evaluate after 1 month if mild headaches persist.

If headaches have changed since starting the POC (e.g., numbness or tingling accompanied by loss of speech, visual changes or blurred vision) stop POC and help client choose another (nonhormonal) method.

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Counsel client that a mild increase in blood pressure (< 180/110) does not require stopping the POC unless she requests it. If requested, help the client choose another method. In addition, tell her that high BP usually goes away within 1 to 3 months. Take BP monthly to be sure it returns to normal. If after 3 months it has not returned to normal, refer for further evaluation.

If BP > 180/110 or she has arterial vascular problems (e.g., heart attack, stroke, kidney failure or retinopathy), the POC (PICs only) should be stopped. Help client choose another method.

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Remove partially expelled capsule(s). Check to determine if remaining capsules are in place.

- If area of insertion is not infected (no pain, heat and redness), replace capsule(s).
- If area of insertion is infected:
  - remove remaining capsules and insert a new set in the other arm, or
  - help the client choose another method.



# PROGESTIN-ONLY CONTRACEPTIVES

## MANAGEMENT OF OTHER PROBLEMS

PROBLEM	ASSESSMENT
<b>Implants: Infection at insertion site</b>	Check area of insertion for infection (pain, heat and redness), pus or abscess.
<hr/>	
<b>Implants: "Missing" capsules</b>	Usually due to capsules being inserted too deep or, rarely, to fewer than 6 inserted or capsule expelled and forgotten by client.
<hr/>	
<b>Jaundice</b>	Acute jaundice occurring <b>after</b> starting POC use is <b>not</b> method-related.  Check for: <ul style="list-style-type: none"><li>• Active liver disease (hepatitis)</li><li>• Gall bladder disease</li><li>• Benign or malignant liver tumors</li></ul>
<hr/>	
<b>Nausea/Dizziness/Vomiting</b>	Check for pregnancy by checking symptoms, performing a pelvic examination (speculum and bimanual) and pregnancy test (if indicated and available).
<hr/>	
<b>Thromboembolic disorder (including blood clots in legs, lungs or eyes)</b>	Assess for <b>active</b> blood clotting problem.



## MANAGEMENT

If infection (not abscess), wash area (soap and water) and give appropriate oral antibiotic for 7 days.

Do **not** remove capsules. Ask client to return after 1 week. If no improvement, remove capsules and insert a new set in the other arm or help client choose another method.

If abscess:

- Prep with antiseptic
- Incise and drain
- Remove capsules
- Perform wound care daily
- Give oral antibiotics for 7 days
- Insert new set in the other arm or help client choose another method

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Can almost always be detected by x-ray or sonography. If regular sonography used, focal length needs to be increased to about 15 cm to focus accurately. Capsules best seen in cross-section (transverse) as a shadow (echo-free area) under each capsule. If 6 capsules are present, note this in the client's chart. If removal will be difficult, an expert in implants removal should be consulted. (Note: Six capsules are required for contraception.)

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The progestins in POCs (e.g., levonorgestrel and norethindrone) have little effect on liver function and do not increase the risk of gall bladder disease or liver tumors. If the client has jaundice due to **viral hepatitis** and does **not** want to stop using the POC, it is unlikely that the POC will worsen liver disease and its use is safer than pregnancy.

---

If pregnant, manage as above (see **Absence of vaginal bleeding**).

If **not** pregnant, reassure that this is not a serious problem(s) and usually disappears with time.

---

Low-dose progestins do **not** increase the risk of blood clotting problems; therefore, stop the POC only at client's request. If there is strong evidence of blood clotting disorder, refer for further evaluation.



# PROGESTIN-ONLY CONTRACEPTIVES

## MANAGEMENT OF OTHER PROBLEMS

PROBLEM	ASSESSMENT
<b>PICs: Presents early for next injection</b>	Is she <b>more than 1 month early (DMPA)</b> or <b>2 weeks early (NET-EN)</b> ?
<b>PICs: Presents late for next injection</b>	Is she <b>more than 1 month late (DMPA)</b> or <b>2 weeks late (NET-EN)</b> ?
<b>POPs: Late or missed pills</b>	Has the client taken a pill <b>less than 3 hours late</b> ?  Has the client taken a pill <b>more than 3 hours late</b> ?  Has the client <b>missed 1 or more pills</b> ?
<b>Starting POPs after the second day of menstrual cycle</b>	Check for pregnancy by history, checking symptoms and performing a pelvic examination (speculum and bimanual) and a pregnancy test (if indicated and available).
<b>Stopping POPs</b>	
<b>Switching from POPs to COCs</b>	
<b>Switching from COCs to POPs</b>	



## MANAGEMENT

Giving injections early is not ideal but can be done when necessary. Reschedule the next injection for 3 months (DMPA) or 2 months (NET-EN) from current injection.

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It is acceptable to give DMPA up to 4 weeks (1 month) late and NET-EN up to 2 weeks late. If the client is **more than 1 month (DMPA) or 2 weeks (NET-EN) late**, check for pregnancy by pelvic examination or, if available, by pregnancy test. If examination is equivocal (and pregnancy test not available), ask the client to use a nonhormonal method for the next month and return for a repeat pelvic examination. If the examination is still negative, the client may receive her injection that day.

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Have client take the late pill as soon as possible, then continue on normal pill schedule. Backup contraception is **not** needed.

Have client take the late pill as soon as possible, then continue on normal pill schedule. Remind her to use a backup method (e.g., condom and spermicide) if she has intercourse during the next 48 hours.

The more pills missed, the more likely it is that pregnancy will occur. Have client take the next pill as soon as possible, then continue on normal pill schedule. Remind her to use a backup method if she has sex during the next 48 hours. If unprotected intercourse occurred, consider recommending emergency contraception (see **Emergency Contraception** chapter).

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A backup method of contraception (e.g., condom and spermicide) should be used if the client has intercourse during the next 48 hours. Although there is evidence that the effect of progestins on cervical mucus occurs within a few hours after taking the pill, there is a small chance of conception.

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POPs can be stopped at any time during the menstrual cycle.

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Start COCs on the first day of menses to be sure ovulation does not occur.

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Start POPs on the day after taking the 21st pill (last active pill in 28-pill pack).

# INTRAUTERINE DEVICES

## COUNSELING OUTLINE

METHOD	APPROPRIATE FOR
Small flexible devices inserted into the uterine cavity. Newer types are made of plastic and are medicated (slowly release small amounts of copper or progestin).	Women of any reproductive age or parity who want highly effective, long-term contraception that does not require daily action
<b>Types</b>	Women who have used an IUD successfully before
<b>Copper-releasing:</b> Copper T 380A, Nova T <sup>®</sup> and Multiload 375	Breastfeeding mothers who need contraception
<b>Progestin-releasing:</b> Progestasert and LevoNova (LNG-20) <sup>1</sup>	Women who are postpartum and not breastfeeding
<b>Inert:</b> Lippes Loop <sup>®</sup>	Postabortion clients who do not show signs of pelvic infection (may be inserted immediately)
<b>Mechanisms of Action</b>	Women at low risk for GTIs and other STDs
<ul style="list-style-type: none"><li>• Interfere with ability of sperm to pass through uterine cavity (copper-releasing)</li><li>• Interfere with the reproductive process <b>before</b> ova reach uterine cavity (copper-releasing)</li><li>• Thicken cervical mucus (progestin-releasing)</li><li>• Change endometrial lining (progestin-releasing)</li></ul>	Women who cannot remember to take a pill every day
<b>When to Start</b>	Women who prefer not to use hormonal methods or should not use them (e.g., smokers over 35 years of age)
<ul style="list-style-type: none"><li>• Anytime you can be reasonably sure the client is not pregnant (see <b>Client Assessment</b> chapter)</li><li>• Days 1–7 of the menstrual cycle</li><li>• Postpartum (immediately following delivery, during the first 48 hours postpartum or after 4–6 weeks; after 6 months if using LAM)</li><li>• Postabortion (immediately or within 7 days) provided no evidence of pelvic infection</li></ul>	

<sup>1</sup> For specific effects of progestin-releasing IUDs, see **Progestin-Only Contraceptives** chapter.

## METHOD CHARACTERISTICS

### BENEFITS

### LIMITATIONS

Highly effective (0.5–1 pregnancies per 100 women during the first year of use for Copper T 380A) <sup>2</sup>	Pelvic examination required and screening for GTIs recommended before insertion
Effective immediately	Require trained provider for insertion and removal
Long-term method (up to 10 years protection with Copper T 380A)	Need to check for strings after menstrual period if cramping, spotting or pain (see <b>Client Instructions</b> chapter)
Do not interfere with intercourse	Woman cannot stop use whenever she wants (provider-dependent)
Do not affect breastfeeding	
Immediate return to fertility upon removal	Increased menstrual bleeding and cramping during first few months (copper-releasing only)
Few side effects	
After followup visit, client needs to return to clinic only if problem	May be spontaneously expelled
No supplies needed by client	Rarely (< 1/1000 cases), perforation of the uterus may occur during insertion
Can be provided by trained nonphysician	Do not prevent <b>all</b> ectopic pregnancies (especially Progestasert)
Inexpensive (Copper T 380A)	
<i>Noncontraceptive Benefits</i>	May <b>increase</b> risk of PID and subsequent infertility in women at risk for GTIs and other STDs (e.g., HBV, HIV/AIDS)
Decrease menstrual cramps (progestin-releasing only)	
Decrease menstrual bleeding (progestin-releasing only)	
Decrease ectopic pregnancy (except Progestasert)	

<sup>2</sup> First year failure rates: LevoNova 0.2–0.5; Lippes Loop (size D only) 1.0–2.0; Progestasert 2–6.

# INTRAUTERINE DEVICES

## CONDITIONS REQUIRING PRECAUTIONS

CONDITION	PRECAUTION
<b>Pregnancy</b> (known or suspected)	IUDs should <b>not</b> be used during pregnancy and should be removed if intrauterine pregnancy is confirmed and will be carried to term. (WHO class 4)  If the possibility of pregnancy <b>cannot</b> be excluded by history, examination or pregnancy testing, insertion of an IUD should be delayed until the next menstrual period. In the interim, help the client choose another method (e.g., condoms and spermicide).
<b>Unexplained vaginal bleeding</b> (only if serious problem suspected)	Until the cause of unexplained bleeding (between menses or after intercourse) is determined and any serious problems treated, the client should not use an IUD. (WHO class 4)
<b>PID</b> (current or within the past 3 months)	Women with PID (current, recent or recurrent) should not use an IUD. (WHO class 4)  Women with a past history of PID (> 3 months) and no current risk for STDs can safely use an IUD. (WHO class 1)
<b>Acute purulent (pus-like) discharge</b> from the cervical canal (gonorrheal or chlamydial cervicitis)	Women with acute purulent discharge should not use an IUD. (WHO class 4)
<b>Distorted uterine cavity</b> (large fibroids or abnormal uterine anatomy such as double uterus)	Women with a distorted uterine cavity should not use an IUD. (WHO class 4)

## RATIONALE

If a woman is pregnant at the time an IUD is inserted, she is at increased risk for spontaneous abortion (miscarriage) and premature birth as well as serious uterine infection (endometritis).

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Because IUDs can cause intermenstrual spotting or bleeding, an underlying problem (e.g., normal or ectopic pregnancy, cervicitis, other pelvic pathology and, rarely, cancer of the genital tract) may be masked.

It is only because IUDs must be removed by a trained provider that insertion is not recommended if a serious problem is suspected.

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A history of recent or recurrent PID **not** associated with pregnancy or abortion strongly suggests the woman is at risk for GTIs and other STDs.

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Sexually transmitted GTIs, with the exception of trichomoniasis, can increase a woman's risk for PID and subsequent infertility.

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Marked distortions of the uterine cavity (any congenital or acquired uterine abnormality) can cause difficulties in insertion, increase the possibility of IUD expulsion and decrease effectiveness.

# INTRAUTERINE DEVICES

## - CONDITIONS REQUIRING PRECAUTIONS

CONDITION	PRECAUTION
<b>Trophoblast disease</b>	Women with malignant trophoblast disease should not use an IUD. (WHO class 4)  Women with benign trophoblast disease should avoid using IUDs unless other more appropriate methods are not available or acceptable. (WHO class 3)
<b>Tuberculosis (known pelvic TB)</b>	Women with <b>known</b> pelvic TB should not use an IUD. (WHO class 4)
<b>Genital tract cancer (cervical, endometrial or ovarian)</b>	Women with genital tract cancer should not use an IUD prior to treatment. (WHO class 4)
A woman who has <b>more than one sexual partner</b> or whose partner has more than one sexual partner	Use of an IUD should be avoided unless other more appropriate methods are not available or acceptable. (WHO class 3)  If she elects to use an IUD, she (or her partner) should use a barrier method as well.

## RATIONALE

Increased risk of uterine perforation with insertion and possible need for multiple uterine curettages make an IUD an unwise choice.

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Use of an IUD may increase risk of secondary infection and uterine bleeding.

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Although genital tract cancers, especially ovarian and endometrial, are very uncommon in women of reproductive age, use of an IUD prior to treatment may increase the risk of PID and bleeding, which may make the condition appear to be worse.

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Women at risk of GTIs and other STDs are more likely to develop PID if they have an IUD.

# INTRAUTERINE DEVICES

## PROBLEMS REQUIRING ACTION

PROBLEM	ACTION
<b>Cervical stenosis</b> (narrowing of cervical canal)	Counsel the client about this problem. If indicated, refer client to a center where cervical dilation with local anesthesia is available if client chooses to have an IUD. (WHO class 2)
<b>Anemia</b> (hemoglobin < 9 g/dl or hematocrit < 27)	Choose IUD only if it is the best overall method for the client. <sup>3</sup> If, after counseling, a copper-releasing IUD is still client's choice, she will require treatment for anemia. (WHO class 2)
<b>Painful menstrual periods</b>	Counsel client to be certain she understands potential problems with having an IUD. IUDs (except progestin-releasing) should not be the first choice. (WHO class 2)
<b>Simple vaginal infection</b> (candidiasis or bacterial vaginosis) without cervicitis	If a simple vaginal infection is present, treat and recheck before IUD is inserted. (WHO class 2)
<b>Symptomatic valvular heart disease</b>	Women with <b>symptomatic</b> valvular heart disease should receive antibiotic prophylaxis at the time of insertion. (WHO class 2)

<sup>3</sup> Blood loss is increased by 50% with inert IUDs such as the Lippes Loop (Size D).

## RATIONALE

Severe narrowing of the cervical canal (entrance into the uterus) may make IUD insertion and removal more difficult and painful.

If client requests an IUD, local anesthesia (paracervical block) may be required and only an **experienced** and **skilled provider** should attempt insertion.

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The slightly increased menstrual blood loss from the copper-releasing IUD usually will not worsen anemia.<sup>3</sup> (Conditions such as thalassemia or sickle cell disease and treatment with anticoagulants may increase blood loss during the first few months, making anemia worse.)

**Note:** Progestin-releasing IUDs can be used as they reduce blood loss.

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In the presence of an IUD, menstrual cramping (dysmenorrhea) may be increased due to the release of prostaglandin.

**Note:** Progestin-releasing IUDs can be used as they reduce menstrual cramping.

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During IUD insertion, the IUD can carry microorganisms from the vagina into the uterine cavity. Women with an untreated vaginal infection are more likely to develop pelvic infection during the first month after IUD insertion. (Use of recommended infection prevention practices can minimize this risk. See **Infection Prevention** chapter.)

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During insertion, the IUD can carry microorganisms from the vagina into the uterine cavity. Women with **symptomatic** rheumatic heart disease should be treated with antibiotics before insertion to prevent infection.<sup>4</sup>

Neither IUD insertion nor removal, however, cause sufficient bacteremia to promote endocarditis among women with **asymptomatic** congenital or rheumatic valvular disease.

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<sup>4</sup> Appropriate prophylactic antibiotics include:

- Amoxicillin 3.0 g orally 1 hour before procedure, then 1.5 g 6 hours after the initial dose
- Erythromycin stearate 1.0 g orally 2 hours before the procedure, then 500 mg 6 hours after the initial dose (for persons allergic to amoxicillins)

**Note:** Tetracyclines, including doxycycline, are **not** effective.

# INTRAUTERINE DEVICES

## - MANAGEMENT OF SIDE EFFECTS

SIDE EFFECT	ASSESSMENT
<b>Amenorrhea</b> (absence of vaginal bleeding or spotting) <sup>5</sup>	<p>Ask client:</p> <ul style="list-style-type: none"><li>• when she had her last menstrual period (LMP),</li><li>• when she last felt IUD strings, and</li><li>• if she has symptoms of pregnancy.</li></ul> <p>Check for pregnancy (intrauterine or ectopic) by history, checking symptoms and performing a pelvic examination (speculum and bimanual) or a pregnancy test, if indicated and available.</p> <p>Perform pelvic (speculum and bimanual) examination to check for strings.</p>
<b>Irregular bleeding</b> (with or without symptoms of pregnancy)	<p>Perform abdominal and pelvic (speculum and bimanual) examinations to check for infection, pelvic pain or tenderness, palpable adnexal mass or enlarged uterus (consistent with pregnancy).</p>

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<sup>5</sup> Oligomenorrhea (menstrual interval > 35 days) and secondary amenorrhea (menstrual interval greater than 3 months) can occur with progestin-releasing IUDs (Progestasert and LevoNova). Therefore, be sure to ask the client what type of IUD she has.

## MANAGEMENT

If client has progestin-releasing IUD, explain that amenorrhea can occur and blood does not build up inside her uterus or body.

If client is over 45, explain that amenorrhea could be related to menopause.

If **not pregnant**, do not remove IUD. Provide counseling and reassurance. Refer for investigation to identify the cause of amenorrhea, if client remains concerned.

If **pregnancy less than 13 weeks** (by LMP or examination) and strings visible, explain that IUD should be removed to minimize risk of pelvic infection. If client agrees, remove IUD. Advise her to return to clinic if she has excessive bleeding, cramping, foul discharge or fever (possible threatened or incomplete abortion).

Do not attempt to remove IUD if:

- strings are not visible, or
- pregnancy greater than 13 weeks (by LMP or examination).

If **client is pregnant** and wishes to continue pregnancy but does not want IUD removed, advise her of increased risk of miscarriage (spontaneous abortion) and infection and that pregnancy should be followed closely.

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If **ectopic pregnancy** is suspected, refer for complete evaluation. Ectopic pregnancy must be suspected in clients with irregular bleeding or abdominal pain.

If **infection** suspected, see **Pelvic Infection** in this chapter.

# INTRAUTERINE DEVICES

## MANAGEMENT OF SIDE EFFECTS

SIDE EFFECT	ASSESSMENT
<b>Bleeding</b> (prolonged or heavy bleeding)  Prolonged bleeding: (> 8 days)  Heavy bleeding: (twice as long or twice as much as normal)	Perform pelvic examination (speculum and bimanual) to be sure client does not have: <ul style="list-style-type: none"><li>• Intrauterine or ectopic pregnancy</li><li>• Incomplete abortion</li><li>• Vaginal, cervical or pelvic infection</li></ul> Ask client how much she has bled. <ul style="list-style-type: none"><li>• Check for signs of marked anemia (pale conjunctiva or nail beds, low hemoglobin/hematocrit [<math>&lt; 9</math> g/dl Hb or <math>&lt; 27</math> Hct]).</li></ul>
<b>Cramping</b>	Perform abdominal and pelvic (speculum and bimanual) examinations to check for PID and other causes of cramping, such as partial expulsion of the IUD, cervical or uterine perforation, or ectopic pregnancy.
<b>Partner complains about strings</b>	Check to be sure that IUD is in place (i.e., not partially expelled).

## MANAGEMENT

### Client has had IUD less than 3 months:

- If examination is normal, reassure and give iron tablets ( $\text{FeSO}_4$ , 1 tablet containing at least 100 mg elemental iron, daily for 1 to 3 months). Ask client to return in 3 months for another check. Use locally approved drugs, such as ibuprofen (800 mg 3 times daily for 1 week), during bleeding episode, if available, to decrease bleeding.
- If examination is normal and bleeding interval short (less than 3 weeks), suspect anovulation; if longer intervals (more than 6 weeks) suspect delayed ovulation; or if hot flashes, suspect menopause (if age over 45) or other gynecologic endocrine problem. Refer to specialist for further evaluation.
- If bimanual examination shows enlarged or irregular uterus due to fibroids, tell client of the problem and refer for evaluation. Remove the IUD if bleeding worsens and client is anemic or requests removal, and help client choose another method.

### Client has had IUD more than 3 months:

If marked anemia present, recommend removal and help client choose another method. If IUD is inert (Lippes Loop) and IUD is still client's choice, remove current IUD and insert a copper- or progestin-releasing IUD; give 3 months of iron tablets and re-examine in 3 months. If client already has copper IUD (and progestin-releasing IUD not available), remove IUD and help client choose another method.

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If cramping is new or more severe and cause found (such as PID), remove the IUD and treat accordingly.

If **no cause** found and cramping **not** severe, reassure client and provide analgesic, such as ibuprofen.

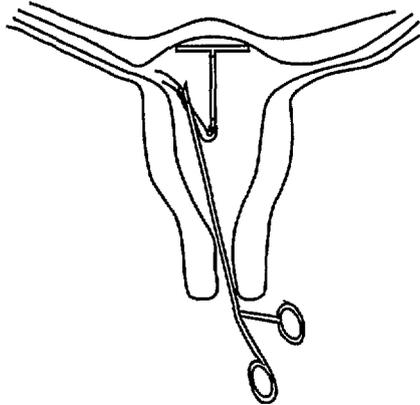
If **no cause** found but cramping severe, remove the IUD. If there is **no** evidence of infection, replace with a new IUD (progestin-releasing, if available) or help client choose another method.

---

Counsel client that one option is to cut strings even with cervical os and inform client that she will no longer be able to feel strings. Record this in the client's chart so that when she returns for removal, the service provider will know that the strings were cut even with the cervix.

# INTRAUTERINE DEVICES

## MANAGEMENT OF OTHER PROBLEMS

PROBLEM	ASSESSMENT
Missing strings	Ask the client whether she knows if the IUD has come out (been expelled).
	<p>If client does not know if IUD was expelled, ask her:</p> <ul style="list-style-type: none"><li>• When she had her LMP</li><li>• When she last felt the strings</li><li>• If she has any symptoms of pregnancy</li><li>• If she used a backup method (e.g., condom) from the time she noticed the missing strings</li></ul> <p>Check for pregnancy by symptoms, physical examination or pregnancy test, if indicated and available.</p> <p>If she returns with delayed (&gt; 4 weeks) menses, check for pregnancy.</p> <p>If she returns while menstruating and strings still are <b>not visible</b>, rule out lost IUD or perforation.</p>

## MANAGEMENT

If client knows the IUD fell out, check for pregnancy. If not pregnant, insert new IUD, or provide backup method and insert new IUD during her next period.

If examination reveals possible ectopic pregnancy, refer to appropriate facility for complete evaluation.

If examination reveals pregnancy, see management under **Amenorrhea** above.

If strings are **not** found by carefully probing the cervical canal, client should use a nonhormonal contraceptive method and return with menses or in 4 weeks if her period does not start. Strings may come down with menses. If strings are seen at that time, reassure client and help her feel them.

If client is **not** pregnant and no strings are seen on vaginal examination, it may mean that the IUD has fallen out, perforated the uterus (i.e., is outside the uterine cavity) or the strings are up inside the uterine cavity. Check for location of IUD by carefully sounding the uterus or by x-ray or ultrasonography.

If IUD **not** found, it may have been expelled without the client being aware. Insert another IUD or help client choose another method.

If IUD found to be in the uterine cavity and client wants to continue using an IUD, reassure client and either arrange for yearly followup, attempt to retrieve just the strings from the uterine cavity or remove the IUD and insert a new one.

If IUD found to be **outside** uterine cavity, the decision to remove it should be based on clinic guidelines (how long IUD in place, type of IUD, availability of physician with experience in removal, etc.). Tell the client that she is no longer protected from pregnancy and help her choose another method.

# INTRAUTERINE DEVICES

## MANAGEMENT OF OTHER PROBLEMS

PROBLEM	ASSESSMENT
<b>Pelvic infection</b> (cramping accompanied by abdominal tenderness, fever, flu-like symptoms, headache, chills, nausea or vomiting, vaginal discharge, painful intercourse, palpable pelvic mass)	Perform abdominal and pelvic (speculum and bimanual) examinations and GTI testing if available (see <b>STD</b> chapter).
<b>Vaginal discharge</b>	<p>Check history for exposure to GTIs and other STDs (e.g., HBV, HIV/AIDS) and examine for vaginitis, purulent cervicitis or beefy red cervix.</p> <p>Examine saline and KOH wet mounts of vaginal discharge for trichomonas, monilia (candida) and Gardnerella (see <b>STD</b> chapter).</p> <p>Prepare Gram stain of vaginal or cervical discharge. Observe for Gram negative intracellular diplococci (GNIDs) and WBC (PMNs) (see <b>STD</b> chapter).</p>

## MANAGEMENT

If abdominal and pelvic examinations confirm uterine or adnexal tenderness or microscopic testing supports diagnosis of PID, remove the IUD and treat with antibiotics.

If diagnosis equivocal, treat with antibiotics without removing IUD. Observe carefully for results of antibiotic treatment.

If diagnosis equivocal but client followup is not possible, remove IUD and treat with antibiotics.

If urethritis suspected, check Gram stain of urethral discharge.

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Obtaining accurate history will facilitate diagnosis and treatment.

If saline or KOH wet mounts are positive, treat appropriately for specific organism.

If cervicitis (mucopus or beefy red cervix), check Gram stain of cervical discharge.

If positive for GNIDs, treat for gonorrhea. If negative for GNIDs and purulent cervicitis or beefy red cervix, treat for chlamydia. Obtain GC culture if available.

Remove IUD if gonorrhea or chlamydia is confirmed or strongly suspected.

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# INTRAUTERINE DEVICES

## MANAGEMENT OF PROBLEMS DURING INSERTION OR REMOVAL

### PROBLEM

**Fainting (syncope), slow heart rate (bradycardia) or vasovagal episode** during IUD insertion or removal

### ASSESSMENT

Is woman extremely anxious?

Does she have a small uterus or cervical stenosis?

(These characteristics increase risk for fainting and/or vasovagal reaction.)

---

## MANAGEMENT

Every step of IUD insertion and removal should be done **slowly** and **gently**, with an explanation of each step to the client. Other suggestions include:

- If available, an analgesic (aspirin, acetaminophen or ibuprofen) may reduce pain associated with IUD insertion or removal. Provide 30 minutes prior to procedure and for 24 hours afterwards.
- Maintain a calm, relaxed, unhurried atmosphere and a gently reassuring approach to the client.
- At the earliest sign of fainting, stop the insertion and put a cool, wet cloth to the client's forehead.
- If severe pain occurs as the IUD is being inserted, complete the insertion and leave the IUD in the uterine cavity. Allow the client to rest. Keep the client lying down with her head lowered and legs elevated to ensure adequate blood flow.
- Remove IUD if pain persists and is not relieved by analgesics or if client requests removal. Help her choose another method.

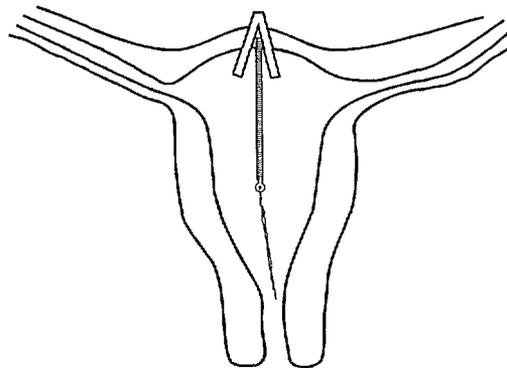
### **If fainting occurs:**

- Turn client's head and shoulders to one side so that if she vomits she will not inhale any stomach contents.
- Maintain a clear airway by supporting the chin. (Do not hyperextend the neck.) Loosen any tight clothing, especially around the neck.
- Avoid overtreatment; observation and support usually are all that are required. Use analgesics for abdominal pain/cramping.

# INTRAUTERINE DEVICES

## MANAGEMENT OF PROBLEMS DURING INSERTION OR REMOVAL

PROBLEM	ASSESSMENT
<b>Suspected uterine perforation</b> (during uterine sounding or IUD insertion)	Client complains of suddenly significant pain during procedure.  (Uterine sound or loaded IUD inserter tube passes into uterus beyond 9–10 cm without fundal resistance being felt.)



## MANAGEMENT

Stop the procedure (and remove the IUD if inserted). Observe for signs of intra-abdominal bleeding (e.g., falling BP, rising pulse, severe abdominal pain, tenderness, guarding and rigidity).<sup>5</sup>

Take BP and pulse every 15 minutes for 90 minutes. Have client sit up rapidly from a resting position. If pulse greater than 120/min or client becomes dizzy (light-headed) on sitting up, manage or refer for further evaluation of possible intra-abdominal bleeding.

If no signs of intra-abdominal bleeding after 2 hours, discharge with instructions for warning signs which require immediate return to clinic (see **Client Instructions** chapter). Schedule return checkup in 1 week.

Provide backup contraceptive method and help client choose another method.

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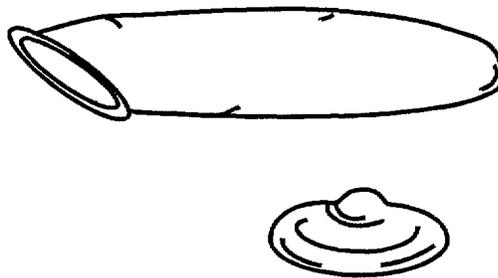
<sup>5</sup> If intra-abdominal bleeding is suspected, stabilize (with IVs) and refer (if necessary) for further evaluation and possible surgery.

# BARRIERS AND SPERMICIDES

## CONDOMS (MALE)

### COUNSELING OUTLINE

METHOD	APPROPRIATE FOR
<p>Thin sheaths made of rubber, vinyl or natural products which may be treated with a spermicide for added protection. They are placed on the penis once it is erect.</p> <p>Condoms differ in such qualities as shape, color, lubrication, thickness, texture and addition of spermicide (usually nonoxynol-9).</p> <p><i>Types</i></p> <p>Latex (rubber)</p> <p>Plastic (vinyl)</p> <p>Natural (animal products)</p> <p><i>Mechanisms of Action</i></p> <ul style="list-style-type: none"><li>• Prevent sperm from gaining access to female reproductive tract</li><li>• Prevent microorganisms (GTIs and other STDs) from passing from one partner to another (latex and vinyl condoms only)</li></ul>	<p>Men who wish to participate actively in family planning</p> <p>Couples who need contraception <b>immediately</b></p> <p>Couples needing a <b>temporary</b> method while awaiting another method (e.g., implants, IUD or voluntary sterilization)</p> <p>Couples needing a <b>backup</b> method</p> <p>Couples who have <b>intercourse infrequently</b></p> <p>Couples in which either partner has <b>more than one sexual partner</b>, even if using another method</p> <p>Women/men at risk for GTIs and other STDs (e.g., HBV, HIV/AIDS)</p>



## METHOD CHARACTERISTICS

BENEFITS	LIMITATIONS
Effective immediately	Moderately effective (2–12 pregnancies per 100 women during the first year of use)
Do not affect breastfeeding	
Can be used as backup to other methods	Effectiveness as contraceptives depends on willingness to follow instructions
No method-related health risks	User-dependent (require continued motivation and use with each act of intercourse)
No systemic side effects	
Widely available (pharmacies and community shops)	May reduce sensitivity of penis, making maintenance of erection more difficult
No prescription or medical assessment necessary	Disposal of used condoms may be a problem
Inexpensive (short-term)	Adequate storage must be available at client's home
<i>Noncontraceptive Benefits</i>	
Promote male involvement in family planning	Supplies must be readily available before intercourse begins
<b>Only family planning method that provides protection against GTIs and other STDs (latex and plastic condoms only)</b>	Resupply must be available
May prolong erection and time to ejaculation	
May help prevent cervical cancer	

# BARRIERS AND SPERMICIDES

## CONDOMS (MALE)

### PROBLEMS REQUIRING ACTION

<b>PROBLEM</b>	<b>ACTION</b>
Allergy to rubber or spermicides	Help client with allergy choose another method. (WHO class 3)
Couple/woman wants more effective protection against pregnancy	Help client choose another method.
Woman's age, parity or health problems make pregnancy a high risk	Help client choose another method.
Couple/woman wants a method not related to intercourse	Help client choose a noncoitus-related method, such as pills, injectables, implants, IUDs or voluntary sterilization.
Not willing to use consistently	Counsel about importance of consistent use. Help client choose another method.

### RATIONALE

Allergic reactions, although uncommon, can be uncomfortable and possibly dangerous.

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Condoms, when used alone, are only about 88–98% effective. If condoms are not used correctly (i.e., with each act of intercourse), failure rates are even higher.

---

If pregnancy will expose the client to high risks, then a more effective method should be considered or the couple must agree to follow instructions strictly.

---

Method is both coitus-related and user-dependent. If client not willing to use with **each** act of intercourse, the method will fail.

---

Method is both coitus-related and user-dependent. If not used with **each** act of intercourse, the method will fail.

# BARRIERS AND SPERMICIDES

## CONDOMS (MALE)

### MANAGEMENT OF SIDE EFFECTS AND OTHER PROBLEMS



SIDE EFFECT/PROBLEM	ASSESSMENT
<b>Condom broken</b> or breakage suspected (before intercourse)	Check condom for a hole or demonstrable leak.
<hr/>	
<b>Condom breaks</b> or <b>slips off</b> during intercourse	
<hr/>	
<b>Suspected allergic reaction</b> (condom)	Rule out infection, allergic or mechanical reaction.
<hr/>	
<b>Suspected allergic reaction</b> (spermicide)	Rule out infection, allergic or mechanical reaction.
<hr/>	
<b>Local irritation</b> to the penis	Determine whether allergic or mechanical reaction present. Check for infection.
<hr/>	
<b>Diminished sexual pleasure</b>	One or both partners complain(s) of decreased pleasure or sensation during intercourse.

## MANAGEMENT

Discard and use new condom or use spermicide in conjunction with condom.

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If condom breaks or leakage is suspected, consider using a method of emergency contraception (see **Emergency Contraception** chapter).

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Allergic reactions, although uncommon, can be uncomfortable and possibly dangerous. If allergy, help the client choose another method.

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Allergic reactions, although uncommon, can be uncomfortable and possibly dangerous. If symptoms persist after intercourse and no evidence of GTI, provide another spermicide or a nonmedicated condom or help client choose another method.

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If allergic reaction apparent, ensure that condom is **not** medicated. If reaction persists, then consider natural condoms (lambskin or gut) or another method.

**Note:** Natural condoms do not provide protection against GTIs or other STDs (e.g., HBV, HIV/AIDS) and should not be used by those at risk.

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If decreased sensitivity is not acceptable even with thinner condoms, help client choose another method.

# BARRIERS AND SPERMICIDES

## DIAPHRAGMS

### COUNSELING OUTLINE

METHOD	APPROPRIATE FOR
 A dome-shaped latex (rubber) cup which is inserted into the vagina <b>before</b> intercourse and covers the cervix	Women who prefer <b>not</b> to use hormonal methods or who should not use them (e.g., smokers over 35 years of age)
<i>Types</i>	Women who prefer <b>not</b> to or should not use IUDs
Flat spring (flat metal band)	Women who are breastfeeding and need contraception
Coil spring (coiled wire)	Women wanting protection from GTIs and other STDs and whose partners will not use condoms
Arching spring (combination metal spring)	Women wanting protection from GTIs and other STDs and whose partners will not use condoms
<i>Mechanism of Action</i>	
Prevent sperm from gaining access to upper reproductive tract (uterus and fallopian tubes) and serve as holder of spermicide	Couples needing a temporary method while awaiting another method
	Couples needing a <b>backup</b> method
	Couples who have <b>intercourse infrequently</b>
	Couples in which either partner has more than one sexual partner, even if using another method

## METHOD CHARACTERISTICS

### BENEFITS

Effective immediately

Do not affect breastfeeding

Do not interfere with intercourse (may be inserted up to 6 hours before)

No method-related health risks

No systemic side effects

#### *Noncontraceptive Benefits*

Some protection against GTIs and other STDs (e.g., HBV, HIV/AIDS) especially when used with spermicide

Contain menstrual flow when used during menses

### LIMITATIONS

Moderately effective (6–18 pregnancies per 100 women during the first year of use if used with spermicide)

Effectiveness as contraceptives depends on willingness to follow instructions

User-dependent (require continued motivation and use with each act of intercourse)

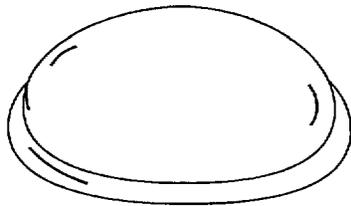
Pelvic examination by trained service provider (may be nonphysician) required for initial fitting and postpartum refitting

Associated with urinary tract infections in some users

Must be left in place for 6 hours after intercourse

Supplies must be readily available before intercourse begins

Resupply must be available (spermicide required with each use)



# BARRIERS AND SPERMICIDES

## DIAPHRAGMS

### CONDITIONS REQUIRING PRECAUTIONS

CONDITION	PRECAUTION
<b>History of Toxic Shock Syndrome (TSS)</b>	Women with a history of TSS should avoid using the diaphragm unless other more appropriate methods are not available or acceptable. (WHO class 3)
<b>Repeated urinary tract infections (UTIs)</b>	Advise client to empty her bladder (void) immediately after intercourse. Consider single dose prophylactic antibiotic with intercourse. If condition does not improve, help client choose another method.
<b>Uterine prolapse (uterus protruding into the vagina)</b>	Help client choose another method.
<b>Severe cystocele or rectocele (bulging of the walls of the bladder or rectum into the vagina)</b>	Determine the extent of defect. Examine carefully after fitting to ensure that the diaphragm can be retained. Ask client to strain (push down) with the diaphragm in place to see if it is displaced.
<b>Vaginal stenosis (narrowing of the vaginal canal)</b>	Examine carefully after fitting to see that client can insert the diaphragm properly. Client may need to choose another method.
<b>Genital anomalies</b>	Ensure that condition does not interfere with use. If it does, help client choose another method.

### RATIONALE

Toxic shock syndrome has been associated with diaphragm use and women with a history of TSS are at increased risk.



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Occasionally, the diaphragm causes urinary tract infections (UTIs) in some clients. This may be due to pressure on the urethra produced by the device. Often the symptoms (urinary frequency and burning) are not due to a UTI but to urethral irritation.

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Uterine prolapse can cause difficulties in insertion and correct positioning of the diaphragm, increase the possibility of expulsion and decrease its effectiveness.

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Pelvic relaxation may prevent proper placement of the diaphragm, increase the possibility of expulsion and decrease its effectiveness.

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Vaginal stenosis (acquired or congenital) may make proper fitting and placement of the diaphragm difficult, increase the possibility of expulsion and decrease its effectiveness.

---

If abnormalities present, they may make fitting/insertion of diaphragm difficult. If diaphragm is not placed correctly, the method will fail.

# BARRIERS AND SPERMICIDES

## DIAPHRAGMS

### PROBLEMS REQUIRING ACTION



PROBLEM	ACTION
Woman with <b>physical disability</b> or who <b>finds it unpleasant to touch her genitals</b>	Counsel to explore problem. Ensure that client can insert diaphragm properly. If discomfort is severe or client cannot overcome touching her genitals, help her choose another method.
<b>Allergy</b> to rubber or spermicides	Help client with allergy choose another method. (WHO class 3)
Couple/woman who <b>wants more effective protection</b> against pregnancy	Help client choose another method.
Woman's age, parity or health problems make pregnancy a high risk	Help client choose another method.
Couple/woman wants a <b>method not related to intercourse</b>	Help client choose a noncoitus-related method, such as pills, injectables, implants, IUDs or voluntary sterilization.
Woman <b>does not want any inconvenience</b>	Help client choose another method.
<b>Not willing to use consistently</b>	Counsel about importance of consistent use. Help client choose another method.
Soap and water not easily available	If no facilities for cleaning are available help client choose another method.
Repeated intercourse over several hours	Apply more spermicide with each sexual act (do not remove diaphragm).

## RATIONALE

Diaphragm use requires confidence in manipulating and palpating genitals (vulva and vagina). If diaphragm cannot be inserted properly, the method will fail.



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Allergic reactions, although uncommon, can be uncomfortable and possibly dangerous.

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Diaphragm, even when used with spermicide, is only about 82–94% effective. If it is not used correctly (i.e., with each act of intercourse), failure rates may be even higher.

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If pregnancy will expose the client to high risks, then a more effective method should be considered or the couple must agree to follow instructions strictly.

---

Method is both coitus-related and user-dependent. If client not willing to use with **each** act of intercourse, the method will fail.

---

Method is both coitus-related and user-dependent. If it is not used with **each** act of intercourse, the method will fail.

---

Method is both coitus-related and user-dependent. If it is not used with **each** act of intercourse, the method will fail.

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Diaphragm should be gently cleaned with soap and water and allowed to dry between uses. (Powder or talc should not be used as drying agents.)

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Each application of spermicide is only effective for 1–2 hours. (Check instructions with each spermicide preparation for specific information on the duration of effectiveness and re-application.)

# BARRIERS AND SPERMICIDES

## DIAPHRAGMS

### MANAGEMENT OF SIDE EFFECTS



<b>SIDE EFFECT</b>	<b>ASSESSMENT</b>
<b>Toxic shock syndrome (TSS)</b>	Examine for signs/symptoms of TSS (e.g., fever, rash, nausea, vomiting, diarrhea, conjunctivitis, weakness, decreased blood pressure and shock).
<b>Urinary tract infections (UTIs)</b>	Urinalysis: > 10 WBC/high power field in unconcentrated specimen  Culture: > 100,000 organisms/ml
<b>Suspected allergic reaction (diaphragm)</b>	Symptoms of vaginal irritation, especially after intercourse, and no evidence of GTI
<b>Suspected allergic reaction (spermicide)</b>	Symptoms of vaginal irritation, especially after intercourse, and no evidence of GTI.
<b>Pain from pressure on bladder or rectum</b>	Client complains of vaginal discomfort. Vaginal ulcerations are noted on examination.
<b>Vaginal discharge and odor if left in place for more than 24 hours</b>	Check for GTI or foreign body in vagina (tampon, etc.).
<b>Vaginal lesion caused by diaphragm rim pushing against vaginal wall</b>	Examine vagina for lesion, especially anterior wall (injury caused during removal).

## MANAGEMENT

When used properly, **the risk of TSS among diaphragm users is very low**. Clients should know how to use method properly and be aware of warning signs.

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If TSS is suspected, refer client to center where intravenous fluids and antibiotics are available. Give oral rehydration as needed and a non-narcotic analgesic (NSAID or aspirin) if fever is high ( $> 38^{\circ}\text{C}$ ).

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Treat with appropriate antibiotic. If client has frequent UTIs and diaphragm remains her first choice for contraception, advise emptying bladder (voiding) immediately after intercourse. Offer client postcoital prophylactic (single dose) antibiotic. Otherwise, help client to choose another method.

---

Allergic reactions, although uncommon, can be uncomfortable and possibly dangerous. If allergy, help client choose another method.

---

Allergic reactions, although uncommon, can be uncomfortable and possibly dangerous. Provide another spermicide or help client choose another method.

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Assess diaphragm fit. If current device is too large, fit with smaller device. Follow up to be sure problem is solved.

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If no GTI or foreign body, advise client to remove diaphragm as early as is convenient after intercourse, but **not** less than 6 hours after last act. If symptoms recur, counsel regarding vaginal hygiene. (Diaphragm should be gently cleaned with mild soap and water after removal. Powder or talc should **not** be used when storing diaphragm.)

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If GTI, manage as appropriate (see **STDs and Family Planning** chapter).

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Temporarily stop use and provide a backup method. When healed, check diaphragm fit (may be too large).

# BARRIERS AND SPERMICIDES

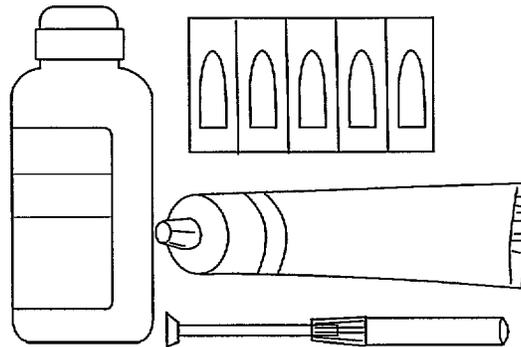
## SPERMICIDES

### COUNSELING OUTLINE

METHOD	APPROPRIATE FOR
Chemicals (usually nonoxynol-9) that inactivate or kill sperm	Women who prefer <b>not</b> to use hormonal methods or should <b>not</b> use them (e.g., smokers over 35 years of age)
<i>Types</i>	
Aerosol (foams)	Women who prefer <b>not</b> to or should not use IUDs
Vaginal tablets, suppositories or dissolvable film	Women who are breastfeeding and need contraception
Creams	Women wanting protection from GTIs and other STDs and whose partners will not use condoms
<i>Mechanism of Action</i>	
Cause the sperm cell membrane to break, which decreases sperm movement (motility and mobility) and their ability to fertilize the egg	Couples needing a temporary method while awaiting another method Couples needing a <b>backup</b> method
<i>Selection</i>	Couples who have <b>intercourse infrequently</b>
<ul style="list-style-type: none"><li>• Aerosols (foams) effective immediately after insertion.</li><li>• Aerosols are recommended if spermicide is to be used as the <b>only</b> contraceptive method.</li><li>• Foaming vaginal tablets and suppositories are convenient to carry and store but require waiting 10–15 minutes <b>after</b> insertion before intercourse.</li><li>• Melting vaginal suppositories also require waiting 10–15 minutes <b>after</b> insertion before intercourse.</li><li>• Spermicidal jellies usually used <b>only</b> with diaphragms.</li></ul>	

**METHOD CHARACTERISTICS**

<b>BENEFITS</b>	<b>LIMITATIONS</b>
Effective immediately (foams and creams)	Moderately effective (3–21 pregnancies per 100 women during the first year of use)
Do not affect breastfeeding	
Can be used as backup to other methods	Effectiveness as contraceptives depends on willingness to follow instructions
No method-related health risks	User-dependent (require continued motivation and use with each act of intercourse)
No systemic side effects	
Easy-to-use	User must wait 10–15 minutes after application before intercourse (vaginal foaming tablets, suppositories and film)
Increase wetness (lubrication) during intercourse	
No prescription or medical assessment necessary	Each application is effective only for 1–2 hours
<i>Noncontraceptive Benefits</i>	Supplies must be readily available before intercourse begins
Some protection against GTIs and other STDs (e.g., HBV, HIV/AIDS)	Resupply must be available



# BARRIERS AND SPERMICIDES

## SPERMICIDES

### PROBLEMS REQUIRING ACTION

PROBLEM	ACTION
Woman with <b>physical disability</b> or who finds it <b>unpleasant to touch her genitals</b>	Counsel to explore problem. Ensure that client can apply spermicide. If discomfort is severe or client cannot overcome touching her genitals, help her choose another method.
<b>Genital anomalies or other abnormalities</b>	Ensure that condition does not interfere with use. If it does, help client choose another method.
<b>Allergy</b> to spermicidal agents	Help clients with allergy choose another method.
Woman who <b>does not want any inconvenience</b>	Help client choose another method.
Woman's age, parity or health problems make pregnancy a high risk	Help client choose another method.
Couple/woman who <b>wants more effective protection</b> against pregnancy	Help client choose another method.
Couple/woman <b>not willing to use consistently</b>	Counsel about importance of consistent use. Help client choose another method.
<b>Repeated intercourse</b> over several hours	Apply more spermicide with each act of intercourse.

### RATIONALE

Spermicide use requires touching the genitals (vulva and vagina). If spermicide is not placed deep in the vagina, the method will fail.

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Vaginal stenosis (narrowing of vaginal canal) is uncommon and other congenital abnormalities (double vagina) are rare. If present, they may make application of spermicide difficult. If spermicide is not placed deep in the vagina, the method will fail.

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Allergic reactions, although uncommon, can be uncomfortable and possibly dangerous.

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Method is both coitus-related and user-dependent. If it is not used with **each** act of intercourse, the method will fail.

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If pregnancy will expose the client to high risks, then a more effective method should be considered or the couple must agree to follow instructions strictly.

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Spermicide, when used alone, is only about 79–97% effective. If not used correctly (i.e., with each act of intercourse), failure rates may be even higher.

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Method is both coitus-related and user-dependent. If it is not used with **each** act of intercourse, the method will fail.

---

Each application of spermicide is only effective for 1 to 2 hours. (Check instructions with each spermicide preparation for specific information on the duration of effectiveness and re-application.)

# BARRIERS AND SPERMICIDES

## SPERMICIDES

### MANAGEMENT OF SIDE EFFECTS

SIDE EFFECT	ASSESSMENT
Vaginal irritation	Check for vaginitis and GTIs.
Penile irritation and discomfort	Check for GTIs.
Heat sensation in the vagina is bothersome	Check for allergic or inflammatory reaction.
Vaginal foaming tablets fail to melt	If requested by client, check for undissolved tablet after insertion.

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### MANAGEMENT

If caused by spermicide, switch to another spermicide with a different chemical composition or help client choose another method.

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If caused by spermicide, switch to another spermicide with a different chemical composition or help client choose another method.

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Reassure that warm sensation is normal. If still concerned, switch to another spermicide with a different chemical composition or help client choose another method.

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Select another type of spermicide with different chemical composition or help client choose another method.

# NATURAL FAMILY PLANNING (NFP)

## COUNSELING OUTLINE

METHOD	APPROPRIATE FOR
A couple voluntarily avoids sexual intercourse during the fertile phase of the woman's cycle (time when the woman can become pregnant) or has intercourse during the fertile phase to achieve pregnancy	<b>For Contraception</b> Women of any reproductive age Women of any parity, including nulliparous women
<b>Methods<sup>1</sup></b>	Couples with religious or philosophical reasons for not using other methods
Calendar Method	Women unable to use other methods
Basal Body Temperature (BBT)	Couples willing to abstain from intercourse for more than 1 week each cycle
Cervical Mucus Method (Billings)	Couples willing and motivated to observe, record and interpret fertility signs daily
Symptothermal (BBT + cervical mucus)	
<b>Mechanism of Action</b>	
<b>For Contraception</b>	
Intercourse is avoided during the phase of the menstrual cycle when conception is most likely.	
<b>For Conception</b>	<b>For Conception</b>
Intercourse is planned for near the mid-cycle (usually days 10–15), when conception is most likely.	Couples trying to achieve pregnancy

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<sup>1</sup> The methods are listed in order from the least effective to most effective at predicting the fertile phase.

## METHOD CHARACTERISTICS

### BENEFITS

### LIMITATIONS

Can be used to avoid or achieve pregnancy	Moderately effective (9–20 pregnancies per 100 women during the first year of use) <sup>2</sup>
No method-related health risks	
No systemic side effects	Effectiveness as a contraceptive depends on willingness to follow instructions
Inexpensive	
<i>Noncontraceptive Benefits</i>	Considerable training required to use the most effective types of NFP correctly
Promotes male involvement in family planning	Requires trained provider (nonmedical)
Improves knowledge of reproductive system	Requires abstinence during fertile phase to avoid conception
Possible closer relationship for couple	Requires daily record keeping
	Vaginal infections make cervical mucus difficult to interpret
	Basal thermometer needed for some methods
	Does not protect against GTIs or other STDs (e.g., HBV, HIV/AIDS)

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<sup>2</sup> Depending on the NFP method used, failure rates may be lower with consistent use.

# NATURAL FAMILY PLANNING (NFP)

## PROBLEMS REQUIRING ACTION

PROBLEM	ACTION
Couple desires a highly effective method	Help client choose another method.
Woman's age, parity or health problems make pregnancy a high risk	Help client choose another method.
Woman with irregular menstrual cycles (calendar method)	Counsel client that it will be more difficult to predict fertility using the calendar method and the risk of pregnancy may be higher. If this is not acceptable, help her choose another method.
Couple <b>unwilling</b> to limit intercourse to certain times in the cycle; woman whose partner will not cooperate	Help client choose another method.
Couple with poor communication or problems with their relationship	Help client choose another method.
Couple in which either partner has more than one sexual partner	Use condoms to protect against GTIs and other STDs (e.g., HBV, HIV/AIDS).
Woman who have persistent vaginal discharge	Counsel client that it will be more difficult to predict fertility using the cervical mucus method. If client wishes, help her choose another method.
Breastfeeding mother	Counsel client that it will be more difficult to predict fertility using the cervical mucus method. If client wishes, help her choose another method.
Woman who finds it unpleasant to touch herself and/or examine her mucus	Counsel client and help her choose another method, if appropriate.

## RATIONALE

NFP requires that couple **strictly** follow instructions. If instructions are not followed, higher failure rates may occur.

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If pregnancy will expose the client to high risks, then a more effective contraceptive method should be considered or the couple must agree to follow instructions strictly.

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If the menstrual cycle is irregular, then prediction of the fertile phase is difficult (calendar method).

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Requires complete cooperation of both partners, otherwise failure rates are very high.

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Requires good communication, cooperation and commitment, otherwise failure rates are very high.

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Women and men with more than one sexual partner are at high risk for GTIs and other STDs (e.g., HBV, HIV/AIDS). NFP provides no protection.

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For women who have persistent vaginal discharge, prediction of the fertile phase may be more difficult. Temperature (BBT) must be followed closely as cervical mucus changes may be difficult to interpret.

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In general, sex hormone levels (estrogen and progestin) are very low in breastfeeding women. Therefore, there is little cervical mucus. In addition, there is some evidence that the cervical mucus of breastfeeding women may appear to be fertile when it is not.

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For **maximum** effectiveness, the cervical mucus and symptothermal methods require that the client is comfortable examining her external genitals (labia and vagina). If not, reliance on cycle length (calendar method) and temperature (BBT) is possible but effectiveness may be reduced.

# NATURAL FAMILY PLANNING (NFP)

## MANAGEMENT OF SIDE EFFECTS

SIDE EFFECT	ASSESSMENT
Use of NFP causes a problem in the couple's relationship	Couple complains about prolonged periods of abstinence.

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## **MANAGEMENT**

**Help the couple identify alternative forms of sexual gratification to use during times of abstinence. If alternatives to intercourse are not acceptable, help them choose another method.**

# WITHDRAWAL (COITUS INTERRUPTUS)

## COUNSELING OUTLINE

### METHOD

Withdrawal is a traditional family planning method in which the man completely removes his penis from the woman's vagina **before** he ejaculates.

### *Mechanism of Action*

Sperm do not enter the vagina and fertilization is prevented.

### APPROPRIATE FOR

Men who wish to participate actively in family planning

Couples with religious or philosophical reasons for not using other methods

Couples who need contraception **immediately**

Couples needing a temporary method while awaiting another method

Couples needing a **backup** method

Couples who have intercourse infrequently

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## METHOD CHARACTERISTICS

### BENEFITS

Effective immediately

Does not affect breastfeeding

Can be used as backup to other methods

No method-related health risks

Always available

No cost involved

*Noncontraceptive Benefits*

Promotes male involvement in family planning

Possible closer relationship for couple

### LIMITATIONS

Effectiveness depends on willingness of couple to use withdrawal with every act of intercourse (4–18 pregnancies per 100 women during the first year of use)

Effectiveness may be further decreased by sperm from a recent (< 24 hours) ejaculation remaining in the penis (urethra)<sup>1</sup>

May diminish sexual pleasure

Does not protect against GTIs or other STDs (e.g., HBV, HIV/AIDS)



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<sup>1</sup> Instruct client to empty his bladder (void) immediately **before** each act of intercourse.

# WITHDRAWAL (COITUS INTERRUPTUS)

## PROBLEMS REQUIRING ACTION

PROBLEM	ACTION
Men who experience premature ejaculation	Help client choose another method.
Men who have difficulty withdrawing the penis from the vagina prior to ejaculation	Help client choose another method.
Men who have other physical or psychological conditions that may affect timely withdrawal	Help client choose another method.
Couple desires a highly effective method	Help client choose another method.
Woman's age, parity or health problems make pregnancy a high risk	Help client choose another method.
Woman whose partner will not cooperate	Help client choose another method.
Couple with poor communication or problems with their relationship	Help client choose another method.
Couple in which either partner has more than one sexual partner	Use condoms to protect against GTIs and other STDs (e.g., HBV, HIV/AIDS).

## RATIONALE

Because the time between penetration of the penis and ejaculation may be brief, consistent use of the method may be problematic. If it is not used consistently, failure rates will be very high.

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Requires complete cooperation of both partners, otherwise failure rates will be very high.

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If the man cannot withdraw his penis, the method will not be used correctly and failure rates will be very high.

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Requires that couple **strictly** follow instructions. If instructions are not followed, failure rates will be very high.

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If pregnancy will expose the client to health risks, then a more effective method should be considered or the couple must agree to follow instructions strictly.

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Requires complete cooperation of both partners, otherwise failure rates will be very high.

---

Requires good communication, cooperation and commitment.

---

Women and men with more than one sexual partner are at high risk for GTIs and other STDs (e.g., HBV, HIV/AIDS). Withdrawal provides no protection.



# NOTES

# VOLUNTARY STERILIZATION

There is no medical condition that would make a client ineligible for voluntary sterilization (VS). There are, however, conditions or circumstances which require precaution either for the timing of the procedure or selecting the facility where the procedure should be performed. At the WHO scientific working group meeting in 1995, a system specific to VS procedures was developed for assessing **how, when** and **where** they should be performed. While some conditions (e.g., severe hemorrhage following delivery) may necessitate delaying the VS procedure, others listed in the WHO guidelines do not require any action.

In this edition of the *PocketGuide* we have chosen to include only those conditions requiring precautions. As in the WHO guidelines, where delay is recommended, the VS procedure should not be performed until the condition is evaluated and/or corrected. In addition, we have listed those conditions that preclude performing the procedure in the ambulatory setting (see the **Client Assessment** chapter). For these conditions, referral to an appropriate facility where full backup and/or a more experienced physician is available may be necessary.

Because VS procedures are permanent, voluntary informed choice **must** be ensured. We have included some circumstances which indicate the need for further counseling. Also, national law must be considered in the decision-making process. Finally, if the VS procedure must be delayed (either to wait for the condition to resolve or for referral), a temporary method of contraception should be provided.

## CLIENT ISSUES

- The client has the right to change her/his mind anytime prior to the procedure.
- No incentives should be given to clients to accept VS.
- A standard consent form must be signed by the client before the VS procedure.
- Spousal consent is not mandatory.
- In mobile outreach VS programs, counseling and followup should be the same as at fixed sites and all recommended infection prevention practices should be followed.

# VOLUNTARY STERILIZATION

## TUBAL OCCLUSION

### COUNSELING OUTLINE

METHOD	APPROPRIATE FOR
Voluntary surgical procedure for permanently terminating fertility in women	Women of any reproductive age (usually < 45) or parity who want highly effective, permanent protection against pregnancy
<b>Methods</b>	Women for whom pregnancy would pose a serious health risk
Minilaparotomy (interval or postpartum)	Postpartum women
Laparoscopy (interval only)	Postabortion clients
<b>Mechanism of Action</b>	Women/couples who are certain they have achieved their desired family size
By blocking the fallopian tubes (tying and cutting, rings, clips or electrocautery), sperm are prevented from reaching ova and causing fertilization.	Women who understand and voluntarily consent to the procedure
<b>When to Perform</b>	
<ul style="list-style-type: none"><li>Anytime during the menstrual cycle you can be reasonably sure the client is not pregnant</li><li>Days 6–13 of the menstrual cycle (proliferative phase preferred)</li><li>Postpartum: within 2 days or after 6 weeks<sup>1</sup></li><li>Postabortion: immediately or within 7 days, provided no evidence of pelvic infection<sup>1</sup></li></ul>	

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<sup>1</sup> Laparoscopy is not appropriate until approximately 6–8 weeks following delivery or second trimester abortion (until uterus has returned to prepregnancy size).

## METHOD CHARACTERISTICS

### BENEFITS

### LIMITATIONS

Highly effective (0.2–0.4 pregnancies per 100 women during the first year of use <sup>2</sup> )	Must be considered permanent (not reversible)
Effective immediately	Client may regret later
Permanent	Small risk of complications (increased if general anesthesia used)
Does not affect breastfeeding	Short-term discomfort/pain following procedure
Does not interfere with intercourse	Requires trained physician (gynecologist or surgeon required for laparoscopy)
Good for client if pregnancy would pose a serious health risk	Laparoscope expensive
Simple surgery which usually is done under local anesthesia	Does not protect against GTIs or other STDs (e.g., HBV, HIV/AIDS)
No long-term side effects	
No change in sexual function (no effect on hormone production by ovaries)	
<i>Noncontraceptive Benefits</i>	
Decreases risk of ovarian cancer	

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<sup>2</sup> Recent data suggest that failure rates at 5 and 10 years are higher depending on the woman's age at the time of the procedure and the method of sterilization used.

# VOLUNTARY STERILIZATION

## TUBAL OCCLUSION

### CONDITIONS REQUIRING PRECAUTIONS

CONDITION	PRECAUTION
<b>Pregnancy</b> (known or suspected)	If the client is pregnant, counsel regarding options and risks before performing VS procedure.
<hr/>	
<b>Postpartum</b>	
<i>7 to 42 days</i> (6 weeks)	Delay procedure until after 6 weeks.
<i>Pre-eclampsia</i> (severe)	Delay procedure until recovered (> 6 weeks).
<i>Prolonged-rupture membranes</i> (> 24 hours)	Delay procedure until > 6 weeks.
<i>Intrapartum or postpartum sepsis</i>	Delay procedure until anemia improved (> 6 weeks).
<i>Severe hemorrhage</i> (> 500 ml)	Delay procedure until anemia improved (> 6 weeks).
<i>Trauma to genital tract</i> (cervical or vaginal tears)	Delay procedure until recovered (> 6 weeks).
<i>Uterine rupture or perforation</i>	Delay procedure until recovered (> 6 weeks).
<hr/>	
<b>Unexplained vaginal bleeding</b>	Delay procedure only if serious problem is suspected.
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<b>Acute pelvic infection</b> (PID including purulent cervicitis)	Delay procedure until resolved.

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### **RATIONALE**

Procedures performed early in pregnancy may be confused with failure. Also, use of uterine elevator may cause disruption of pregnancy and possible miscarriage (spontaneous abortion). In addition, the fallopian tubes in pregnancy are thickened and may not fit into sleeve of Falope ring applicator used in laparoscopy.

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Increased risk of complications when not done during first few days postpartum or before uterus has fully returned to prepregnancy size.

Increased risk of anesthesia-related problems if general anesthesia used.

Increased risk of serious postoperative infection.

Increased risk of serious postoperative infection.

Client may have been anemic before delivery and may be unable to tolerate risk of further blood loss.

Because client may have been anemic before delivery, she may not be able to tolerate the risk of further blood loss.

May have significant blood loss or other intra-abdominal trauma. If emergency surgery (laparoscopy or laparotomy) is required, tubal occlusion may be performed only if there is no additional risk.

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If serious problem suspected, evaluate (and treat) before surgery.

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If procedure is performed in presence of uterine, tubal or peritoneal infection, abscess formation or increased severity of infection may result.

# VOLUNTARY STERILIZATION

## TUBAL OCCLUSION

### CONDITIONS REQUIRING PRECAUTIONS

CONDITION	PRECAUTION
<b>Acute systemic infection</b> (e.g., cold, flu, gastroenteritis, viral hepatitis)	Delay procedure until resolved.
<b>Anemia</b> (Hb < 7 g/dl)	Delay procedure until anemia improved.
<b>Abdominal skin infection</b>	Delay procedure until treated.
<b>Cancer of the genital tract</b> (cervix, endometrium or ovaries)	Delay procedure.
<b>Deep venous thrombosis/pulmonary embolism</b> (current)	Delay procedure until fully recovered.
<b>Postabortion</b>	
<i>Sepsis or fever</i> (> 38°C)	Delay procedure until infection resolved.
<i>Severe hemorrhage</i> (> 500 ml)	Delay procedure until anemia improved.
<i>Trauma to genital tract</i> (cervical or vaginal)	Delay procedure until anemia improved.
<i>Uterine perforation</i>	Delay procedure until recovered.
<i>Acute hematometra</i> (postabortion syndrome)	Delay procedure until recovered.

### RATIONALE

Although tubal occlusion is a minor surgical procedure, it should not be performed when the client is sick.

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Client may be unable to tolerate stress of surgery or further blood loss.

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Increased risk of postoperative infection.

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In general, treatment for these cancers results in sterility.

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Increased risk of recurrence of embolism.

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Determine cause and treat before performing VS.

Client may have been anemic before procedure and may not be able to tolerate further blood loss.

Because client may have been anemic before delivery, she may not be able to tolerate further blood loss.

May have significant blood loss or intra-abdominal trauma. If emergency surgery (laparoscopy or laparotomy) is required, tubal occlusion may be performed only if there is no additional risk.

Evacuate uterus (vacuum aspiration) and assess anemia before performing tubal occlusion.

# VOLUNTARY STERILIZATION

## TUBAL OCCLUSION

### PROBLEMS REQUIRING ACTION

PROBLEM	ACTION
<b>Client has:</b> <ul style="list-style-type: none"><li>• Diabetes</li><li>• Symptomatic heart disease</li><li>• High BP (&gt; 160/100 or with vascular disease)</li><li>• Coagulation (clotting) disorders (rare)</li><li>• Is overweight (&gt; 80 kg/176 lb if H/W ratio not normal)</li><li>• Abdominal or umbilical hernia</li><li>• Multiple lower abdominal incisions/scars</li></ul>	Should only be performed by experienced clinician in a facility with full backup.  Condition should be under control before surgery.
<b>Desire for more children</b>	Further assess concerns and, if appropriate, help client choose another method.
<b>Excessive interest in reversal</b>	Further assess concerns and, if appropriate, help client choose another method.
<b>Disagrees with or does not want to sign informed consent form</b>	Determine if concerns represent misunderstanding about method (e.g., rumor, myth). If so, provide additional counseling. If client still does not wish to sign, help her choose another method.
<b>Pressure from someone else</b>	Further assess concerns and, if appropriate, help client choose another method.
<b>Depression</b>	Further assess concerns and, if appropriate, help client choose another method.

## RATIONALE

Clients with significant medical problems may need special surgical and followup management (e.g., general anesthesia) for voluntary sterilization. Only those clients who meet the **acceptable** criteria should have their surgery in ambulatory facilities (see **Client Assessment** chapter). Attempting to perform the procedure in women who do not meet these criteria (e.g., overweight women or those with extensive pelvic adhesions) invariably necessitates:

- more sedation/analgesia for patient comfort,
- larger incision,
- longer operating time, and
- prolonged recovery.

As a consequence, there is an increased risk of complications, especially infections, in this high-risk group.

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Tubal occlusion is permanent. Help couples **considering** more children choose another method.

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Tubal occlusion is permanent. Help couples who **might** be interested in more children choose another method.

---

Clients often have misconceptions about a procedure, even after counseling. Informed consent must be obtained before performing surgical procedures, especially voluntary sterilization.

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Voluntary sterilization regret is higher when the decision was made as a result of undue pressure.

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Tubal occlusion is permanent. If emotional instability is present, the decision should be postponed.

# VOLUNTARY STERILIZATION

## TUBAL OCCLUSION

### PROBLEMS REQUIRING ACTION

<b>PROBLEM</b>	<b>ACTION</b>
Marital problems	Further assess concerns and, if appropriate, help client choose another method.
Is single	Further assess situation and, if appropriate, help client choose another method.
Has no children	Further assess situation and, if appropriate, help client choose another method.

### MANAGEMENT OF PROBLEMS

<b>PROBLEM</b>	<b>ASSESSMENT</b>
Wound infection	Confirm presence of infection or abscess.
Postoperative fever (> 38°C)	Determine source of infection.
Bladder, intestinal injuries (rare)	Determine presence of hematuria or other signs of internal injury.
Hematoma (subcutaneous)	Confirm presence of infection or abscess.
Gas embolism with laparoscopy (very rare)	Check for increased respiration and pulse, decreased blood pressure or shock (BP < 60 systolic).
Pain at incision site	Determine presence of infection or abscess.
Superficial bleeding (skin edges or subcutaneously)	Determine presence of infection, abscess or hematoma.

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### **RATIONALE**

Because tubal occlusion is permanent, the decision to have the procedure is best made with both partners in agreement.

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Tubal occlusion is permanent. Regret and request for reversal are higher in single women, especially young single women, than in older married women.

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Tubal occlusion is permanent. Regret and request for reversal are higher in nulliparous women, especially young nulliparous women, than in older multiparous women.

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### **MANAGEMENT**

If skin infection is present, treat with antibiotics. If abscess is present, drain and treat as indicated.

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Treat infection based on findings.

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Diagnose problem and manage appropriately. If bladder or bowel is injured and recognized intraoperatively, perform primary repair. If discovered postoperatively, refer to appropriate center as necessary.

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Apply warm, moist packs to site. Observe; it usually will resolve over time but may require drainage if extensive. If infected, treat as indicated (antibiotics).

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Intensive resuscitation may be necessary, including:

- intravenous fluids,
  - CPR, and
  - other life-support measures.
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Treat based on findings (e.g., moist heat, analgesics).

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Control bleeding and treat based on any additional findings.

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# VOLUNTARY STERILIZATION

## VASECTOMY

### COUNSELING OUTLINE

METHOD	APPROPRIATE FOR
Voluntary surgical procedure for permanently terminating fertility in men	Men of any reproductive age (usually $\leq 50$ )
<i>Methods</i>	Men who want a highly effective, permanent contraceptive method
Incisional (1 or 2 incisions)	Men whose wives have age, parity or health problems that might pose a serious health risk if they became pregnant
No-scalpel (NSV)	
<i>Mechanism of Action</i>	Men who understand and voluntarily consent to the procedure
By blocking the vas deferens (ejaculatory duct), sperm are not present in the ejaculate	Men/couples who are certain they have achieved their desired family size

## METHOD CHARACTERISTICS

### BENEFITS

Highly effective (0.1–0.15 pregnancies per 100 women during the first year of use)

Permanent

Does not affect breastfeeding

Does not interfere with intercourse

Good for couples if pregnancy or tubal occlusion would pose a serious health risk to the woman

Simple surgery done under local anesthesia

No long-term side effects

No change in sexual function (no effect on hormone production by the testes)

### LIMITATIONS

Must be considered permanent (not reversible)

Client may regret later

Delayed effectiveness (requires up to 3 months or 20 ejaculations)

Risks and side effects of minor surgery, especially if general anesthesia is used

Short-term discomfort/pain following procedure

Requires trained physician

Does not protect against GTIs or other STDs (e.g., HBV, HIV/AIDS)

# VOLUNTARY STERILIZATION

## VASECTOMY

### CONDITIONS REQUIRING PRECAUTIONS

CONDITION	PRECAUTION
Local skin or scrotal infection	Delay procedure until infection is resolved.
Acute genital tract infection (e.g., gonorrhea or syphilis)	Delay procedure until infection is resolved.
Acute systemic infection (e.g., flu) or gastroenteritis	Delay procedure until infection is resolved.
Symptomatic heart disease or clotting disorders, diabetes	The procedure may need to be done in a high-level facility, and not in an ambulatory facility. Significant medical problems (e.g., diabetes) should be controlled before surgery.
<b>Other Problems:</b> <ul style="list-style-type: none"><li>• Large varicocele</li><li>• Inguinal hernia</li><li>• Filariasis</li><li>• Scar tissue</li><li>• Previous scrotal surgery</li><li>• Intrascrotal mass (until cause determined)</li><li>• Undescended testes and proven fertility</li><li>• Cryptorchidism (if bilateral and proven fertility)</li><li>• AIDS-related disease</li></ul>	With any of these conditions, the procedure must be performed by a provider with extensive experience and skill in performing vasectomy.

**RATIONALE**

These conditions may increase risk for complications such as postoperative infection.

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These conditions may increase risk for complications such as postoperative infection.

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Increased risk of postoperative complications, especially infection.

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Clients with significant medical problems may need special surgical management and followup (e.g., general anesthesia). Medical problems can make the operation more difficult to perform and increase the risk of infection.

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These conditions can make the operation more difficult to perform and increase the risk of infection.

# VOLUNTARY STERILIZATION

## VASECTOMY

### PROBLEMS REQUIRING ACTION

<b>PROBLEM</b>	<b>ACTION</b>
<b>Desire</b> for more children	Further assess concerns and, if appropriate, help client choose another method.
<b>Excessive interest</b> in reversal	Further assess concerns and, if appropriate, help client choose another method.
<b>Disagrees</b> with or does not want to sign informed consent form	Determine if concerns represent misunderstanding about method (e.g., rumor, myth). If so, provide additional counseling. If client still does not wish to sign, help him choose another method.
<b>Pressure</b> from someone else	Further assess concerns and, if appropriate, help client choose another method.
<b>Depression</b>	Further assess concerns and, if appropriate, help client choose another method.
<b>Marital problems</b>	Further assess concerns and, if appropriate, help client choose another method.
<b>Client is single or has no children</b>	Further assess situation and, if appropriate, help client choose another method.

## RATIONALE

Vasectomy is permanent. Help couples **considering** more children choose another method.

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Vasectomy is permanent. Help couples who **might** be interested in more children choose another method.

---

Clients often have misconceptions about a procedure, even after counseling. Informed consent must be obtained before performing surgical procedures, especially voluntary sterilization.

---

Voluntary sterilization regret is higher when the decision was made as a result of undue pressure.

---

Vasectomy is permanent. If emotional instability is present, the decision should be postponed.

---

Because vasectomy is permanent, the decision to have the procedure is best made with both partners in accord.

---

Vasectomy is permanent. Regret is higher when either of these situations are present.

# VOLUNTARY STERILIZATION

## VASECTOMY

### MANAGEMENT OF PROBLEMS

<b>PROBLEM</b>	<b>ASSESSMENT</b>
<b>Wound infection</b>	Confirm presence of infection or abscess.
<b>Hematoma (scrotal)</b>	Determine presence of infection or abscess.
<b>Granuloma</b>	Check for possible infection or hematoma.
<b>Excessive swelling</b>	Check for swollen scrotum. Check for possible infection or hematoma.
<b>Pain at incision site</b>	Check for infection, granuloma or epididymitis.

## MANAGEMENT

If skin infection is present, treat with antibiotics. If abscess is present, drain and treat as indicated.

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Apply warm, moist packs to site and provide scrotal support. Observe; it will resolve over time.

---

Observe; it is rare (< 0.4% cases), usually self-limited and will resolve spontaneously.

---

If large and painful, it may require surgical management.

Observe; it usually resolves spontaneously within 1 to 3 weeks. Provide scrotal support as needed.

---

If no infection, treat symptomatically with scrotal support and analgesics as needed. Pain usually will resolve spontaneously.

# NOTES



# CLIENT INSTRUCTIONS

Long-term success, defined as satisfied clients and high continuation rates, will occur only if clinic staff recognize the importance of providing both followup care and prompt management of side effects and other problems. Explaining the common side effects to clients, as well as what to do if certain problems occur, promotes safe, effective and continued contraceptive use. Health care providers also need to ensure that clients know how to use a contraceptive method.

In particular a client should know:

- When to come back for a followup visit
- Common side effects of the method
- The warning signs of possible problems
- What to do if there are changes in her menstrual periods
- How soon the method is effective
- How to protect against GTIs and other STDs (e.g., HBV, HIV/AIDS)
- How to care for wounds (implants, tubal occlusion, vasectomy)
- When and where the method should be removed (implants or IUDs)

To help a client understand and remember the most important points, be sure to explain them clearly and simply. Have the client repeat the instructions so it is certain that s/he clearly understands the method. If possible, also give written instructions to the client or her/his spouse. For some contraceptive methods (e.g., injectables), an appointment card should be given as a reminder unless privacy is an issue. Clients should be taught warning signs and told to return to the clinic immediately if any occur.

This chapter contains sample instructions for all commonly available contraceptive methods. (While detailed instructions are provided for NFP, it is understood that considerable additional training would be needed for a client to use these methods effectively.)



# CLIENT INSTRUCTIONS

## BREASTFEEDING/LAM

### How Often to Breastfeed

Breastfeed your baby from both breasts on demand, about 6 to 10 times per day.

Breastfeed your baby at least once during the night (no more than 6 hours should pass between any two feedings).

**Note:** Breastfeeding is used primarily for infant nutrition and health. Your baby may not want to breastfeed 6 to 10 times per day, or your baby may choose to sleep through the night. This is normal, but if either occurs, breastfeeding will be **less effective** as a contraceptive method.

### When to Start Solid Foods

As long as the baby is growing well and gaining weight, and as long as **you** are eating a balanced diet and resting in order to have a good milk supply, the baby does not need any other foods until s/he is 6 months old.

Once you substitute other food or drink for breastfeeding meals, the baby will suckle less, and breastfeeding will **no longer** be an effective contraceptive method.

### Menstrual Periods



When your menstrual period returns it is very likely that you are fertile again and you should begin using a contraceptive method immediately.

### For Contraception (LAM) and Health

- You will need a contraceptive method if you have a menstrual period, if you no longer breastfeed fully (or nearly fully) or when your baby is 6 months old.
- Consult your health care provider or clinic before starting another contraceptive method.
- If you or your partner is at high risk for GTIs or other STDs, including the AIDS virus, you should use condoms as well as LAM.

**What To Do When You Are Not Fully (or Nearly Fully) Breastfeeding or Stop Breastfeeding**

- You need to have a temporary supply of lubricated condoms or another method of contraception at home for use when you stop fully (or nearly fully) breastfeeding your baby.
- Return to the family planning clinic for help in choosing and using a suitable contraceptive method.



# CLIENT INSTRUCTIONS

## COMBINED ORAL CONTRACEPTIVES (COCS)

- Take 1 pill each day, preferably at the same time of day.
- Take the **first** pill on the first to the seventh day (first day is preferred) after the beginning of your menstrual period.
- Some pill packs have 28 pills. Others have 21 pills. When the 28-day pack is empty, you should immediately start taking pills from a new pack. When the 21-day pack is empty, wait 1 week (7 days) and then begin taking pills from a new pack.
- If you **vomit** within 30 minutes of taking a pill, take another pill or use a backup method if you have sex during the next 7 days.
- If you forget to take 1 pill, take it as soon as you remember, even if it means taking 2 pills in 1 day.
- If you forget to take 2 or more pills, you should take 2 pills every day until you are back on schedule. Use a backup method (e.g., condoms) or else do not have sex for 7 days.
- If you miss 2 or more menstrual periods, you should come to the clinic to check if you are pregnant.

### General Information

- Some nausea, dizziness, mild breast tenderness and headaches as well as spotting or light bleeding are common during the menstrual cycle (usually disappear within 2 or 3 cycles).
- Certain drugs (rifampin and most anti-epilepsy drugs) may reduce the effectiveness of COCs. For this reason, you should tell your health care provider if you start any new drugs.
- COCs do not provide protection against GTIs or other STDs, including the AIDS virus. If you or your partner is at risk, you should use condoms as well as COCs.



## COMBINED INJECTABLE CONTRACEPTIVES (CICS)

- Return to the health clinic for an injection of Cyclofem or Mesigyna every month.
- If you miss 2 or more menstrual periods, you should come to the clinic to check if you are pregnant.

### General Information

- Some nausea, dizziness, mild breast tenderness and headaches as well as spotting or light bleeding are common during the menstrual cycle (usually disappear within 2 or 3 injections).
- Certain drugs (rifampin and most anti-epilepsy drugs) may reduce the effectiveness of CICS. For this reason, you should tell your health care provider if you start any new drugs.
- CICS do not provide protection against GTIs or other STDs, including the AIDS virus. If you or your partner is at risk, you should use condoms as well as CICS.

### WARNING SIGNS FOR COMBINED ESTROGEN/PROGESTIN CONTRACEPTIVE USERS

- Severe chest pain or shortness of breath
- Severe headaches or blurred vision
- Severe leg pain
- Absence of any withdrawal bleeding or spotting:
  - during pill-free week (21-day pack),
  - while taking 7 inactive pills (28-day pack), or
  - during 7 days before next injection may be a sign of pregnancy.

Contact a health care provider or clinic if you develop any of the above problems.



# CLIENT INSTRUCTIONS

## IMPLANTS (Norplant Implants)

### Postoperative Care at Home

- Keep the area dry and clean for at least 48 hours. The incision could become infected if the area gets wet while bathing.
- Leave the gauze pressure bandage in place for 48 hours and the bandaid in place until the incision heals (about 3 to 5 days).
- There will be bruising, swelling or tenderness at the insertion site for a few days. This is normal.
- Routine work can be done immediately. Avoid bumping the area, carrying heavy loads or applying unusual pressure to the site.
- After healing, the area can be touched and washed with normal pressure.

### General Information

- The contraceptive effect of implants begins once the capsules are inserted and continues until removal (up to 5 years from insertion).
- Changes in menstrual bleeding patterns (especially irregular bleeding) are common, especially during the first 6 to 12 months following insertion. These changes rarely are a risk to health.
- Certain drugs (rifampin and most anti-epilepsy drugs) may reduce the effectiveness of implants. For this reason, you should tell your health care provider if you start any new drugs.
- Other minor side effects may include weight gain, mild headaches and breast tenderness. These symptoms are not dangerous and gradually disappear.
- Removal of the capsules is necessary 5 years after insertion but may be done sooner if you wish.



**Caution:** If removal is delayed beyond 5 years, the chance of becoming pregnant is progressively higher and the risk of ectopic pregnancy increases significantly.

- Your health care provider will give you a card stating the date the implants were inserted and the name of the clinic.
- Implants do not provide protection against GTIs or other STDs, including the AIDS virus. If either you or your partner is at risk, you should use condoms as well as implants.

### Return Visit

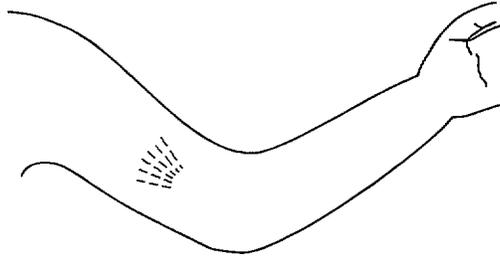
There is no medical reason for a return visit before 5 years unless there is a problem or the client wants the implants removed. All clients, however, are encouraged to return for routine reproductive health care, including provision of condoms as necessary.

#### WARNING SIGNS FOR IMPLANTS USERS

- Delayed menstrual period after several months of regular cycles (may be a sign of pregnancy)
- Severe lower abdominal pain (may be a symptom of ectopic pregnancy)
- Heavy bleeding (twice as long or twice as much as normal) or prolonged bleeding (more than 8 days duration)
- Pus or bleeding at the insertion site
- Expulsion of a capsule
- Migraine (vascular) headaches, repeated very painful headaches or blurred vision

Contact a health care provider or clinic if you develop any of the above problems.

### Insertion Site



# CLIENT INSTRUCTIONS

## PROGESTIN-ONLY INJECTABLE CONTRACEPTIVES (PICS)

- Return to the health clinic for an injection every 3 months (DMPA) or every 2 months (NET-EN).

### General Information

- Changes in menstrual bleeding patterns (amenorrhea) are common, especially following the first 2 or 3 injections. They often are temporary and rarely are a risk to health.
- Other minor side effects may include weight gain, mild headaches and breast tenderness. These symptoms are not dangerous and gradually disappear.
- In women using DMPA the return of fertility is temporarily delayed (on average 10 months from the last injection). DMPA does **not**, however, decrease fertility in the long term.
- About 50% of women using DMPA will stop having any bleeding by the end of the first year of use. (Not having menses is not serious and in the absence of pregnancy symptoms does not require treatment.)
- PICS do not provide protection against GTIs or other STDs, including the AIDS virus. If either you or your partner is at risk, you should use condoms as well as the PIC.



### WARNING SIGNS FOR PROGESTIN-ONLY INJECTABLE CONTRACEPTIVE (PIC) USERS

- Delayed menstrual period after several months of regular cycles (may be a sign of pregnancy)
- Severe lower abdominal pain (may be a symptom of ectopic pregnancy)
- Heavy bleeding (twice as long or twice as much as normal) or prolonged bleeding (more than 8 days in duration)
- Pus or bleeding at the injection site
- Migraine (vascular) headaches, repeated very painful headaches or blurred vision

Contact a health care provider or clinic if you develop any of the above problems.

## PROGESTIN-ONLY PILLS (POPS)

- Take 1 pill at the **same time** each day.
- Take the **first pill** on the **first day** of your menstrual period. If you start POPS after the first day of your period, but before the seventh day, use a backup method for the next 48 hours.
- Take all pills in pack. Start a new pack on the day after you take the last pill.
- If you **vomit** within 30 minutes of taking a pill, take another pill or use a backup method if you have sex during the next 48 hours.
- If you take a pill **more** than 3 hours late, take it as soon as you remember. Use a backup method if you have sex during the next 48 hours.
- If you forget to take 1 or more pills, you should take the next pill when you remember. Use a backup method if you have sex during the next 48 hours.
- If you miss 2 or more menstrual periods, you should come to the clinic to check if you are pregnant. Do not stop taking pills unless you know you are pregnant.

### General Information

- Changes in menstrual bleeding patterns are common, especially during the first 2 or 3 cycles. They often are temporary and rarely are a risk to health.
- Other minor side effects may include weight gain, mild headaches and breast tenderness. These symptoms are not dangerous and gradually disappear.
- Certain drugs (rifampin and most anti-epilepsy drugs) may reduce the effectiveness of POPS, and for this reason you should tell your health care provider if you start any new drugs.
- POPS do not provide protection against GTIs or other STDs, including the AIDS virus. If either you or your partner is at risk, you should use condoms as well as POPS.



### WARNING SIGNS FOR PROGESTIN-ONLY PILL (POP) USERS

- Delayed menstrual period after several months of regular cycles (may be a sign of pregnancy)
- Severe lower abdominal pain (may be a symptom of ectopic pregnancy)
- Heavy bleeding (twice as long or twice as much as normal) or prolonged bleeding (more than 8 days duration)
- Migraine (vascular) headaches, repeated very painful headaches or blurred vision

Contact a health care provider or clinic if you develop any of the above problems.

# CLIENT INSTRUCTIONS

## IUDs

- Return for checkup after the first postinsertion menses, 4 to 6 weeks after insertion.
- During the first month after insertion, check the strings several times, particularly after your menstrual period.
- After the first month, you only need to check the strings after menses if you have:
  - cramping in the lower part of the abdomen,
  - spotting between periods or after intercourse, or
  - pain after intercourse (or if your partner experiences discomfort during sex).
- Removal of the Copper T 380A is necessary after 10 years but may be done sooner if you wish.
- Return to the clinic if you:
  - cannot feel the strings,
  - feel the hard part of the IUD,
  - expel the IUD, or
  - miss a period.

### General Information

- The IUD is effective immediately.
- The IUD can come out of the uterus spontaneously, especially during the first few months.
- There may be some bleeding or spotting the first few days after insertion.
- Menstrual bleeding usually will be longer and heavier (copper-releasing IUDs) or shorter and lighter (progestin-releasing IUDs).
- The IUD may be removed any time you wish.
- IUDs do not provide protection against GTIs or other STDs, including the AIDS virus. If either you or your partner is at risk, you should use condoms as well as an IUD.



### Return Visit

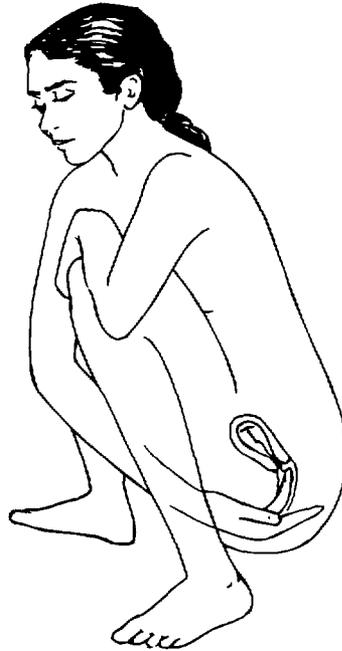
There is no medical reason for the client to return after the postinsertion checkup (4–6 weeks after insertion) unless there is a problem or she wants to have the IUD removed. All clients, however, should be encouraged to return for routine reproductive health care, including provision of condoms as necessary.

**WARNING SIGNS FOR  
IUD USERS**

- Delayed menstrual period with pregnancy symptoms (nausea, breast tenderness, etc.)
- Persistent or crampy lower abdominal pain, especially if accompanied by not feeling well, fever or chills (these symptoms suggest possible pelvic infection)
- Strings missing or the plastic tip of the IUD can be felt when checking for the strings
- Either you or your partner begins having sexual relations with more than one partner; IUDs do not protect women from GTIs or other STDs (e.g., HBV, HIV/AIDS)

Contact a health care provider or clinic if you develop any of the above problems.

**Checking IUD Strings**

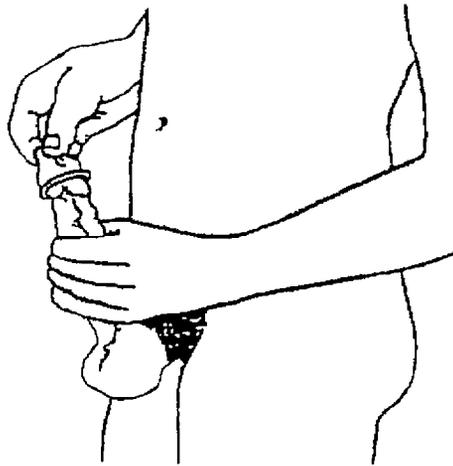


# CLIENT INSTRUCTIONS

## CONDOMS (MALE)

- Use a condom every time you have intercourse.
- Use a spermicide with the condom for maximum effectiveness and protection.
- Do not use teeth, knife, scissors or other sharp utensils to open the package.
- The condom should be unrolled onto the erect penis **before** the penis enters the vagina, because the pre-ejaculatory semen contains active sperm.
- If the condom does not have an enlarged end (reservoir tip), about 1–2 cm should be left at the tip for the ejaculate.
- While holding on to the base (ring) of the condom, withdraw the penis before losing the erection. This prevents the condom from slipping off and spilling semen.
- **Each condom should be used only once.**
- Dispose of used condoms by placing in a waste container, in the latrine or burying.
- Keep an extra supply of condoms available. Do not store them in a warm place or they will deteriorate and may leak during use.
- Do **not** use a condom if the package is broken or the condom appears damaged or brittle.
- Do **not** use mineral oil, cooking oils, baby oil or petroleum jelly as lubricants for a condom. They damage condoms in seconds. If lubrication is required, use saliva or vaginal secretions.

### Correct Method for Putting on a Condom



## DIAPHRAGMS

- Use the diaphragm every time you have intercourse.
- First, empty your bladder and wash your hands.
- Check the diaphragm for holes by pressing the rubber and holding it up to the light or filling it with water.
- Squeeze a small amount of spermicidal cream or jelly into the cup of the diaphragm. (To make insertion easier, a small amount of cream/jelly can be placed on the leading edge of the diaphragm or in the opening to the vagina.) Squeeze the rim together.
- The following positions may be used for inserting the diaphragm:
  - One foot raised up on a chair or toilet seat
  - Lying down
  - Squatting
- Spread the lips of the vagina apart.
- Insert the diaphragm and cream/jelly back in the vagina and push the front rim up behind the pubic bone.
- Put your finger in the vagina and **feel the cervix** (feels like your nose) through the rubber to make sure it is covered.
- The diaphragm can be placed in the vagina up to 6 hours before having intercourse. If intercourse occurs more than 6 hours afterwards, another application of spermicide must be put in the vagina. Additional cream or jelly is needed for each repeated intercourse.
- Leave the diaphragm in for at least 6 hours after the last time intercourse occurs. Do not leave it in more than 24 hours before removal. (Vaginal douching is not recommended at any time. If done, vaginal douching should be delayed for 6 hours after intercourse.)
- Remove diaphragm by hooking finger behind the front rim and pulling it out. If necessary, put your finger between the diaphragm and the pubic bone to break the suction before pulling it out.
- Wash the diaphragm with mild soap and water and dry it thoroughly prior to returning it to container.



### WARNING SIGN

If toxic shock syndrome is suspected, refer client to center where intravenous fluids and antibiotics are available. Give oral rehydration as needed and a non-narcotic analgesic (NSAID or aspirin) if fever is high ( $> 38^{\circ}\text{C}$ ).

# CLIENT INSTRUCTIONS

## SPERMICIDES

### Selection

- Aerosols (foams) are effective immediately after insertion.
- Aerosols are recommended if spermicide is to be used as the only contraceptive method.
- Foaming vaginal tablets and suppositories are convenient to carry and store but require waiting 10–15 minutes **after** insertion before intercourse.
- Melting vaginal suppositories also require waiting 10–15 minutes **after** insertion before intercourse.
- Spermicidal jellies usually are used **only** with diaphragms.

### General Information

- It is important to use spermicide before each act of intercourse. (Reapply for subsequent acts of intercourse.)
- There is a 10–15 minute waiting interval after insertion of vaginal tablets, suppositories or film. There is no waiting interval for aerosols (foams).
- It is important to follow the recommendations of the manufacturer for use and storage of each product. (Example: shake aerosol foams before filling the applicator.)
- Apply more spermicide if intercourse does not take place within 1–2 hours. It is important to place the spermicide high in the vagina so the cervix is well covered.



### Aerosol (Foam)

- Shake the container 20–30 times before using it.
- Place container in upright position and put applicator over valve. Press applicator to side so it fills with foam.
- While lying down, insert applicator into the vagina until the tip is at or near the cervix. Push the plunger and release the foam. There is no need to wait for the foam to work.
- The foam applicator should be washed with soap and warm water, rinsed and dried. It can be taken apart for easier cleaning. Do not share applicator with others.
- Keep an extra supply of foam on hand, especially if you cannot see whether the container is empty.

### **Vaginal Tablet, Suppository or Film**

- Remove vaginal tablet, suppository or film from package.
- While lying down, insert vaginal tablet, suppository or film high in the vagina. (If applicator provided, insert it into vagina until the tip is at or near the cervix.)
- Wait 10–15 minutes **before** having intercourse.
- The applicator should be washed with soap and warm water, rinsed and dried. It can be taken apart for easier cleaning. Do not share applicator with others.
- Keep an extra supply of vaginal tablets, suppositories or film on hand.

**Note:** Some foaming vaginal tablets may cause a warm sensation in the vagina. This is normal.

### **Cream**

- To insert contraceptive cream, squeeze into applicator until full. Insert the applicator into the vagina until the tip is at or near the cervix. Push the plunger and release the cream. There is no need to wait for the cream to work.
- The applicator should be washed with soap and warm water, rinsed and dried. It can be taken apart for easier cleaning. Do not share the applicator with others.
- Keep an extra supply of cream on hand, especially if you cannot see whether the container is empty.



# CLIENT INSTRUCTIONS

## NATURAL FAMILY PLANNING

### Calendar Method

*You can determine your fertile period by monitoring your menstrual cycles.*

### For Contraception

Calculate Your Fertile Period:

- Monitor the length of at least 6 menstrual cycles while abstaining or using another contraceptive method. Then calculate when the fertile days occur following the instructions below.
- From the number of days in your longest cycle, subtract 11. This identifies the **last fertile day** of your cycle.
- From the number of days in your shortest cycle, subtract 18. This identifies the **first fertile day** of your cycle.

**Example:** Longest cycle: 30 days minus 11 = 19

Shortest cycle: 26 days minus 18 = 8

- Your **fertile period** is calculated to be days 8 through 19 of your cycle (12 days of abstinence needed to avoid pregnancy).
- Abstain from sexual intercourse during the fertile days.

### For Conception



Have intercourse during the fertile days.



# CLIENT INSTRUCTIONS

## NATURAL FAMILY PLANNING

### For Contraception

Abstain from sexual intercourse from the beginning of the menstrual period until the evening of the third consecutive day that the temperature stays above the cover line.

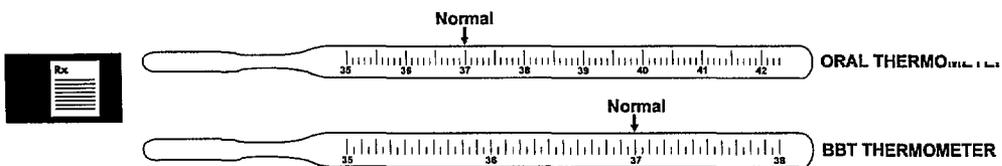
#### Notes:

- If any of the 3 temperatures falls on or below the cover line during the 3-day count, this may be a sign that ovulation has not yet taken place. To avoid pregnancy wait until 3 consecutive temperatures are recorded above the cover line before resuming intercourse.
- After the infertile phase begins, it is not necessary to keep taking your temperature. You may stop until the next menstrual cycle begins and continue to have intercourse until the first day of the next menstrual period.

### For Conception

Have intercourse during the fertile days.

### BBT Thermometer and Oral Thermometer



## Cervical Mucus Method

You can determine your fertile phase by monitoring your cervical mucus.

**A simple, accurate record is the key to success.**

A series of codes is used to complete the record. These codes should be both appropriate to the local culture and widely available to NFP users. In some areas, colored stamps or inks are used; in others, it is more convenient to develop symbols that are written by hand; while in still others, both methods are combined resulting in handwritten symbols that are recorded with colored pens. Examples of two systems are given below.

### Examples of Codes Used in Fertility Record Keeping

-  or \* Use the symbol \* or red to show bleeding.
-  or D Use the letter D or green to show dryness.
-  or (M) Use the letter M with a circle around it or leave blank to show wet, clear, slippery, fertile mucus.
-  or M Use the letter M or yellow to show sticky, white, cloudy, infertile mucus.

### Definitions

- **Dry Days:** After menstrual bleeding ends, most women have 1 to a few days in which no mucus is observed and the vaginal area feels dry. These are called **dry days**.
- **Fertile Days:** When any type of mucus is observed before ovulation, you are considered to be fertile. Whenever mucus is seen, even if the mucus is of a sticky, pasty type, the wet fertile mucus may be present in the cervix and the **fertile days** have started.
- **Peak Day:** The last day of slippery and wet mucus is called the **peak day**; it indicates that ovulation is near or has just taken place.



# CLIENT INSTRUCTIONS

## NATURAL FAMILY PLANNING

### For Contraception

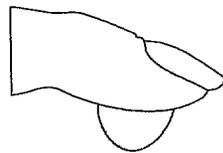
- As mucus may change during the day, observe it several times throughout the day. Every night before you go to bed, determine your highest level of fertility (see list of codes) and mark the chart with the appropriate symbol.
- Abstain from sexual intercourse for at least 1 cycle so that you will know the mucus days.
- Avoid intercourse during your menstrual period. These days are not safe; in short cycles, ovulation can occur during your period.
- During the dry days after your period, it is safe to have intercourse every other night (**Alternate Dry Day Rule**). This will keep you from confusing semen with cervical mucus.
- As soon as **any** mucus or sensation of wetness appears, avoid intercourse or sexual contact. Mucus days, especially fertile mucus days, are not safe (**Early Mucus Rule**).
- Mark the last day of clear, slippery, stretchy mucus with an X. This is the peak day. It is the most fertile time.
- After the peak day, avoid intercourse for the next 3 **dry** days and nights. These days are not safe (**Peak Day Rule**).
- Beginning on the morning of the fourth dry day, it is safe to have intercourse until your menstrual period begins again.



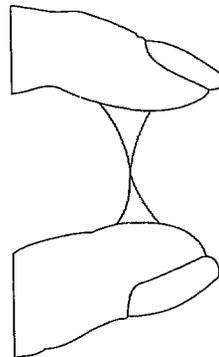
### For Conception

- Have intercourse during each cycle on the days when your vaginal discharge feels elastic, wet and slippery.

### Checking Cervical Mucus



**Sticky Mucus**



**Stretchy Mucus**

**Symptothermal Method**—You should have instructions for both the **Cervical Mucus** and **Basal Body Temperature** methods.

*You can determine your fertile days by monitoring both your temperature and your cervical mucus.*

- After menstrual bleeding stops, you may have intercourse on the evening of every other dry day during the infertile days before ovulation. This is the **Alternate Dry Day Rule**, the same rule used with the Cervical Mucus Method.
- The fertile phase begins when wet vaginal sensations or any mucus is experienced. This is the **Early Mucus Rule**, the same rule used with the Cervical Mucus Method. Abstain from intercourse until the fertile phase ends.
- Abstain from intercourse until **both the Peak Day and Thermal Shift Rules** have been applied.
- When these rules do not identify the same day as the end of the fertile phase, always follow the most conservative rule, that is, the rule that identifies the **longest** fertile phase.

The following example refers to the **Completed Basal Body Temperature Chart** (see above). Following the **Thermal Shift Rule**, the woman is infertile after day 16. If, however, she follows the **Peak Day Rule**, she is not infertile until the 18th day. Therefore, she should use the conservative rule, the **Peak Day Rule**, and wait until the 18th day before resuming intercourse.

**Note:** You may have intercourse during the first 5 days of the menstrual cycle beginning with the first day of menstrual bleeding, if the **Peak Day** and **Thermal Shift Rules** were applied during the previous cycle. This is referred to as the **Menses Rule** and ensures that this is truly menstrual bleeding and not due to some other cause.



# CLIENT INSTRUCTIONS

## WITHDRAWAL (COITUS INTERRUPTUS)

- To enhance cooperation and avoid misunderstanding, before intercourse the couple should discuss their intention to use withdrawal.
- Before intercourse, the man should urinate and wipe off the tip of his penis to remove any remaining sperm from a prior ejaculation.
- When he feels he is about to ejaculate, the man should withdraw his penis from his partner's vagina, making sure the ejaculation occurs away from his partner's genitalia. (The woman can help by moving away at this time.)



## TUBAL OCCLUSION

- Keep the operative site dry for 2 days. Resume normal activities gradually. (You should be able to return to normal activities within 7 days after surgery.)
- Avoid sexual intercourse for 1 week. After resuming intercourse, stop if it is uncomfortable.
- Avoid heavy lifting and hard work for 1 week.
- For pain, take 1 or 2 analgesic tablets (acetaminophen, ibuprofen or paracetamol) every 4 to 6 hours.
- Schedule a routine followup visit between 7 and 14 days after surgery.
- Return after 1 week for removal of nonabsorbable stitches. (If no stitches or if absorbable stitches were used to close the skin, there is no need to return unless there are problems.)

### General Information

- Shoulder pain during the 12–24 hours after laparoscopy is relatively common due to gas (CO<sub>2</sub> or air) under the diaphragm, secondary to the pneumoperitoneum.
- Tubal occlusion is effective from the time the operation is completed.
- Menstrual periods will continue as usual. (If using a hormonal method before the procedure, especially COCs or CICs, the amount and duration of menses may increase after surgery.)
- Tubal occlusion does not provide protection against GTIs or other STDs, including AIDS. If either partner is at risk, the couple should use condoms even after tubal occlusion.



### WARNING SIGNS FOR TUBAL OCCLUSION CLIENTS

- Fever (greater than 38°C or 100.4°F)
- Dizziness with fainting
- Persistent or increasing abdominal pain
- Bleeding or fluid coming from the incision
- Signs or symptoms of pregnancy

Contact a health care provider or clinic if you develop any of the above problems.

# CLIENT INSTRUCTIONS

## VASECTOMY

- Keep bandage on for 3 days.
- Do not pull or scratch wound while healing.
- You may bathe after 24 hours but do not let the wound get wet. After 3 days you may wash the wound with soap and water.
- Wear a scrotal support, keep the operative site dry and rest for 2 days.
- For pain, take 1 or 2 analgesic tablets (acetaminophen, ibuprofen or paracetamol) every 4 to 6 hours and apply ice packs.
- Avoid heavy lifting and hard work for 3 days.
- If comfortable, you may resume sexual intercourse in 2 or 3 days. **Remember to use condoms or another family planning method for 3 months or until you have ejaculated at least 20 times.**
- Stitches are not usually required with no-scalpel vasectomy. If stitches must be removed, return after 1 week. (If absorbable stitches were used to close the skin, there is no need to return unless there are problems.)
- Come back for a semen test 3 months after the operation if you wish to have proof that the vasectomy is completely effective.

### General Information

- Vasectomy does not provide protection from pregnancy until after 3 months, 20 ejaculations or when no sperm are seen in a microscopically examined semen specimen.
- Vasectomy will not affect sexual performance because the testes still function normally.
- Vasectomy does not provide protection against GTIs or other STDs, including AIDS. If either partner is at risk, the couple should use condoms even after vasectomy.



### WARNING SIGNS FOR VASECTOMY CLIENTS

- Fever (greater than 38°C or 100.4°F)
- Bleeding or fluid (pus) coming from the incision area
- A very painful or swollen scrotum
- If your partner misses a period

Contact a health care provider or clinic if you develop any of the above problems.

# INFECTION PREVENTION

Infection prevention (IP) in family planning and health care facilities has two primary objectives:

- To prevent major postoperative infections when providing surgical contraceptive methods (e.g., IUDs, injectables, implants and voluntary sterilization)
- To minimize the risk of transmitting serious infections such as hepatitis B<sup>1</sup> and AIDS not only to clients but also to service providers and staff, including cleaning and housekeeping personnel

The IP practices described in this chapter are intended for use in all types of medical and health care facilities—from large urban hospitals to small rural clinics. They are designed to minimize costs and the need for expensive and often fragile equipment while at the same time assuring a high degree of safety.

For additional information on IP as well as detailed instructions for preparing chemical solutions and specific IP guidelines for the surgical contraceptive methods currently provided, see *Infection Prevention for Family Planning Service Programs* (Tietjen et al 1996).

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## INFECTION PREVENTION PRINCIPLES

In this chapter, the recommended IP practices are based on the following principles:

- **Consider every person** (client or staff) infectious.
- **Wash hands**—the most practical procedure for preventing cross-contamination (person to person).
- **Wear gloves** before touching anything wet—broken skin, mucous membranes, blood or other body fluids (secretions or excretions)—or soiled instruments and other items.
- **Use physical barriers** (protective goggles, face masks and aprons) if splashes and spills of any body fluids (secretions or excretions) are anticipated.
- **Use safe work practices**, such as not recapping or bending needles, safely passing sharp instruments and properly disposing of medical waste.
- **Isolate patients** only if secretions (airborne) or excretions (urine or feces) cannot be contained.<sup>2</sup>

Finally, process instruments and other items (decontaminate, clean, high-level disinfect or sterilize) using recommended IP practices.

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<sup>1</sup> Throughout this manual, when hepatitis B (HBV) is mentioned, hepatitis C (HCV) and Delta hepatitis (HDV) also are referred to because their occurrence is worldwide and their modes of transmission/prevention are similar.

<sup>2</sup> Examples include patients who have infectious diseases (e.g., tuberculosis) that can be transmitted by airborne secretions or who have urinary or fecal incontinence. When possible, these patients should be isolated to limit the chance of spreading the infection.

# INFECTION PREVENTION

## HANDWASHING

- Wash hands **before** and **after** examining any client (direct contact).
- Wash hands after removing gloves because the gloves may have holes in them.
- Wash hands after exposure to blood or any body fluids (secretions and excretions), even if gloves were worn.

Experience has shown that the most effective way to increase handwashing is to have **physicians or other respected individuals** (role models) consistently wash their hands and encourage others to do the same.

To encourage handwashing, program managers should make every effort to provide soap and a continuous supply of clean water, either from the tap or a bucket, and single-use towels. (Do not use shared towels to dry hands.)

## SURGICAL HANDSCRUB

During surgical procedures such as minilaparotomy or vasectomy, sterile or high-level disinfected gloves must be worn. A 3- to 5-minute handscrub with a solution containing chlorhexidine or an iodophor is recommended. (Chlorhexidine has been shown to be less irritating than iodophors.) Alternatively, surgical staff can wash hands with plain soap, then apply alcohol solution containing an emollient and rub until dry. (See below for directions on how to make an alcohol solution for surgical scrub.)

Applying an antiseptic prior to putting on gloves minimizes the number of microorganisms on hands under the gloves. This is important because gloves may have invisible holes or tears, or may be nicked during surgery.

### Alcohol Solution for Surgical Scrub

A nonirritating alcohol solution for surgical scrub can be made by adding either glycerine, propylene glycol or Sorbitol® to the alcohol (2 ml in 100 ml 60–90% alcohol solution). Use 3 to 5 ml for each application and continue rubbing the solution over the hands for about 2 minutes, using a total of 6 to 10 ml per scrub.

**Note:** Skin damage caused by allergic reactions provides an ideal place for microorganisms to multiply and should be avoided. **Personnel with allergies to antiseptics or detergents may use plain soap followed by an alcohol rub.**

## Supplies

- Soap (plain) or antiseptic, which is preferred, as provided by the facility
- Running water
- Stick or brush for cleaning the fingernails
- Soft brush or sponge for cleaning the skin
- Towels (sterile towels should be provided in the operating room)

## Preparation

The surgeon, scrubnurse or technician should wear a short sleeved shirt or scrub suit to perform this procedure because it involves scrubbing to the elbows.

## Instructions

**STEP 1:** Remove all jewelry.

**STEP 2:** Adjust water to a comfortable temperature.

**STEP 3:** Holding hands above the level of the elbows, wet hands thoroughly. Apply soap and clean under each fingernail using a brush.

**STEP 4:** Beginning at the fingertips, lather and wash with a soft brush or sponge, using a circular motion. Wash between all fingers. Move from fingertips to the elbow of one arm and repeat for the second arm.

**STEP 5:** Wash using a soft brush or sponge for 3 to 5 minutes (when using alcohol, pour or rub for 2 minutes).

**STEP 6:** Rinse each arm separately, fingertips first, holding hands above the level of elbows.

**STEP 7:** Using a separate towel for each hand, wipe from the fingertips to the elbow, and then discard the towel.

**STEP 8:** Before putting on sterile gloves (and gown), hold hands above the level of the waist and do not touch anything.

**STEP 9:** If scrubbed hands touch any “dirty” (nonsterile or non-high-level disinfected) object during the procedure, steps 3 through 8 must be repeated.

# INFECTION PREVENTION

## SKIN PREPARATION PRIOR TO SURGICAL PROCEDURES

Although skin cannot be sterilized, skin preparation with antiseptic solutions minimizes the number of microorganisms that may contaminate the surgical wound and cause infection. Antiseptics should be used for skin preparation prior to injections, surgical procedures (e.g., minilaparotomy) and for vaginal preparation prior to IUD insertion.

### Instructions for Skin and Mucous Membrane Preparation

**STEP 1: Do not shave hair** at the operative site. Shaving increases the risk of infection as the tiny nicks in the skin provide an ideal setting for microorganisms to grow and multiply. If the hair must be cut, **trim** the hair close to the skin surface immediately before surgery.

**STEP 2:** Ask the client about **allergic reactions** (e.g., to iodine preparations) before selecting an antiseptic solution.

**STEP 3:** If visibly soiled, thoroughly **clean** the client's skin or external genital area with soap and water before applying an antiseptic.

**STEP 4:** Apply antiseptic. Select antiseptic from the following recommended products:

- Alcohols (60–90% isopropyl, ethyl alcohol or “methylated spirit”) (do not use on mucous membranes such as the vagina)
- Chlorhexidine gluconate 4% (e.g., Hibitane®, Hibiclens®)
- Chlorhexidine gluconate and cetrimide, various concentrations (e.g., Savlon®)
- Iodine preparation (1–3%); aqueous iodine and alcohol (tincture of iodine)
- Iodophors, various concentrations (e.g., Betadine®)
- Parachlorometaxylenol (PCMX or chloroxylenol), various concentrations (e.g., Dettol®)

**STEP 5:** Using dry, high-level disinfected forceps and cotton soaked in antiseptic, thoroughly clean the skin by gently scrubbing. Work from the operative site outward for several inches. (A circular motion from the center out helps to prevent recontamination of the operative site with local skin bacteria.)

**Note:** Allow antiseptics enough time to be effective before beginning the procedure. For example, when iodophors are used, up to 2 minutes is needed for the release of free iodine.

For **cervical and vaginal preps**, prior to inserting a uterine elevator for minilaparotomy or IUD insertion or removal, select an aqueous (water-based) antiseptic, such as an iodophor or chlorhexidine gluconate (e.g., Hibiclens or Savlon). **Do not use alcohols or alcohol-containing preparations** (e.g., tincture of iodine). Alcohols burn; they also dry and irritate mucous membranes, which in turn promotes the growth of microorganisms. Follow **STEPS 1–3** above, then:

**STEP 4:** After inserting the speculum, apply antiseptic solution liberally first to the cervix (2 or 3 times) and then to the vagina. (It is not necessary to prep the external genital area if it appears clean. If heavily soiled, it is better to have the client wash her genital area thoroughly with soap and water before starting the procedure.)

### **Instructions for Skin Preparation for Injections**

Skin preparation is done before injections (e.g., injectable contraceptives such as DMPA) to remove as many microorganisms as possible from the client's skin in order to prevent superficial infection at the injection site or possibly an abscess.

### **Steps for Skin Preparation Prior to Injection**

**STEP 1:** Before cleaning the skin with an antiseptic, be sure to remove all visible soil from the proposed injection site.

**STEP 2:** With antiseptic applied to a fresh cotton swab, wipe the injection site thoroughly using a circular, overlapping motion starting at the center.

### **GLOVES**

Wear gloves:

- When performing a procedure in the clinic or operating room
- When handling soiled instruments, gloves and other items
- When disposing of contaminated waste items (cotton, gauze or dressings)

A separate pair of gloves must be used for each client to avoid cross-contamination.

Using disposable gloves is preferable, but where resources are limited, surgical gloves can be reused if they are:

- decontaminated by soaking in 0.5% chlorine solution for 10 minutes,
- washed and rinsed, and
- sterilized (by autoclaving) or high-level disinfected (by steaming or boiling).

# INFECTION PREVENTION

**Table 11. Glove Requirements for Common Procedures in Family Planning Settings**

TASK OR ACTIVITY	ARE GLOVES NEEDED?	PREFERRED GLOVES <sup>a</sup>	ACCEPTABLE GLOVES
Blood pressure check	no		
Temperature check	no		
Injection	no		
Blood drawing	yes	Exam <sup>b</sup>	HLD Surgical
Pelvic examination	yes	Exam	HLD Surgical
IUD insertion (loaded in sterile package and inserted using no-touch technique) <sup>c</sup>	yes	Exam	HLD Surgical
IUD removal (using no-touch technique)	yes	Exam	HLD Surgical
Norplant implants insertion and removal	yes	Sterile Surgical <sup>d</sup>	HLD Surgical
Surgery (minilaparotomy, laparoscopy, vasectomy)	yes	Sterile Surgical <sup>d</sup>	HLD Surgical
MVA (using no-touch technique)	yes	Exam	HLD Surgical
Handling and cleaning instruments	yes	Utility	Exam or Surgical <sup>e</sup>
Handling contaminated waste	yes	Utility	Exam or Surgical <sup>e</sup>
Cleaning blood or body fluid spills	yes	Utility	Exam or Surgical <sup>e</sup>

<sup>a</sup> Although **sterile gloves** may be used for any surgical procedure, they are **not** always required. In some cases **exam** or **high-level disinfected** gloves are equally safe and less expensive.

<sup>b</sup> This includes new, “never used” individual or bulk-packaged gloves (as long as boxes are stored properly).

<sup>c</sup> If IUDs are supplied in bulk (e.g., Lippes Loop), they must be chemically sterilized or high-level disinfected before insertion.

<sup>d</sup> When sterilization equipment (autoclave) is not available, high-level disinfection is the only acceptable alternative.

<sup>e</sup> Reprocessed surgical gloves.

## WHO GETS NEEDLESTICK INJURIES

If you handle needles in any way, accidental needlesticks will occur.

- **Surgeons** are most often stuck by needles in the operating room—by accidentally sticking themselves during suturing.
- **Nurses** are most often stuck by needles in the hospital—by accidentally sticking themselves while handling hypodermic needles and syringes or being accidentally stuck by surgeons.
- **Cleaning staff** are most often stuck by needles when processing soiled instruments.
- **Housekeeping staff** are most often stuck by needles when disposing of waste material.

## HOW TO HANDLE HYPODERMIC NEEDLES, SCISSORS AND OTHER SHARP ITEMS

### Operating Room

- Use a pan (safe zone) to carry and pass sharp items (e.g., pass suture needles on a needleholder).
- Do not leave sharps in places other than safe zones.
- Tell other workers before passing sharps.

### Safety Tips When Using Hypodermic Needles and Syringes

- Use each needle and syringe only once.
- Do **not** disassemble needle and syringe after use.
- Do **not** recap, bend or break needles prior to disposal.<sup>3</sup>
- Decontaminate needle and syringe prior to disposal.
- Dispose of needle and syringe in a puncture-proof container.
- Make hypodermic needles unusable by burning them.

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<sup>3</sup> Where disposable needles are not available and recapping is practiced, use the “one-handed” recap method:

- First, place the cap on a hard, flat surface; then remove hand.
- Next, with one hand, hold the syringe and use the needle to “scoop-up” the cap.
- Finally, when the cap covers the needle completely, hold the needle at the base near the hub and use the other hand to secure the cap on the needle.

# INFECTION PREVENTION

## HOW TO WITHDRAW MEDICATION FROM A STERILE MULTIDOSE VIAL

- Wipe the top of the vial with a cotton swab soaked in 60–90% alcohol or other locally available disinfectant. Allow to dry.
- If using a new disposable needle and syringe, open the sterile pack.
- If using a sterile or high-level disinfected needle and syringe, remove from covered container using dry, sterile or high-level disinfected forceps.

Never use a syringe for more than one injection. Studies have shown that changing **only** the needle, not the syringe, between clients can result in transmission of hepatitis B virus, and presumably HIV/AIDS.

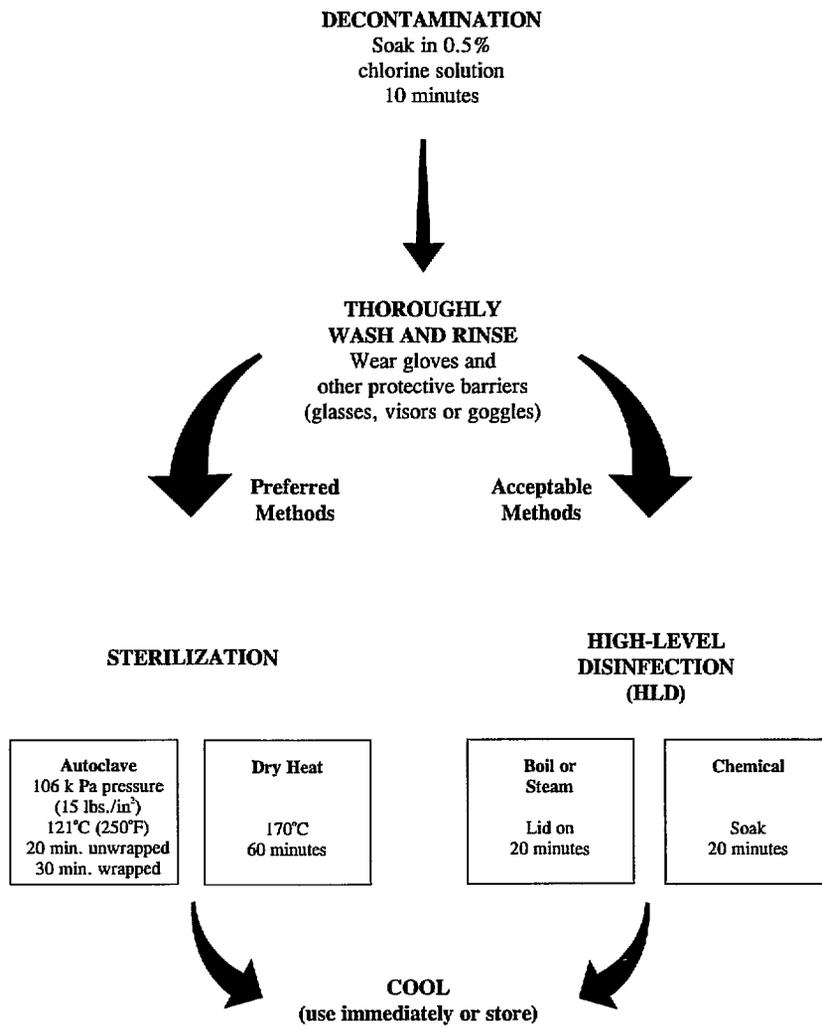
- Attach needle to syringe by holding the hub (base) of the needle and the barrel of the syringe.
- Turn the vial containing the drug upside-down and draw the fluid into syringe using the **same** needle you will use for the injection.
- Withdraw needle from vial.

Do **not** leave a needle inserted in the rubber stopper of a multiple dose vial. This practice is **dangerous** because it provides a direct route for bacteria to enter the drug vial and contaminate the fluid between each use.

Figure 11. One-Handed Recap Method



**Figure 12. Key Steps in Processing Contaminated Instruments and Other Items**



# INFECTION PREVENTION

## DECONTAMINATION

**Decontamination** makes objects safer to be handled by staff **before** cleaning. It is the first step in processing soiled surgical instruments and other items.

- Immediately after use, place instruments and other items in 0.5% chlorine solution for 10 minutes. This step rapidly inactivates HBV and HIV.
- After decontamination, instruments should be rinsed immediately with cool water to prevent corrosion and to remove visible organic material before being thoroughly cleaned.
- Surfaces (especially procedure tables) that may have come in contact with body fluids also should be decontaminated. Wiping with a suitable disinfectant, such as 0.5% chlorine solution, before reuse, when visibly contaminated or at least daily is an easy-to-do, inexpensive way to decontaminate large surfaces.

## INSTRUCTIONS FOR PREPARING DILUTE CHLORINE SOLUTIONS

### Formula for Making a Dilute Solution from a Concentrated Solution

$$\text{Total Parts (TP) (H}_2\text{O)} = \left[ \frac{\% \text{ Concentrate}}{\% \text{ Dilute}} \right] - 1$$

**Example:** Make a dilute solution (0.1%) from 5% concentrated solution.

1. Calculate  $\text{TP(H}_2\text{O)} = \left[ \frac{5.0\%}{0.1\%} \right] - 1 = 50 - 1 = 49$
2. Take 1 part concentrated solution and add to 49 parts boiled (filtered if necessary) water.



### Formula for Making Chlorine-Releasing Solutions from Dry Powders

$$\text{Grams/Liter} = \left[ \frac{\% \text{ Dilute}}{\% \text{ Concentrate}} \right] \times 1000$$

**Example:** Make a dilute chlorine-releasing solution (0.5%) from a concentrated powder (35%).

1. Calculate grams/liter =  $\left[ \frac{0.5\%}{35\%} \right] \times 1000 = 14.2 \text{ g / l}$
2. Add 14.2 grams (14 g) to 1 liter of water.

### CLEANING INSTRUMENTS AND OTHER ITEMS

**Cleaning** is important because:

- It is the most effective way to reduce the number of microorganisms on soiled instruments and equipment. (It reduces up to 80% of contaminating microorganisms—see **Table 12.**)
- Neither sterilization nor high-level disinfection procedures are effective without prior cleaning.

Cleaning is also the best way to reduce the numbers of endospores which cause tetanus and gangrene. When sterilization equipment is not available, thorough cleaning is the **only** way to reduce the number of endospores effectively.

# INFECTION PREVENTION

**Table 12. Effectiveness of Methods for Processing Instruments**

	Effectiveness (removal or inactivation of microbes)	End point
<b>Decontamination</b>	Kills HBV and HIV	10 minute soak
<b>Cleaning (water only)</b>	Up to 50%	Until visibly clean
<b>Cleaning (detergent and rinsing with water)</b>	Up to 80%	Until visibly clean
<b>Sterilization<sup>a</sup></b>	100%	High-pressure steam (autoclave), dry heat or chemical (see below)
<b>High-level disinfection<sup>a</sup></b>	95% (does not inactivate some endospores)	Boiling, steaming or chemical (see below)

<sup>a</sup> Prior decontamination and thorough cleaning required.

## STANDARD CONDITIONS FOR STERILIZATION BY PRESSURIZED STEAM (AUTOCLAVE) OR DRY HEAT (OVEN)

### Steam Sterilization

- 121°C (250°F)
- 106 kPa (15 lb/in<sup>2</sup>) pressure
- 20 minutes for unwrapped items; 30 minutes for wrapped items

**Note:** Pressure settings (kPa or lb/in<sup>2</sup>) may vary slightly depending on the sterilizer used. When possible, follow manufacturers' recommendations.

Do not overload the sterilizer. (Leave at least 7.5 cm—3 inches—between the packs and walls of sterilizer. Overloading alters heat convection and increases time required to sterilize.)

Allow all items to dry before removing.

### **Dry Heat Sterilization**

- 170°C (340°F)
- 1 hour (total cycle time—placing instruments in oven, heating to 170°C, timing for 1 hour, and then cooling—is from 2–2½ hours)

or

- 160°C (320°F)
- 2 hours (total cycle time is from 3–3½ hours)
- Ideal for instruments with cutting edges and other sharps (e.g., scissors, scalpel blades, needles)

Exposure time begins only after the oven has reached the specified temperature.

Endoscopes (laparoscopes) and other instruments that would be damaged by heat can **only** be sterilized or high-level disinfected (see next section) using chemicals.

### **Chemical Sterilization**

An alternative to steam or dry-heat sterilization is chemical sterilization by soaking for 8 to 10 hours in a glutaraldehyde or at least 24 hours in an 8% formaldehyde solution. Glutaraldehydes, such as Cidex®, often are in short supply and expensive, but they and formaldehyde are the only practical liquid sterilants usable for instruments, such as laparoscopes, that cannot be heated. Because glutaraldehydes and formaldehyde require special handling and leave a residue on treated instruments, rinsing with **sterile water** (which can be prepared only by autoclaving) is preferable. (Because boiling does not inactivate some endospores reliably, using boiled water can contaminate sterile instruments.)

Although formaldehyde is less expensive than glutaraldehyde, it is more irritating to the skin, eyes and respiratory tract. When using either formaldehyde or glutaraldehyde, gloves should be worn, eyes should be protected, exposure time limited and both chemicals used only in a well-ventilated area.

## **HIGH-LEVEL DISINFECTION OF INSTRUMENTS AND OTHER ITEMS**

### **High-Level Disinfection by Boiling**

Timing should begin once the water is at a rolling (bubbling) boil. Use instruments and other items immediately or place them in a covered, dry high-level disinfected container. Store for up to 1 week.

# INFECTION PREVENTION

## Boiling Tips

- Always boil for 20 minutes in a pot with a lid.
- Start timing when the water begins to boil.
- Items should be completely covered with water during boiling.
- Do not add anything to the pot after boiling begins.
- Air dry in a high-level disinfected container before use or storage.

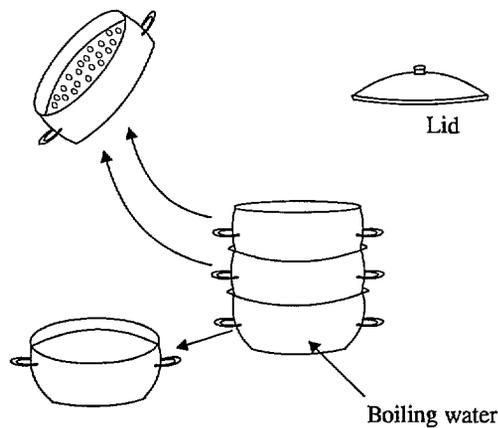
## High-Level Disinfection by Steaming

Place **only** clean, dry items (e.g., surgical gloves) in the steamer pans. Start timing when steam begins to come out from between the pans and lid. Air dry high-level disinfected items in a clean area of the room. Use instruments and other items immediately or place them in a covered, dry, high-level disinfected container. Store for up to 1 week.

## Steaming Tips

- Always steam for 20 minutes in a steamer with a lid.
- Reduce heat so that water continues to boil at a rolling boil.
- Start timing when the steam begins to come out from between the pans and lid.
- Do not use more than 3 steamer pans.
- Air dry in the covered steamer pans or a high-level disinfected container before use or storage.

Figure 13. Steamer Used for HLD



## Chemical High-Level Disinfection

A variety of chemical high-level disinfectants are available worldwide including:

- 0.1% chlorine (sodium hypochlorite)<sup>4</sup>
- 8% Formaldehyde (Formalin)<sup>5</sup>
- 2% Glutaraldehydes

Although **alcohols** (60–90%), **iodine** and **iodophors** are inexpensive and readily available, they are no longer classified as high-level disinfectants. They should be used for disinfection **only** when high-level disinfectants are not available or appropriate.

### Key Steps in Chemical HLD

- Following decontamination, thoroughly clean and dry all equipment and instruments.
- Cover all items completely with correct dilution of properly stored disinfectant.
- Soak for 20 minutes.
- Rinse well with boiled water and air dry.
- Store for up to 1 week in a high-level disinfected, covered container or use promptly.
- To prepare a high-level disinfected container, boil (if small) or fill it with 0.5% chlorine solution and soak for 20 minutes. (The chlorine solution can then be transferred to a plastic container and reused.) Rinse the inside thoroughly with boiled water. Air dry before use.

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<sup>4</sup> Use concentrated liquid bleach (sodium hypochlorite) diluted with boiled water (filtered if necessary) to make 0.1% solution.

<sup>5</sup> Use of boiled water (filtered if necessary) is recommended to make a dilute solution (8%) from a concentrated one.

# INFECTION PREVENTION

## WASTE DISPOSAL

The purpose of waste disposal is:

- to prevent the spread of infection to clinic personnel who handle the waste,
- to prevent the spread of infection to the local community, and
- to protect those who handle wastes from accidental injury.

Medical waste may be noncontaminated or contaminated. Noncontaminated waste (e.g., paper from offices, boxes) poses no infectious risk and can be disposed of according to local guidelines. Proper handling of contaminated waste (blood- or body fluid-contaminated items) is required to minimize the spread of infection to clinic personnel and to the local community. Proper handling means:

- Wearing utility gloves
- Transporting solid contaminated waste to the disposal site in covered containers
- Disposing of all sharp items in puncture-resistant containers
- Carefully pouring liquid waste down a utility drain or flushable toilet
- Burning or burying contaminated solid waste
- Washing hands, gloves and containers after disposal of infectious waste



# STDs AND FAMILY PLANNING

Since the concept of sexually transmitted diseases (STDs) was first described, the spectrum of diseases included in this category has expanded greatly. Currently, more than twenty microorganisms are known to be transmissible through sexual intercourse. The complications arising from STDs, from pelvic inflammatory disease (PID) in particular, present enormous public health problems. In addition, transmission of hepatitis B and AIDS is facilitated by ulcerative genital conditions, and possibly by vaginitis and cervicitis.

To address these public health problems and help the greatest number of clients, practical and economical STD diagnosis and treatment programs are required. Because sexually transmitted disease and family planning services overlap substantially, it is important to provide STD screening for family planning clients. STDs frequently are encountered in family planning clients, especially in certain high-risk groups (e.g., clients who have more than one sexual partner).

The main linkages between STD services and family planning are:

- prevention, and
- client screening.

## PREVENTION

It is important to educate all clients about:

- high-risk sexual behaviors, and
- the protective benefits of condom use (and the limited effectiveness of diaphragms and spermicides).

In addition, if a client is found to have a STD, recommend that her/his sex partner(s) be evaluated and treated as well.

## CLIENT SCREENING

Because a thorough examination (including microbiologic and serologic studies) of all family planning clients usually is not possible, at a minimum, the risk of STDs in all clients should be assessed. Effective screening does not require the use of complicated protocols or costly laboratory tests. To do this, health care providers should:

- be knowledgeable about high-risk sexual practices,
- be aware of the signs and symptoms of STDs,
- be aware of which STDs are particularly common in their client population, and
- carefully evaluate clients in whom STDs are suspected based on their medical history or physical examination findings.

# STDs AND FAMILY PLANNING

## Questions a STD screening history should include:

- Do you have a vaginal discharge?
- In the past year, have you had a genital tract problem such as a vaginal discharge, ulcers or skin lesions in your genital area?
- Has your sex partner been treated for a genital tract problem, such as discharge (drip) from the penis or swollen groin glands, in the last 3 months? Which?
- Do you know if your sex partner has other sex partners?
- Are you or your partner in a profession that puts you at high risk (e.g., commercial sex worker, driver, military)?
- Have you had more than one sex partner in the last 2 months?
- Do you think that you might have a STD?

## WHAT ARE GTIs?

- GTIs are **genital tract infections** caused by a small number of microorganisms (bacteria, viruses and fungi) which usually are sexually transmitted.
- Most STDs are GTIs, although some STDs such as hepatitis B and AIDS (which are primarily but not exclusively sexually transmitted) are also systemic diseases.
- Most GTIs (e.g., gonorrhea, syphilis) can be treated. All can be prevented; and if **not** prevented, early diagnosis and treatment can decrease the possibility of serious complications such as infertility in both women and men.

## GTIs are a Significant Problem

GTIs are almost as common as malaria: > 250 million new cases each year.

The consequences of untreated GTIs are devastating; they include:

- Ectopic pregnancy (7–10 times increased risk in women with history of PID)
- Increased risk of cervical cancer
- Chronic abdominal pain (18% of females with a history of PID)
- Infertility:
  - 20–40% of males with untreated chlamydia and gonorrhea
  - 55–85% of females with untreated PID (8–20% of females with untreated gonorrhea develop PID)
- Increased risk of HBV and HIV/AIDS transmission

In addition, infants can be infected at birth with blinding eye infections and pneumonia, suffer central nervous system damage or die as a result of GTIs and STDs.

In view of the enormous health problems caused by sexually transmitted GTIs, coupled with the limited resources available in many countries, reducing the **incidence** of GTIs is unrealistic. A more realistic aim is to reduce the number of GTI **complications**, such as PID and male and female infertility, and to reduce the transmission of HBV and HIV/AIDS.

#### **DIAGNOSIS AND TREATMENT**

- In primary health care facilities, diagnosis usually rests solely on clinical findings (signs/symptoms) or risk assessment.
- For secondary health care facilities, however, where pelvic examinations can be done and a microscope and simple laboratory testing are available, greater accuracy in managing the most frequently encountered STDs is often possible.

The clinical features of specific GTIs are summarized in this section. To assist the clinician in determining the cause of the client's problem, the following table provides specific information on the clinical findings, diagnosis and treatment of GTIs. **Before use, the treatment regimens should be reviewed and adapted to the local conditions, as necessary.**

## STDs AND FAMILY PLANNING

GTI	CLINICAL FINDINGS (signs/symptoms)
<b>Vaginal/Urethral Discharge</b>	
<b>Bacterial vaginosis</b>	<p>Vaginal discharge with fishy odor, grayish in color</p> <p><b>Not necessarily sexually transmitted</b></p>
<b>Yeast (candidiasis)</b>	<p><b>Women</b></p> <ul style="list-style-type: none"> <li>• Curd-like vaginal discharge, whitish in color</li> <li>• Moderate to intense vaginal or vulvar itching (pruritus)</li> </ul> <p><b>Men</b></p> <ul style="list-style-type: none"> <li>• Itchy penile irritation (balanitis)</li> </ul> <p>Frequently not sexually transmitted</p>
<b>Trichomoniasis</b>	<p>May produce few symptoms in either sex</p> <p><b>Women</b></p> <ul style="list-style-type: none"> <li>• Often will have a frothy (bubbly), foul-smelling, greenish vaginal discharge</li> <li>• Intense pruritus (itching)</li> </ul> <p><b>Men</b> may have a urethral discharge.</p>

DIAGNOSIS	TREATMENT <sup>1</sup>
<p>&gt; 20% “clue cells” (vaginal epithelial cells covered with bacteria) on saline wet mount (or Gram stain); elevated vaginal pH (&gt; 5) and positive “whiff” test for fishy smell</p>	<ul style="list-style-type: none"> <li>• <b>Metronidazole</b>, 400–500 mg orally, twice a day for 7 days</li> <li>• <b>Metronidazole</b>, 2 g orally, single dose</li> </ul> <p>For <b>pregnant women</b> requiring treatment:</p> <ul style="list-style-type: none"> <li>• <b>Clindamycin</b>, 300 mg orally, twice a day for 7 days</li> </ul>
<p>Presumptive diagnosis by symptoms; confirmed by microscopic examination of saline or KOH wet mount preparation</p>	<p><b>Women</b></p> <p><b>Vaginal:</b> antifungal inserted into the vagina as directed (e.g., 2 <b>Nystatin</b> suppositories, each containing 100,000 units each night for 14 nights; <b>Miconazole</b>, 200 mg, each night for 3 nights)</p> <p><b>Vulvar:</b> antifungal cream, ointment or lotion applied to vulva twice a day for 10 days</p> <p>Alternatively, paint vagina with 1% aqueous solution of <b>gentian violet</b>. Client should be encouraged to continue treatment for at least 1 week.</p> <p>In <b>men</b> with candida balanitis, topical application of a <b>gentian violet</b> solution or <b>nystatin</b> cream is advised.</p>
<p>In both sexes, diagnosis is made easily by observing microscopically the whipping motion (flagellating) of the parasite on saline wet mount.</p>	<ul style="list-style-type: none"> <li>• <b>Metronidazole</b>, 2 g, single oral dose (8x250 mg tablets)</li> </ul> <p>Alternatives:</p> <ul style="list-style-type: none"> <li>• <b>Metronidazole</b>, 400–500 mg orally, twice a day for 7 days</li> </ul> <p>Occasionally, retreatment may be necessary after 14 days, especially in males.</p> <p>The cure rate is 82–88% but can be increased to 95% if both partners are treated simultaneously.</p>

<sup>1</sup> Treatment regimens are based on: World Health Organization (WHO). 1994. *Management of Sexually Transmitted Diseases*. WHO: Geneva.

## STDs AND FAMILY PLANNING

GTI	CLINICAL FINDINGS (signs/symptoms)
<b>Vaginal/Urethral Discharge</b> ( <i>continued</i> )	
<p><b>Gonorrhea</b> ("clap" or "drip")</p>	<p><b>Women</b></p> <ul style="list-style-type: none"> <li>• Purulent (containing mucopus) vaginal discharge</li> <li>• Pain (or burning) on passing urine (dysuria)</li> <li>• Inflamed (red and tender) urethra</li> </ul> <p><b>70% of women are asymptomatic in initial stages.</b></p> <p>If left untreated, can result in:</p> <ul style="list-style-type: none"> <li>• infection of the pelvic organs (PID),</li> <li>• infertility due to tubal blockage, or</li> <li>• increased risk of ectopic pregnancy (tubal scarring).</li> </ul> <p><b>Men</b></p> <ul style="list-style-type: none"> <li>• Pain (or burning) on passing urine (dysuria)</li> <li>• Purulent (containing mucopus) urethral discharge (drip)</li> </ul> <p>If left untreated, can result in:</p> <ul style="list-style-type: none"> <li>• infection of the epididymis (coiled tube leading from the testis to the spermatic cord),</li> <li>• urethral abscess or narrowing (stricture), or</li> <li>• infertility (blockage of the epididymis).</li> </ul>
<p><b>Chlamydia</b></p>	<p><b>Women</b></p> <p>Produces few symptoms, even with upper genital tract infection ("silent PID"); on examination, purulent vaginal or cervical discharge, frequently a "beefy" red cervix which is friable (bleeds easily)</p> <p><b>Men</b></p> <p>Most frequent cause (50%) of nongonococcal urethritis (NGU)</p>

DIAGNOSIS	TREATMENT <sup>1</sup>
<p><b>Women</b> 40–60% positive Gram-negative intracellular diplococci (GNIDs) on Gram stain of cervical smear</p> <p><b>Men</b> Up to 98% positive GNIDs microscopically on Gram stain of urethral smear</p>	<p><b>Oral Regimens</b></p> <ul style="list-style-type: none"> <li>• <b>Ciprofloxacin</b>, 500 mg, single oral dose</li> <li>• <b>Cefixime</b>, 400 mg, single oral dose</li> </ul> <p>Alternatives:</p> <ul style="list-style-type: none"> <li>• <b>Trimethoprim</b>, 80 mg/sulfamethoxazole, 400 mg, 10 tablets a day for 3 days</li> </ul> <p><b>Intramuscular Regimens</b></p> <ul style="list-style-type: none"> <li>• <b>Ceftriaxone</b>, 250 mg</li> <li>• <b>Spectinomycin</b>, 2 g</li> </ul> <p>Alternative:</p> <ul style="list-style-type: none"> <li>• <b>Kanamycin</b>, 2 g</li> </ul>
<p>Presumptive diagnosis based on mucopus and/or friable (easily bleeding) cervix and negative GNIDs</p> <p>Definitive diagnosis by serologic tests or culture</p>	<ul style="list-style-type: none"> <li>• <b>Doxycycline</b>, 100 mg orally, twice a day for 7 days, or</li> <li>• <b>Tetracycline</b>, 500 mg orally, 4 times a day for 7 days</li> </ul> <p>As an alternative and <b>in pregnancy</b>:</p> <ul style="list-style-type: none"> <li>• <b>Erythromycin</b>, 500 mg orally, 4 times a day for 7 days<sup>a</sup></li> <li>• <b>Sulfafurazole</b>, 500 mg orally, 4 times a day for 10 days</li> </ul>

<sup>a</sup> Only erythromycin ethylsuccinate and **not** the **estolate** form can be used by pregnant women.

## STDs AND FAMILY PLANNING

GTI	CLINICAL FINDINGS (signs/symptoms)
<b>Genital Ulcers and Buboos</b>	
<p><b>Chancroid</b> (soft chancre)</p>	<p><b>Painful, "dirty" ulcers</b> located anywhere on the external genitalia</p> <p>In 25–60% of cases, an enlarged lymph node (bubo) develops in the groin.</p> <p><b>Most common cause of genital ulcers in many parts of the world</b></p>
<p><b>Syphilis</b></p>	<p>Occurs in 2 forms—<b>early</b> (primary and secondary) and <b>late</b>.</p> <p><b>Early syphilis</b></p> <ul style="list-style-type: none"> <li>• <b>Initially, painless ulcer (chancre):</b> in <b>women</b> on the external genitalia (labia), in <b>men</b> on the penis; and enlarged rubbery lymph nodes</li> <li>• <b>Later (several months):</b> non-itchy body rash</li> </ul> <p>Both types of lesions disappear spontaneously.</p> <p><b>Late syphilis</b> develops in about 25% of untreated cases and is often fatal due to involvement of the heart, great vessels and brain.</p>

DIAGNOSIS	TREATMENT <sup>1</sup>
<p>Presumptive diagnosis often rests on clinical features (syphilitic chancres usually are <b>not</b> painful) and a <b>negative</b> darkfield (microscopic) examination or serology (RPR or VDRL).</p> <p>Confirmation sometimes can be made if the causative bacteria are seen (Gram-negative coccobacilli in chains—the so-called “school of fish”).</p>	<ul style="list-style-type: none"> <li>• <b>Erythromycin</b>, 500 mg orally, 3 times a day for 7 days</li> </ul> <p>Alternatives:</p> <p><i>Oral Regimens:</i></p> <ul style="list-style-type: none"> <li>• <b>Ciprofloxacin</b>, 500 mg, single oral dose</li> <li>• <b>Trimethoprim</b>, 80 mg/sulfamethoxazole 400 mg, 2 tablets twice a day for 7 days</li> </ul> <p><i>Intramuscular Regimens:</i></p> <ul style="list-style-type: none"> <li>• <b>Ceftriaxone</b>, 250 mg by IM injection, single dose</li> <li>• <b>Spectinomycin</b>, 2 g by IM injection, single dose</li> </ul>
<p>Definitive diagnosis made by darkfield microscopy of secretions from a primary or secondary lesion or serology (RPR or VDRL) in equivocal cases or when there are no signs or symptoms (latent stage).</p>	<p><b>Early: Benzathine penicillin G</b>, 2.4 million units, at a single session by IM injection</p> <p>Alternative:</p> <ul style="list-style-type: none"> <li>• <b>Aqueous procaine benzathine penicillin G</b>, 1.2 mIU daily, by IM injection, for 10 days</li> </ul> <p>In clients allergic to penicillin:</p> <ul style="list-style-type: none"> <li>• <b>Tetracycline</b>, 500 mg orally, 4 times a day for 15 days</li> <li>• <b>Doxycycline</b>, 100 mg orally, twice a day for 15 days</li> </ul> <p><b>Late: Benzathine penicillin G</b>, 2.4 mIU, by IM injection once a week for 3 weeks</p> <p>Alternative:</p> <ul style="list-style-type: none"> <li>• <b>Aqueous procaine benzathine penicillin G</b>, 1.2 mIU daily, by IM injection, for 20 days</li> </ul>

## STDs AND FAMILY PLANNING

GTI	CLINICAL FINDINGS (signs/symptoms)
<b>Genital Ulcers and Buboës</b> ( <i>continued</i> )	
<b>Lymphogranuloma venereum (LGV)</b>	<ul style="list-style-type: none"> <li>• Small, usually <b>painless</b> papules (like pimples) on the penis or vulva, followed by</li> <li>• buboës in the groin which ultimately break down forming many fistulae (draining openings)</li> </ul> <p>If untreated, the lymphatic system may become blocked, producing elephantiasis (swelling of the genitals or extremities).</p>
<b>Granuloma inguinale</b> (Donovanosis)	<p>An uncommon cause of ulcerative GTIs</p> <p>Typically, the infected person develops lumps under the skin which break down to form “beefy” red, <b>painless</b> ulcers.</p>
<b>Genital herpes</b>	<p>Multiple, painful, shallow ulcers which clear in 2 to 4 weeks (first attack) and may be accompanied by watery vaginal discharge in women; recurrent (multiple bouts) more than 50% of the time</p>

DIAGNOSIS	TREATMENT <sup>1</sup>
<p>Clinical findings may not be helpful.</p> <p>Microscopic diagnosis rests on seeing inclusion bodies in white cells (PMNs) of bubo aspirate.</p>	<ul style="list-style-type: none"> <li>• <b>Doxycycline</b>, 100 mg orally, twice a day for 14 days</li> <li>• <b>Tetracycline</b>, 500 mg orally, 4 times a day for 14 days</li> </ul> <p>Alternatives:</p> <ul style="list-style-type: none"> <li>• <b>Erythromycin</b>, 500 mg orally, 4 times a day for 14 days</li> <li>• <b>Sulfadiazine</b>, 1 g orally, 4 times a day for 14 days</li> </ul> <p>Some patients may require longer treatment.</p>
<p>Diagnosis rests on identifying “Donovan bodies” inside the cell in Giemsa-stained smear from the groin or perineal buboes.</p>	<ul style="list-style-type: none"> <li>• <b>Trimethoprim, 80 mg/sulfamethoxazole</b>, 400 mg, 2 tablets orally, twice a day for 14 days</li> </ul> <p>Alternative:</p> <ul style="list-style-type: none"> <li>• <b>Tetracycline</b>, 500 mg orally, 4 times a day for 10 days</li> </ul>
<p>Presumptive diagnosis by signs and symptoms and, often, by exclusion</p>	<ul style="list-style-type: none"> <li>• <b>Acyclovir</b>, 200 mg orally, 5 times a day for 7 days</li> </ul> <p><b>Client Instructions:</b></p> <ul style="list-style-type: none"> <li>• Keep lesions clean.</li> <li>• Wash affected sites with soap and water and dry carefully.</li> <li>• Avoid sexual contact while lesions are present.</li> <li>• Use a condom (male or female) after lesions are healed.</li> </ul> <p>If lesions become secondarily infected, treat for 5 days with <b>trimethoprim, 80 mg/sulfamethoxazole</b>, 400 mg, 2 tablets orally twice a day.</p>

# STDs AND FAMILY PLANNING

GTI	CLINICAL FINDINGS (signs/symptoms)
<b>Genital Ulcers and Buboos</b> ( <i>continued</i> )	
<p><b>Genital warts</b> (condyloma acuminata)</p>	<p>Single or multiple soft, painless, “cauliflower” growths which appear around the anus, vulvo-vaginal area, penis, urethra and perineum</p>
<b>Lower Abdominal Pain</b>	
<p><b>Pelvic inflammatory disease (PID)</b></p>	<p><b>Acute:</b> lower abdominal tenderness, cervical motion tenderness (CMT) on pelvic examination and one or more of the following:</p> <ul style="list-style-type: none"> <li>• purulent (containing mucopus) vaginal/cervical discharge,</li> <li>• temperature &gt; 38°C,</li> <li>• GNIDs on cervical smear, or</li> <li>• presence of a pelvic mass.</li> </ul>



DIAGNOSIS	TREATMENT <sup>1</sup>
<p>Presumptive diagnosis by signs and symptoms. Exclude syphilis by darkfield examination or serology.</p>	<p>Preferred treatment, if available:  <b>Cryotherapy</b> with liquid nitrogen, solid carbon dioxide or cryoprobe</p> <p>Treat warts on the penile shaft or perivulval skin (since they will not respond to podophyllin) with glacial trichloroacetic acid (TCA 75% solution). Treat recurrences as above, making sure that partner(s) is examined.</p> <p>Alternatively, apply <b>podophyllin solution</b> (10–25%) carefully to warts, leave on for 1–4 hours and then wash. Repeat treatment weekly. <b>Podophyllin should not be used during pregnancy and should not be applied to lesions on the cervix or inside the urethra.</b></p>
<p>GNIDs on cervical smear</p>	<p>For acute PID, treat for gonorrhea (Ceftriaxone), chlamydia (Doxycycline) and anaerobic infections (Metronidazole) as follows:</p> <ul style="list-style-type: none"> <li>• <b>Ceftriaxone</b>, 250 mg by IM injection, <b>plus</b></li> <li>• <b>Doxycycline</b>, 100 mg orally, twice a day for 14 days, <b>plus</b></li> <li>• <b>Metronidazole</b>, 400–500 mg orally, twice a day for 14 days</li> </ul> <p>If client does not improve with this treatment, refer her to a higher level health care facility.</p>

## STDs AND FAMILY PLANNING

<b>GTI</b>	<b>CLINICAL FINDINGS</b> (signs/symptoms)
<b>Acute Scrotal Pain and/or Swollen Scrotum</b>	
<b>Epididymitis/ Orchitis (sexually acquired)</b>	<b>Acute:</b> Severe pain in one or both testes, sudden swelling of the testes
<b>Epididymitis/ Orchitis (not sexually acquired)</b>	<b>Acute:</b> Severe pain in one or both testes, sudden swelling of the testes

DIAGNOSIS	TREATMENT'
<p>May include urethral discharge (or past history)</p>	<ul style="list-style-type: none"> <li>• <b>Ceftriaxone</b>, 250 mg IM, single dose, <b>plus</b></li> <li>• <b>Doxycycline</b>, 100 mg orally, twice a day for 10 days, or</li> </ul> <p>Alternative:</p> <ul style="list-style-type: none"> <li>• <b>Ofloxacin</b>, 300 mg orally, twice a day for 10 days</li> </ul> <p>If acute, treat for gonorrhea and chlamydia.</p>
<p>May include urethral discharge (or past history)</p>	<p>If urinary tract infection with Gram-negative bacilli such as <i>E. coli</i> or <i>pseudomonas</i> species, treat with trimethoprim and sulphamethoxazole as follows:</p> <ul style="list-style-type: none"> <li>• <b>Trimethoprim</b>, 80 mg/<b>sulfamethoxazole</b>, 400 mg, 2 tablets twice a day for 10 days</li> </ul>

# NOTES



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2nd edition

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<b>Overall Impression of the PocketGuide</b>				
<b>CHAPTER</b>				
Counseling				
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