

# TRAINING COURSE IN WOMEN'S HEALTH

## **Module Six**

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### **Methods of Birth Control**

## **International Prototype**

Developed by the International Women's Health Coalition and converted to self-instructional format by the Institute for Development Training, this manual, and others in the series, is intended as a prototype only. For effective use in training programs, a country adaptation focused on the needs of a specific type of trainee, followed by pre-testing, is considered essential. For information on sources of funding for adaptation workshops, pre-tests and multiple copies of the adapted manual contact:

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April 1, 1985

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Dear Clinician:

This manual was prepared for your use by a number of able and committed persons, dedicated, as you are, to improving the health care in your country. Every effort has been made to include the most accurate and up-to-date essentials of gynecological health care.

The material was designed and developed by the International Women's Health Coalition, and has been adapted for self-instructional use by the Institute for Development Training.

We do know, however, that as a prototype the material is not suitable for use in all training situations. We hope you will feel free to change anything that is inappropriate.

Your task is a significant and important one. We sincerely hope this manual plays a small part in helping you with your work.

Yours for good health.

Sincerely,

Joan B. Dunlop  
President

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## **Introduction to Module Six**

Module Six - "Methods of Birth Control" - is one of a series of modules which make up the Training Course in Women's Health. Module Six focuses on eight methods of birth control: oral contraceptives; intra-uterine devices (IUD); condoms; diaphragms, spermicidal foam, tablets, or suppositories; contraceptive injection (the "shot"); contraceptive sponge; and post-coital contraceptives. These specific contraceptives are explained in terms of how they work, their effectiveness, problems and side effects, contraindications, use, how to manage possible side effects or medical complaints, and information sections on the medical procedures for fitting a diaphragm and inserting an IUD.

## Table of Contents

Introduction to Module Six . . . . .	1
Table of Contents . . . . .	2
Instructions for the Learner . . . . .	4
Prerequisites and Objectives . . . . .	5
Pre-test . . . . .	8
1 Birth Control . . . . .	11
2 Oral Contraceptives . . . . .	14
3 Prescribing Oral Contraceptives . . . . .	23
4 Managing Patients on Oral Contraceptives . . . . .	31
5 Intrauterine Devices (IUD) . . . . .	35
6 Preparation for Inserting IUD's . . . . .	42
7 Techniques for Inserting Three Types of IUD's . . . . .	50
8 Patient Information on the IUD . . . . .	59
9 Removal of the IUD . . . . .	63
10 Management of IUD Side Effects . . . . .	67
11 Contraceptive Injections . . . . .	79
12 Condoms . . . . .	84
13 Spermicidal Foam, Tablets, or Suppositories . . . . .	88
14 Diaphragms with Spermicidal Cream or Jelly . . . . .	92
15 Use and Care of Diaphragms . . . . .	96
16 How to Fit a Diaphragm . . . . .	101
17 Patient Information on Diaphragms . . . . .	107
18 The Contraceptive Sponge . . . . .	110

19	Post-coital Contraceptives . . . . .	113
	Post-test . . . . .	119
	Answers to Post-test . . . . .	122

## Instructions for the Learner

This module, which is one of a series of modules, is self-instructional. Self-instruction is a method by which you, the learner, learn by yourself from carefully sequenced materials. The module is divided into short sections of information and each of these sections is followed by a series of questions which give you a chance to practice using the information you have learned. Answers to these questions are given so that you can check your understanding of the information.

The self-instructional method allows you to learn at your own speed and enables you to consistently check your progress in learning the information.

Follow the steps below in order to proceed through this self-instructional module in the most effective way:

1. Read the objectives for the module. They will outline for you what you will learn and be able to do after completing the module.
2. Take the Pre-test to get an idea of what you already know and what you need to learn.
3. Read and study the information in Section 1.
4. Answer the practice questions following the section without looking back at the information. Use a separate sheet of paper.
5. Check your answers using the answer sheet on the page following the questions.
6. If any of your answers are incorrect, reread the information in the section and try to answer the questions again.
7. When all your answers are correct, go on to the next section.
8. Proceed through the rest of the sections in the same way: read section; answer questions; check answers; reread section if necessary.
9. Take the Post-test after you have completed the entire module.
10. Check your answers to the Post-test using the answer sheet at the end of the module.

## Prerequisites and Objectives

### Prerequisites

As a prerequisite for this module, you must have a basic knowledge and understanding of the following terms, concepts, and procedures:

1. Female Reproductive System (Module One)
2. Female Urinary System (Module Two)
3. Gynecological Examinations (Module Three)
4. Vaginal Infections and Sexually Transmitted Diseases (Module Four)
5. Procedure for using a cervical probe
6. Procedure for giving injections
7. Emergency protocol for vaso-vagal fainting
8. Menstrual cycle

### Main Objective

The learner will be able to describe 8 different methods of birth control (including oral contraceptives; intrauterine devices; contraceptive injections; condoms; spermicidal foam, tablets, or suppositories; diaphragms; sponges; and post-coital contraceptives) in terms of how each one works, effectiveness, problems, and side effects; contraindications, procedures for effective use, directions for the patient, and management of problems that may arise while a woman is using a specific method.

### Sub-objectives

After completing this module, the learner will be able to:

1. explain why the ability to provide contraceptives is an important skill for every health worker
2. explain how oral contraceptives work to prevent pregnancy
3. list 5 problems or side effects associated with oral contraceptives
4. list 4 symptoms which would indicate that a woman should stop taking oral contraceptives immediately
5. recognize the absolute contraindications of oral contraceptives and the contraceptives that indicate a need for a specialist's advice
6. describe the three steps to follow in order to prescribe oral contraceptives safely and effectively

7. give the types of information to tell the patient using oral contraceptives
8. give possible solutions to 6 complaints that a patient using oral contraceptives might have
9. explain how intrauterine devices work to prevent pregnancy
10. list several advantages of the IUD as a contraceptive
11. give 7 problems and side effects that may possibly occur with IUD use
12. identify 7 contraindications of the IUD
13. describe the preliminary steps of the procedure to insert the IUD
14. explain briefly the procedure for sounding the uterus with the cervical probe
15. list 3 specific types of IUD's
16. state the factor that determines which size of Lippes Loop to use
17. explain how the "push through" inserter of the Lippes Loop works in terms of its specific parts
18. explain how the "withdraw the sheath" inserter of the Copper T and the Copper 7 works in terms of its specific parts
19. explain the procedure to follow if the patient experiences vasovagal fainting during IUD insertion
20. list at least 7 things the patient should be told about the IUD
21. list the 5 IUD danger signs to tell the woman to watch for
22. briefly explain the procedure for removing the IUD
23. give possible causes and treatment for 13 complaints that a patient using the IUD may have
24. explain how the contraceptive injection works to prevent pregnancy
25. list 5 problems or side effects associated with the contraceptive injection
26. list 5 things to tell the patient about the contraceptive injection
27. give possible causes and treatments to 2 side effects of the contraceptive injection

28. explain how condoms work to prevent pregnancy
29. describe the precautions to take for the storage and lubrication of condoms
30. explain how spermicidal foam, tablets, or suppositories work to prevent pregnancy
31. list two side effects associated with spermicidal foam, tablets, or suppositories
32. describe briefly the procedure for using spermicidal foam
33. list 6 things to tell the couple about using contraceptive foam effectively
34. explain how diaphragms work to prevent pregnancy
35. describe the conditions which determine the diaphragm's effectiveness
36. describe the general problems a woman may experience with the diaphragm
37. list 3 contraindications of the diaphragm
38. identify important points in the steps for the woman to follow for the proper use of the diaphragm
39. explain what should be done in order to take care of the diaphragm
40. identify important points in the steps to follow in order to select and fit the proper size and type of diaphragm for a patient
41. list 9 things a patient should be told about using the diaphragm effectively
42. explain how the contraceptive sponge works to prevent pregnancy
43. give 4 advantages of the contraceptive sponge as a method of birth control
44. describe two methods of post-coital contraception
45. give the time periods in which each post-coital contraceptive must be administered in order to be effective
46. describe the side effects and risks to pregnancy that may occur with each method

## Pre-test

**To the Learner:** Before starting this module, try taking the following test. The test will give you an idea of what you already know and what you will learn in this module. You will take the same test again after you have completed the module. A comparison of your two sets of answers will give you an idea of how much you have learned from this module.

1. Below are two lists. One is a list of contraceptive methods. The other one is a list of descriptions of how specific contraceptive methods work to prevent pregnancy. Decide which contraceptive method is being described in each statement and write that method beside the statement.

Contraceptive Methods:

oral contraceptives  
intrauterine device (IUD)  
contraceptive injection  
condoms  
spermicidal foam  
diaphragm  
contraceptive sponge  
post-coital contraceptives

- \_\_\_\_\_ a. This plastic or plastic and copper device is placed in a woman's uterus and keeps the fertilized egg from implanting there. Specific types are the Lippes Loop and the Copper T.
- \_\_\_\_\_ b. This method is a pill which contains two female hormones: progesterone and estrogen. The two hormones interrupt a woman's normal menstrual cycle.
- \_\_\_\_\_ c. This method is given to the woman every 3 months. It contains a hormone similar to progesterone, which keeps most ova from developing, sperm from reaching ova that do develop, and any fertilized egg from implanting and growing in the uterus.
- \_\_\_\_\_ d. This method is for men and is made of a thin sheath of rubber that fits over the man's penis and keeps sperm from entering the vagina.

- \_\_\_\_\_ e. These methods - either hormonal pills or insertion of an IUD - can prevent implantation of a fertilized egg, even if administered up to several days after unprotected intercourse.
- \_\_\_\_\_ f. This method contains a sperm killing chemical. It is inserted into the vagina with an applicator, and must be used before each act of intercourse.
- \_\_\_\_\_ g. This rubber cup fits over the cervix. A spermicidal cream or jelly must be applied to the cup. The cup works as a physical barrier to the sperm and the spermicide kills the sperm chemically.
- \_\_\_\_\_ h. This contraceptive device is made out of polyurethane foam impregnated with a spermicide. It has a retrieval loop and may remain in place for 24 hours as an effective barrier to conception.

2. Which ones of the following contraceptive methods would be contraindicated by the conditions listed below:

oral contraceptives  
 IUD  
 condom  
 diaphragm

- a. pregnancy (known or suspected) \_\_\_\_\_
- b. uterus smaller than 5 cm \_\_\_\_\_
- c. no contraindications for this method \_\_\_\_\_
- d. coronary artery disease \_\_\_\_\_
- e. pelvic or vaginal infection \_\_\_\_\_
- f. prolapsed uterus \_\_\_\_\_
- g. severe migraine headaches \_\_\_\_\_
- h. very heavy or painful menstrual bleeding \_\_\_\_\_
- i. heavy smoker over 35 years old \_\_\_\_\_
- j. bladder pushing down vaginal wall \_\_\_\_\_

3. List at least three side effects and problems associated with each of the following contraceptive methods: (a) the IUD, (b) the contraceptive injection, and (c) oral contraceptives.

4. What are the 5 early danger signals which may indicate serious trouble for the woman taking oral contraceptives?

5. Before you insert the IUD, you should do a sounding with a sterile cervical sound. What information are you looking for with this device?
6. Name three specific types of IUD's.
7. What are the 5 danger signs that a patient using an IUD should know?
8. What are the risks and problems associated with the contraceptive injection that the patient must understand and accept?
9. If a man uses a condom, what contraceptive method should the woman use to increase the effectiveness of the condom?
10. How often must the diaphragm be used in order to be an effective contraceptive device?
11. How often must diaphragms be refitted?
12. How often should the IUD's, the Copper T and the Copper 7, be changed?
13. What are 4 advantages of the contraceptive sponge?
14. Give the time periods in which each of these post-coital contraceptives must be administered in order to be effective
  - a. hormonal method ("morning-after pill") \_\_\_\_\_
  - b. IUD \_\_\_\_\_
15. Throughout this module, there are sections on "what to tell the patient" about a specific contraceptive. Why do you think it is suggested to spend some time talking with the woman about methods, possible problems, and how to use the specific method?

## 1. Birth Control

Birth control means exactly what it says - controlling birth. It does not mean stopping birth, unless a woman and her mate decide not to have any more children. The ability to provide birth control (contraceptives) is an important skill for every health worker. Without birth control, women die. They die in childbirth, because they are weak from too many births in too short a time. Children die because they cannot be breast-fed for as long as they need it.

There are risks in all the current contraceptive methods. But all of the deaths from all of the methods of birth control and sterilization amount to a small fraction of the deaths due to childbirth and illegal abortion. Attention must be given to the many factors that are involved in maternal mortality - nutrition, living standards, availability of health care and especially prenatal care and access to voluntary sterilization and legal abortion.

But attention must also be given to those who want to limit their families or to decide when to have children. The next information sections teach you the skills to help those families.

### Practice Questions

1. What is another term for birth control devices?
2. Why is the ability to provide contraceptives an important skill for every health worker?
3. Why would a health worker prescribe contraceptives even though there are risks involved?
4. List at least 5 factors that are involved in maternal mortality.

**To the Learner:** Turn the page to check your answers.

### Answers to Practice Questions

1. Another term for birth control devices is contraceptives.
2. The ability to provide contraceptives is an important skill because without birth control, women die in childbirth because they are weak from too many births in a short time and children die because they cannot be breast-fed as long as they need it.
3. A health worker would prescribe contraceptives in spite of risks because all of the deaths from all of the methods of birth control and sterilization amount to only a small fraction of the deaths due to childbirth and illegal abortions.
4. All of the following factors are involved in maternal mortality:
  - a. nutrition
  - b. living standards
  - c. availability of health care
  - d. availability of prenatal health care
  - e. access to voluntary sterilization
  - f. access to legal abortion

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go on to section 2 on the next page.

## 2. Oral Contraceptives

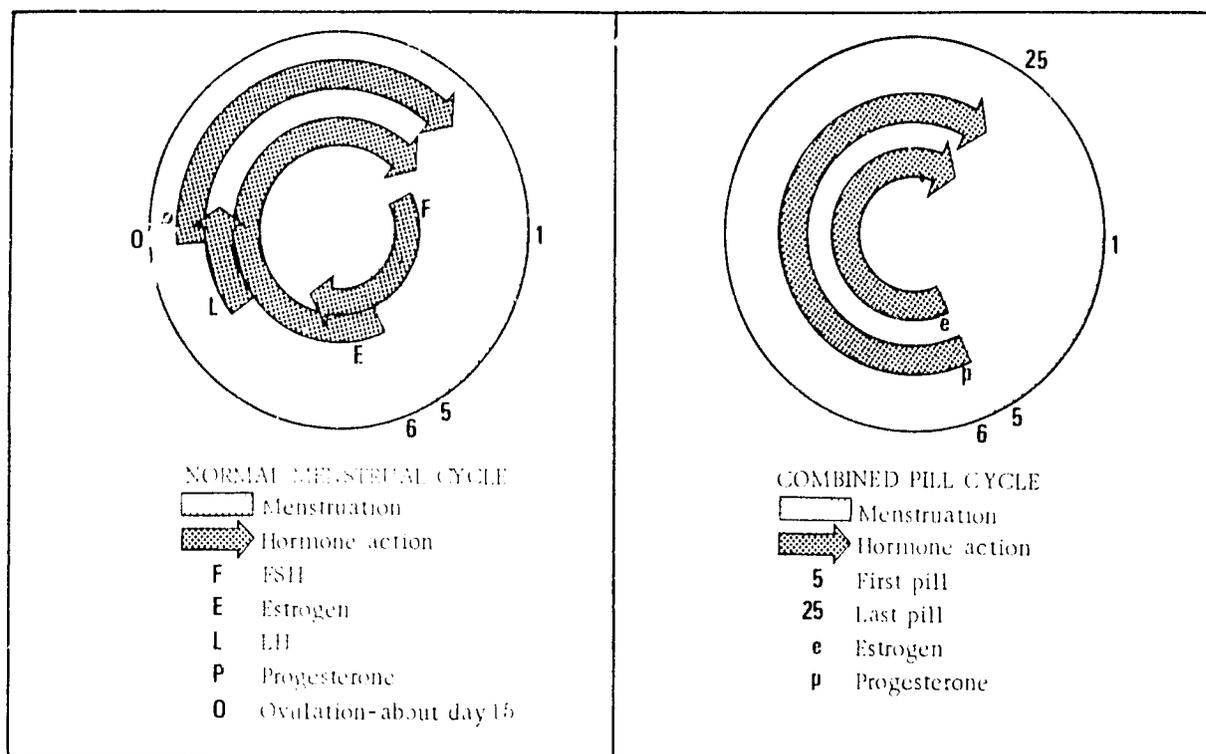
The information on oral contraceptives will be presented in three information sections. This section will explain how oral contraceptives work, their effectiveness, problems and side effects, and contraindications. The next information section will focus on information for the patient taking oral contraceptives, and the third section contains a guide to managing patients who are taking oral contraceptives.

### How Oral Contraceptives Work

Oral contraceptives are pills that a woman takes by mouth, to prevent pregnancy. They imitate pregnancy. When a woman is pregnant she stops releasing eggs. Oral contraceptives contain two female hormones: an estrogen and progestin, a progesterone-like hormone. The two hormones in the pill interrupt a woman's normal menstrual cycle. The estrogen in the pill prevents the egg from developing in the ovary. The progestin keeps the lining of the uterus from developing as it would in a normal menstrual cycle. Even if an egg does ripen and become fertilized, it will still not implant in the endometrium.

In other words, contraceptive pills prevent the egg from developing or being fertilized, and they also prevent an accidentally fertilized egg from implanting in the uterus.

The two diagrams on the next page illustrate how the contraceptive pill interrupts the normal menstrual cycle.



A woman who chooses oral contraceptives can go on using them until she:

- stops to have a pregnancy
- chooses another method
- reaches age 35 if she smokes, or 40 if she does not

It is bad to stop and start pills. There is no need to "rest" every two years as had sometimes been suggested.

### What the Pill Does and Does Not Do

There are many misunderstandings about the pill. It does not:

- cause cancer
- give deformed babies

Women who take the pill have:

- less pain with their periods
- less breast disease
- less ovarian cancer
- less endometriosis
- less endometrial cancer (cancer of the lining of the uterus)

## Effectiveness

If the pills are taken correctly, they are most effective. In actual use, pills have a small failure rate. This is because some women forget to take the pills for more than 1 day, and they do not use another method when they forget their pill.

## Problems and Side Effects

For most women, oral contraceptives are relatively safe. For nearly all women, it is safer to take the pill than to become pregnant. It is common for some women to have some side effects when they first begin to take the pills. These are usually like the problems of early pregnancy and disappear after 2 or 3 months. Even though the possible side effects are not serious, it is important to let the woman know that these side effects are possible.

1. "Morning sickness" - swelling of the breasts, nausea, or other signs of pregnancy. This symptom can happen any time of the day, not just in the morning. This is because the pill contains the same hormones that a woman's body produces when she is pregnant. These signs do not mean that she is unhealthy or should stop taking the pill.

The signs will usually go away after 2 or 3 months. Advise your patient to take her pill with a meal or at bedtime, to stop these side effects.

2. Less bleeding than usual during their menstrual period. They also might have a small amount of bleeding between periods ("spotting"). This is quite common, especially if you have given her a pill with a very small amount of estrogen.

If spotting is a problem, first make sure the woman is taking her pill at the same time every day. If this bleeding is still a problem, you may try another kind of pill with a larger amount of estrogen.

3. No menstrual flow - This is not uncommon with a thin woman, when the woman has been taking the pills for several months. It is usually not a problem if she has been taking her pill every day. However, if she misses 2 periods she should take a pregnancy test, to be sure she is not pregnant.
4. Depression, mood changes, and fatigue - These problems could be caused by either too much estrogen, or too little estrogen, or high levels of progesterone. Use your judgment in changing the strength of the pill. Usually she will need a pill with a smaller amount of progesterone. If her depression gets worse, it might be better for her to use another method of birth control.

5. Problems with vaginal infections - Pills change the environment of the vagina and make it easier for some micro-organisms to grow. Make sure your patient understands that she should ask you for treatment if she has any vaginal irritation.

### Symptoms Indicating Severe Problems

If your patient is already taking contraceptive pills and has any of the following symptoms, she should stop taking the pills IMMEDIATELY:

1. visual disturbances (spots or loss of vision)
2. numbness or weakness of arms or legs
3. unexplained chest pain
4. migraine headaches

### Contraindications

Although serious problems with oral contraceptives are rare, you must warn the woman the pills occasionally cause serious effects. Be sure that your patient knows what symptoms might indicate a serious problem.

#### A. Absolute contraindications:

Never give pills to women with the following conditions:

1. thromboembolic disorder
2. cerebrovascular disorder
3. coronary artery disease
4. impaired liver function (history of liver tumor)
5. cancer of breast or any pelvic organs
6. pregnancy (known or suspected)
7. abnormal vaginal bleeding
8. breastfeeding within three months of birth (difference of opinion on this)
9. over 40 years of age
10. over 35 years and heavy smoking

B. Relative Contraindications:

Obtain the specialist's opinion before prescribing the pill to women with the following conditions:

1. severe headaches, migraine
2. high blood pressure
3. diabetes or strong family history
4. gallbladder disease, stones
5. sickle-cell disease
6. cardiac or renal disease
7. surgery planned within one month
8. depression
9. asthma
10. epilepsy
11. varicose veins
12. uterine fibroids
13. tuberculosis
14. chloasma or hair loss during pregnancy
15. history of hepatitis or jaundice

**NOTE:** Women who are being treated for diabetes or tuberculosis need special advice which they should obtain from those treating them.

## Practice Questions

1. What two hormones are contained in oral contraceptives?
2. How does the presence of these two hormones prevent pregnancy in a woman taking oral contraceptives, or the pill?
3. Decide if the following statements about the pill are true or false. Write your answer next to the letter beside the statement.
  - \_\_\_\_\_ a. The pill causes cancer.
  - \_\_\_\_\_ b. The pill causes deformed babies.
  - \_\_\_\_\_ c. Women taking the pill have less benign breast disease.
  - \_\_\_\_\_ d. Women taking the pill have less ovarian cancer.
  - \_\_\_\_\_ e. Women taking the pill have less endometriosis.
  - \_\_\_\_\_ f. Women can use the pill until age 40, if they do not smoke.
  - \_\_\_\_\_ g. Women taking the pill have less endometrial cancer.
4. What is the main reason for the pill not being effective some of the time?
5. List 5 problems or side effects a woman who is taking the pill may experience.
6. If a woman has missed her period for two months while taking the pill, what should the clinician do?
7. What are 4 symptoms that may indicate a severe problem in a woman taking the pill?
8. If the woman has any of these four symptoms, what should she do?
9. Following is a list of contraindications. Write the letters of the ones which are absolute contraindications, or conditions which indicate that you should never prescribe the pill.

a. asthma	m. pregnancy (known/suspected)
b. epilepsy	n. coronary artery disease
c. tuberculosis	o. thromboembolic disease
d. abnormal vaginal bleeding	p. over 35 years old/heavy smoking
e. cancer of the breast	q. chloasma
f. impaired liver function	r. surgery planned within one month
g. depression	s. cardiac or renal disease
h. varicose veins	t. cerebrovascular disorder
i. uterine fibroids	u. breastfeeding within 3 months of delivery
j. sickle cell disease	v. severe headaches
k. over 40 years of age	w. high blood pressure
l. gallbladder disease, stones	x. diabetes

10. If a woman has one of the above conditions which is not an absolute contraindication, what should be done before the pill is prescribed for the woman?

**To the Learner:** Turn the page to check your answers.

## Answers to Practice Questions

1. Oral contraceptives contain two female hormones: estrogen and progesterone.
2. The two hormones interrupt a woman's normal menstrual cycle. The estrogen in the pill keeps the egg from developing in the ovary. The progestin keeps the lining of the uterus from developing as it would during a normal menstrual cycle, so a ripened and fertilized egg could not implant in the uterus.
3.
  - a. false
  - b. false
  - c. true
  - d. true
  - e. true
  - f. true
  - g. true
4. Pills have a small failure rate. Pregnancy occurs usually when a woman forgets to take the pills for more than one day and does not use another birth control method when she forgets her pill.
5. Five problems or side effects of the pill are:
  - (1) morning sickness (nausea)
  - (2) less bleeding than usual
  - (3) no menstrual flow
  - (4) depression, mood changes, and fatigue
  - (5) problems with vaginal infections
6. If a woman misses her period for two months while taking the pill, the clinician should give her a pregnancy test.
7. Four symptoms that may indicate a severe problem in a woman taking the pill are:
  - (1) visual disturbances
  - (2) numbness or weakness of arms or legs
  - (3) unexplained chest pains
  - (4) migraine headaches
8. If the woman has any of these four symptoms, she should stop taking the pill immediately, and use another birth control method.

9. The absolute contraindications are:

- |                                |   |
|--------------------------------|---|
| d. abnormal vaginal bleeding   | n. coronary artery disease                      |
| e. cancer of the breast        | o. thromboembolic disease                       |
| f. impaired liver function     | p. over 35 years old/heavy smoker               |
| k. over 40 years of age        | t. cerebrovascular disorder                     |
| m. pregnancy (known/suspected) | u. breastfeeding within 3 months<br>of delivery |

10. If a woman has one of the 14 contraindications that are not absolute contraindications, a specialist's opinion should be obtained before the pill is prescribed for her.

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 3 on the next page.

### 3. Prescribing Oral Contraceptives

In order to prescribe oral contraceptives safely and effectively for a patient, you must follow three steps: (1) review the patient's medical history and check for contraindications; (2) explain to the woman how to use the pill; and (3) give the woman adequate information about the pill and its possible side effects. This information section contains information to help you proceed effectively through the three steps.

#### 1. Review the medical history and check for contraindication.

If your patient wishes to begin oral contraceptives, examine her medical history and make sure that she has no signs of contraindications. Start with the checklist below. If there is any check mark in the YES column, do not prescribe pills for the patient without consultation.

	YES	NO
<b>HISTORY:</b>		
<b>Ask if the woman has had a history of any of the following:</b>		
Yellow skin or yellow eyes in the past 6 years		
Swelling or severe pains in the legs		
Severe chest pains		
Bleeding after sexual intercourse		
Diabetes		
<b>Ask her if:</b>		
She smokes more than one pack of cigarettes a day		

Go over this list of contraindications (see section on contraindications in Information Section 2). This step may require that you consult with a specialist for advice before prescribing the pill if the woman has certain medical conditions. Note also that there are absolute contraindications, or conditions which indicate that the pill should not be prescribed under any circumstances.

If it is appropriate then, the time of supplying pills can be a suitable one at which to give a routine health check, pelvic and breast examination as well as a blood pressure and urine check.

## 2. Explain how to use the pill.

If the woman has no absolute contraindications and you have checked her medical history for other contraindications that require a specialist's advice, you may prescribe the pill. It is important that the woman knows how to use the pill packets correctly. Make sure she will be able to follow your instructions on how to take the pills.

It is best to have the woman take a contraceptive pill with the smallest possible amount of hormones. If she develops any of the minor side effects, you may try another pill with a larger dose.

The pills come in packets of either 21 or 28 pills.

### To Use the 21-pill Packet:

1. Recipient takes the first pill on the first day of her menstrual period or the day after a pregnancy termination. She takes one pill every day, at the same time every day, until the packet is finished (for 21 days). Some package instructions say the pills should be started on the fifth day. This is all right but not necessary.
2. After finishing the packet, she waits 7 days, and then begins a new packet. Usually her period will come during the 7 days when she is not taking the pills.
3. Even if her period does not come, she must start the new packet 7 days after finishing the last one.
4. It is important for your patient to understand that she must take one pill every day to prevent pregnancy, except during the 7 days between pill packets.
5. If she forgets 1 day, she must take 2 pills the next day.

### To Use the 28-pill Packet:

1. The first pill is taken on the first day of the menstrual period, or the day after a pregnancy termination.
2. The woman takes 1 pill every day.
3. Seven of the pills will be a different size and color. She will take these pills last (1 each day), after the other pills have been taken.

4. The day after she finishes the packet of 28, she must start the next packet.
5. She takes 1 pill every day, without missing a day.
6. If she forgets one day, she must take 2 pills the next day.

Women who take contraceptive pills must take them as prescribed as long as they do not want to become pregnant. Even when a woman gets sick, or takes other medicines, she must continue as usual with her contraceptive pill. It is important to tell her that if she forgets to take her pill for more than 1 day, she must take those pills as soon as she remembers them. If possible, she should use foam or condoms while she finishes the rest of the packet.

**3. Give information on general use, side effects, and warning signs.**

**4. What to tell your patient.**

1. Be sure she understands exactly how to take the pills.
2. Tell her to come to you if she feels the pills are not good for her in any way.
3. If your patient misses 2 menstrual periods, she should have a pregnancy test.
4. If she becomes pregnant, she must stop taking the pill immediately.
5. If she wishes to become pregnant, she must stop taking the contraceptive pills.
6. If the woman sees a clinician about other problems, or if she is admitted to a hospital, she MUST tell the clinician that she is taking oral contraceptives. This is very important. Give each birth-control pill acceptor a patient report.
7. Teach her the following five early danger signals which may indicate serious trouble. You should also be aware of the possible problems indicated by the warning signs in a woman taking oral contraceptives.

<u>5 Signals</u>	<u>Possible Problems</u>
Abdominal pain (severe)	Gall bladder disease, hepatic adenoma, blood clot
Chest pain (severe), or shortness of breath	Blood clot in lungs, or myocardial infarction
Headaches (severe)	Stroke or hypertension
Eye problems: blurred vision, flashing lights, or blindness	Stroke or hypertension
Severe leg pain (in calf or thigh)	Blood clot in legs

Following are two lists of information addressed to the patient which you can use as guidelines for discussing the use and possible side effects of oral contraceptives.

### 1. General Information about Birth Control Pills

The pill is the most successful reversible method for preventing pregnancy if it is taken properly. It contains a combination of chemicals or hormones much like ones your own body makes. These hormones regulate your menstrual periods. They have an effect on almost every part of your body. Most women have no trouble taking the pill.

1. When you begin taking the pill, you may get sick to your stomach, like morning sickness during pregnancy, but this lasts only a few months at most.
2. You may get a yeast infection - a white, cheesy-looking discharge from the birth canal (vagina), but this is easily cured.
3. A few women develop brown-colored spots on the skin which disappear slowly if the pill is stopped.
4. The pill keeps you from getting pregnant only as long as you take it.
5. A very small risk of blood clotting disorders exist, while on the pill, but the risk is less than getting these disorders from pregnancy.
6. There is no evidence that the pill causes cancer, sterility, or malformed babies.

## 2. Important Things To Remember about All Birth Control Pills

1. Your menstrual period while you are taking the pills is usually lighter and shorter than before.
2. Try to take your pill at the same time every day. It is best to take it at night. If you forget, take the pill as soon as you remember and take your next pill at the regular time. For example: if you forget in the morning and remember at lunch time, take the pill then.
3. If you miss two pills in a row, take 2 pills a day for 2 days, then 1 pill a day for the rest of the cycle. However, if you miss 2 or more pills in a row, you must also use another contraceptive for the rest of the cycle. The pills alone may not keep you from becoming pregnant when you have missed 2 or more pills in a row.
4. You may experience some slight bleeding, or spotting, between "periods" during the first 3 months that you will be taking the pills. Do not stop taking the pills! Contact the clinician if it lasts longer than the first 3 months, or if it becomes heavy.
5. If you do not begin bleeding after you have taken your package of pills, do not be alarmed. Simply begin taking your next package as you normally would. If you miss 2 menstrual periods in a row, get a pregnancy test.
6. Keep your pills out of the sight and reach of small children. If your child should accidentally swallow some pills, contact a medical person immediately.
7. Be sure to keep a supply of pills.
8. If you decide to change your method of birth control, from pills to another method, complete your present package of pills even if another method has been started.

## Practice Questions

1. What are the three steps to follow in order to prescribe oral contraceptives safely and effectively?
2. It is best to have the woman take a contraceptive pill with the \_\_\_\_\_ possible amount of hormones. Complete the sentence with one of the following words: smallest/largest. Explain why this is advised.
3. Pills come in two types of packets. What are they?
4. Regardless of which packet a woman uses, what are two things a woman must remember to do in order to assure the pill's effectiveness?
5. Decide if the following statements are true or false. Write your answer next to the letter beside the statement.
  - \_\_\_\_\_ a. If the patient misses two menstrual periods, she should have a pregnancy test.
  - \_\_\_\_\_ b. If a woman becomes pregnant, she can keep taking the pill.
  - \_\_\_\_\_ c. If a woman sees a clinician about another problem, she must tell the clinician that she is taking oral contraceptives.
  - \_\_\_\_\_ d. If a woman has severe chest pains or eye problems while taking the pill, she should stop taking the pills immediately.
6. It is important that the woman know how to use the pill packet correctly and that she should come back to you if she feels the pills are not good for her in any way. What other five things should she know about the pill?

To the Learner: Turn the page to check your answers.

### Answers to Practice Questions

1. The three steps to follow in order to prescribe the pill safely and effectively are:
  - (1) Review the woman's medical history and check for contraindications.
  - (2) Explain to the woman how to take the pill.
  - (3) Give the woman adequate information about the pill and its possible side effects.
2. The woman should take a contraceptive pill with the smallest possible amount of hormones.
3. The two packets are the 21-pill packet and the 28-pill packet.
4. The woman must do the following two things regardless of which packet she uses:
  - (1) take one pill every day as prescribed
  - (2) take two pills the next day if she forgets a day
5.
  - a. true
  - b. false
  - c. true
  - d. true
6. Five other things the woman should know about the pill are:
  - (1) If she misses 2 menstrual periods, she should have a pregnancy test.
  - (2) If she becomes pregnant, she must stop taking the pill immediately.
  - (3) If she wishes to become pregnant, she must stop taking the pill.
  - (4) If she sees a clinician for another problem, she must tell the clinician that she is taking oral contraceptives.
  - (5) She should know the 5 danger signals: severe abdominal pain, severe chest pain, severe headaches, eye problems, and severe leg pain.

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 4 on the next page.

#### 4. Managing Patients on Oral Contraceptives

Occasionally women taking oral contraceptives may have side effects or problems. This section contains a guide to help you manage 6 possible problems: hypertension, breakthrough bleeding, nausea, weight gain, headaches, and amenorrhea.

##### Complaint #1: Hypertension

<u>Areas To Be Investigated</u>	<u>Possible Solution</u>
1. Is this the first episode?	1. Repeat the B/P.
2. Is blood pressure borderline?	2. If borderline, place patient on pill with lowest dose available. Advise to return in 1 month for another B/P check.
3. Is blood pressure high or accompanied by edema and/or headache?	3. If high - above 140/90, discontinue oral contraceptives and advise patient of another method of contraception.

---

##### Complaint #2: Breakthrough Bleeding

<u>Areas To Be Investigated</u>	<u>Possible Solution</u>
1. Are pills being taken correctly?	1. Re-instruct patient on necessity of taking them properly.
2. When in the cycle does this occur? In the first half (day 1-14) In the last half (day 14-28)	2. Increase estrogen. Increase progestin.

---

### Complaint #3: Nausea

<u>Areas To Be Investigated</u>	<u>Possible Solution</u>
1. Are the pills being taken on an empty stomach?	1. Instruct patient to take pills after a meal.
2. Does her diet include gaseous or fatty foods?	2. Discuss curtailment of these foods.
	If all of above have been tried there is a possible need to lower estrogen.

---

### Complaint #4: Weight Gain

<u>Areas To Be Investigated</u>	<u>Possible Solution</u>
1. Is this due to poor eating habits?	1. Give dietary instructions.
2. Is this due to an increased appetite since the pill was instituted?	2. Lower progestin.
3. Is this cyclic fluid retention?	3. Lower estrogen.

---

### Complaint #5: Headaches

<u>Areas To Be Investigated</u>	<u>Possible Solution</u>
1. Did they occur prior to the pill?	1. Try to correct any causes of problem.
2. Are they associated with stress or emotional problems?	2. If so, deal with appropriate counseling or referral.
3. Do they occur after reading or watching TV?	3. Include eye exam if warranted.
4. Do they occur after missing meals or from lack of sleep?	4. Give dietary instructions.
5. Does she suffer from constipation?	If there appears to be no improvement, lower estrogen.

---

### Complaint #6: Amenorrhea

<u>Areas To Be Investigated</u>	<u>Possible Solution</u>
1. Are the pills being taken correctly?	1. Re-instruct patient on taking pills correctly.
2. If pregnancy has been ruled out, and patient is not disturbed . . .	2. Continue on pills, may try higher estrogen.

---

If any of the above symptoms persist and if a change of pills does not improve the situation, medical consultation is warranted.

## Practice Questions

1. List six possible complaints that a patient taking the pill might have.
2. A woman on the pill complains of breakthrough bleeding. You check and find that she is taking the pills properly. You will need to increase either the estrogen or the progestin in the pill. What information do you need in order to make your decision?
3. A woman taking oral contraceptives is found to have high blood pressure - above 140/90. What would you advise for this patient?
4. If a woman has gained weight due to an increased appetite since the pill was instituted, what would you prescribe?
5. If the weight gain is due to cyclic fluid retention, what would you prescribe?
6. If a patient taking oral contraceptives complains of nausea, what are two questions you might ask her to determine treatment?
7. If a patient has any of the six complaints and they persist even though you prescribe a change of pills, what would you advise?

**To the Learner:** Turn the page to check your answers.

## Answers to Practice Questions

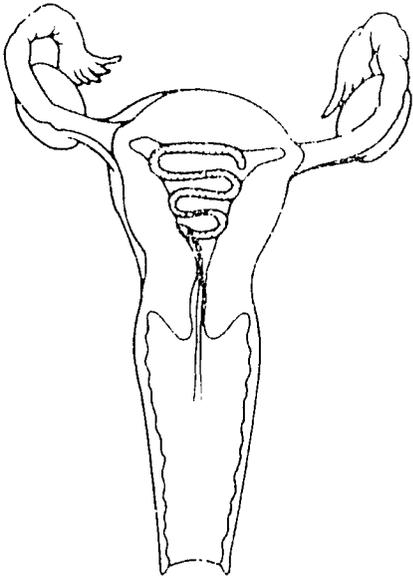
1. Six possible complaints a woman taking the pill might have are:
  - (1) hypertension
  - (2) breakthrough bleeding
  - (3) nausea
  - (4) weight gain
  - (5) headaches
  - (6) amenorrhea
2. The clinician will need to know in which part of the cycle the breakthrough bleeding occurs. If it occurs in the first half (day 1-14), estrogen should be increased. If breakthrough bleeding occurs in the last half of the cycle (day 14-28), progestin should be increased.
3. If the woman's blood pressure is high, oral contraceptives should be discontinued and the patient should be advised of another method of contraception.
4. If the weight gain is due to an increased appetite since the pill was instituted, progestin should be lowered.
5. If the weight gain is due to cyclic fluid retention, estrogen should be lowered.
6. If a woman complains of nausea while taking the pill, ask her the following questions:
  - (1) Are the pills being taken on an empty stomach?
  - (2) Does the woman's diet include gaseous or fatty foods?
7. If any of the six complaints or symptoms persist and a change of pills does not improve the situation, specialist consultation is warranted.

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 5 on the next page.

## 5. Intrauterine Devices (IUD)

The information on intrauterine devices will be presented in six information sections (#5-10). This section will explain how intrauterine devices work, their effectiveness, problems and side effects, and contraindications. Information section 6 will explain the preparation procedures for inserting the IUD. Section 7 will describe techniques for inserting three specific types of IUD's. Section 8 contains information for the patient using the IUD. Section 9 describes how to remove the IUD and section 10 contains a guide for managing IUD side effects.

### How Intrauterine Devices Work



An intrauterine device is a low-cost and extremely simple method of contraception. For many women this is a well accepted and convenient method, since no special attention or knowledge is necessary. The IUD is a very small piece of plastic or plastic and copper. It is placed inside a woman's uterus.

No one is sure exactly how an IUD prevents pregnancies. Most experts believe the IUD causes a foreign body reaction within the uterus. The cells in the woman's uterus fight the "foreign body" (the IUD), and this changes the lining of the uterus. A fertilized egg can rarely implant in the uterus when there is an IUD in the uterus.

### Effectiveness

IUD's are very successful for most women. During the first year of use, the rate of failure is between 1 and 3%. After the first year, the number of failures is even smaller. Sometimes failures happen if the IUD accidentally comes out. (See section on problems with the IUD.)

### Use and Advantages

The IUD is best inserted during the last days of a woman's menstrual period, although it can be inserted at other times. There is a slightly higher risk of infection and miscarriage if the woman is or becomes pregnant. It may also be inserted immediately after childbirth or menstrual regulation. Some IUD's (the Lippes Loop) may remain in place for many years. Other kinds (the Copper 7 and Copper T) must be changed after 3 years. After insertion, there is nothing more for the woman to do. If the woman decides she would like to become pregnant, the IUD must be removed.

An IUD has several advantages:

1. It is safe and effective for most women.
2. It has few side effects.
3. It is convenient and requires no attention from the user.
4. After removal the woman can become pregnant again.
5. It does not interfere with breast feeding.

An IUD may be especially good for:

1. women who cannot or do not want to take oral contraceptives.
2. women who have completed their families and want a simple method of contraception until menopause.
3. women who have difficulty remembering to use other methods.
4. women over 35 who smoke tobacco.
5. women who do not wish to become pregnant again for at least 2 years.
6. women who have just had a baby and women who are breast feeding their baby.

### Problems and Side Effects

The IUD is used very successfully by most women. However, some women may develop problems. Some of these problems are serious, and the IUD should be taken out. Some of the problems may not be serious at all. The patient will need your understanding and encouragement.

The following are possible problems with the IUD:

1. Pregnancy - This happens in 1-3% of women with an IUD in place. Sometimes an IUD may come out of the uterus without the woman's knowledge and she then becomes pregnant.

If the woman is pregnant and the IUD is still in place, there is approximately a 50% chance that she will have a miscarriage. If an abortion or menstrual regulation is requested by the woman, it should be done. Even though there is a 50% risk of miscarriage, the IUD MUST be removed as leaving it in place can cause serious problems. Your patient might choose to keep the pregnancy. There is no evidence that IUD's cause any deformities in babies.

2. Ectopic Pregnancy - If a woman has a positive pregnancy test, pelvic pain, and NO evidence of pregnancy in the uterus when you examine her, you must suspect an ectopic pregnancy. This means that an egg was fertilized but did not reach the uterus. This is a VERY DANGEROUS condition and can happen to any woman whether she is using an IUD or not. Refer your patient to the nearest hospital IMMEDIATELY.
3. Bleeding and pain - This may happen during the first 1 to 3 months after insertion of the IUD. The menstrual period is likely to be heavier and more painful than usual. A small amount of bleeding (spotting) may occur between menstrual periods. Pain and cramping may be a problem, especially for younger women, and women who have not had children.

It is often helpful to give your patient iron supplements if she has heavy bleeding. For pain and cramps, aspirin is usually the most effective pain killer.

4. Spontaneous Expulsion - The IUD can sometimes come out of the uterus by itself, and the woman might not notice it. Most expulsions occur in the first 4 months after insertion, during the menstrual period. They occur more often in younger women, and in women with many children. When you insert the IUD, teach the woman how to feel for the string of the IUD. This way she can check after each menstrual period, to make sure it is still in place. If she feels any part of the IUD itself, this is a partial expulsion, and she should go to a health clinician AT ONCE. If your patient is not sure that the IUD has come out, see #6 and #7.
5. Pelvic Inflammatory Disease (see section on PID symptoms and treatment) - Sometimes this can be caused by the actual insertion of the IUD or an old infection can be stirred up. This is possible if your instruments are not completely sterilized, or if the insertion was not done carefully. Sometimes PID can be caused by gonorrhea. If your patient believes she has been exposed to gonorrhea, she must be treated at once. Gonorrhea can be extremely serious in women who have an IUD. The IUD should be removed after 2 days' treatment, in most cases, and she should use another method of contraception. Women who have multiple sexual partners have an increased risk of PID and are not good candidates for the IUD.
6. Disappearance of the "String" - When you cannot see the threads of the IUD in the cervix, it usually means that the IUD has been expelled. This sometimes happens without the patient's knowledge (see #4). However, sometimes it may mean that the IUD is still in the woman's body.
  - (a) It could be in the vagina, behind the blades of your speculum. You can find it with a manual exam.

- (b) The threads might have been cut too short at the time of insertion. It can be found in the cervical canal by exploration with uterine forceps.
  - (c) The disappearance of the string could also be due to pregnancy. Give her a pregnancy test and if she is pregnant, proceed as directed in #1.
  - (d) If she is not pregnant and you have found the IUD string in the cervical canal, the thread can be brought down again by inserting a biopsy cannula or curette. Use extreme caution with the sterility of your instruments. If you find that the string is too short, it is often better to remove the IUD and insert a new one, leaving a longer string.
7. Perforation of the Uterus (this means that the IUD has made a hole in the uterine wall) - This is one of the most serious complications. It usually happens or is started at the time of insertion of the IUD. If the health clinician tries to insert the IUD too fast, without careful probing of the uterus, or without using a tenaculum or cervical stabilizer, it is very easy to push the IUD too far into the uterine wall. If the IUD goes through the uterine wall into the abdominal cavity, it can cause serious inflammation. If you suspect that your patient has a perforation, refer her to a hospital. It is very important to use great care when you insert an IUD, since almost all perforations are due to careless insertion techniques.

### Contraindications

There are some women who should NOT have an IUD. Do NOT insert an IUD under the following conditions:

1. suspected pregnancy
2. pelvic or vaginal infection, or inflammation of the cervix
3. suspected cancer
4. unexplained vaginal or uterine bleeding
5. very heavy or very painful menstrual bleeding
6. a uterine cavity smaller than 5 cm in depth
7. a woman with a history of ectopic pregnancy
8. a woman with many sexual partners (increased risk of infection)

### Practice Questions

1. What is an intrauterine device (IUD) made of?
2. Where is the IUD placed?
3. Briefly explain how most experts believe the IUD works to prevent pregnancy.
4. Give at least three advantages of the IUD as a contraceptive.
5. List seven possible problems or side effects associated with the IUD.
6. There are some women who should not have an IUD. List at least five conditions that would indicate that you should not insert an IUD.
7. What does it usually mean if you cannot see the threads of the IUD at the cervix? What are three other explanations that might account for the disappearance of the IUD threads?

**To the Learner:** Turn the page to check your answers.

## Answers to Practice Questions

1. The IUD is a small piece of plastic and copper, or plastic alone.
2. The IUD is placed inside a woman's uterus.
3. Most experts believe the IUD causes a foreign body reaction within the uterus. The cells in the uterus fight the "foreign body," and this changes the lining of the uterus. A fertilized egg cannot implant in the uterus when an IUD is there.
4. The advantages of the IUD are any of the following:
  - (1) It is safe and effective for most women.
  - (2) It has few side effects.
  - (3) It is convenient and requires no attention from the user.
  - (4) After removal, the woman can become pregnant again.
  - (5) It does not interfere with breast feeding.
5. Seven problems or side effects associated with the IUD are:
  - (1) pregnancy
  - (2) ectopic pregnancy
  - (3) bleeding and pain
  - (4) spontaneous expulsion
  - (5) Pelvic Inflammatory Disease (PID)
  - (6) disappearance of the IUD strings
  - (7) perforation of the uterus
6. All of the following are IUD contraindications. If any of these conditions exist, the woman should not be inserted with an IUD.
  - (1) suspected pregnancy
  - (2) pelvic or vaginal infection, or inflammation of the cervix
  - (3) suspected cancer
  - (4) unexplained vaginal or uterine bleeding
  - (5) very heavy or very painful menstrual bleeding
  - (6) a uterine cavity smaller than 5 cm in depth
  - (7) a woman with a history of ectopic pregnancy
  - (8) a woman with many sexual partners

7. If you cannot see the threads of the IUD at the cervix, it usually means that the IUD has been expelled. Sometimes, however, the IUD may still be in the woman's body:
- (1) in the vagina, behind the blades of your speculum
  - (2) in the cervical canal due to strings being cut too short during insertion
  - (3) or, the disappearance of the string may be due to pregnancy

**To the Learner:** If you missed any of the answers to the questions go back to the information section and study it again. When all of your answers are correct, go to section 6 on the next page.

## 6. Preparation for Inserting IUD's

Before you insert the IUD, make sure your patient has no problems that would be made worse with the IUD (see section on contraindications for the IUD and use Checklist):

### CHECKLIST FOR INSERTION OF IUD

	YES	NO
<p><b>Check the following by history:</b></p> <p>Increased menstrual or intermenstrual bleeding</p> <p>Bleeding after sexual intercourse</p> <p>Last menstrual period (LMP) more than 4 weeks ago</p> <p>Heavy vaginal discharge</p> <p><b>Check the following by examination:</b></p> <p>Marked cervical erosion</p> <p>Cervix bleeds on contact</p> <p>Unusually large uterus</p> <p>Adnexal or abdominal masses</p>		

If there is any checkmark in YES column, do not insert IUD in patient without consultation.

### **When to Insert an IUD**

An IUD may be inserted at any time during the menstrual cycle, but there are certain advantages to insertions done during the menses:

- There is little likelihood that the woman is pregnant.
- The cervix is softer and slightly open.
- Bleeding and cramps may be less noticeable at this time and hence are less apt to cause anxiety.

IUD insertions may also be done:

1. on the day following the end of menses
2. immediately after a delivery
3. 40-50 days post-partum
4. right after menstrual regulation or a spontaneous abortion, providing there is no evidence of infection (e.g., no fever, uterus is not tender, and there is no purulent or offensive discharge)
5. post-coitally (1-3 days) if a woman has had unprotected intercourse and then wants to guard against becoming pregnant

### **Equipment Required for Inserting an IUD**

To examine a potential acceptor and then insert an IUD the following equipment will be necessary: (Items marked \* must be sterile.)

1. Forceps: To hold cotton ball when preparing and cleaning cervical area
2. Speculum: To retract and view cervix
- \*3. Stabilizer or Tenaculum: To align the uterine cavity
- \*4. Uterine Sound: To confirm findings of the bi-manual diagnosis
- \*5. Sterile surgical gloves
- \*6. IUD's, inserters, and plungers
7. Long curved scissors: To shorten IUD strings
- \*8. Gauze square and cotton balls

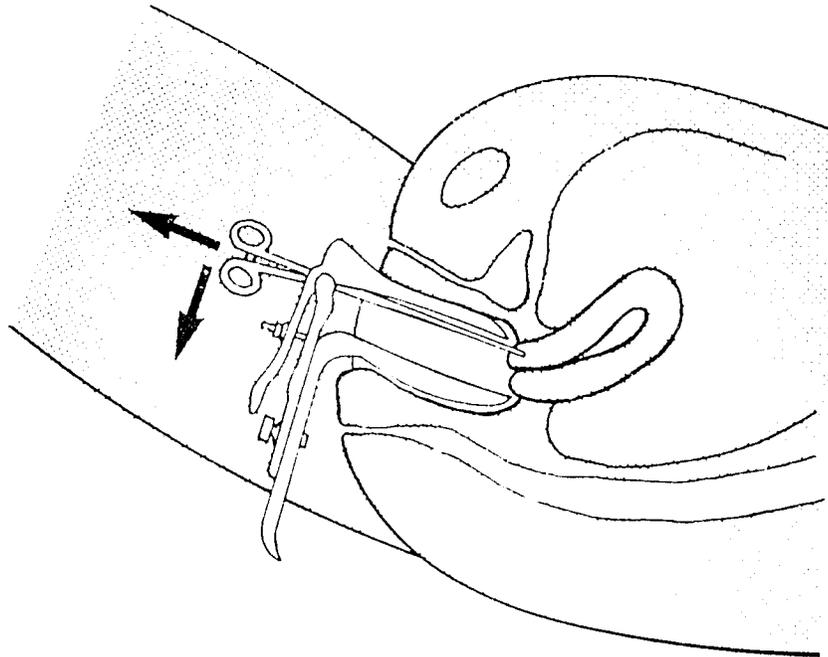
9. Sanitary pads
10. Tray with lid: For soaking plastic IUD's and inserters in an iodine solution or other sterilizing solution
11. One glass jar or vessel with antiseptic solution: To hold metal instruments like forceps, scissors, etc.
12. A good light source (flashlight or lamp)
13. An examining table or bed with stirrups
14. Plastic or oilcloth sheet for insertion table
15. Sheet to cover patient
16. Aromatic spirits of ammonia

#### **Preliminary Steps of the Procedure**

1. Explain to your patient that you will first do a bi-manual exam, then a speculum exam, and then insert the IUD. Make sure your patient knows what to expect so she will not be frightened. Also explain to her that she should expect some cramping and pain when the IUD is inserted. Tell her that she should breathe slowly and deeply to ease the cramps. (See Module on Pelvic Exam.)
2. Have the patient empty her bladder.
3. Collect the instruments you need: speculum, sterile sponge forceps, swabs, sterile tenaculum or cervical stabilizer, sterile IUD with its sterile inserter, sterile gloves, sterile uterine sound, and sterile curved clinical scissors.
4. Do a routine pelvic exam. Make sure there is no pregnancy, PID, or other contraindication. Find out the position of the uterus.
5. Do a routine speculum exam.
6. Look for any problems on the cervix.
7. Use a swab to cleanse the external os and the entire cervix with providine iodine (Betadyne) or other antiseptic.
8. If you are using a tenaculum, put it at the 10 o'clock or 2 o'clock position. (In these positions there are fewer blood vessels.) If you are using a cervical stabilizer, use it in the 6 o'clock position. Warn the patient that she will probably feel cramping at this point.

## Steps for the Insertion

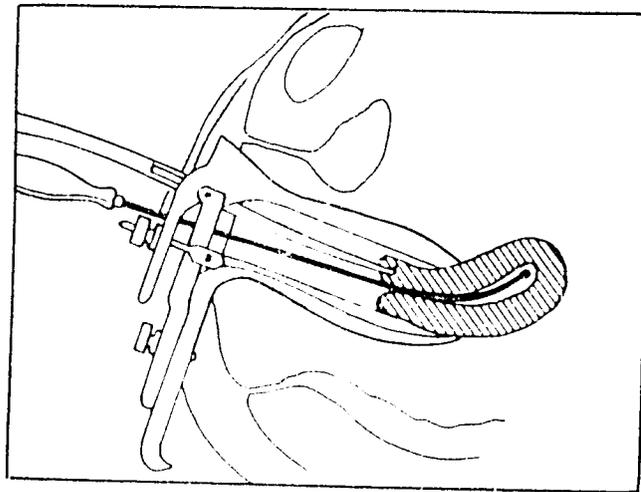
1. You must first determine the size and contour of the uterus. To do this, use a sterile uterine sound. You must be EXTREMELY careful in keeping this instrument sterile. Do not allow it to touch the speculum or the vaginal mucosa before passing it into the endocervical canal.
2. Before inserting the sound, you must align the uterine cavity, the endocervical canal, and the vaginal canal. In other words, these areas must all be in a straight line so that the sound will slide smoothly into place. To do this, pull gently and steadily downwards and outwards with the tenaculum or cervical stabilizer. This should pull the uterus into the proper position. (Review section on Anatomy, Positions of the Uterus in Module One.)



3. Hold the sound lightly between your thumb and first finger. Insert it into the cervical canal WITHOUT TOUCHING the speculum or vaginal mucosa.
4. If there is any obstruction at the internal os, a slight outward movement of the tenaculum (or stabilizer) may help the sound to enter more easily. DO NOT FORCE. Hold the sound gently against the internal os for 2 to 3 minutes to overcome any spasm that might be causing the obstruction. If the sound does not pass, STOP the procedure and refer the patient. Remind the patient that if she feels pain and cramping, she should breathe slowly and deeply.

5. When the sound passes into the uterus, gently tap the fundus to make sure you have reached the end of the uterine cavity. If you cannot tap the resistance at the fundus and you have used any force, you may have perforated (made a hole in) the uterus. In this case:
  - (a) TAKE OUT the sound.
  - (b) DO NOT insert the IUD.
  - (c) Observe patient for one hour for any signs of bleeding (check blood pressure and sanitary pad).
  - (d) Give her antibiotics for 7 days.
6. Take out the sound and look at the level of mucus and/or blood on it. This will show you the depth of the uterus. Most are about 7 cm. DO NOT insert an IUD in a uterus that is less than 5 cm deep.

The next information section will explain how to insert three specific types of IUD's: the Lippes Loop, the Copper T, and the Copper 7.



### Practice Questions

1. What are the advantages to inserting the IUD during the menses?
2. What five surgical tools do you need in order to insert an IUD?
3. List the seven preliminary steps to the insertion procedure.
4. Before inserting the IUD, you use a sterile uterine sound. What information are you looking for using the sound?
5. Why must you align the uterine cavity, the endocervical canal, and the vaginal canal before inserting the sound?
6. If the sound passes into the uterus and you cannot tap the resistance at the fundus, what may have occurred? What should you do?
7. If, when looking for the sound, you find the uterus to be less than 5 cm deep, how should you proceed?

**To the Learner:** Turn the page to check your answers.

## Answers to Practice Questions

1. There are three advantages to inserting the IUD during the menses:
  - (1) There is little likelihood that the woman is pregnant.
  - (2) The cervix is softer and slightly open.
  - (3) Bleeding and cramps may be less noticeable at this time and hence are less apt to cause anxiety.
2. The five following surgical instruments are needed to insert the IUD:
  - (1) forceps
  - (2) speculum
  - (3) stabilizer or tenaculum
  - (4) uterine sound
  - (5) long curved scissors
3. Following are the seven preliminary steps to the insertion procedure:
  - (1) Explain the parts of the procedure to your patient.
  - (2) Have the patient empty her bladder.
  - (3) Collect the instruments you need.
  - (4) Do a routine pelvic exam. Make sure there are no contraindications.
  - (5) Do a routine speculum exam. Look for problems on the cervix.
  - (6) Use a swab to cleanse the external os and the entire cervix.
  - (7) Put the tenaculum at the 10 o'clock or 2 o'clock position.
4. The uterine sound will help the clinician determine the size and contour of the uterus.
5. Before inserting the sound, you must align the uterine cavity, the endocervical canal, and the vaginal canal so the probe and IUD will slide smoothly into place.
6. If the sound passes into the uterus and you cannot tap the resistance at the fundus, you may have perforated, or made a hole in the uterus. In this case, take out the probe. Do not insert the IUD.

Observe the patient for 1 hour for any signs of bleeding. (Check blood pressure and sanitary pad.) Give her antibiotics for 7 days.

7. Do not insert an IUD in a uterus that is less than 5 cm deep.

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 7 on the next page.

## 7. Techniques for Inserting Three Types of IUD's

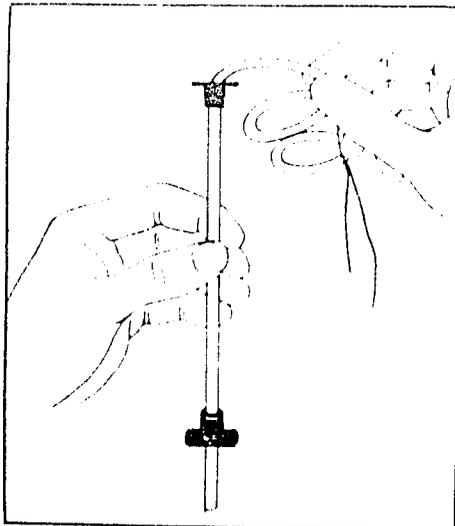
Before inserting any IUD, you must understand how each type works. This information section contains information on three specific types of IUD's: (1) the Lippes Loop, (2) the Copper T, and (3) the Copper 7.

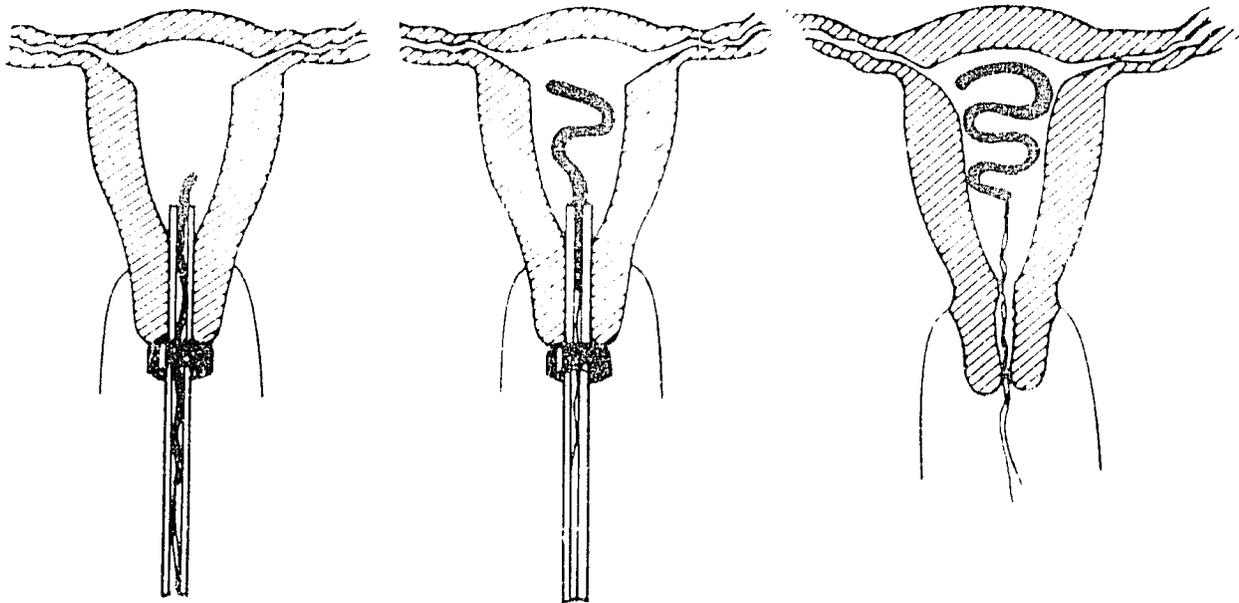
### 1. The Lippes Loop

The Lippes Loop is made of a type of flexible plastic (polyethylene) in the shape of a double S. Four different sizes are manufactured to allow for different sizes of the uterus. The four available sizes are as follows: (A) blue tail thread, (B) black tail thread, (C) yellow tail thread, and (D) white tail thread. Only sizes C and D should be used by the general clinician. Size C may be used for women without children.

#### Directions for Inserting the Lippes Loop with "Push-Through" Inserter:

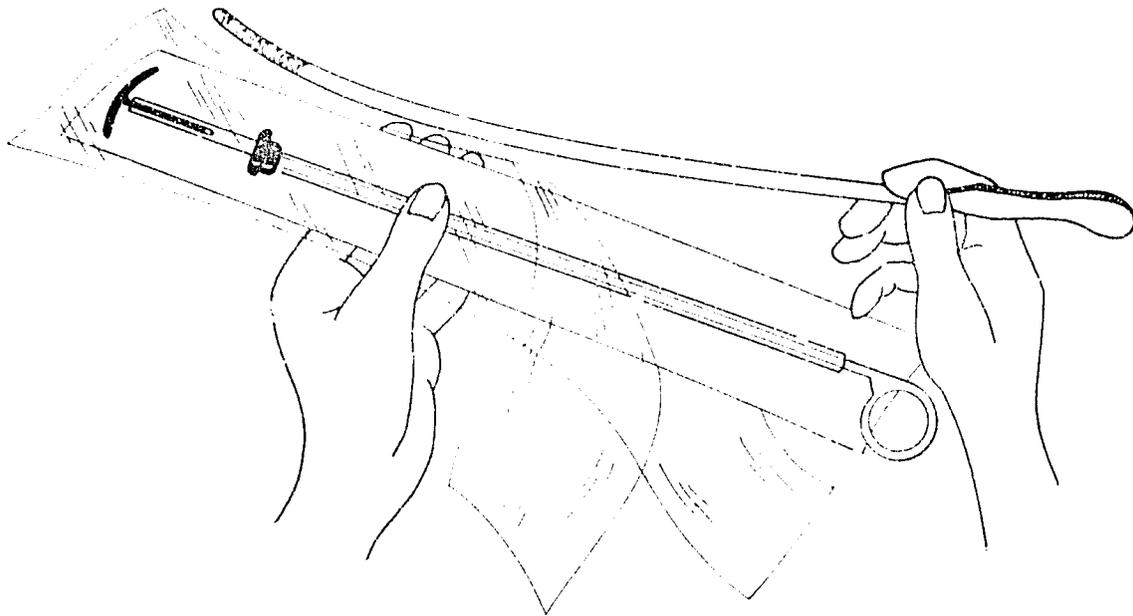
1. To put the loop into the inserter:
  - (a) Put on sterile gloves. Take the inserter out of the sterile solution or package and place it in the left hand.
  - (b) Hold the inserter between the cervical flange and the base flange. Be CAREFUL not to contaminate the cervical end of the inserter.
  - (c) With your right hand, pick up the loop and put the plain end (with no thread) into the base end of the inserter in the plane of the cervical flange. This must be practiced so that you can do it very quickly. The IUD must not remain in the inserter longer than 2 minutes.





2. (a) With your left hand, pull gently and steadily on the tenaculum or stabilizer as you insert the inserter.
- (b) With your right hand, gently push the inserter through the cervical canal into the proper direction for the position of the uterus. (For an antverted uterus, the inserter will go slightly upward; for a retroverted uterus, the inserter will go slightly downward.)
- (c) Hold the inserter so that the cervical flange is resting against the external cervical os. Make sure the flange is kept horizontal.
- (d) Keep a steady hold on the tenaculum with your left hand, and with two fingers of your left hand, hold the inserter steadily in the correct position.
- (e) With your right hand, take the plunger and gently push it completely into the inserter. DO NOT USE FORCE. If force is necessary, STOP.
- (f) Count to 30 while pushing the plunger to be sure that the IUD enters the uterus very slowly. If you insert the IUD too fast, your patient may have very severe cramps and might faint. Remind her to breathe slowly and deeply.
- (g) Remove the plunger.
- (h) Remove the inserter slowly and let it hold up the ends of the strings so that you can cut them. Be careful not to cut the string too short. You should leave at least 5 cm of the strings coming out of the cervix.

NOTE: The Lippes Loop is also singly packaged in a sterile plastic wrapper. This type can be loaded into the inserter by pulling the string.



## 2. The Copper T

### Directions for Inserting the Copper T with "Withdraw the Sheath" Inserter:

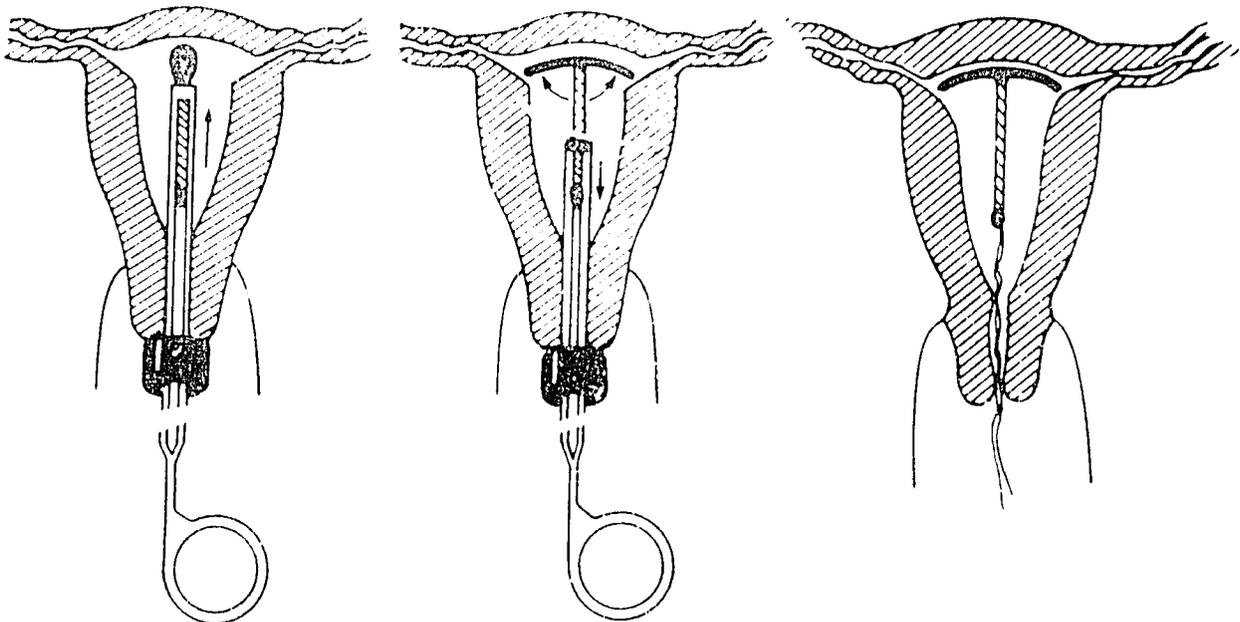
1. To put the Copper T into the inserter after sounding the uterus:
  - (a) Open the Copper T package only halfway, beginning at the "handle end." Keep the IUD covered with the plastic wrapper.
  - (b) Put the plunger into the inserter.
  - (c) Using your mucus-stained sound, measure the length of the inserter that extends past the blue cervical flange.
  - (d) Adjust the flange on the inserter so that the length of the inserter will exactly match the depth of the uterus (the length of the sound with mucus on it).
  - (e) While the Copper T is still inside the package, fold the "wings" to the sides of the T and slide the inserter over them for 1/2 cm. Be careful to put the wings in the sheath of the inserter so that they are horizontal (in the same direction as the blue flange). If you have difficulty doing this, open the package and use sterile gloves to put the T into the inserter. (NOTE: If you are using a Copper T that has bands of copper on the wings, you must completely open the package and use sterile gloves to put the wings into the sheath.)

gloves to put the wings into the sheath.)

- (f) Now take off the plastic wrapper. The inserter is ready for use.

## 2. Insertion:

- (a) Hold the stabilizer or tenaculum in your left hand and pull gently and firmly downward and outward to straighten the uterine cavity.
- (b) Push the Copper T inserter gently through the cervical canal in the direction of the uterine cavity (depending on the position of the uterus), until the inserter reaches the fundus, or until the blue flange is against the cervix.
- (c) Be sure the blue flange is horizontal.
- (d) Hold the ring of the plunger with 2 free fingers of your left hand. (You should still be pulling steadily on the tenaculum also with your left hand.) The plunger should NOT move at this time. Hold it absolutely still.
- (e) With your right hand, take the sheath, and pull it back until it touches the ring of the plunger. This will release the Copper T at the fundus of the uterus.
- (f) Take out the plunger with your right hand while you hold the sheath with your left hand.
- (g) Now take out the sheath slowly with your right hand, and let the sheath hold up the threads so you can cut them. Leave the strings 5 cm long.



### 3. The Copper 7

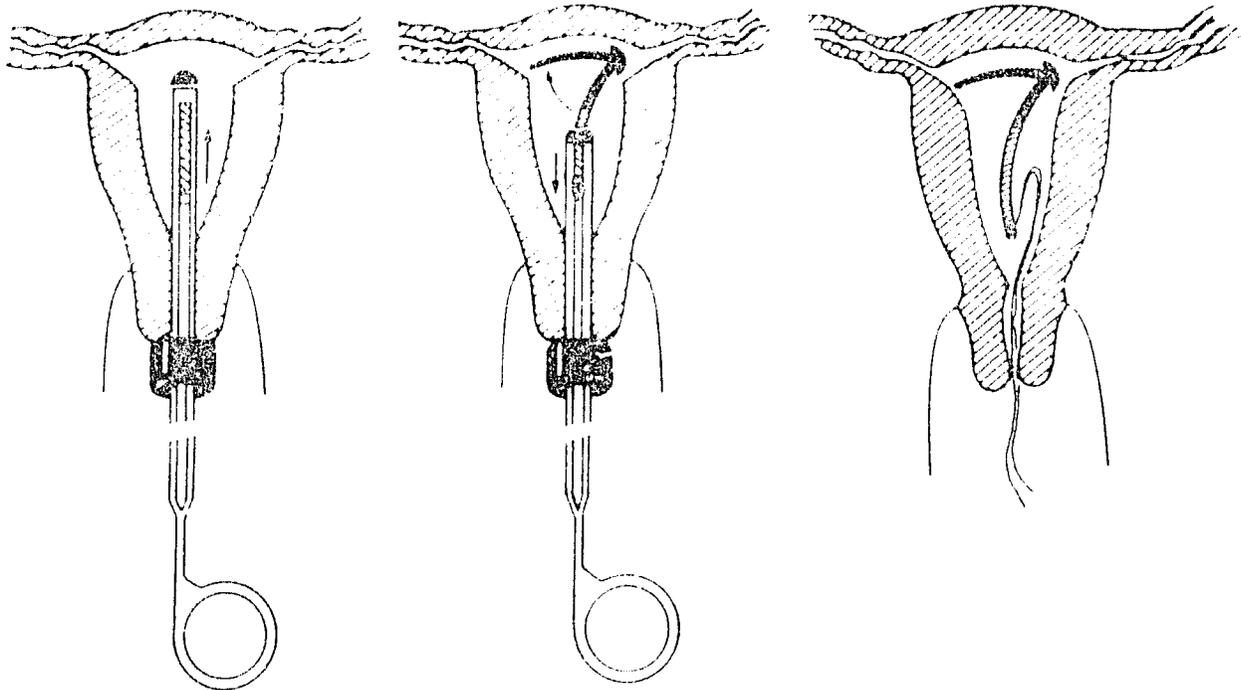
#### Directions for Inserting the Copper 7 with a "Withdraw the Sheath" Inserter:

1. To put the Copper 7 into the inserter after sounding the uterus:
  - (a) Open the package only halfway, beginning at the "handle end." Keep the IUD covered with the plastic wrapper.
  - (b) Using the mucus-stained sound, measure the length of the inserter that extends past the blue cervical flange.
  - (c) Adjust the flange on the inserter to the depth indicated by the sound. (The distance between the blue flange and the end of the inserter should exactly match the length of the mucus on the sound.)
  - (d) While the Copper 7 is still in the package, adjust the black dot on the IUD so that it is in the same horizontal position as the blue flange. If you have difficulty doing this, open the package and use sterile gloves. Fold the 7 into the inserter.
  - (e) Now take off the plastic wrapper. The inserter is ready for use.

NOTE: In using the package with the inner plastic cover over the Copper 7, the outer package may be opened before positioning the IUD in the inserter.

#### 2. Insertion:

- (a) Hold the stabilizer or tenaculum in your left hand. Pull gently and firmly downward and outward to straighten the uterine cavity.
- (b) Push the Copper 7 inserter gently through the cervical canal in the direction of the uterine cavity, until the inserter reaches the fundus, or until the blue flange is firmly against the cervix (whichever happens first).
- (c) Be sure that the blue flange is horizontal. On some inserters, there is a blue dot just below the flange. When the flange is in the correct position, this blue dot will be seen on the top side of the inserter.



- (d) Hold the ring of the plunger with 2 free fingers of your left hand, while still pulling steadily on the stabilizer or tenaculum. The plunger should NOT move at this time. Hold it absolutely still.
- (e) Now remove the clip that holds the string. Make sure the inserter has not moved from the fundal area of the uterus.
- (f) With your right hand, take the sheath and pull it back until it touches the ring of the plunger. This should release the Copper 7 at the fundus, in the proper horizontal position.
- (g) Take out the plunger with your right hand, while still holding the sheath with your left hand.
- (h) Now take out the sheath slowly, and let it support the string so you can cut them. Leave the string 5 cm long.

**SPECIAL NOTE:** IUD insertion may produce enough pain and vaso-vagal stimulation to result in fainting, irregular heart beats, or, rarely, convulsions. Vaso-vagal fainting is an emergency. Remove IUD immediately. As in most medical emergencies, maintenance of an airway and cardiac output is the top priority. Have the patient lie down. Raise her legs. Consult with a specialist. The patient should return at another time for IUD insertion or choose another method of contraception. If you elect to try the IUD again administer atropine before the procedure.

### Procedure after Insertion of the IUD

1. Remove the stabilizer or tenaculum. If the cervix bleeds where the tenaculum was attached, apply pressure with a cotton ball until the bleeding stops.
2. Clean the blood from the vagina.
3. To remove the speculum, loosen the blades, pull it out gently downward. Avoid pressure on the anterior part of the vagina.
4. Clean the blood or mucus off the perineum (around the outside of the vagina) and give the patient a sanitary pad.
5. Help her to sit up. She might still feel slightly weak and feel some cramping. Let her sit up for one minute or until she feels ready to walk. Give her final instructions (see section on "what to tell your patient"), and answer any questions she might have. Give her a follow-up appointment after her next menstrual period.

## Practice Questions

1. Name three specific types of IUD's.
2. The Lippes Loop comes in four thread colors. How do you determine which one of the four to use for your patient?
3. The Lippes Loop comes with a special inserter. When you place the IUD in the inserter, what is the maximum length of time it can stay in the inserter?
4. What part of the inserter allows you to push the IUD into the uterus?
5. How long should the IUD strings be that are coming out of the cervix?
6. What distinguishes the inserter of the Copper T and Copper 7 from the Lippes Loop inserter?
7. IUD insertion may produce enough pain and vaso-vagal stimulation to cause fainting and even irregular heart beats. What should you do to respond to this emergency if it should occur in your patient during an IUD insertion?

**To the Learner:** Turn the page to check your answers.

## Answers to Practice Questions

1. Three specific types of IUD's are (1) the Lippes Loop, (2) the Copper T, and (3) the Copper 7.
2. The four thread colors of the Lippes Loop indicate the four different sizes. Size C (yellow tail) may be used for women without children. Size D (white tail) may be used for women with children.
3. The IUD must not remain in the inserter longer than two minutes.
4. The plunger on the inserter allows the clinician to push the IUD into the uterus.
5. Care should be taken not to cut the tails too short. At least 5 cm of the strings should be left coming out of the cervix.
6. The Copper T and the Copper 7 have a "withdraw the sheath" inserter while the Lippes Loop has a "push through" inserter.
7. If the woman experiences vaso-vagal fainting, remove the IUD immediately. Maintenance of an airway and cardiac output is the top priority. Have the patient lie down. Raise her legs. The woman should return another time for the IUD insertion after pre-procedure administration of atropine. Consult with a specialist or have the woman choose another method of contraception.

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 8 on the next page.

## 8. Patient Information on the IUD

### What To Tell Your Patient about the IUD:

1. If it is acceptable, teach her how to feel for the "string" of the IUD, that comes out of her cervix. She should understand that it can be most useful to check for the string often, especially for the first 3 or 4 months after insertion. Teach her how to do this.
2. She will have some bleeding for about 3-5 days. For the first 2 days, she should use a sanitary pad. After that, she may use tampons if she prefers them.
3. She should wait at least 24 hours to have intercourse. It would be better to wait until the bleeding stops.
4. She should return to the clinic after her next menstrual period for a check-up. At this time you should do a speculum exam to make sure the IUD is still in place, and a bimanual examination to be sure that there is no infection.
5. Your patient should return again after 3 months, 6 months, and 1 year for check-ups.
6. Make sure your patient knows all the IUD "danger signs," even though they are rare. She should return to the clinic IMMEDIATELY if she has any of the following signs:
  - (a) pelvic pain or painful intercourse
  - (b) unusual bleeding or bad vaginal discharge
  - (c) missed period or other signs of pregnancy
  - (d) missing IUD strings
  - (e) fever or chills
7. Tell your patient to check her pads (or cloths or tampons) during her menstrual period, since most expulsions happen at this time. If she finds that the IUD has come out, she should return to the clinic for another one. Make sure she understands that it is IMPORTANT to use another method of contraception if the IUD comes out.
8. She may have more cramping and heavier bleeding during her periods. Tell her that this is normal with an IUD, and that she may take aspirin or acetaminophen for pain.
9. She should NEVER try to remove the IUD herself, and her partner or husband should NEVER try to remove it. If she wishes to have it taken out, she must ask a trained health clinician to do it.

10. Be sure she knows what kind of IUD she has. Some models of the Copper T or Copper 7 MUST be changed every 3 years, or it will no longer be effective.

Following is a guide addressed to the patient who has just been fitted with an IUD. It answers some general questions that a patient may have about the IUD. Use this guide as a starting point for a discussion between you and your patient.

The Intrauterine Contraceptive Device (IUD) you have just been fitted with will help to keep you from getting pregnant. It is safe and easy to use. Millions of women in the world use this method of birth control and are happy with it.

If the IUD is in the right way it has no effect on sex relations.

For the first two days after you get your IUD, do not douche, have sex, or use tampons. You may have some bleeding before your next period. The amount of bleeding and the time the bleeding can last is different for each woman. Wait until the bleeding stops before having intercourse. If you have cramps, take 1 or 2 aspirins every 4 hours for pain.

It is possible that your next 2 periods will be earlier, heavier, or last longer. If you have questions, call the clinic.

At least once a week, examine yourself to see if the device is in place by feeling with your middle finger for the threads. If you cannot feel the threads, be careful! Be sure to use another birth control method like foam or jelly. See your clinician as soon as possible.

When you decide you want to get pregnant again, return to the clinician so the IUD may be removed.

### Practice Questions

1. List at least seven things to tell your patient about the IUD.
2. What are the five signs that indicate a woman with an IUD should return to the clinic immediately?
3. How often must a Copper T or Copper 7 be changed in order to ensure its effectiveness?
4. If the IUD comes out, what must a patient do?

**To the Learner:** Turn the page to check your answers.

## Answers to Practice Questions

1. You should explain to your patient the following things about the IUD:
  - (1) how to feel for the IUD "string"
  - (2) to expect some bleeding for 3-5 days
  - (3) to wait at least 24 hours before having intercourse
  - (4) to return to the clinic for a check-up after her next menstrual period
  - (5) to return to the clinic after 3 months, 6 months, and 1 year for check-ups
  - (6) to recognize the 5 IUD "danger signs"
  - (7) to check her pads during her menstrual period for possible expulsion of the IUD
  - (8) to expect more cramping and heavier bleeding during her periods
  - (9) to never try to remove the IUD herself
  - (10) to know the kind of IUD she has and when it must be changed
  
2. The five IUD danger signs are:
  - (1) pelvic pain or painful intercourse
  - (2) missed periods or other signs of pregnancy
  - (3) missing IUD strings
  - (4) fever or chills
  - (5) unusual bleeding or bad vaginal discharge
  
3. To ensure the IUD's effectiveness, most Copper T's and Copper 7's must be changed every three years.
  
4. If the woman finds that the IUD has come out, she should return to the clinic for a new one. She should also use another method of contraception until the new IUD is inserted.

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. If all of your answers are correct, go to section 9 on the next page.

## 9. Removal of the IUD

Sometimes your patient will wish to have the IUD taken out, for many reasons. She may wish to become pregnant, or she may have too much pain and bleeding during her menstrual periods with the IUD. Perhaps it is time to replace her IUD with a new one.

The removal is usually a very simple procedure. If you plan to take a Pap smear, a gonorrhea or other cervical culture, you should do it before you take out the IUD.

### To Remove the IUD

1. Insert a speculum so you can see the cervix and the string of the IUD.
2. Use a uterine forceps to grasp the string. If there is more than 1 thread on the IUD, it is best to grasp both of them. Warn the patient that she will experience some cramps.
3. Pull gently and steadily to bring the IUD out of the uterus. Your patient will experience some cramps, but not as strong as during an insertion.
4. Occasionally, if removal is difficult, it may be necessary to use a tenaculum or cervical stabilizer to straighten the cervical canal and uterine cavity.

### Difficult Removals

Occasionally the string of the IUD will disappear inside the uterus. If you have found, with a cervical probe, that the IUD is still inside the uterus, it may be removed as follows:

1. Insert a speculum (after being sure all instruments are sterile), and apply a tenaculum or cervical stabilizer, as described in the section on insertion.
2. Insert a closed narrow forceps or an IUD hook through the internal os, until it touches the IUD. This must be done GENTLY, DELICATELY, AND SLOWLY. You must be very careful to keep the forceps STERILE.
3. When the IUD is caught by the forceps, grasp it firmly. Be very careful not to perforate the uterus.
4. If the IUD is difficult to pull out, the forceps can be turned very slightly to the side, and back again. When you turn the forceps, DO NOT pull at the same time. This will be very painful for your patient.

5. After turning, the forceps can be pulled.
6. If you are still not successful in pulling out the IUD, STOP the procedure. It is better to try again at another time. Warn the patient about the possibility of infection.
7. If, after trying again, you still cannot remove the IUD, refer your patient to a specialist. Sometimes (although rarely) it is necessary to use anesthesia and curettage to remove an IUD.

### Practice Questions

1. To remove an IUD, you need two instruments. What are they?
2. If you need to take a Pap smear, a gonorrhea or other cervical culture, should you take the culture before or after the IUD removal?
3. If the removal of the IUD is difficult, what procedure will you have to do?
4. Under what conditions would you use a cervical stabilizer or tenaculum and closed narrow forceps or an IUD hook to remove the IUD?

To the Learner: Turn the page to check your answers.

### Answers to Practice Questions

1. The two instruments needed to remove an IUD are a speculum and a uterine forceps.
2. Take any necessary cultures before you take out the IUD.
3. If the removal is difficult, it may be necessary to use a tenaculum or cervical stabilizer to straighten the cervical canal and uterine cavity.
4. If the string of the IUD has disappeared inside the uterus, you may need to use the cervical stabilizer and a closed narrow forceps or IUD hook to remove the IUD.

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 10 on the next page.

## 10. Management of IUD Side Effects

A small proportion of your patients will return with complaints. Some will have normal side effects that can be expected following an IUD insertion and are not serious. Others will be more serious and are best handled by referring the woman to a specialist. It is important the clinician be thoroughly familiar with all IUD side effects and complications.

The guide on the next pages should help you identify the cause of common post-insertion complaints and suggest ways to manage them. Remember to be patient and understanding with the woman. Most complaints will not be due to complications; rather they will be simple side effects that you can often ameliorate by simply listening, reassuring the woman that she is fine and will soon be even better, and letting her know that you care. However, on those rare instances when your examination reveals anything unusual and/or you are in doubt as to what action to take, never hesitate to refer your patient to a specialist.

COMPLAINT #1: Cramps or lower abdominal pain,  
(with or without spotting)

<u>Possible Cause</u>	<u>Management (or Treatment)</u>
1. The effects of insertion.	1. a. Bi-manual and speculum exam. If no pain when uterus palpated, no masses felt and no malodorous bloody secretions, assure patient that pain is temporary and she will soon be feeling fine. Advise patience. b. Give analgesics. c. Apply hot water bottle to abdomen or advise hot compresses. d. If severe cramps persist beyond 3-6 months, remove and insert a more appropriately sized device or recommend a different method.
2. Perforation	2. Bi-manual and speculum exam. If pain accompanied by bleeding and you can't see IUD strings, <u>refer to specialist.</u>
3. Pelvic Infection	3. Bi-manual and speculum exam. If uterus or cervix tender or adnexae or masses in pelvis, remove IUD and treat according to PID protocol <u>or refer to a specialist.</u>
4. Ectopic Pregnancy	4. Take history - recent delayed, missed or scanty menses? Bi-manual exam: If you feel tender, adnexal mass, <u>refer to a hospital-based specialist at once.</u>

COMPLAINT #2: Low back pain

<u>Possible Cause</u>	<u>Management (or Treatment)</u>
1. Moderate to severe retroverted uterus	1. a. Bi-manual and vaginal exam to confirm position of uterus and rule out other pathology. b. Advise knee-chest position for 10 minutes once or twice a day. c. Give mild analgesic. d. Advise rest - one to two hours daily for a few days.
2. Menstrual discomfort	2. a. If pain only during menses or since IUD inserted, probably due to severe contractions of the uterus. Advise moderate exercise and give woman a mild analgesic. b. Inserting a progesterone medicated device might reduce pain.
3. PID	3. a. Bi-manual and speculum exam. If accompanied by smelly discharge and fever suspect PID. Remove IUD and treat according to PID protocol <u>or</u> refer to a specialist.

### COMPLAINT #3: Vaginal Discharge

<u>Possible Cause</u>	<u>Management (or Treatment)</u>
1. Presence of IUD	1. a. Speculum exam. If you see nothing unusual - only excessive vaginal secretions - reassure the woman that she is fine. Tell her to ignore the discharge. b. Some bloodstained discharge is also normal for several months.
2. Vaginal infection	2. Speculum exam. Check texture, consistency, color, and smell of discharge. Ask about other complaints; e.g., itching, burning, painful sex.
a. Trichomonas	a. Watery discharge: Can treat with vaginal suppositories or tablets suitable for parasites.
b. Fungus	b. Thick discharge, looks like curds: Can also treat with vaginal suppositories or tablets as above.
3. Endometritis or parametritis	3. If you discover foul smelling discharge, do a bi-manual exam to detect pelvic masses or tenderness. a. If pelvic masses are detected, refer patient to a hospital-based specialist. b. If no masses exist, but tenderness is present, remove IUD and treat with antibiotics.

COMPLAINT #4: Husband complains of pain during coitus

<u>Possible Cause</u>	<u>Management (or Treatment)</u>
1. Strings are interfering	1. Cut strings shorter and push them up behind the cervix.

COMPLAINT #5: Excessive menses (with or without clots)

<u>Possible Cause</u>	<u>Management (or Treatment)</u>
1. Presence of IUD	1. a. Check history - How long problem been going on? How many pads does she soak in one day? b. Bi-manual and speculum exams to rule out infection. c. If recent insertion, reassure patient and try to get her to continue a little longer. d. Prescribe iron tablets if woman appears anemic (check eyes, general color, etc.).

COMPLAINT #6: Vaginal bleeding (heavier, irregular, or spotting)

<u>Possible Cause</u>	<u>Management (or Treatment)</u>
1. The effects of insertion.	1. a. Perform bi-manual and speculum exam to see if all is well. b. Reassurance: Tell woman symptoms should disappear in 2-3 months. c. If possible, talk with husband also. d. Vitamin K (10 mg three times a day for 5 days) often stops spotting. e. If the woman appears anemic, prescribe iron tablets. f. Vitamin C or calcium may also relieve symptoms.
2. IUD may be partially expelled or lodged in cervical os.	2. Bi-manual and speculum exam. If you see IUD protruding from the os or, if using tenaculum and sound, you contact it in the cervical canal, then remove IUD and insert another one.

COMPLAINT #7: Prolonged bleeding (either post-menstrually or off and on between menses)

<u>Possible Cause</u>	<u>Management (or Treatment)</u>
1. Cervical erosion	1. Bi-manual and speculum exam. If polyps or erosion can be seen, if cervix very sensitive, or if woman also complains of post-coital bleeding, treat according to cervical erosion protocol or <u>refer to specialist.</u>
2. Incomplete abortion	2. In bi-manual exam check if uterus enlarged or soft. Take history - was menses delayed or scanty? Look for fetal tissue in cervix or vagina. Remove the IUD. Treat according to uterine aspiration protocol or <u>refer to specialist.</u>
3. PID	3. Bi-manual and speculum exam. If there is pain when uterus is palpated or cervix manipulated or if there is fever and fecal odor to bloody discharge, remove IUD and treat according to PID protocol or refer to a specialist.

COMPLAINT #8: Strings missing

<u>Possible Cause</u>	<u>Management (or Treatment)</u>
1. Cot pulled up into cervical canal	1. Speculum exam. If the strings are in place, reassure woman and teach her to find them. If strings are in cervical canal, use hook to pull them back into vagina.
2. Device expelled	2. a. Speculum exam. Use sound to locate IUD. If in uterine cavity, reassure woman everything is OK. b. If you locate device in cervical canal, remove and carefully insert another one. c. If you can't find device, question woman: Did she have bad cramps? Did she see the device? If certain she has expelled, re-insert. If in doubt, <u>refer to specialist.</u>

COMPLAINT #9: Syncope

<u>Possible Cause</u>	<u>Management (or Treatment)</u>
1. Usually means a sensitive vagal nerve	1. Have patient rest, elevate legs, use smelling salts. Take blood pressure, reassure woman that she will soon be fine. If pulse is slow (less than 60) give atropine per protocol.

COMPLAINT #10: Always tired

<u>Possible Cause</u>	<u>Management (or Treatment)</u>
1. Anemia	1. a. Take history and question woman about duration and heaviness of menses. Be sympathetic. b. Discuss nutrition. c. Suggest some rest during the day. d. Prescribe iron tablets.

COMPLAINT #11: Wants IUD removed

<u>Possible Cause</u>	<u>Management (or Treatment)</u>
1. Dissatisfaction with device	1. a. Discuss problems that worry woman. b. Be reassuring and encourage her to continue. c. Talk with the husband too (if possible). d. If the clinician fully understands the device, this will help increase continuation rates. (Otherwise, there is a tendency to blame anything abnormal on the IUD.)
2. Excessive menstruation	2. If only one episode of excessive menses and no infection detected, reassure client that it is possible to have this problem on occasion even without an IUD. Tell her to come in again if it reoccurs next month.
3. Pelvic pathology Myomata Endometrial polyps Endometrial hyperplasia Pelvic infection	3. Bi-manual and speculum exam. <u>Refer to specialist</u> if any other disease or infection is suspected or detected.

COMPLAINT #12: Delayed menses or amenorrhea

<u>Possible Cause</u>	<u>Management (or Treatment)</u>
1. Pregnancy	1. a. If strings not visible, <u>refer to specialist.</u> b. If strings visible, explain to woman that IUD must be removed for her safety and that there is a 25% chance of spontaneous abortion.
2. Suspected pregnancy	2. If pregnancy is suspected, give appropriate diagnosis and treatment. If pregnancy is ruled out, then examine other causes (#3, 4, and 5).
3. Post-partum amenorrhea	3. Has woman had menstrual period since delivery? May just be delayed return to menses.
4. Breast-feeding	4. Some women don't menstruate when they breast-feed. Pregnancy is a possibility and if suspected, diagnosis and appropriate action should be taken.
5. Post-abortal amenorrhea	5. Happens less frequently than post-partum amenorrhea but is a possibility to consider.

COMPLAINT #13: Expulsion

<u>Possible Cause</u>	<u>Management (or Treatment)</u>
1. Improper insertion	1. Reinsert more carefully.
2. Device wrong size for woman's uterus	2. a. Reinsert an appropriately-sized device. b. If woman expels device twice, recommend another method.

## Practice Questions

1. A woman with an IUD complains of cramps or lower abdominal pain. What are four possible causes of this complaint to investigate?
2. A woman with an IUD complains of low back pain that only occurs during menses. What is the probable cause of the pain and what treatment would you prescribe?
3. A woman with a vaginal discharge that is foul smelling is given a bi-manual exam. No pelvic masses are detected but tenderness is present. What treatment would you recommend?
4. The husband of the woman complains of pain during coitus. The possible cause is that the IUD strings are interfering. How would you treat this problem?
5. If the woman appears anemic because of excessive menses due to the presence of the IUD, what would you prescribe?
6. Vaginal bleeding which is heavier than usual or irregular may be one of the effects of insertion. What examinations would you perform to make sure all is well with the woman?
7. Prolonged bleeding - either post-menstrually or off and on between menses - may be caused by three conditions. What are they?
8. A woman returns to the clinic because she has found that the IUD strings are missing. What are two possible causes of this condition? If you locate the IUD in the cervical canal, what should you do?
9. What two possible causes may account for the expulsion of the IUD?
10. If the woman expels the IUD twice, what would you recommend her to do?

**To the Learner:** Turn the page to check your answers.

### Answers to Practice Questions

1. Four possible causes to investigate are (1) effects of insertion, (2) perforation, (3) pelvic infection, and (4) ectopic pregnancy.
2. The probable cause of the pain is severe contraction of the uterus. Advise moderate exercise and give the woman a mild analgesic.
3. If no pelvic masses are found but tenderness is present, remove IUD and treat with antibiotics.
4. The clinician can cut the strings shorter and push them up behind the cervix.
5. Prescribe iron tablets if the woman appears anemic.
6. A bi-manual and a speculum exam should be performed to make sure that all is well with the woman and the IUD.
7. Three conditions that may cause prolonged bleeding are (1) cervical erosion, (2) incomplete abortion, and (3) pelvic inflammatory disease (PID).
8. Two possible causes of missing IUD strings are that the strings got pulled up into the cervical canal or the IUD was expelled. If you locate the IUD in the cervical canal, remove it and carefully insert a new one.
9. An IUD may be expelled because it was inserted improperly or because the IUD was the wrong size for the woman's uterus.
10. If the woman expels the IUD twice, recommend another method of contraception for her.

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 11 on the next page.

## 11. Contraceptive Injections

### How Contraceptive Injections Work

The contraceptive injection contains a synthetic progestin similar to the female hormone, progesterone. This injection works very much like contraceptive pills, by preventing the fertilized egg from growing in the uterus. The most common name for this injection is Depo-Provera (generic: depo-medroxyprogesterone acetate), or DMPA.

The injection must be given every 3 months (150 mg intramuscularly). The woman does not have to remember to take a pill every day. She does not have to use any contraceptive before intercourse. The only thing she must remember is to get an injection every 3 months.

### Effectiveness

The DMPA injections are probably more effective than oral contraceptives, which depend on daily ingestion of a pill.

### Problems and Side Effects

There are several side effects from DMPA which may be a problem for some women:

1. Menstrual irregularities and amenorrhea: This usually happens after the woman has had 2 or 3 injections. Many women are concerned about this and should be informed in advance that this is not dangerous.
2. Increased menstrual bleeding: Sometimes a woman may have increased menstrual bleeding. If this happens, it is a good idea to make sure the woman is not anemic. Also: if bleeding is excessive, give her one oral contraceptive pill twice a day for five days.
3. Bleeding at unusual times: If a woman has bleeding at unusual times, such as after intercourse, it is very important to do a Pap test, to make sure she does not have cancer.
4. Delayed return to fertility: Sometimes women cannot become pregnant for a year or more after they stop having the injections. It is very important that the woman understand this BEFORE you give her the first injection.
5. Other side effects: Some women have the same side effects as for the contraceptive pills. If any of these problems are serious for your patient, she might wish to stop the injections.

## Prescribing Contraceptive Injections

- A. Selection of Patients: Patients for contraceptive injections must understand and accept:
  - problems of menstrual irregularity and amenorrhea
  - possible temporary loss of fertility
- B. Instructions for Patients Receiving Long-acting Injectable Progestin:
  - Patient must receive an injection (of 150 mg) every three months.
  - Patient may expect irregular menses or amenorrhea following the first 2 or 3 injections.
  - Give the woman a strip of oral contraceptives at the time of the injection. Tell her to take these (one pill twice a day) if she begins to bleed much more than her normal period.

## What To Tell the Patient

1. Inform her about amenorrhea. Reassure her that this is not a problem but if she is worried, to have a pregnancy test.
2. She must have another injection every 3 months.
3. Tell her about the common side effects (irregular menstruation).
4. If she decides to stop taking the injections before age 50, she should use another method of contraception. There is a slight chance that she could become pregnant after stopping the injections.
5. There is a slight chance she could become pregnant while on "the shot," so remind her about pregnancy symptoms other than amenorrhea.

## Managing Contraceptive Injection Side Effects

1. Bleeding: Rule out infection, polyps, and tumors by physical examination.
  - (a) Irregular bleeding with progestin is self-correcting.
  - (b) Post-coital bleeding in the absence of cervical lesions suggests uterine cancer; take Pap smear and consult specialist immediately.

2. Amenorrhea:

- (a) Pregnancy: Confirm with pelvic and laboratory examination.
- (b) Most patients on injectables will develop amenorrhea after the first 6 months; if the woman objects to this result, the method must be changed.

## Practice Questions

1. Explain how the contraceptive injection works to prevent pregnancy.
2. What is the most common name for the contraceptive injection?
3. What are five problems or side effects that a woman might experience after a contraceptive injection?
4. There are two problems and risks that a patient must understand and accept before she is selected for contraceptive injection. What are they?
5. What are five things to tell the patient about contraceptive injections?
6. A woman using the contraceptive injection complains of bleeding. What conditions should you rule out by giving the woman a physical examination?
7. A woman has amenorrhea after receiving the contraceptive injection. This is common for patients after the first six months, but what conditions should you suspect and confirm with pelvic and laboratory examinations?

**To the Learner:** Turn the page to check your answers.

## Answers to Practice Questions

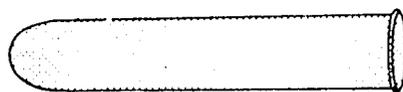
1. The contraceptive injection contains a synthetic progestin similar to the female hormone, progesterone. Like the pill, the injection prevents the fertilized egg from growing in the uterus.
2. The most common name for the contraceptive injection is Depo-Provera (generic: depo-medroxyprogesterone acetate), or DMPA.
3. Five problems or side effects associated with contraceptive injections are:
  - (1) menstrual irregularities and amenorrhea
  - (2) increased menstrual bleeding
  - (3) bleeding at unusual times
  - (4) delayed return to fertility
  - (5) same side effects as the pill
4. A patient must understand and accept (1) the problems of menstrual irregularity and amenorrhea and (2) the risk of possible temporary loss of fertility.
5. Following are the five things to tell the patient:
  - (1) Inform her about amenorrhea.
  - (2) She must have an injection every 3 months.
  - (3) Tell her about the common side effects.
  - (4) Advise her to use another method of contraception if she stops taking the injections before age 50.
  - (5) Remind her about pregnancy symptoms.
6. If the woman complains of bleeding, rule out infection, polyps, and tumors with a physical exam.
7. If amenorrhea occurs, even though this is a common condition for women using the contraceptive injection, check for pregnancy with pelvic and laboratory examinations.

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 12 on the next page.

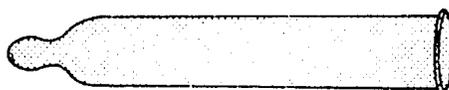
## 12. Condoms

### How Condoms Work

A condom is a thin sheath of rubber. It fits tightly over the entire penis during intercourse, and acts as a physical barrier to the sperm. It blocks the passage of sperm from the penis into the vagina. It also protects against the transmission of venereal disease and other infections. Condoms are all made in a standard size. Sometimes they are lubricated.



Plain ended



Teat ended



Teat ended

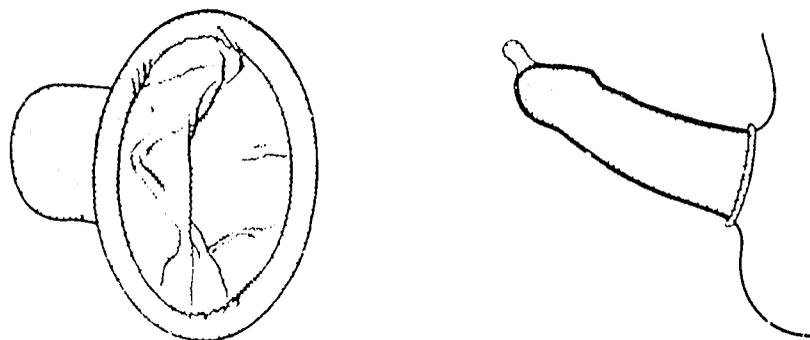
### Effectiveness

Used together with foam (see section on Spermicidal Foam), condoms are very effective. A good quality condom is also effective if used correctly. Condoms are very good for extra protection at mid-cycle (during the woman's most fertile time) when an IUD or diaphragm is used.

### How To Use the Condom

The condom is rolled up in its package, ready to unroll onto the penis. It is rolled onto the penis after erection but before penetration into the vagina. At least 2.5 cm at the tip should be left empty of air to prevent bursting or leakage.

After ejaculation the penis must be withdrawn from the vagina, before the erection is lost. The condom should be held tightly at the open end as the penis is withdrawn, so that the condom does not come off, and the sperm does not leak out.



If the condom comes off, breaks, or leaks, the penis should be immediately withdrawn, and the woman should immediately apply spermicidal contraceptive foam or douche.

Review with the woman exactly how and when the condom should be put on and taken off.

#### **Additional Information on Condoms**

1. Contraindications: There are no contraindications.
2. Storage: Condoms can be stored for 2 years. They should be stored in cardboard or aluminum. They should not be carried in a billfold for long periods, since heat, wear, and sharp objects cause deterioration of the rubber.
3. Lubrication: Petroleum jelly should never be used as a lubricant, as this also causes deterioration. Spermicidal foam or jelly may be used as a lubricant.

### Practice Questions

1. How does the condom work to prevent pregnancy?
2. What contraceptive method should the woman use to make the condom a more effective means of birth control?
3. What should the woman do if the condom comes off, breaks, or leaks during intercourse?
4. What precautions should be taken when condoms are to be stored for long periods of time?
5. What should be used as a lubricant with the condom?

**To the Learner:** Turn the page to check your answers.

## Answers to Practice Questions

1. The condom is a sheath of rubber which fits tightly over the entire penis during intercourse, and acts as a physical barrier to the sperm. It blocks the passage of sperm from the penis into the vagina.
2. If the woman uses spermicidal foam, the effectiveness of the condom is improved.
3. If the condom comes off, breaks, or leaks, the woman should immediately apply spermicidal contraceptive foam or douche.
4. Condoms should be stored in cardboard or aluminum, and should never be carried in billfolds for long periods because of deterioration.
5. Spermicidal foam or jelly may be used as a lubricant with condoms but never petroleum jelly.

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 13 on the next page.

### 13. Spermicidal Foam, Tablets, or Suppositories

#### How Spermicidal Foam, Tablets, or Suppositories Work

There are two main ingredients: a sperm-killing chemical (spermicide) and an inert substance which helps to hold the spermicide against the opening of the cervix. It has both a chemical and a physical action. Chemically, it kills the sperm, and physically, it prevents the passage of sperm through the cervix.

#### Effectiveness

When contraceptive foam, tablet, or suppository is used alone, it is moderately effective. It is not as effective as a condom, diaphragm, IUD, or contraceptive pills. (See sections on these methods.) To be sure of avoiding pregnancy when a woman uses contraceptive foam, tablet or suppository, a man should use a condom at the same time. When these two methods are used together, they are very effective. If foam must be used alone, it is important to insert one full applicator, as close to the time of intercourse as possible.

#### Problems and Side Effects

Some women and men are allergic to foam, tablets or suppositories.

It can sometimes cause itching, burning, or a rash. If this happens, a health clinician should be consulted, and another brand of foam can be tried. There are no other dangers or side effects to the use of foam.

#### How To Use Contraceptive Foam

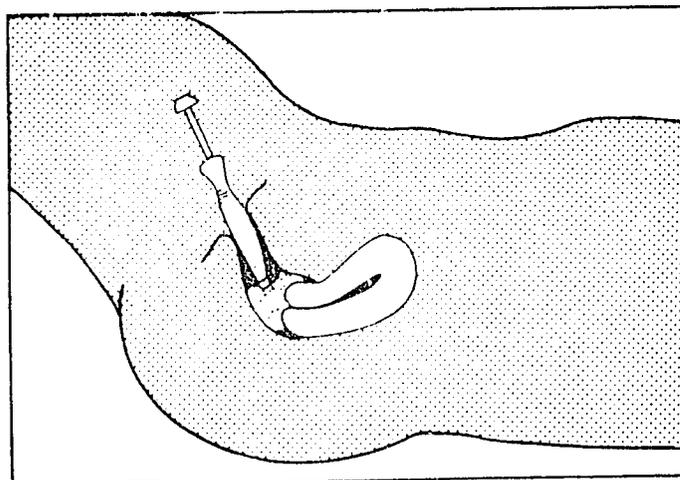
Foam comes in an aerosol can with a special applicator. The foam must be inserted NO MORE THAN 30 minutes before intercourse, as the protection is only temporary. An application of foam or a suppository or tablet is needed before EACH act of intercourse. To use foam, remember the following steps:

1. The container must be shaken very well (about 20 times) in order to make the most bubbles in the foam. The more bubbles, the better it blocks the sperm. Shaking also mixes the spermicide evenly through the foam.
2. After shaking the container, the applicator can be filled. Push the open end of the applicator down over the top of the container. Foam will come up into the applicator and fill it.

3. The woman must lie down to insert the foam. She should use two applications before each act of intercourse.
4. If the woman gets up from a lying position after the foam tablet or suppository is inserted, but before intercourse, she will need another application of foam.
5. After intercourse, the woman should not douche or take a bath for 8 hours, because this will dilute and weaken the sperm-killing chemical.

#### What To Tell the Couple about Using Contraceptive Foam

1. Emphasize that it must be used NO MORE THAN 30 minutes before intercourse.
2. Be sure the woman understands that it should be SHAKEN WELL before the applicator is filled.
3. The applicator should be filled and introduced TWICE.
4. The woman should not stand up after applying the foam and before intercourse.
5. After intercourse, she should not sit in a bath, douche, or go swimming for 8 HOURS.
6. Foam must be used before EVERY act of intercourse.



### Practice Questions

1. How do spermicidal foam, tablets, and suppositories work chemically and physically to prevent pregnancy?
2. What other contraceptive method should be used along with foam, tablets, or suppositories to make this method more effective?
3. What are possible problems or side effects of this method of contraception?
4. When using foam, why must the aerosol container be shaken very well before it is put into the applicator?
5. How many applications of foam must the woman insert before each act of intercourse?
6. Why should the woman not douche or take a bath for 8 hours after intercourse when spermicidal foam is the method of birth control used?
7. What six things should you explain to the couple about using spermicidal foam as a method of birth control?

**To the Learner:** Turn the page to check your answers.

## Answers to Practice Questions

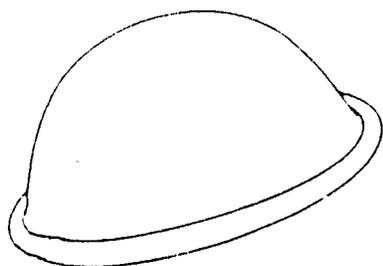
1. Chemically the foam, tablet, or suppository kills the sperm and physically, it prevents the passage of sperm through the cervix.
2. A man should use a condom at the same time to make this method more effective.
3. Possible side effects are allergies with itching, burning, or a rash.
4. The aerosol container must be shaken very well in order to make the most bubbles in the foam. The more bubbles, the better the foam blocks the sperm. Shaking also mixes the spermicide evenly through the foam.
5. The woman must insert two applications of foam before each act of intercourse.
6. A woman should not douche or take a bath for 8 hours after intercourse, because this will dilute and weaken the sperm-killing chemical.
7. The couple using contraceptive foam should be told the following 6 things:
  - (1) Use foam no more than 30 minutes before intercourse.
  - (2) Shake the can well before filling the applicator.
  - (3) Fill and insert the applicator twice.
  - (4) The woman shouldn't stand up after applying the foam and before intercourse.
  - (5) The woman shouldn't sit in a bath, douche, or go swimming for 8 hours after intercourse.
  - (6) Use foam before every act of intercourse.

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 14 on the next page.

## 14. Diaphragms with Spermicidal Cream or Jelly

The information on diaphragms will be presented in four information sections. This section will describe how diaphragms work, their effectiveness, problems and side effects, and contraindications. Information section 15 will explain how a patient should use a diaphragm and take care of it. Section 16 will describe the procedure for fitting a diaphragm and section 17 contains information for the patient using a diaphragm.

### How Diaphragms Work



A diaphragm is a shallow cup made of thin, soft rubber. It has a stiff but flexible rim which folds so the woman can insert it. When in place, it fits closely over the cervix, behind the pubic bone. The pubic bone holds it in place. Diaphragms come in a variety of sizes from 50 to 105 mm depending on the size of the woman's upper vagina.

The diaphragm **MUST** be used with spermicidal cream or jelly. The diaphragm itself works as a physical barrier to sperm. Its main purpose, however, is to hold the spermicide in place, at the opening of the cervix, so the sperm are stopped chemically. (The sperm are killed before they can go through the cervix into the uterus.)

### Effectiveness

With proper instruction and careful use, the diaphragm can be most effective in preventing pregnancy. It is important to remember that:

1. The diaphragm must be used **EVERY TIME** a woman has intercourse.
2. It must **ALWAYS** be used with spermicidal cream or jelly.
3. Proper fit and proper care are important.
4. Some brands of spermicide are stronger and more effective than others.

## **Problems and Side Effects**

There are no serious side effects or dangers with the use of a diaphragm. Sometimes a particular cream or jelly might irritate the vagina or penis. In this case, the health clinician can suggest a different brand.

Some women are not comfortable with their own bodies, and sometimes they cannot get used to inserting the diaphragm. If, after proper instruction, a woman still seems very embarrassed or unwilling to use the diaphragm, it would probably be better for her to use another method of contraception.

Some women fear that the diaphragm might get lost inside them. The health clinician can help them with a simple explanation of female anatomy. Drawing a picture or showing a plastic model of the vagina, cervix, and uterus is very helpful.

After practicing the insertion of the diaphragm a few times, the woman will understand that it is impossible for the diaphragm to get lost, and she will quickly lose her fear.

## **Contraindications**

A diaphragm should NOT be used under these conditions:

1. If the woman has a prolapsed uterus.
2. If the bladder is pushing down the vaginal wall (cystocele).
3. If there are any abnormal openings in the vagina (fistulas).

## Practice Questions

1. How does the diaphragm work to prevent pregnancy?
2. The diaphragm should not be used alone. What should the woman use with the diaphragm?
3. Where does the diaphragm fit in the woman's body?
4. What four factors determine the effectiveness of the diaphragm as a method of birth control?
5. There are no serious side effects or dangers associated with the use of a diaphragm. Explain generally why some women may be unable to use a diaphragm.
6. Give three contraindications, or conditions under which a diaphragm should not be used.

**To the Learner:** Turn the page to check your answers.

## Answers to Practice Questions

1. When in place, the diaphragm fits closely over the cervix, behind the pubic bone. It is used with spermicidal cream or jelly. The diaphragm itself works as a physical barrier to the sperm but its main purpose is to hold the spermicide in place at the opening of the cervix so the sperm can be stopped chemically. The sperm is killed before it can go through the cervix into the uterus.
2. The diaphragm must be used with spermicidal cream or jelly.
3. The diaphragm fits closely over the cervix behind the pubic bone.
4. Following are four factors which help determine the diaphragm's effectiveness:
  - (1) use with every act of intercourse
  - (2) use with spermicidal cream or jelly
  - (3) proper fit and care
  - (4) brand of spermicides used
5. Some women are unable to use a diaphragm because they can't get used to inserting it. This may be because they aren't comfortable with their own bodies or because they fear the diaphragm will get lost inside of them.
6. A diaphragm should not be used under these conditions:
  - (1) if the woman has a prolapsed uterus
  - (2) if the bladder is pushing down the vaginal wall (cystocele)
  - (3) if there are any abnormal openings in the vagina

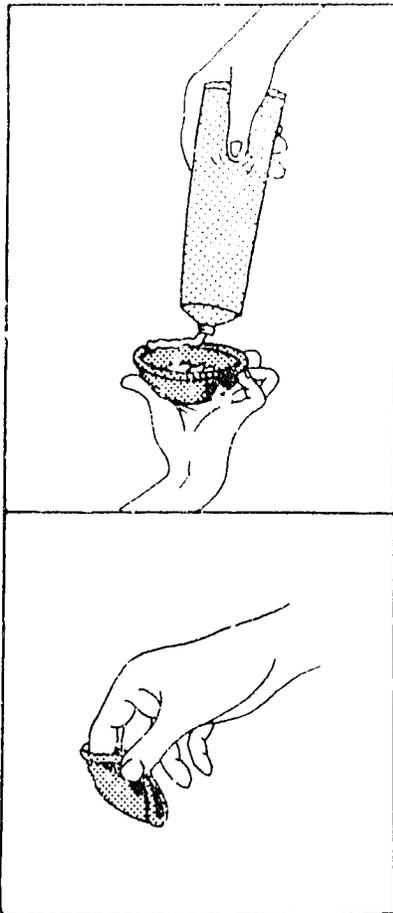
**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 15 on the next page.

## 15. Use and Care of Diaphragms

### How To Use a Diaphragm

Each woman must be individually fitted for a diaphragm by a health clinician. (See section on How To Fit a Diaphragm.) The clinician then instructs her on the proper method for inserting and taking out the diaphragm. It is important to be sure that the woman understands how to insert the diaphragm by herself, before she leaves the health center.

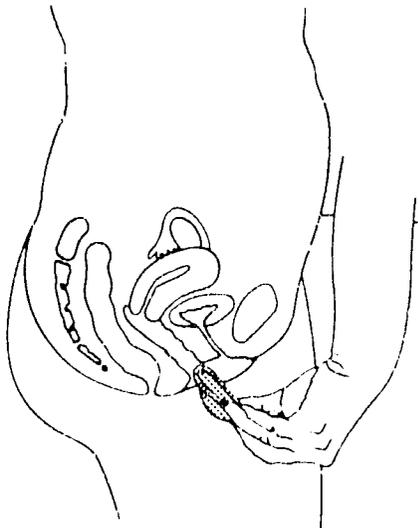
Inform her that the diaphragm should be inserted NOT MORE THAN 2 hours before intercourse. One half hour before is safer than 2 hours before. Then guide her through the following steps, to make sure she understands the proper use of the diaphragm:



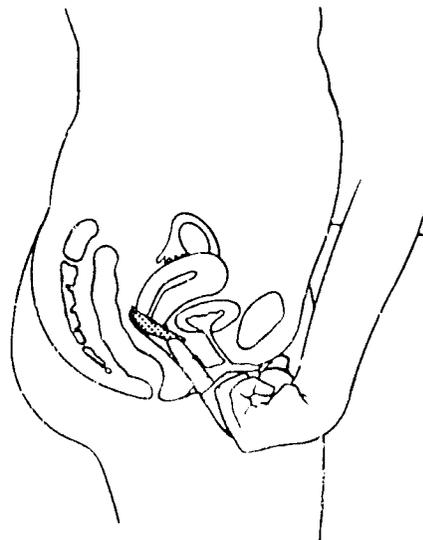
1. 5-10 cc of spermicide; jelly or cream is first squeezed into the cup, on the side that will touch the cervix. A little more should be squeezed around the inside rim of the cup.
2. The woman then presses the rim firmly between her thumb and one finger, and with her free hand she spreads her labia.
3. Then she inserts the diaphragm, with the spermicide on top, into the upper third of her vagina, as far back as it will go. The rim of the diaphragm will then spring open and surround the cervix. It should be pushed just behind the pubic bone. (It is often easier if the woman squats, stands with one foot raised, or lies down with legs bent. It is also more comfortable if she urinates first.)
4. When the diaphragm is properly in place, the outline of the cervix can be felt with a finger, through the soft rubber. When it fits properly, the woman should not notice its presence in her vagina. It should not feel painful or bothersome.
5. The diaphragm must remain in place for at least 6-8 hours after the last act of intercourse. This is to make sure that all the sperm are killed. The diaphragm may be left in up to 24 hours. Douching is not necessary, but if the woman wants to douche, she must wait 8 hours.

6. If intercourse occurs again within 6-8 hours, the diaphragm must stay in place, and more spermicidal jelly must be inserted into the vagina with an applicator. If more than 2 hours pass between insertion of the diaphragm and intercourse, more spermicide must be added with an applicator.
7. To remove the diaphragm, one finger is hooked under and behind the rim, and the diaphragm is pulled gently downward and out. Suction might hold the diaphragm firmly behind the pubic bone. This suction can be broken by putting a finger between the vaginal wall and the rim of the diaphragm.

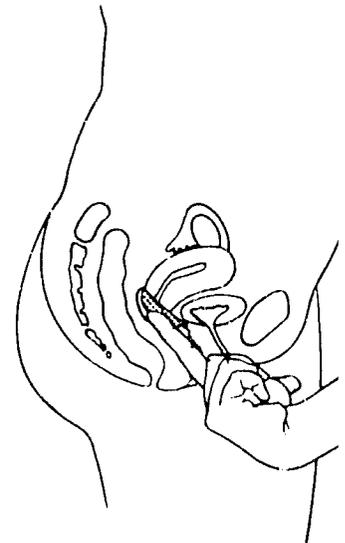
A diaphragm may be used during times of menstrual discharge, if a woman wishes to have intercourse without interference from the heavy menstrual flow. The diaphragm can be kept in place for this purpose for up to 12 hours.



Diaphragm being inserted into the vagina



Placing the diaphragm over the cervix



Checking the diaphragm

### How to Take Care of a Diaphragm

After use, the diaphragm should be washed in warm water, with a mild soap. It is then dried and stored in its container. After drying, it is a good idea to dust it with unscented talc or plain cornflour. Body powder, baby powder, or face powder **SHOULD NOT** be used, since they can cause holes in the rubber. Also, strong soaps (detergents), perfumed soaps, soaps containing cold creams, and petroleum jelly **SHOULD NEVER** be used with a diaphragm. These may also cause holes. The diaphragm **SHOULD NOT** be placed in boiling water and should be protected from extensive heat.

Occasionally the diaphragm should be examined for holes and cracks, especially near the rim. It can be filled with water to check for leaks.

The diaphragm size should be checked once a year by the health clinician, because vaginal size can change. Size must also be checked after: (1) a miscarriage, (2) an abortion, (3) childbirth. (To check size, see section on How to Fit a Diaphragm.)

### Practice Questions

1. What is the maximum amount of time before intercourse that the diaphragm can be inserted?
2. Onto which side of the cup of the diaphragm should the spermicidal jelly or cream be squeezed?
3. When the woman inserts the diaphragm, where should the spermicide be?
4. How does the woman know when the diaphragm is properly in place?
5. How long after intercourse should the diaphragm remain in place?
6. What should the woman do to the diaphragm after removing it in order to take care of it properly?
7. Why should the diaphragm size be checked once a year by the health clinician?

**To the Learner:** Turn the page to check your answers.

### Answers to Practice Questions

1. The diaphragm should be inserted not more than 2 hours before intercourse.
2. The spermicidal jelly or cream is first squeezed into the cup on the side that will touch the cervix.
3. When the woman inserts the diaphragm, the spermicide is on top.
4. When the diaphragm is properly in place, the outline of the cervix can be felt with a finger, through the soft rubber. The woman shouldn't notice its presence in her vagina if it is properly in place.
5. The diaphragm must remain in place for at least 6-8 hours after the last act of intercourse.
6. After removing the diaphragm, the woman should wash it in warm water with mild soap. It should then be dried and stored in its container.
7. The diaphragm size should be checked once a year by the health clinician because vaginal size can change.

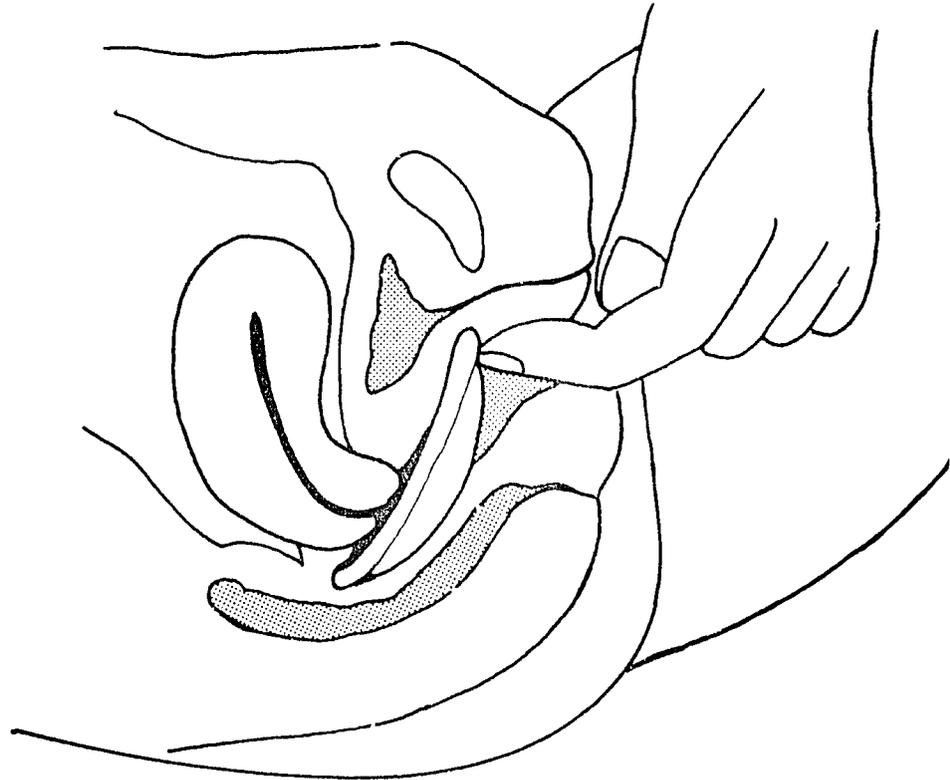
**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 16 on the next page.

## 16. How To Fit a Diaphragm

Following are the steps to follow in order to select the proper size and type of diaphragm for the patient:

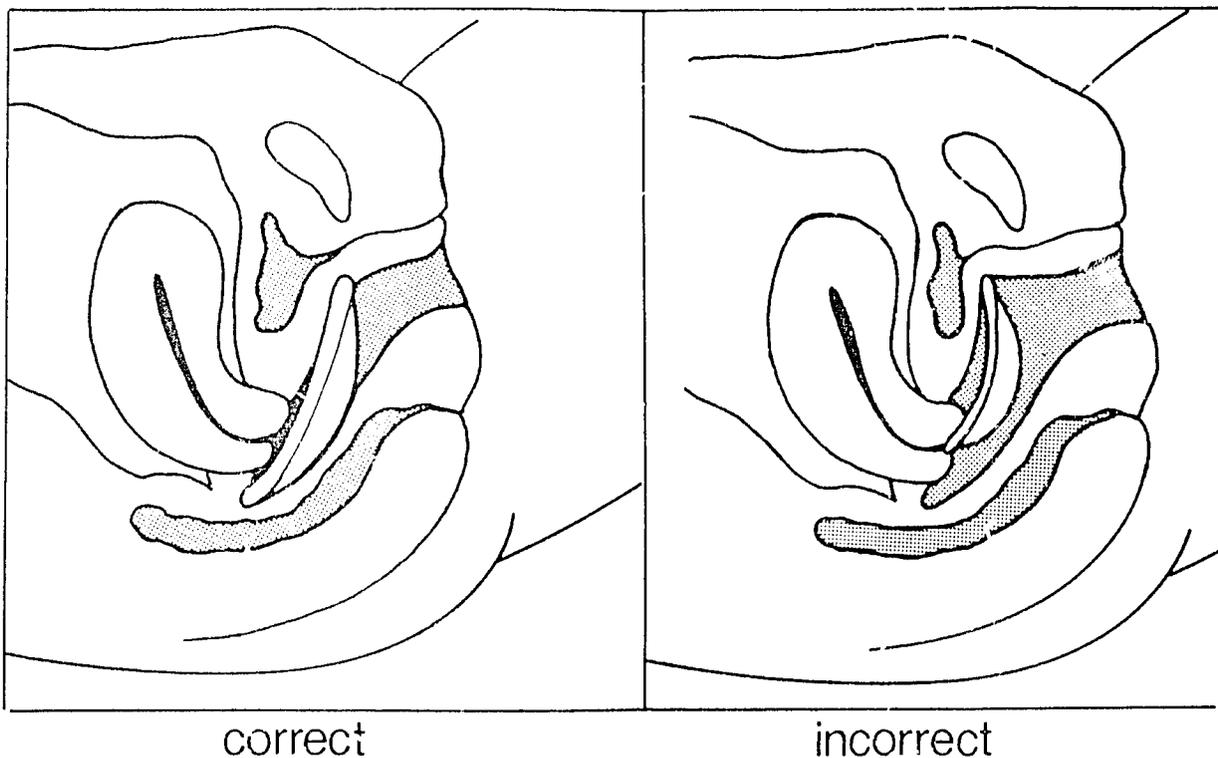
1. If appropriate, begin a pelvic examination using your routine procedures with speculum. Look for monilia, trichomonas, and any other irritations or infections. Do a Pap test. (See modules on Pelvic Examination, Vaginal Infections.)
2. Do a bi-manual examination (refer to module on Pelvic Examination) and look for contraindications for diaphragms.
  - (a) Ask your patient to "push" with abdominal muscles. This will help you to look for cystoceles and rectoceles.
  - (b) Estimate the distance from the posterior fornix to the symphysis, using your finger length as a measure.
3. Choose a diaphragm for a trial fitting, according to the distance you measured with your finger.
  - (a) Use a coil spring diaphragm for women who have good vaginal support.
  - (b) Use an arcing spring diaphragm for women who have cystocele, rectocele, or any other evidence of poor vaginal support. This is also a good choice for women with a retroflexed uterus. The arcing spring diaphragm is probably the easiest to insert correctly and is comfortable for most women.
  - (c) Try a diaphragm that is 5 mm larger than your estimate of the length of the vaginal canal. Remember that the size of the vaginal canal will be slightly larger when the patient is more relaxed. Also, the vaginal canal often becomes slightly larger during sexual excitement.
4. To insert the diaphragm:
  - (a) Put 5 to 10 cc of spermicidal jelly or cream into the middle of the diaphragm. Smear some around the rim also.
  - (b) Using your thumb and middle finger, squeeze the diaphragm together. It will fold so it can be easily slipped into the vagina.
  - (c) Use your finger first to guide the diaphragm into place, using your other hand to spread the labia. Push the diaphragm all the way into the vagina.

- (d) Push the outer edge of the diaphragm up behind the symphysis. It should just fit, but not too tightly. You should be able to fit the tip of your first finger between the rim of the diaphragm and the symphysis pubis. Your patient should not feel any pressure or discomfort.



- (e) Feel around the edge of the diaphragm, behind the cervix (the posterior fornix). The diaphragm should fit snugly against the lateral and posterior vaginal walls, and should not buckle or pop out of place.
- (f) You should be able to feel the cervix through the middle part of the diaphragm.
- (g) Ask the patient to "push" with her abdominal muscles, and see if the diaphragm still remains well in place. The diaphragm should feel comfortable and your patient should be unaware of its presence.
- (h) If you see any problems during any of these steps, try a different size until it feels right.

5. When you are satisfied with the size of the diaphragm you have chosen, teach the woman how to put it in by herself. Teach her to look for the same things you looked for:
- (a) It fits against the walls of the vagina, all around and behind the cervix.
  - (b) The cervix is well covered.
  - (c) The diaphragm is pushed up just behind the symphysis.
  - (d) You can show your patient a picture showing the "correct" and "incorrect" positions for the diaphragm. This will probably help her to understand more completely how the diaphragm works.
6. When the woman puts in the diaphragm by herself, tell her that there are two positions which make the insertion easier:
- (a) She can squat.
  - (b) She can stand with one leg up on a stool or chair.



7. To take the diaphragm out, tell your patient to hook the edge of the diaphragm with her finger and pull it out from behind the symphysis. Sometimes it helps if she puts her finger between the vaginal wall and the rim of the diaphragm. Also, it is sometimes easier to take it out when she is in a squatting position.
8. When the woman has put the diaphragm in by herself, check it yourself to see if she has placed it in the correct position.
9. Have the woman practice putting the diaphragm in several times, until it is easy for her. Make sure she has a clear understanding of what to do. Check the amount of spermicidal cream she uses and how she spreads it in the diaphragm.
10. Make sure again that the fit is correct. Sometimes after practicing, the patient becomes more relaxed. You might then discover that she needs a larger size.
11. Diaphragms should be:
  - (1) washed thoroughly in soap and water after they have been used for fitting
  - (2) dried and powdered before storage

### Practice Questions

1. What are three things to do before inserting the diaphragm if you are fitting the woman for a diaphragm?
2. What kind of diaphragm would you select for a woman who has good vaginal support?
3. What kind of diaphragm would you select for a woman who has cystocele, rectocele, or any other evidence of poor vaginal support?
4. How will you know if the diaphragm fits the woman properly? What three areas should you check?
5. Why should you have the patient practice putting in the diaphragm before she leaves the clinic?

**To the Learner:** Turn the page to check your answers.

## Answers to Practice Questions

1. Before inserting the diaphragm for fitting, you should do the following three things:
  - (1) Do a pelvic examination, if appropriate, and a Pap test. Check for vaginal infections.
  - (2) Do a bi-manual examination and look for contraindications.
  - (3) Choose a diaphragm for a trial fitting.
2. A coil spring diaphragm should be used for women with good vaginal support.
3. An arcing spring diaphragm should be used for women who have cystocele, rectocele, or any other evidence of poor vaginal support.
4. To make sure the diaphragm fits properly, feel around the edge of the diaphragm, behind the cervix. The diaphragm should fit snugly against the lateral and posterior vaginal walls, and should not buckle or pop out of place. You should be able to feel the cervix through the middle part of the diaphragm.
5. The patient should practice putting in the diaphragm before she leaves the clinic so she will be able to put it in easily and so that you can check to make sure she has a clear understanding of what to do. This practice will give you a chance to check again that the fit of the diaphragm is correct. Sometimes after practicing, a patient becomes more relaxed and you might then discover that she needs a larger size diaphragm.

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 17 on the next page.

## 17. Patient Information on Diaphragms

### What To Tell the Patient

1. Be sure she understands exactly how to put in the diaphragm, so that it completely covers her cervix.
2. It should be inserted NOT MORE THAN 2 hours before intercourse.
3. It must ALWAYS be used with spermicidal jelly or cream.
4. The diaphragm must stay in place until 6 to 8 hours after the LAST act of intercourse. It may stay in up to 24 hours.
5. The diaphragm should be washed after use, with water and mild UN-SCENTED soap. It may then be dried.
6. It should be checked occasionally for holes.
7. It must be used during EVERY act of intercourse. If intercourse occurs more than 2 hours after the diaphragm is inserted, more spermicide should be inserted with an applicator.
8. Tell your patient to practice putting in the diaphragm at home a few times. She should practice leaving it in for 8 hours even if she does not have intercourse.
9. She should know where to obtain more spermicidal cream or jelly when she needs it.

### Follow-up Visits

The patient should return in about 2 weeks. This will be just a brief check-up to make sure that she is still putting in the diaphragm correctly. She should attend with the diaphragm in place so that you can check its position. Also at this time she should tell you if she has felt any discomfort when she has the diaphragm in place for 8 hours.

The diaphragm must be refitted:

- (a) every year
- (b) after each pregnancy

### Practice Questions

1. What are two things you should tell the patient about the length of time the diaphragm should be in place before and after intercourse?
2. What are two things you should tell the patient about taking care of the diaphragm?
3. What should you tell the patient to always use with the diaphragm?
4. How often should you tell the patient to use the diaphragm if she wants to avoid becoming pregnant?
5. What is the purpose of the follow-up visit and when should it occur?
6. When should a woman be refitted for a diaphragm?

**To the Learner:** Turn the page to check your answers.

### Answers to Practice Questions

1. The diaphragm should be inserted not more than 2 hours before intercourse and it should be left in place until 6-8 hours after the last act of intercourse.
2. Two things to tell the patient about taking care of her diaphragm are:
  - (1) The diaphragm should be washed after use with water and mild unscented soap.
  - (2) She should check the diaphragm occasionally for holes.
3. Tell the patient to always use spermicidal jelly or cream with the diaphragm.
4. Tell your patient that the diaphragm must be used during every act of intercourse, if she does not want to become pregnant.
5. A follow-up visit should take place 2 weeks after the first visit. The purpose of the follow-up visit is to check that she is still putting in the diaphragm correctly.
6. The diaphragm must be refitted:
  - (1) every year
  - (2) after each pregnancy

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 18 on the next page.

## 18. Contraceptive Sponge

### How the Contraceptive Sponge Works

The contraceptive sponge is made of polyurethane foam impregnated with one gram of the spermicide nonoxynol-9. The sponge is cup-shaped to cover the cervix, about 6 cm in diameter and 3 cm thick. The device is white and has a built-in retrieval loop of polyester ribbon. The device is inserted similar to a diaphragm and removed by pulling on the retrieval loop. It is effective for 24 hours, regardless of coital frequency, and may remain in place for the 24-hour period. It may be used during any part of the menstrual cycle.

### Effectiveness

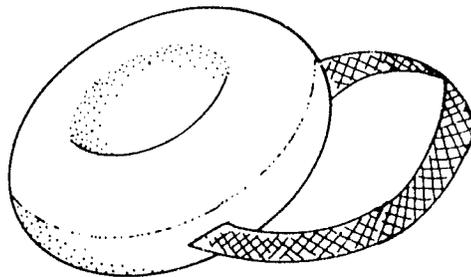
The contraceptive sponge is slightly less effective than the diaphragm and jelly, having a failure rate of 13-16% at one year of use compared to the diaphragm of 6-12%, depending on previous experience with a vaginal method. The sponge is more effective in women who have not had children.

### Advantages of the Contraceptive Sponge

The advantages of this contraceptive sponge are:

1. The sponge does not need to be fitted; it comes in one size.
2. It is less messy than use of a jelly.
3. It can be inserted long before expected time of intercourse and thus dissociates to some extent contraception from intercourse.
4. The sponge provides contraceptive protection for 24 hours regardless of number of coital episodes.

This sponge has potential in the future for a low-cost barrier method, as the cost of materials is low. It might also become used as a carrier of medicaments for the treatment of localized infections of the vagina and cervix.



### Practice Questions

1. Describe the contraceptive sponge.
2. Where does the contraceptive sponge fit in the woman's body?
3. When during the menstrual cycle can the sponge be used?
4. What are four advantages of the contraceptive sponge?

**To the Learner:** Turn the page to check your answers.

### Answers to Practice Questions

1. The contraceptive sponge is made of polyurethane foam that is impregnated with a gram of spermicide. It is cup-shaped to cover the cervix and has a built-in retrieval loop.
2. The contraceptive sponge like the diaphragm covers the cervix.
3. The contraceptive sponge may be used during any part of the menstrual cycle.
4. The four advantages of the contraceptive sponge are:
  - (1) It comes in one size and doesn't need to be fitted.
  - (2) It is less messy because a jelly is not needed.
  - (3) It can be inserted long before the expected time of intercourse.
  - (4) It provides contraceptive protection for 24 hours regardless of the number of coital episodes.

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to section 19 on the next page.

## 19. Post-coital Contraceptives

Though not recommended as a routine method of birth control, there are two methods of post-coital contraception currently in use. These are:

1. Hormonal Method - "Morning-after pill"
2. IUD

Though these methods appear to be safe and effective, they should be considered as "emergency" methods of birth control, useful in situations such as:

- failure of barrier methods (i.e., burst condom)
- unprotected midcycle intercourse
- rape

### 1. Hormonal Method ("Morning-after Pill")

There are several high-dose hormone pills that can be given after an incidence of unprotected intercourse to prevent pregnancy. These hormones are believed to cause changes in the endometrium, preventing the implantation of a fertilized egg. Currently in use are:

1. Combination oral contraceptives totaling 100 ug ethinylloestradiol plus 500 ug levonorgestrel taken soon after intercourse and repeated 12 hours later.
2. Diethylstilbestrol 25 mg OR ethinylloestradiol 2.5 mg taken twice a day for 5 days, starting soon after intercourse.

### Effectiveness

Though most effective when used within 24 to 48 hours after intercourse, these hormones can be effective as late as 72 hours following exposure. The failure rate is very low - between 1 and 3%.

### Problems, Side Effects, Effects on Pregnancy

Nausea and vomiting may occur but can be controlled with anti-emetic agents.

At this time there seems to be little risk to the fetus should pregnancy occur. Since post-coital treatment is administered prior even to implantation of the zygote in the endometrium, there should be little risk of birth defects.

## Contraindications

All the contraindications for oral contraceptives (see section 2 of this module) apply to this method. Do not give this treatment to a woman with:

1. thromboembolic disorder
2. cerebrovascular disorder
3. coronary artery disease
4. impaired liver function (history of liver tumor)
5. cancer of breast or any pelvic organs
6. abnormal vaginal bleeding
7. breastfeeding within three months of birth (difference of opinion on this)
8. over 40 years of age
9. over 35 years and heavy smoking

## Follow-up

All patients should be scheduled for a follow-up appointment in four weeks in order to check on the success of the treatment, and to discuss continued contraceptive methods.

## 2. IUD

The copper IUDs can be effective post-coital contraceptives if inserted within five days after unprotected intercourse. They are slightly more effective than the hormonal method, and have the added advantage of providing a continuing method of birth control.

## Problems, Side Effects, Effects on Pregnancy

Any of the side effects discussed in section 5 may occur. These include:

1. bleeding and pain
2. spontaneous expulsion
3. Pelvic Inflammatory Disease
4. disappearance of the IUD strings
5. perforation of the uterus

Should pregnancy occur there is a greatly increased risk (50%) of miscarriage. The IUD must be removed immediately. There is no evidence, however, that IUDs cause any deformities in babies carried to term.

### Contraindications

Do not use an IUD if any of the following conditions exist:

1. pelvic or vaginal infection, or inflammation of the cervix
2. suspected cancer
3. unexplained vaginal or uterine bleeding
4. very heavy or very painful menstrual bleeding
5. a uterine cavity smaller than 5 cm in depth
6. a woman with a history of ectopic pregnancy

### Follow-up

Schedule a follow-up visit in four weeks in order to check on the success of the treatment. Be sure to explain to your patient that some bleeding and pain are normal after an IUD insertion.

### **What To Tell the Patient**

All patients requesting post-coital contraceptives should be advised of the emergency nature of these methods. After reviewing the patient's medical history, discuss the appropriate method(s) with the patient. After administering the treatment of choice schedule a follow-up visit.

This is an excellent opportunity to discuss continuing birth control methods with your patient. This is a time when patients are particularly receptive to information on birth control, and possess a strong motivation to use a more regular form of contraception. Use this opportunity to counsel your patient and help her find a more suitable means of family planning. At the follow-up appointment you can check to see how the woman has adjusted to the method chosen.

### Practice Questions

1. Describe two methods of post-coital contraception currently in use.
2. If a patient came 4 days after an incident of unprotected intercourse which method would you recommend? Why?
3. Name at least 5 contraindications for each method.
4. Name some common side effects with each method.
5. What things should you discuss with the patient concerning this and other methods of contraception?

## Answers to Practice Questions

1. Hormonal method ("morning-after pill") - a high dose of estrogen, which prevents the fertilized egg from implanting in the endometrium.

IUD - a copper IUD may be inserted post-coitally to prevent implantation.

2. An IUD would be indicated. It is effective up to five days after intercourse. The hormonal method is effective only if used within 72 hours after intercourse.

3. IUD:

- (1) pelvic or vaginal infection, or inflammation of cervix
- (2) suspected cancer
- (3) unexplained vaginal or uterine bleeding
- (4) heavy or painful menses
- (5) uterine cavity smaller than 5 cm in depth
- (6) history of ectopic pregnancy

Hormonal method:

- (1) thromboembolic disorder
- (2) cerebrovascular disorder
- (3) coronary artery disease
- (4) impaired liver function (history of liver tumor)
- (5) cancer of breast or any pelvic organs
- (6) abnormal vaginal bleeding
- (7) breastfeeding within three months of birth (difference of opinion on this)
- (8) over 40 years of age
- (9) over 35 years and heavy smoking

4. IUD:

- (1) bleeding and pain
- (2) spontaneous expulsion
- (3) Pelvic Inflammatory Disease
- (4) disappearance of IUD strings
- (5) perforation of uterus

Hormonal Method

- (1) nausea or vomiting

5. Stress to the patient that this is an emergency method of birth control.

Advise the patient of the risks and side effects of each method.

Stress to the patient that a more regular contraceptive method should be used. Discuss the alternatives with her and, if possible, start her with another method.

Have the patient return in four weeks to make sure she is not pregnant.

**To the Learner:** If you missed any of the answers to the questions, go back to the information section and study it again. When all of your answers are correct, go to the Post-test on the next page.

## Post-test

**To the Learner:** This test will tell you how much you have learned from this self-instructional module. After taking the test, check your answers on the page following the test. Be sure to use a separate sheet of paper for recording your answers.

1. Below are two lists. One is a list of contraceptive methods. The other one is a list of descriptions of how specific contraceptive methods work to prevent pregnancy. Decide which contraceptive method is being described in each statement and write that method beside the statement.

Contraceptive Methods:

oral contraceptives  
intrauterine device (IUD)  
contraceptive injection  
condoms  
spermicidal foam  
diaphragm  
contraceptive sponge  
post-coital contraceptives

- \_\_\_\_\_ a. This plastic or plastic and copper device is placed in a woman's uterus and keeps the fertilized egg from implanting there. Specific types are the Lippes Loop and the Copper T.
- \_\_\_\_\_ b. This method is a pill which contains two female hormones: progesterone and estrogen. The two hormones interrupt a woman's normal menstrual cycle.
- \_\_\_\_\_ c. This method is given to the woman every 3 months. It contains a hormone similar to progesterone, which keeps most ova from developing, sperm from reaching ova that do develop, and any fertilized egg from implanting and growing in the uterus.
- \_\_\_\_\_ d. This method is for men and is made of a thin sheath of rubber that fits over the man's penis and keeps sperm from entering the vagina.

- \_\_\_\_\_ e. These methods - either hormonal pills or insertion of an IUD - can prevent implantation of a fertilized egg, even if administered up to several days after unprotected intercourse.
- \_\_\_\_\_ f. This method contains a sperm killing chemical. It is inserted into the vagina with an applicator, and must be used before each act of intercourse.
- \_\_\_\_\_ g. This rubber cup fits over the cervix. A spermicidal cream or jelly must be applied to the cup. The cup works as a physical barrier to the sperm and the spermicide kills the sperm chemically.
- \_\_\_\_\_ h. This contraceptive device is made out of polyurethane foam impregnated with a spermicide. It has a retrieval loop and may remain in place for 24 hours as an effective barrier to conception.

2. Which ones of the following contraceptive methods would be contraindicated by the conditions listed below:

oral contraceptives  
 IUD  
 condom  
 diaphragm

- a. pregnancy (known or suspected) \_\_\_\_\_
- b. uterus smaller than 5 cm \_\_\_\_\_
- c. no contraindications for this method \_\_\_\_\_
- d. coronary artery disease \_\_\_\_\_
- e. pelvic or vaginal infection \_\_\_\_\_
- f. prolapsed uterus \_\_\_\_\_
- g. severe migraine headaches \_\_\_\_\_
- h. very heavy or painful menstrual bleeding \_\_\_\_\_
- i. heavy smoker over 35 years old \_\_\_\_\_
- j. bladder pushing down vaginal wall \_\_\_\_\_

3. List at least three side effects and problems associated with each of the following contraceptive methods: (a) the IUD, (b) the contraceptive injection, and (c) oral contraceptives.

4. What are the 5 early danger signals which may indicate serious trouble for the woman taking oral contraceptives?

5. Before you insert the IUD, you should do a sounding with a sterile cervical sound. What information are you looking for with this device?
6. Name three specific types of IUD's.
7. What are the 5 danger signs that a patient using an IUD should know?
8. What are the risks and problems associated with the contraceptive injection that the patient must understand and accept?
9. If a man uses a condom, what contraceptive method should the woman use to increase the effectiveness of the condom?
10. How often must the diaphragm be used in order to be an effective contraceptive device?
11. How often must diaphragms be refitted?
12. How often should the IUD's, the Copper T and the Copper 7, be changed?
13. What are 4 advantages of the contraceptive sponge?
14. Give the time periods in which each of these post-coital contraceptives must be administered in order to be effective
  - a. hormonal method ("morning-after pill") \_\_\_\_\_
  - b. IUD \_\_\_\_\_
15. Throughout this module, there are sections on "what to tell the patient" about a specific contraceptive. Why do you think it is suggested to spend some time talking with the woman about methods, possible problems, and how to use the specific method?

**To the Learner:** Turn the page to check your answers.

## Answers to Test

1.
  - a. IUD, or intrauterine device
  - b. oral contraceptive
  - c. contraceptive injection
  - d. condom
  - e. post-coital contraceptive
  - f. spermicidal foam
  - g. diaphragm
  - h. contraceptive sponge
  
2.
  - a. oral contraceptives and IUD
  - b. IUD
  - c. condom
  - d. oral contraceptives
  - e. IUD
  - f. diaphragm
  - g. oral contraceptives
  - h. IUD
  - i. oral contraceptives
  - j. diaphragm
  
3. (a) Side effects and problems of the IUD:
  - pregnancy
  - ectopic pregnancy
  - bleeding and pain
  - spontaneous expulsion
  - Pelvic Inflammatory Disease (PID)
  - disappearance of the "string"
  - perforation of the uterus
  
- (b) Side effects and problems of the contraceptive injection:
  - menstrual irregularities
  - amenorrhea
  - increased menstrual bleeding
  - bleeding at unusual times
  - delayed return to fertility
  
- (c) Side effects and problems of oral contraceptives:
  - morning sickness
  - less bleeding than usual
  - no menstrual flow
  - depression, mood changes, and fatigue
  - problems with vaginal infections

4. The four danger signals for women taking oral contraceptives are:
  - severe chest pain or shortness of breath
  - severe headaches
  - visual disturbances
  - severe leg pain in calf or thigh
5. The cervical sound will help determine the size and contour of the uterus.
6. Three specific types of IUD's are the Lippes Loop, the Copper T, and the Copper 7.
7. The 5 danger signs for IUD users are:
  - pelvic pain or painful intercourse
  - unusual bleeding or bad vaginal discharge
  - missed periods or other signs of pregnancy
  - missing IUD strings
  - fever or chills
8. Patients for contraceptive injections must understand and accept:
  - the problems of menstrual irregularity and amenorrhea
  - the risk of possible temporary loss of fertility
9. A woman should use spermicidal foam to increase the effectiveness of the condom.
10. The diaphragm must be used every time a woman has intercourse to protect her against pregnancy.
11. Diaphragms must be refitted every year and after each pregnancy.
12. The Copper T and the Copper 7 IUD's must be changed every three years to ensure their effectiveness as a contraceptive.
13. Four advantages of the contraceptive sponge are that it:
  - comes in one size and doesn't need to be fitted
  - is less messy because spermicidal jelly isn't necessary
  - can be inserted long before the time of intercourse
  - provides contraceptive protection for 24 hours
14. Hormonal method - must be administered within 72 hours  
IUD - must be inserted within 5 days

15. It is very important that a woman understand how to use a contraceptive method correctly if it is to be effective for her. It is equally important that she be aware of any problems or side effects of the method she chooses so that she can monitor her reactions. If the woman understands what effects are normal and abnormal, she will have less anxiety and also be able to return to the clinic when necessary to report a problem. Your counseling with her will make her feel more comfortable during the fitting or insertion procedure if there is one.