PN-AAL-294
9520658

Contra-ception

A guide to birth planning methods

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International Standard Book Number: 0-89836-031-5

Library of Congress Catalog Card Number: 81-71517

© 1981 by
The Community and Family Study Center
Printed in Chicago, Illinois USA

Published by

The Community and Family Study Center
The University of Chicago
1411 East 60th Street
Chicago, Illinois 60637

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Acknowledgements

Several persons have made especially valuable contributions to this book in the form of comments, reviews, and suggestions. Mr. Griffith J. Davis, Office of Population of the U.S. Agency for International Development, not only supported this project very strongly; he also took a personal interest in helping it to progress through the stages of writing, review, and editing. Although many of the other persons who helped with this book are recognized in the "Technical Review Panel," special acknowledgements are due to Dr. Alfredo Goldsmith, Dr. Uwe Freese, and Dr. Aquiles Sobrero, all of whom not only read the manuscript in its various drafts, but who also were frequent advisors concerning the numerous technical questions that arose in each chapter.

The final production of the book was completed by the manuscript unit and the printer of the Community and Family Study Center. George Rumsey edited the book and supervised its preparation. Copy was typed by Randa Duvick, Bill Goldsmith, Kyle Henderson, Cynthia Hunt, Natalia Milner, Anne O'Neill, Doug Pappas, B.J. Putterman-Crigger, and Cathy Reiff. Final pasteup was done by Renee Saracki and Lee Brooks. Gretchen Balanoff finished the last step, the actual printing of the manuscript.

The many illustrations were drawn by Mr. George McVicker, commercial artist, who has been a long-term friend of CFSC and social development.

This publication was produced under the project, "Strengthening International Population Communication and Training," funded under a grant (AID/pha-C-1177) from the Office of Population, Agency for International Development.

Technical Review Panel

The manuscript for this volume was read and commented upon by the 44 persons whose names are listed below. Their suggestions and recommendations were incorporated in a revised version. Persons whose names are asterisked read the revised version, which was published with minor changes.

Deep thanks are due to the contribution of these conscientious reviewers, who gave generously of their time in the effort to produce a simplified version of a technical subject for an international audience. They are, of course, excused from errors of interpretation or omission that may have been made.

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Introduction

Family planning is an important decision for couples. A crucial aspect of married life is deciding when to have children and how many to have. Research studies show that the concept and techniques of family planning have been widely accepted in a majority of developing countries and most of the developed countries. Yet the percentage of couples of reproductive age who are actually practicing family planning is often much smaller. One of the reasons for this gap between positive attitude and failure to contracept is that people are not very familiar with the different contraceptive methods. They may know of their existence, but not how to use them. Many persons who use (or have used) contraceptives are worried by rumors about their side effects, perhaps due to lack of adequate information. People may have knowledge of and confidence in the methods, but they may not know where to get contraceptives or how to keep themselves supplied. *Contraception: A Guide to Birth Planning Methods* is designed to help remedy these problems.

The major theme of this book is that every sexually active adult should have knowledge of the major methods of contraception. This should include:

- what they look like
- how they work or how to use them correctly

- how reliable they are
- what side effects or other problems might arise with their use and what to do to control side effects
- the procedures available for getting contraceptive service and supply.

Access to such information is a basic human right, as recognized by the Bucharest World Population Conference of 1974. It is an obligation of every nation to provide this contraceptive information to all of its citizens of reproductive age.

This volume attempts to make this essential information readily available to anyone willing to read and to those whose work involves teaching contraception to their clients.

Organization of this Manual

This manual consists of ten chapters: eight chapters on each of the methods of contraception ("The Pill," with a subchapter on "Injectables"; "The IUD"; "The Condom"; "The Diaphragm"; "Spermicides"; "Periodic Abstinence"; "Female Sterilization"; and "Male Sterilization"), then a chapter each on "The Physiology of Human Reproduction" and "Human Sexuality."

This book attempts to explain in simple detail and in nontechnical language (with many illustrations) each of these contraceptive methods with an examination of both their advantages and disadvantages and especially how they are used. In preparing this manual, a guiding principle has been to be lucid, brief, and comprehensive, while trying to keep the book small and readable. Consequently, special questions posed by some readers may not have been dealt with fully. A health worker at a nearby place where family planning services are offered should be able to answer some questions that have not been covered in this book, and to clarify others about which our treatment may have left the reader confused.

The Authors

Chapter I

The Pill

WHAT IS THE PILL?

The contraceptive pill is a tablet taken orally by women to keep from getting pregnant.

One Pill Every Day

To use this method, the woman takes one tablet every day for as long as she does not want to get pregnant. The pills come in packages. Some brands have 28 pills in each package. Other brands have only 20 or 21 pills. Both the 28-day pills and the 20/21-day pills work in the same way, but they must be taken according to a slightly different set of instructions. How to take both types of pills is explained later in this chapter.

WHY IS THE PILL A GOOD METHOD TO USE?

The contraceptive pill is 99 percent effective. When she exactly follows the instructions, the woman who is taking the pill is almost completely protected from getting pregnant.

The pill is simple and easy to use. The woman simply swallows one small pill every day.

The pill method *is* reversible. When a woman no longer wants to keep from getting pregnant, she simply stops taking the pill.

The pill helps a woman effectively space her pregnancies, which also gives her body a chance to rest and recover between pregnancies.

WHAT ARE THE SPECIAL ADVANTAGES OF THE PILL?

There is nothing to do or to use at the time of having sex, so sexual relations are not interrupted by the use of a birth control device.

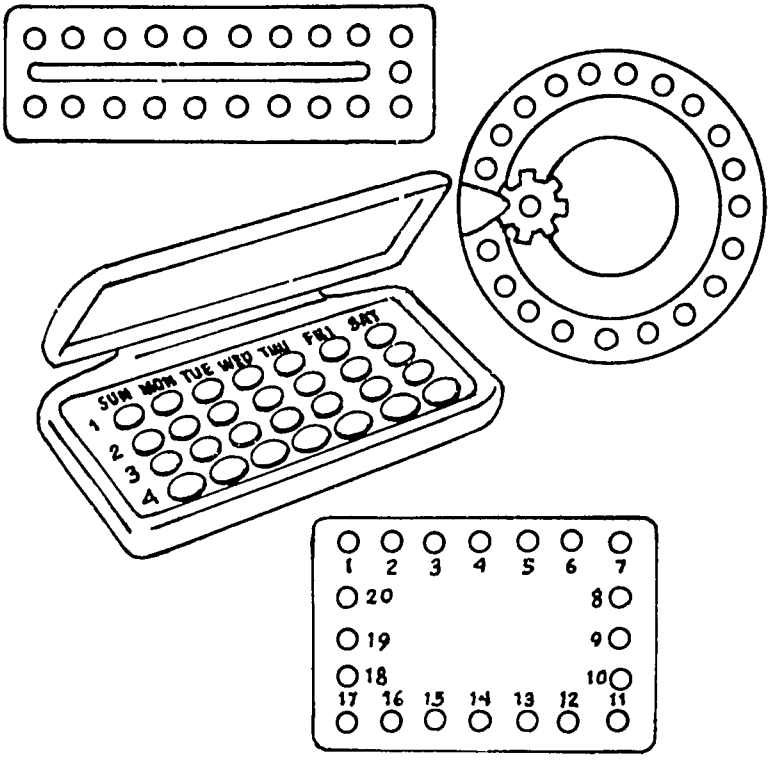
Because there is no fear of pregnancy, a woman and her husband are able to get increased enjoyment from having sex. Worrying about pregnancy can make couples nervous and irritable. Taking the pill can help bring back romance to a relationship.

THE PILL IS ALMOST 100% EFFECTIVE

Menstruation tends to become more regular. The menstrual flow for most women is somewhat reduced, and it lasts fewer days. For some women, there are fewer cramps and other discomforts that often come with the menstrual period.

WHAT ARE THE DIFFERENT KINDS OF PILLS?

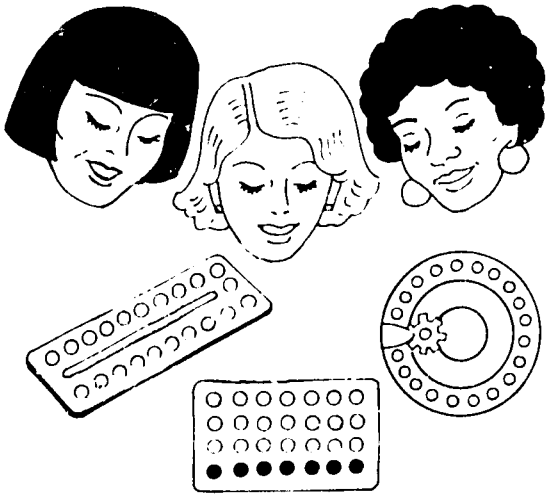
There are several different brands of contraceptive pills, made by reliable pharmaceutical companies in Europe, America, and other countries. Although the pills may be of different colors and come in very different packages, they actually work in the same way.



There are many different brands of pills.

All of them use substances called "synthetic hormones" which are very similar to hormones produced naturally in the human body. Different brands of pills may differ in the mixture of hormones they contain and in their strength, but they all work similarly to keep a woman from getting pregnant. One type of pill called "the minipill" contains only one kind of hormone (progestin). It has become a substitute for the combined oral pill (estrogen-progestin) for women who are lactating or who should avoid estrogens for some reason.

All of the brands of pills that are offered by family planning organizations, public health workers, and pharmicists are effective. It is not very important which brand is used as long as it has been prescribed by a reliable source and is taken according to directions.



All contraceptive pills prescribed by a trained person and taken according to directions are safe and reliable.

A few women are sensitive to the chemicals in the pills and may get a stronger body reaction from one brand than from another brand. These reactions are called "side effects." A doctor, health worker, family planning worker, or pharmacist can help such women choose the brand which will be best for them.

WHERE CAN YOU GET THE PILL?

Most pharmacies nearly everywhere in the world have them. Clinics which offer family planning distribute them free of charge or at very low cost.

HOW DOES THE PILL WORK?

When a woman is fertile, once each month her ovaries release an egg. The ovaries are located in the lower abdomen beside the uterus (womb).

(See Chapter IX for a full explanation of how the female reproductive system works.)

If a woman has sexual relations near the time she is ovulating (when the egg is being released from one of the ovaries), the sperm from the male (male seed) may fertilize this egg and make the woman pregnant.

During the time a woman is pregnant, her ovaries stop ovulating (releasing eggs). The pill does its job by creating a condition similar to pregnancy. However, normal menstruation continues.

The contraceptive pill works by temporarily stopping the ovaries from releasing eggs. If there is no free egg to get fertilized, the woman cannot get pregnant.

Most contraceptive pills contain two chemicals: an estrogen and a progestin. These hormones are very similar to those produced naturally in a woman's body. Together, these two chemicals prevent the ovaries from releasing eggs, yet allow the woman to have a monthly menstrual cycle.

When a woman stops taking the pills, the egg-releasing capacity of the ovaries returns almost immediately. This is why she must take a pill every day. Most women who stop taking the pill are fertile again after only a few days. For a few women the delay in return to fertility may be as much as three months.

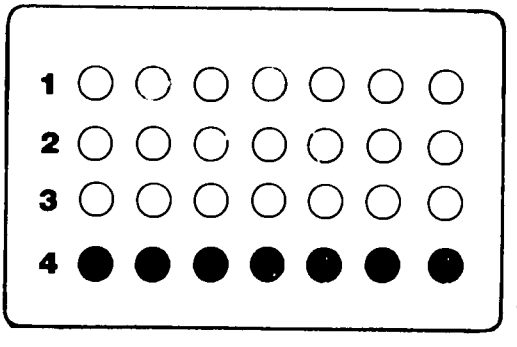
HOW SHOULD A WOMAN BEGIN TAKING PILLS FROM A 28-DAY PACKAGE?

If there are 28 pills in a contraceptive package, the pills will be of two colors. There are 21 pills of one color (usually white) and 7 pills of another color (usually brown or red). The 21 pills prevent pregnancy, while the other 7 pills are taken during the week of the menstrual period (these pills are sugar or iron pills).

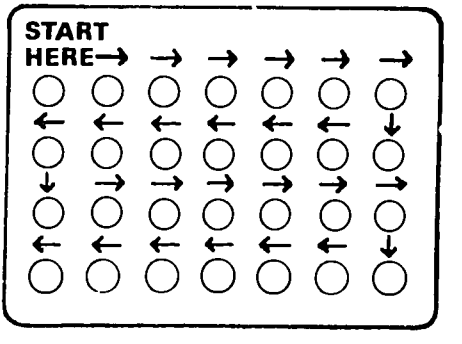
A new user should start taking the first white (main color) pill at the time of her next menstruation. She should take the first pill on the fifth day of the menstrual period. She should start on this day even if there is still some menstrual bleeding or spotting, or even if menstruation finished before the fifth day.

It is very important for the woman to take these pills in the proper order. Instructions in the package tell which pill is to be taken first and the order in which the other pills are to be taken. Very often there is a diagram on the back of the pill container which tells which pill to take first and the path to follow for the rest of the pills.

Front



Back



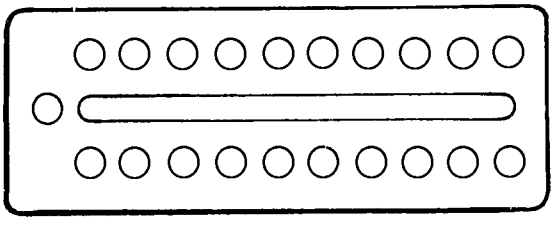
A woman should swallow one white (main color) pill every day at about the same time until all of them are gone. Then, one of the 7 other colored pills can be taken each day until they are gone. She should drink a little water or some liquid when she takes each pill.

Two or three days after the woman starts to take the other-color pills, she will begin to have her monthly period. The menstrual flow will usually end a few days before she has taken the last pill in the package. However, the woman should be sure to continue taking all of the pills in the package until the last one is gone.

When the user nears the end of a package of pills, she should be sure to have another package ready to start. *The day after she has taken the last pill in one package, the woman should take the first pill in the next package, even if she is still menstruating. She should continue taking one pill every day* exactly as she did for the first package. From this next package, the woman should take the 21 white (main color) pills and then the 7 other-color pills. She uses up one package after another for as many months as she does not want to get pregnant.

If a woman wants to start taking the pill but has already finished menstruating, she should use some other method of contraception or abstain from sexual relations until she menstruates; then she can start taking the pill as instructed above. Condoms are a good method to use until the next menstrual cycle. It is good to have condoms available in the home in case the woman forgets to take the pills (see the section on "forgetting").

During the first month on the pill (whether 28-day or 21-day package) and only for this month some health workers advise women to use another contraceptive method. This is because during the first weeks while the body is still adjusting to the pill it may not yet be fully protected against pregnancy. However, the risk of pregnancy without using other contraception is quite small.



HOW SHOULD A WOMAN BEGIN TAKING PILLS FROM A 20- OR 21-DAY PACKAGE?

The 20- or 21-package pills are *all* of the same color and of the same chemical composition.

A woman should start taking the pills at the time of her next menstruation. As with the 28-pill package, she takes the first pill on the fifth day of her menstrual period, regardless of whether or not she is bleeding or spotting.

The woman must take one pill every day at about the same time. She should drink a little water or other liquid when she takes each pill.

The woman should continue taking one pill every day for 20 or 21 days until all of the pills in the package are gone.

After a woman has taken all 20 or 21 pills, *she should stop taking pills for 7 days.* Within two or three days after she stops taking the pills, she will begin to menstruate and have her monthly period.

How To Start Another Cycle of 21-Day Pills

When the woman comes to the end of her package of pills, she should make sure that she has another package ready to start. After she has taken no pills for 7 days, the woman should take the first pill in the next package even if she is still menstruating. She should continue taking one pill every day, exactly as before, until all 20 or 21 pills are gone.

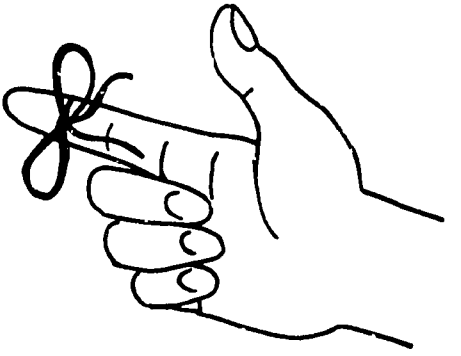
Every time the woman finishes a package of 20- or 21-day pills, she should take *no* pills for 7 days, then begin a new package.

The rule is very easy to remember. *When a woman finishes one package of 20- or 21-day pills, she should take no pills for exactly one week, then begin taking the next package.*

HOW IMPORTANT IS IT FOR A WOMAN TO REMEMBER TO TAKE A PILL EVERY DAY?

It is very important for a woman to take one pill every day at about the same time of day. It will help remind the woman if she associates taking the pill with some regular daily activity such as going to bed or eating a particular meal. If she is afraid she will forget, the woman should ask her spouse or someone else in the family to help her remember until she has developed the habit of taking it regularly.

It is also very good for a woman to check once a day to make sure that she has taken the pill. She should select some other event that takes place every day, and when it happens, ask herself, "Have I taken my pill today?" This event could be the chiming of the church bells in the evening, listening to the evening news over the radio, or getting ready for bed. It is surprising how quickly the pill becomes routine; very soon, a woman will feel that the day is not complete until she has swallowed her daily pill.

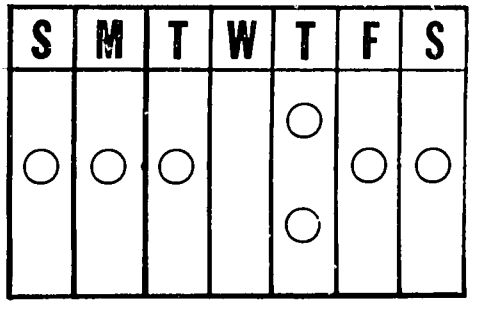


"Have I Taken My Pill Today?"

WHAT CAN A WOMAN DO IF SHE FORGETS TO TAKE THE PILL?

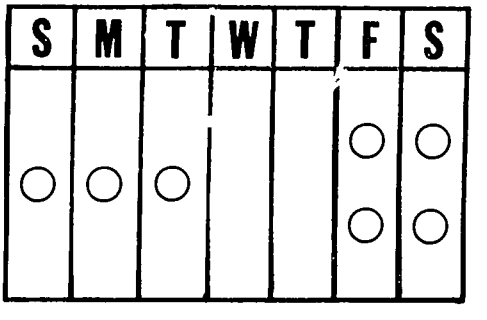
If she misses one pill for one day, the woman should take the first forgotten pill as soon as she remembers, even if it means taking two pills at one time. In such a case, the woman probably will not get pregnant and should not worry.

If a woman forgets to take one pill . . .

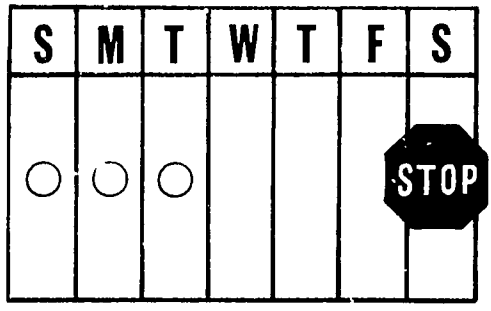


If a woman forgets to take the pill for *two* consecutive days, especially at the beginning of her pill days, she should take two pills as soon [illegible] she remembers and also take t[illegible] pills the next day. She may have a little bleeding, as if menstruation is starting. If she wants to be absolutely sure not to get pregnant, she should use some other contraceptive method (such as condoms) or abstain from sexual intercourse for the rest of her cycle until she has menstruated.

If a woman forgets to take two pills consecutively . . .



If a woman forgets to take the pill for *three* consecutive days or more, the chances are much greater that she has become fertile; in this case, the woman should follow these instructions:



If a woman forgets to take three pills consecutively . . . *Visit a Health Clinic*

(a) Visit a family planning or public health clinic. Usually the family planning worker, midwife, nurse, or doctor will advise her to stop taking the pill temporarily. In a few days the woman will begin to menstruate. *She should be sure to use some other method of birth control or abstain from sexual intercourse until menstruation begins.*

(b) On the fifth day after menstruation starts, the woman should start taking a new package of pills, just as if she were starting all over again.

If a woman has missed taking one or more pills and does not begin to menstruate when all of the pills in a package have been taken, she may have become pregnant because of forgetting and should see a health worker. *The woman should not continue taking the pills if her menstruation does not return,* unless the health worker assures her that it is all right. However, she should use another reliable method of contraception until the problem is satisfactorily clarified.

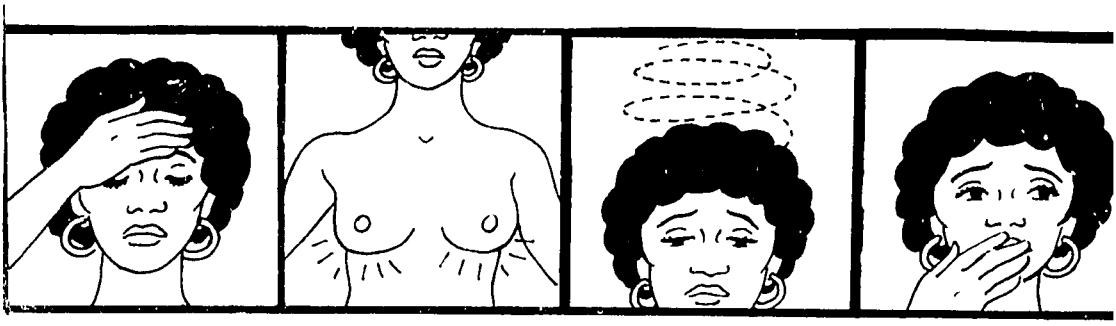
WHY SHOULD NEWLY MARRIED COUPLES CONSIDER TAKING THE PILL?

The pill is an ideal contraceptive for young couples who are planning their families. It can be used to enable the couple to get adjusted in their marriage before having their first baby. It can then be used to lengthen the interval between babies, so that the mother's health can be protected and family size can be limited to the number of children the couple wants and can afford. It is easy to use. It does not interfere with sexual adjustment. It is easy to stop using when a baby is wanted. Young people like it for these reasons.

WHAT ARE THE TEMPORARY SIDE EFFECTS OF THE PILL?

When a woman first begins to take the pill, she may have some of the discomforts that can come during the early weeks of pregnancy. She may have an upset stomach, experience dizziness, or have a headache. There may be a tenderness and enlargement of the breasts. She may also feel tired or irritable. Usually, *these symptoms are temporary and they are harmless.* They should not discourage the woman; they are only the reactions of the body as it adjusts to the hormones in the pills.

Taking the pill after a meal or in the evening just before going to bed reduces the perception of the side effects for many women.



Pills may have temporary side effects.

These side effects do not occur at all or are very mild for most women who take the pill. If side effects do occur, they are usually weaker during the second month. For all but a few women, they will disappear completely in the third or fourth month. If the side effects persist beyond this period, the woman should seek advice at a clinic especially if nausea, headaches, or other symptoms are severe and continuous and show no sign of letting up. The health worker can diagnose the problem and prescribe another brand of pills. He or she may even recommend another method of contraception if a woman's reaction to the pill is considered excessive.

Manufacturers of contraceptive pills have sought to reduce side effects by reducing the dosage and providing varying balances of the hormones used. As a result a wider variety of choices is now available. Women who have severe side effects with one brand of pills may have a much milder reaction to a lower dosage or a different hormonal composition of another brand.

CAN CONTRACEPTIVE PILLS AFFECT HEALTH?

Most of the problems that can occur from taking the pill are the same problems that can result from getting pregnant, but the dangers tend to be considerably less than those that occur with a real pregnancy. For this reason, most doctors agree that taking the pill involves a much lower risk to health than getting pregnant. The most important, but very rare, complication is blood clots or the development of high blood pressure in a small number of patients.

Deaths from complications of pregnancy or from childbirth are rare. Deaths from complications of taking the pill are even more rare. Millions of women in the United States and Europe have been taking the pill for many years, and careful research has shown that the risk to health of using the pill is very low.

If a woman has already had certain illnesses, the risks from taking the pill are somewhat increased. A separate section in this chapter describes the characteristics of women who should not take the pill.

The fact that more than 60 million women throughout the world are taking the pill every day shows that this method is very well accepted and is safe for health as well as being a very effective method for preventing pregnancy.

When taken under medical specifications, pills are safe for a woman's health.

IS THE PROBLEM OF BLOOD CLOTS A SERIOUS RISK FOR WOMEN WHO USE THE PILL?

Women using contraceptive pills run a slightly higher risk of having blood clots in the legs, lungs, brain, or other parts of the body than women who use some other method of birth control. Blood clotting is a disorder that may happen during pregnancy. Since birth control pills affect the reproductive system in a way similar to pregnancy, this side effect can also happen while taking the pill. The risk is very low, however—much lower than for a genuine pregnancy. If a woman has never had the problem of blood clotting with a previous pregnancy, her chances of having serious complications from a blood clot while using the pill are only about 4 in 10,000. In most developing countries, the risk from taking the pill for one year is only about one-tenth the risk of dying as a result of pregnancy and childbirth.

WHO SHOULD NOT USE CONTRACEPTIVE PILLS?

If a woman already has or has had certain serious health problems, taking the contraceptive pill can sometimes make that problem worse. Women who have had any of the following health problems probably should not use the pill unless it is prescribed by a doctor after a thorough examination:

Blood clot in the leg or other part of the body (thrombophlebitis)
Cancer of the breast or of any part of the reproductive system
Damaged liver from jaundice, hepatitis, or other liver disease
Heart attack
Stroke.

Women who have diabetes, hypertension, high blood pressure, gall bladder disease, varicose veins, or who are on drug therapy should use the pill only under close medical supervision.

Although it is important that women with such problems do not get pregnant again, they should consider using another method of family planning.

It is important to understand the difference between "contraindications" for use of the pill and "long term effects" of using the pill. Using the pill does not "cause" the diseases listed above, except for the rare occurrence of blood clots and high blood pressure already mentioned. "Contraindication" means that women who *already have suffered these diseases* from some other cause should not begin taking the pill except after medical examination.

The pill is not advised for very heavy smokers (15 cigarettes or more per day), especially if over 40 years of age. (Also, pregnant women should not smoke.)

Women who are already pregnant should not take the pill. They have no need for this medicine.

Pills are 10 times safer than pregnancy.

Normally, there is no need to use the pill until four weeks after a baby is born. During this time the woman is unlikely to get pregnant.

A woman who is scheduled to have major surgery should not use the pill for a month before the operation. She should use some other method of birth control or abstain from sexual relations during this time.

Many doctors recommend that women who are breastfeeding a child should use a different method of birth control, especially during the first 3 to 6 months.

To summarize: Women under 40 years of age who are healthy and have never had any of the diseases listed above and who are not breastfeeding a newly born infant can take the pill with confidence that the risk to their health is very low, and far less than the risks posed by having another pregnancy and that their future fertility is unaffected. Visiting a doctor or clinic before starting to use the pill will make sure that a woman is not one of the few who should not use contraceptive pills.

SHOULD WOMEN OVER 40 YEARS OF AGE CONTINUE TAKING THE PILL?

Because women over 40 are much more likely than younger women to have one or more of the health problems listed above, taking the pill is somewhat more risky for them than for younger women. However, if these older women are in good health and do not want to use another family planning method, they may continue taking the pill since the risks of serious illness are still small. At this age, another pregnancy can be very dangerous or can result in an abnormal child. Taking the pill could thus be a life-saver and a protection from personal tragedy. Women over 40 should be especially sure to check with a clinic before taking the pill. The doctor or nurse may advise them to choose another method.

Smoking is a far greater hazard to health than taking the pill. Women over 40 who use the pill should not smoke because of the increase in the possibility of a heart or circulatory disease.

Women who are extremely overweight (obese) should consider taking the pill only under medical supervision.

At ages beyond 40, there are other alternatives. By this time, most couples should have completed their families and may consider voluntary sterilization. Menopause is approaching, and the woman may no longer be fertile every month, even though she continues to menstruate regularly. Because of these factors, the danger of accidental pregnancy is greatly reduced. If sterilization is not acceptable or possible, the couple may consider using condoms, foams, or spermicides when they have sex.

The couple should continue to use some method of contraception until the woman has not had a menstrual period for at least six months. This length of time is a sign that the woman has gone through menopause. It is advisable for her to visit a clinic during this time to make sure that no pregnancy has occurred.

QUESTIONS THAT PEOPLE ASK MOST OFTEN ABOUT THE PILL

What should a woman do if there is no menstruation at the end of a cycle? Sometimes women who are taking the pill miss a menstrual period. If a woman has taken her pill every day without forgetting even one time, she should have nothing to worry about. She can go ahead and start the next package just as if she had menstruated. If a woman does not menstruate after taking the next package, she should see a health worker. If a woman has forgotten to take the pill for one or two days during the month and she does not menstruate, she may be pregnant and should visit a clinic immediately.

What should a woman do if there is a little bleeding during the cycle, before it is time to menstruate? Such "spotting" can happen occasionally and the woman does not need to worry about it. Bleeding most often happens during the first month or two after a woman has started taking the pill, and it happens only occasionally after that. If the bleeding bothers the woman, she should take two pills per day for two days. This will shorten the cycle by two days. If the bleeding persists for more than three or four months, it could mean that the woman needs a stronger pill, and she should visit the family planning center and/or a health worker for advice.

When should a bride start to take the pill? She must not wait until after the marriage, but must start taking the pill at the start of her menstrual period a month or longer *before* the wedding. This will make sure that she will not get pregnant during the first month of married life.

How long after a baby is born should a woman wait before starting to take the pill? A woman is usually unable to get pregnant for about one month after her baby is born. After that her fertility can return at anytime. If she is not breastfeeding, she may start taking the pill about four weeks after her baby is born, whether or not she has already started to menstruate. When the pill is used this early after childbirth, doctors highly recommend the use of low-dose progestin-only pills. If a woman is breastfeeding, she may want to use some other contraceptive method until the baby is 4 to 6 months old and then use the pill. In either case, doctors prefer to delay the initiation of *combined pills* (estrogen/progestin) after childbirth because of their possible effect on the quantity and quality of breast milk as well as the risk of certain heart troubles especially associated with pill-users during the immediate postpartum period.

What effect does taking the pill have upon breast-feeding? A small fraction of the chemicals in birth control pills get into the mother's milk and may decrease the amount of supply. Therefore, in general it is advisable that another contraceptive be used until the baby is weaned. Often doctors recommend that women who are breast-feeding use the progestin-only pills, which do not interfere with the flow of milk and the nourishing of the infant. At the age of 4 to 6 months, the infant begins to eat other food. At this time a woman can use the combined birth control pills with confidence that they will not affect her baby's growth. If the mother who is nursing the baby does not use any method of contraception, she will very likely become pregnant. If this happens, her milk will be greatly reduced. Taking the appropriate pill or using another reliable contraceptive makes it possible for the mother to avoid pregnancy and, at the same time, continue to breast-feed her young baby in order to maintain its health during the crucial early months of life.

Use Another Method While Breast-Feeding

Do women on the pill gain weight? A few women gain some weight mainly due to changing eating habits. A few women tend to retain fluid in the body as a result of taking the pill (which often happens in pregnancy, too.) If a woman gains several pounds and does not respond to reduced food intake, she should visit a clinic or a health worker for consultation.

How long can a woman take the pill? The pill can be taken for any number of years that the woman desires to be free from pregnancy. If she has none of the health problems described above, a woman can take the pill for all her fertile years. However, if she has had all of the children she will ever want, she and her husband might consider voluntary sterilization. If either the man or the woman gets sterilized, the problem of family planning is solved forever, without the need for taking a pill every day.

Sometimes, doctors advise a "rest" from taking the pill after three or four years. The couple simply uses the condom or some other method of family planning for three or four months, and then starts using the pill again. If the pill is used for spacing children, this rest period takes place automatically when the woman stops taking the pill in order to get pregnant. However, most health experts see no health benefit for periodic stopping of the pill. Rather, inconvenience results because of the need to use a new and less reliable method and to experience another period of adjustment to the pill when the woman starts a new cycle.

When should a woman taking the pill visit a clinic? All abnormal responses to the pill should be discussed with a health worker. These responses may be the result of an illness that is not related in any way to the pill. The following instructions therefore apply to every woman, whether or not she is taking the pill:

GO TO A DOCTOR OR CLINIC IMMEDIATELY IF YOU HAVE ANY OF THE FOLLOWING SYMPTOMS:

- Chest pain, shortness of breath, severe migraine (headache), severe pains or cramps in the leg
- A major weight gain within a 3-cycle period (5 kilos, or 10 pounds, or more) which does not disappear with dieting
- Irregular vaginal bleeding every month for three or four months
- Failure to menstruate for two successive cycles
- Very heavy bleeding at the time of menstruation for two successive months
- Continual nausea (upset stomach), dizziness, blurred vision, or severe abdominal pain.

In many places, family planning organizations ask a woman to come to the clinic for a brief examination once a year, just to make sure that she is in good health. Between these periodic check-up visits, the woman who takes the pill should visit the clinic if there are any severe symptoms.

Can a woman take the pill while undergoing treatment for psychosis, venereal disease, or other diseases that require the use of drugs? Yes, in most cases. It is especially important that women who have serious illnesses of this type do not get pregnant until the other illnesses have been controlled. Drugs used in the treatment of tuberculosis appear to reduce the contraceptive effect of pills somewhat. Doctors have had a great deal of experience in combining the birth control pill with treatment for other illnesses. If a woman goes to the doctor for an illness, she should tell him that she is taking the pill.

Can the side effects of taking the pill be imaginary (psychological) rather than real (medical)? Yes. In some places there are wild rumors about the pill. As a result, women who take the pill may complain about vague symptoms; they attribute every little ache in their body to taking the pill. Almost everywhere, there is great exaggeration of the side effects caused by the pill. Research has found that when women were given "pills" with only plain sugar in them, many women who had heard the rumors experienced severe "side effects" because they thought they were taking the real pills.

Many side effects of the pill can be imaginary.

Suppose a husband is going to be away from home for several (four or more) months. Should the wife stop taking the pill? Yes, if she wants to. She should finish the cycle she is on at the time and then begin taking the pills on the last menstruation before her husband returns, just as she did when she first started taking the pills. She should remember that she might have the temporary side effects when she starts again. For absences less than four months, it is not recommended to stop pill use.

Can taking the pill make a woman sterile? No. For most women, fertility usually returns very quickly as soon as the pills are stopped. For a few women there may be a short waiting period before they can get pregnant. Older women taking the pill may reach menopause naturally. The pill cannot extend a woman's natural period of fertility. At the same time, there is no evidence that taking the pill makes menopause start sooner or that the woman becomes more fertile. However, if the woman has irregular periods before taking the pill, most likely after stopping the pill the periods will again be irregular; and if she has not had any children before (did not prove she was fertile), she may find herself with a problem in conceiving. This will probably not be due to an after-effect of the pill but to the preexisting condition.

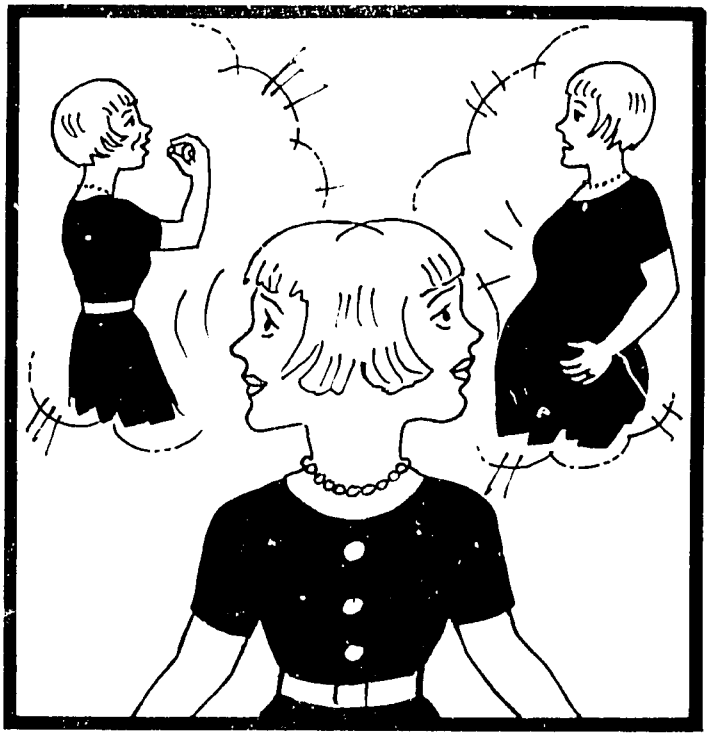
How long after a spontaneous abortion or an induced abortion should a woman wait before starting to take the pill? Fertility can return almost immediately after a spontaneous or an induced abortion. Therefore, the pill should be started right away after an abortion.

Are pills dangerous for children? It is dangerous for children to take any adult medicine, even aspirin at adult doses. If a child two or three years old or older swallows one or even several contraceptive pills, it will do no harm. Just as with other medicines, however, contraceptive pills must be kept in a place where children cannot reach them.

Keep Pills Out of a Child's Reach

What should a woman do if she forgets to take two or three pills and has no other method of family planning available? If a woman is afraid she has become fertile as a result of forgetting to take the pills for two or three days, and if she has no other method of family planning available, she has only one choice: abstain from sexual intercourse until she has menstruated and started a new cycle of pills. In most cases this time will be only a few days. Husbands who do not wish to support a large family will understand and cooperate—or go to the family planning center or pharmacy for condoms or some other method.

Can young girls take the pill safely? Most doctors agree that if a young woman of 13 or 16 is having sex regularly (whether married or unmarried), it is better for her to take the pill than to get pregnant. When a young woman, regardless of age, has established a regular menstrual pattern (six regular menstrual cycles) and if sexually active or requesting the pill, she may be given such contraceptive in the absence of any contraindication. However, some doctors believe that girls 12 to 14 years of age or younger girls with poor menstrual patterns should not take the pill because their reproductive system is still maturing. At age 17, a young woman is almost invariably sexually mature and the pill is a very appropriate contraceptive method for her to use until she is ready to start her family. Most doctors and family life specialists agree that it is undesirable both for medical and social reasons for a girl to bear children before she is about age 20. This means that women who marry very young or who have intercourse before marriage should avoid pregnancy until they are at least 19 years of age. It is much better for a young girl to use the pill than to conceive a child she is unprepared to receive.



Do the pills affect any babies that may be born after the pill has been discontinued? Medical experts agree that there is no evidence that taking the pill has any effect on babies that are born later.

Does taking contraceptive pills promote promiscuity among young people or cause wives to be unfaithful to their husbands? Although there has been much talk about this fear, research evidence indicates that this fear is not justified. Young married women who take the pill are aspiring to have a stable family life and to be responsible mothers. Most married women (including those who take the pill) are faithful to their husbands. By making sex relations more pleasant and safe from the worry of pregnancy, the pill helps hold marriages together instead of breaking them up.

The Pill Can Help Make Marriages Happier

Chapter I--A

Injectables

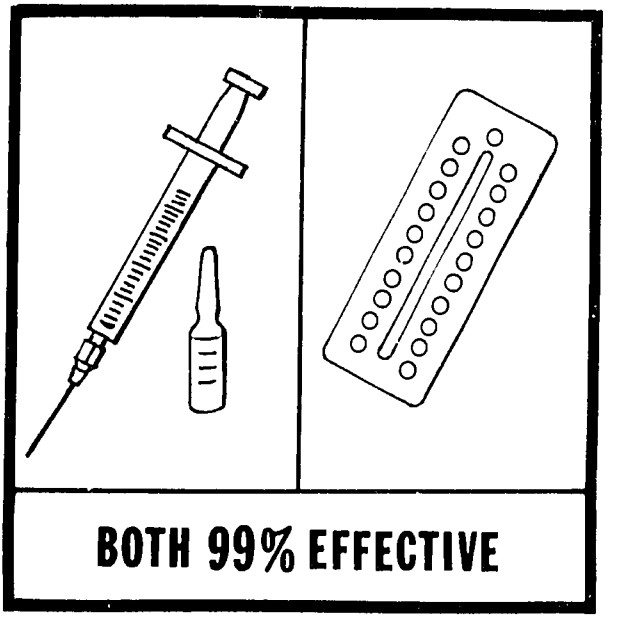
WHAT IS THE INJECTABLE CONTRACEPTIVE?

The injection, or the "shot," is a hormonal preparation that is injected into the woman (usually in her arm or hip) to keep her from getting pregnant for at least three months.

Unlike the oral pill, which contains a combination of projestin-estrogen hormones, the active ingredient in the injection is a single progestin.

The drug as a contraceptive has been used by over 10 million women around the world and has been studied clinically for more then 15 years. Clinical results show high user satisfaction and very little evidence of serious health complications. Research on actual users indicates the injection to be equally as reliable and safe as the oral pill.

Injections are presently approved for use as a contraceptive in over 80 countries including Thailand, Uganda, Chile, New Zealand, Switzerland, and West Germany. In the United States, the injection is available only through medical prescription for treatment of uterine cancer.



WHY IS THE INJECTION A GOOD METHOD TO USE?

The injectable contraceptive is in particular demand in several developing countries because of its perceived high effectiveness and because of the convenience of a three-month schedule.

If the injectable contraceptive is used according to instructions, protection against pregnancy begins on the first day of the injection.

Its effectiveness is as good as that of the oral contraceptives. In addition, it eliminates the problem of remembering to take the pill daily.

Each injection provides an extra four to six weeks of protection after each three-month period. Thus, a woman using "the shot" can be late for her next shot and probably still be protected. This extra period greatly increases the effectiveness of the injection in comparison with the oral pill.

WHAT ARE THE SPECIAL ADVANTAGES OF THE INJECTION?

The injection is particularly suitable for women who for some reason cannot take the oral pills regularly, the combined pills, or who have had difficulties with other contraceptive methods.

It is also an alternative method of contraception for women living in rural areas where frequent access to medical facilities is difficult.

It is preferred by women who want a long-term, yet reversible, method of contraception.

In many cultures, the people like and trust medication by injections. They therefore adopt this method readily.

The injection can be given to women who are under some medication that requires them not to be pregnant for about three months or to those for whom estrogens are contraindicated.

HOW DOES THE INJECTION WORK?

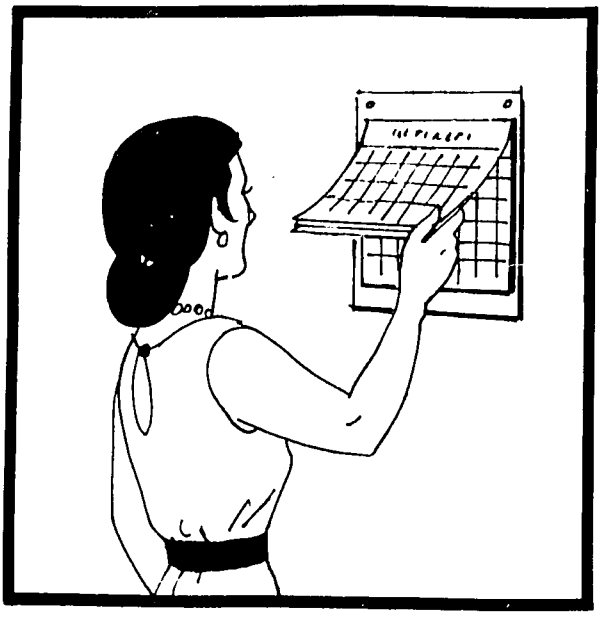
To use this method, a woman is injected with 150 milligrams of the hormone every three months. This hormone has three contraceptive effects:

1. It results in hormonal imbalance during mid-cycle, thus preventing ovulation.
2. It alters cervical mucus, making it more difficult for the sperm to penetrate the womb.
3. It causes changes in the uterine walls, which either inhibit fertilization or prevent implantation.

Before starting to use an injection, a woman should have a thorough general medical and gynecological examination, including the breasts.

The doctor should make sure that the woman is not pregnant before giving her the injection.

The woman should keep a record of when the injection was given and remember when she must return to the clinic for her next "shot."



The doctor should be informed of any other medicines that a woman is taking regularly, since these may impair the action of the injection.

The woman should get a medical check-up, pap smear, and breast examination once a year.

When the injection is discontinued, ovulation will usually return about four to five months after the last injection. If any problems develop within this period of time or at any time during use, medical advice must be sought.

WHAT ARE THE DISADVANTAGES AND SIDE EFFECTS OF THE INJECTION?

As with oral contraceptives, there are some minor problems with the injection.

It cannot be immediately withdrawn if harmful or distressing side effects occur.

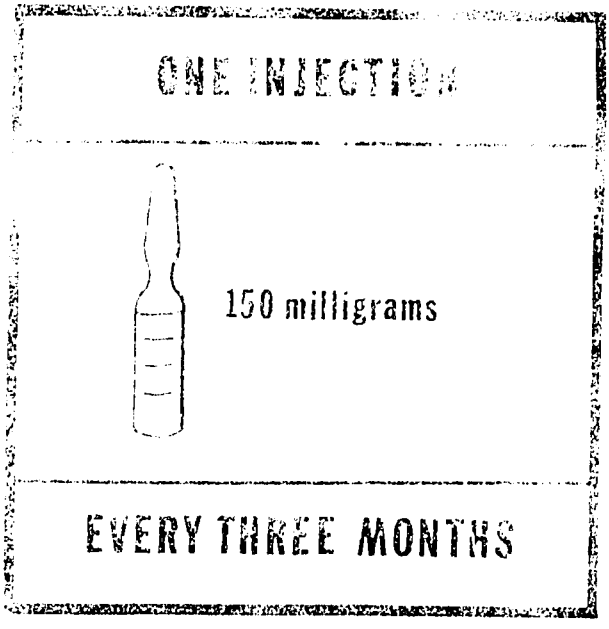
Because self-administration of the injection is not advised, the need to return to the clinic periodically may be troublesome.

In particular cases, there is no way of predicting when menstruation will start again once the method is discontinued. In some cases, it takes less than three months and, in other cases, bleeding may be delayed for six months or more. For some women, this drastic change in their menstrual cycle is distressing.

Some women using the shot have reported irregular and longer periods, or spotting between periods. However in some cases, injections may decrease the amount of menstrual blood loss, decrease menstrual pain, and even stop menses completely—which some women find desirable.

Users of the injection have also reported isolated cases of headaches, dizziness, nervousness, nausea, and weight gain.

Studies have shown that the use of the injection may increase both milk production and duration of lactation. However, the question of possible effect upon the breastfeeding of an infant has yet to be resolved.



CONTRAINDICATIONS

- Abnormal undiagnosed bleeding
- Chronic liver disease
- Jaundice
- Stroke
- Diabetes

WHO CAN USE THE INJECTION?

Injectable contraceptives should only be administered to women with a history of regular cycles.

It should not be used by pregnant women.

Since injections may produce irregular menstrual bleeding patterns, women who previously have had abnormal undiagnosed bleeding should not use injections, particularly women approaching menopause.

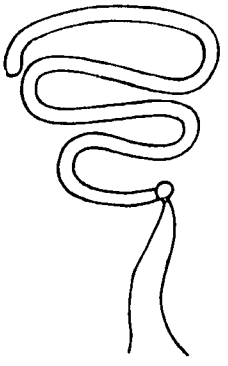
The injection should not be used by women with acute, severe, or chronic liver diseases, or a history of jaundice, stroke, or diabetes.

Because of the possible uncertain effects of the drugs on the fetus of a woman who gets pregnant while using the injection, a woman should postpone getting pregnant after stopping injections until her periods again become fairly regular. This may take as long as 12 to 18 months.

The IUD

WHAT IS THE INTRAUTERINE DEVICE (IUD)?

The intrauterine device (IUD) is a small, usually plastic device that is inserted into a woman's uterus (womb) to prevent pregnancy. A thin string attached to the IUD extends from the uterus into the vagina. (See Chapter IX for a full explanation of the uterus and its role in reproduction.)



The IUD is inserted into the uterus through a long, thin plastic tube. The insertion is done by a female or male doctor, nurse, or specially trained assistant.

The IUD should be left in place for as long as the woman wishes to prevent pregnancy or as long as a doctor advises.

If the woman wants to be able to get pregnant, she can have the IUD removed by a doctor or trained assistant. Then she will be able to get pregnant within a very short time.

The IUD is one of the most effective methods of contraception; it is used by several million women all over the world.

When the IUD is in place, contraception is automatic.

WHY IS THE IUD A GOOD METHOD TO USE?

Generally, the IUD is considered 94 to 97 percent effective: if 100 women of reproductive age use it for one year, only 3 to 6 will get pregnant.

The IUD is an especially good method for women who want no more children or who want a method that will be effective for a long time without bother.

It is also good for women who have difficulty following the instructions for taking the pill.

WHAT ARE THE ADVANTAGES OF THE IUD?

Once in place, the IUD does the job of contraception. The woman does not have to take or remember anything.

Sexual relations do not have to be interrupted by the insertion or application of other contraceptive devices.

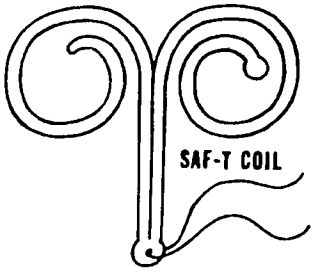
Since couples do not have to worry about pregnancy, they are able to enjoy sex more.

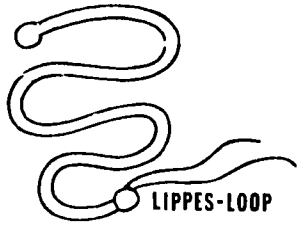
WHAT TYPES OF IUD ARE AVAILABLE?

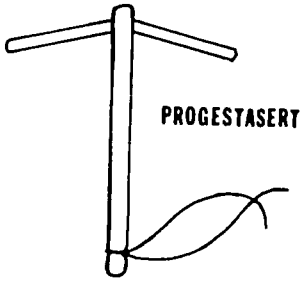
There are different shapes and sizes of the IUD. Among the most commonly used ones are the *Lippes Loop*, the *Saf-T Coil*, the *Copper T*, and *Progestasert*. The *Lippes Loop* and *Saf-T Coil* are all-plastic, whereas the others have copper metal or hormones added in the belief that they increase effectiveness and or reduce possible side effects. Many different shapes and sizes have been tested in an effort to reduce the pregnancy rate, diminish the occurrence of side effects, and prevent spontaneous rejection by the uterus.

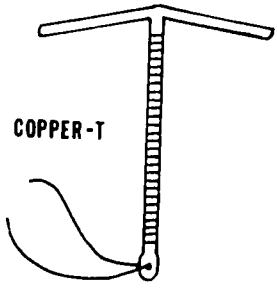
The types of IUD offered by recognized family planning programs and doctors have been thoroughly tested, and only those types that have been approved for general use are available. Trained personnel can explain why a particular type of IUD is recommended.

IUDs come in different sizes. The size of the IUD that should be used depends upon the size of the uterus. The doctor or trained assistant who inserts the IUD can decide which type and which size a woman should use.









HOW DOES THE IUD WORK?

It is not known exactly how the IUD prevents pregnancy, but there is no doubt that it is effective.

Most experts think that the IUD prevents pregnancy in a combination of ways:

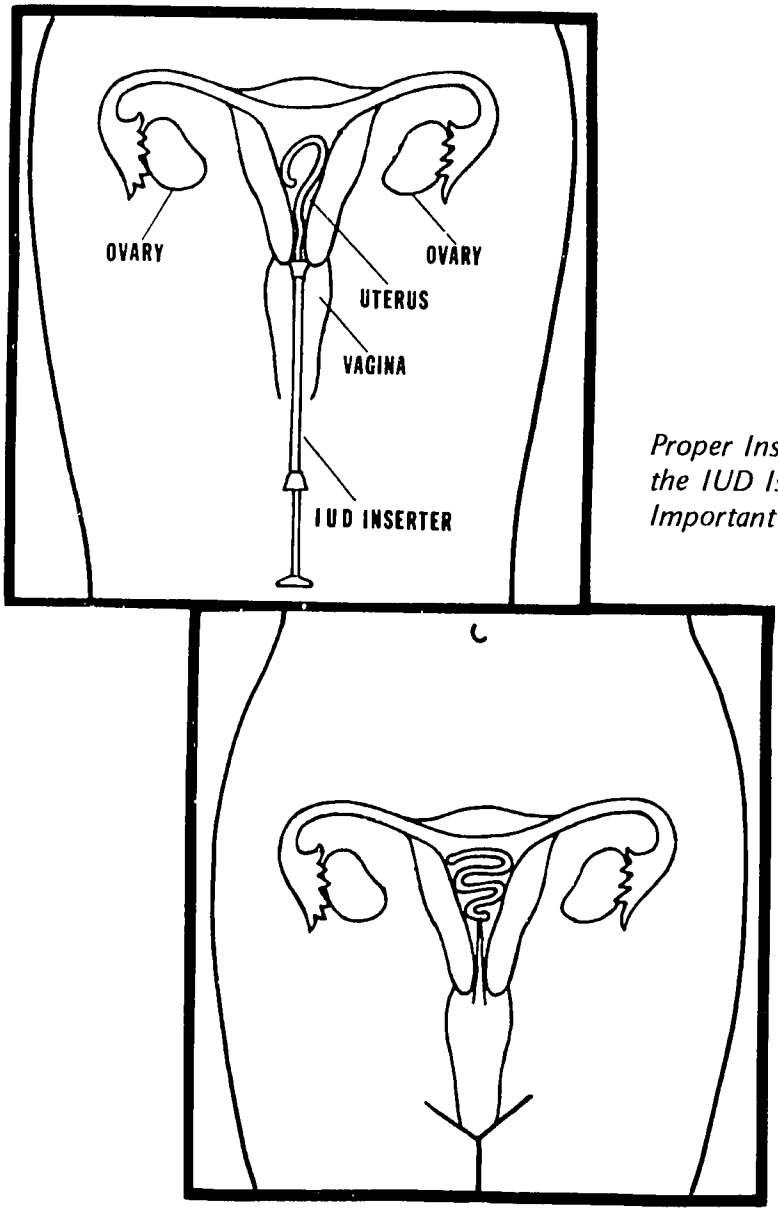
(a) It might interfere with the process of implantation of a fertilized egg in the uterus.

(b) It might cause a chemical reaction in the woman's uterus that weakens or destroys the sperm (male seed) or the female egg; this reaction also tends to prevent fertilization.

(c) It might hinder the progress of the sperm in its efforts to reach the egg, or cause the egg to move more quickly through the Fallopian tubes.

The IUD Should Be Inserted by a Doctor, Nurse, or Trained Assistant

Proper insertion and placement of the IUD is important. The device should be placed as high as possible in the uterus without perforating the uterine walls. In order to provide effective protection, it should be large enough to cover the entire area of the uterus.



Proper Insertion of the IUD Is Important

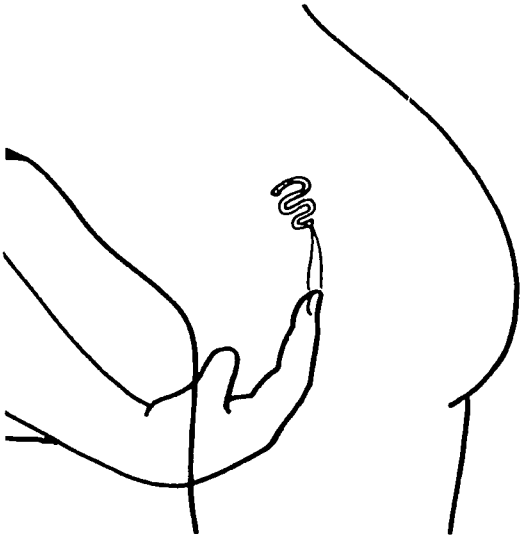
CAN THE IUD BE DISLODGED OR EXPELLED?

It is possible that the IUD may be dislodged or expelled spontaneously by repeated contractions of the uterus (womb). If this happens, another IUD, perhaps of a different size, may be reinserted.

Sometimes the IUD is expelled without the woman being aware of it. She should therefore occasionally check to see if it is still in place.

HOW CAN A WOMAN CHECK TO SEE IF THE IUD IS STILL IN PLACE?

When the IUD is inserted, the threads attached to it extend through the mouth of the womb into the vagina. This placement makes it possible for the doctor or trained assistant to remove the IUD easily, whenever desired. By touching the opening to the womb with her finger, a woman can easily feel the threads (tails). If she can feel the threads, the IUD is in place. If she cannot feel the threads or if she feels the tip of the IUD itself, she should immediately start using another method of contraception until she can return to the clinic for advice.



For the first two months or so after the IUD is inserted, the woman should check every week to make sure it has not been dislodged. She should always be sure that her hands and fingers are very clean. After the first couple of months, the woman only needs to check after every menstrual period.

A woman should *never* try to remove the IUD herself by pulling the string. She should not permit anyone except a trained person to remove her IUD.

CAN EVERY WOMAN USE THE IUD?

About three women out of four can use the IUD with great satisfaction. In about one-fourth of the women, the body may show a strong and prolonged reaction against the device.

If a woman wants to find out if this method is satisfactory for her, she should try it. If her body adjusts to it, she should be able to use the method successfully. However, if the side effects continue, she should have the IUD removed and choose another method.

Because of the possibility of needing to have the IUD removed or to have periodic rechecking, this method should be accepted only where there are good *medical* follow-up services available.

WHAT SHOULD A WOMAN DO TO START USING THE IUD?

An interested woman should make an appointment at a clinic to have the IUD inserted. After it has been inserted, the woman should ask for a card that tells the type of IUD that she is using. She should keep this card for future use in case she needs to see a different doctor about her IUD.

Before she leaves the clinic, the woman should try to learn how to feel the string which tells if the IUD is still in place.

The woman should check regularly to see that the IUD is still in place, as described earlier.

An IUD-user should return to the clinic once a year for a check-up.

Because there is a slight risk of getting pregnant while wearing the IUD, some couples who want to be absolutely sure use condoms or foam when pregnancy is most likely to occur each month. The time of greatest risk of pregnancy is during the middle of the menstrual cycle, from 10 to 18 days after the beginning of the woman's period (if the menstrual cycles are regular 25- to 30-day cycles).

The woman should return to the clinic if she has strong side effects that do not disappear. She should also return if there are any symptoms of infection or other unusual signs in the pelvic region.

It is very important for the woman to return to the clinic if she thinks she may be pregnant.

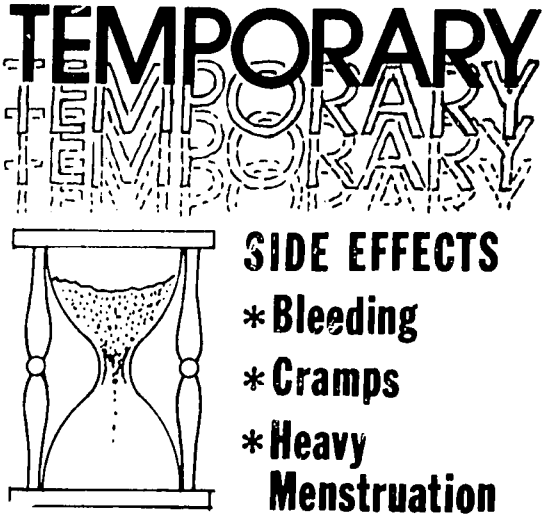
WHAT ARE THE SIDE EFFECTS OF THE IUD?

Sometimes a woman will experience cramps and backache during the first few days after she has had the IUD inserted. These side effects usually go away within a week or so. If they are severe or do not go away, the woman should return to the doctor for advice.

The woman might also have an unusually heavy menstrual flow and cramping during her first period after the IUD insertion. Sometimes, this condition continues for a second monthly period. After that, most women hardly notice the difference in their menstrual periods.

Sometimes the woman experiences slight bleeding or spotting between menstrual periods, especially during the first few months. Such problems should not alarm the woman, and can generally be safely ignored if the problems do not persist.

Very few women get an infection from the IUD. Occasionally, an infection occurs because the woman already had a slight infection when she had the IUD inserted. Rarely, increased incidence of infection may result from prolonged use of the IUD. Fever, pelvic pain, severe cramping, or steady vaginal bleeding or discharge are symptoms that should cause the woman to return to the clinic promptly to have a check-up for infection. The doctor will treat the infection and, if he or she thinks it is necessary, remove the IUD and recommend another method.



CAN THE IUD AFFECT A WOMAN'S HEALTH?

Although the side effects can create discomfort, they are only temporary and have no lasting effect on the health of the woman.

After years of medical research and actual use, there is no evidence that the IUD causes cancer or any other serious disorder of the uterus, even if left in place for several years.

If a woman continues to react adversely to the IUD, with severe cramps and heavy menstrual flow (even after three or four months of trial), she should see her doctor about discontinuing use of the IUD and selecting another method. The heavier menstrual period may cause her to become anemic, get an infection, or have other health problems if she allows the problems to continue.

It must be emphasized that for 75 to 85 percent of all women, the IUD is a safe, convenient, and trouble-free method.

CONTRAINDICATIONS FOR IUD

- *Pelvic Infections
- *Abnormal Uterus Conditions
- *PREGNANCY

WHO SHOULD NOT USE THE IUD?

The IUD should not be inserted in women who have pelvic infections or who are pregnant.

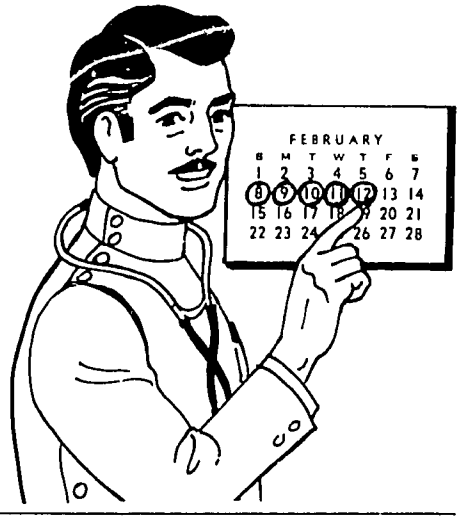
Doctors are cautious about inserting the IUD in women who have had several pelvic infections in the past, who have abnormal conditions of the uterus, or who have anemia.

QUESTIONS THAT PEOPLE ASK MOST OFTEN ABOUT THE IUD

If a woman gets pregnant with the IUD in place, should she have the IUD removed? Yes. If allowed to remain in place, it may cause an intrauterine infection or a miscarriage. It is important that a woman see a doctor if she suspects she is pregnant while using the IUD.

If a woman gets pregnant with it in place, will an IUD cause a deformed baby? No harm will be done to the baby. There are no data to indicate malformation risks due to the IUD.

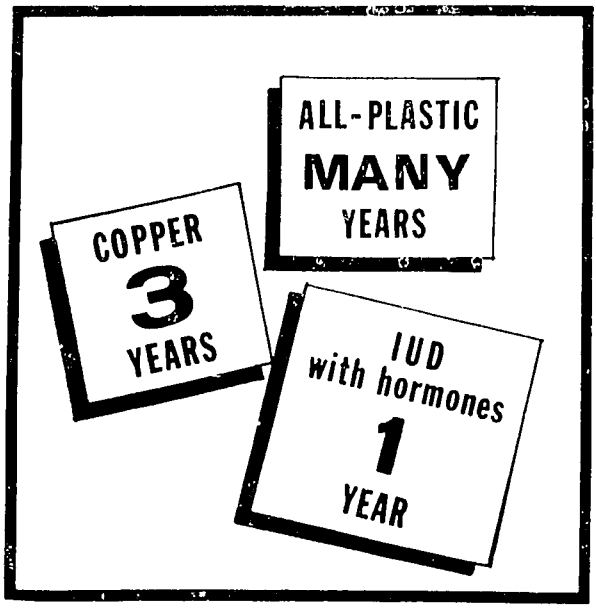
When should the IUD be inserted? An IUD may be inserted at the convenience of the user if it can be reasonably determined that she is not pregnant. However, some doctors prefer to insert the IUD during the menstrual period of a woman, preferably on the last few days of her period. By waiting until this time, the doctor can be quite sure that there is no pregnancy; in addition, the opening of the womb is more relaxed during menstruation.



Is there much pain at the time of insertion? For some women, there may be slight or moderate pain at the moment of insertion. Physicians sometimes give a local anesthetic to keep the woman from feeling the insertion. Occasionally, after the insertion there may be dizziness and nausea for a few minutes. These go away within a very short time. The woman is usually asked to rest at the clinic for a few minutes before she goes home in order to allow such feelings to pass.

Can the IUD be inserted at the time of childbirth? Yes. An IUD inserted at this time is a little more likely to be expelled, so the woman must be careful to check. Most of the time, doctors suggest that the IUD be inserted about 40 days after childbirth.

How long can an IUD be left in place? The length of time depends on the type of IUD. All plastic loops can be left in for many years or until a pregnancy is desired. The IUD with copper needs to be changed usually every three years. The IUD with hormones (such as "progesterone") should be changed every year. As long as the woman does not experience any abnormal conditions, she can leave the IUD in place during the period suggested by the doctor.



If a woman expels the IUD and has it reinserted, will she probably expel it again? Not very likely. The doctor should be able to choose a size and type that will make expulsion more difficult. On a second trial, the body may adjust more readily.

Can women who have never had a baby use the IUD? Yes, preferably smaller sizes. However, because the uterus is smaller and tends to react more vigorously, women who have had no children are more likely to expel the IUD. They are also somewhat more likely to have stronger side effects than older women who have had children. For these reasons, many doctors recommend use of other methods until after the birth of the first child.

How many days after the insertion can a woman start having sexual intercourse? As soon as she feels like it.

Is a woman safe from pregnancy the moment the IUD is inserted? Yes. However, the danger of an accidental pregnancy is slightly higher during the first month. If she wishes, a woman can ask her partner to use a condom or she can use another method of family planning herself for the first month for added protection.

What happens if the woman is pregnant when she has an IUD inserted and does not know it? It is quite probable that the IUD will cause a spontaneous abortion. Inserting an IUD when a woman is pregnant may lead to infection, bleeding, and/or premature labor. That is why it is best to insert the IUD when the woman has her menstrual period, when she is unlikely to be pregnant.

Are the side effects of the IUD ever more imaginary (psychological) than real (medical)? Yes. There are wild or sensationalist rumors about the IUD that are often spread by women who experienced side effects and had the IUD removed, or by persons who are against the IUD as a form of birth planning. Thus, some women who accept the IUD may be fearful of side effects and will tend to exaggerate them when they occur. Many doctors are convinced that more than one-half of all IUDs that are removed for side effects do not really need to be removed for medical reasons. However, all sustained and disturbing side effects should receive a medical checkup.

What is "perforation"? If an IUD accidentally penetrates the wall of the uterus, it is called a "perforation." A perforation may occur without any symptoms or it may cause a very strong bodily reaction. Perforation is caused by improper or careless insertion. Perforations happen very rarely because the insertion of the IUD is not allowed until the personnel have been thoroughly trained. Medical assistants can easily be trained to insert the IUD as skillfully as doctors. If a woman can feel the threads of her IUD, she should not worry about perforations.

If the thread to the IUD comes loose, can the doctor or trained assistant still remove the IUD? Yes, but it is more difficult because he or she must use special instruments.

Why is the IUD more popular with older women while the pill is more popular with younger women? The IUD is recommended for older women who have had children because insertion is less difficult and the initial discomforts cramps, backache, heavy menstrual flow, and spotting or bleeding between periods—are less bothersome. The IUD is less suitable for young women with no children because of higher risks of expulsion, infection, and somewhat more painful side effects.

YOUR FAMILY HEALTH CLINIC

***WE ENDORSE BOTH**
***WE PROVIDE FOLLOW-UP CARE**

Chapter III

The Condom

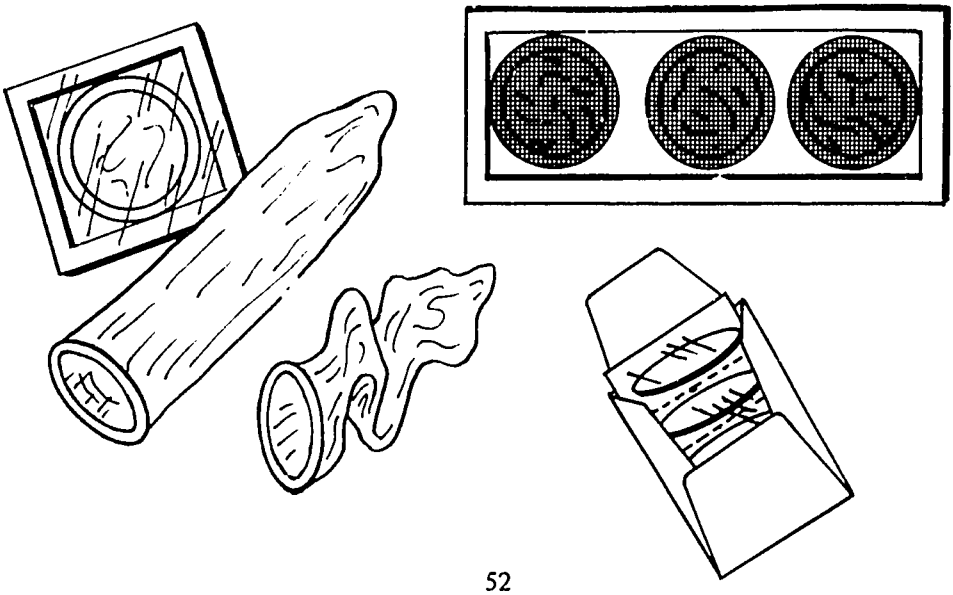
WHAT IS THE CONDOM?

The condom is a sacklike, long device, shaped like a thin-walled tube with a round end to fit over the penis (the male sex organ) during sexual relations. Made of very thin rubber or similar material, it comes rolled up in a small, ringlike package.

The condom is one of the most popular methods of family planning, especially in Europe, Japan, and North America. It is rapidly becoming popular in other parts of the world.

Some condoms are lubricated before being rolled, to make it easier for a condom-covered penis to enter the woman's body.

Condoms may have the plain color of latex rubber or may come in different colors—white, red, blue, black, and so forth.



WHY IS THE CONDOM A GOOD METHOD TO USE?

The condom is easy to use.

It does not require a visit to a clinic or a physician to get started. To start family planning, all a couple needs to do is to get a package of condoms and use a condom every time they have sex.

It requires no advance preparation.

It is quite reliable when used properly (80 to 97 percent effective).

It is available in many places—pharmacies, tobacco shops, and many other commercial outlets, as well as in health clinics. Many family planning programs arrange to have the condom stocked in every village through volunteer distributors.

WHAT ARE THE SPECIAL ADVANTAGES OF THE CONDOM?

The condom has no side effects upon the body of either the man or the woman. This fact is especially important for people who have strong reactions to the oral pill or the IUD.

The condom is easy to get. In most places, young or older adults of either sex can get the condom with no questions asked.

It is relatively inexpensive. It costs very little to have condoms available at all times.

Condoms are small and easy to carry. Men or women can keep condoms in their pockets in case they are needed.

The condom is a convenient method to use when sex relations take place unexpectedly or when the woman is not taking the pill or using an IUD.

The condom is a good method for a man who wishes to be responsible for contraception, to make sure he is not going to cause any unwanted pregnancy.

It is a good back-up method to use for other methods. For example, in case a woman taking the pill forgets to take two or three pills or a woman using the IUD discovers the device has been expelled, the condom can be used until she is able to visit a clinic.

The condom is a good protection against getting venereal disease (VD) and therefore protects against possible future infertility. If there is the possibility that either the man or the woman has syphilis or gonorrhea, the condom performs two important tasks: it prevents conception *and* it prevents VD infection.

For some men, the condom makes the erection last longer and helps prevent reaching the sexual climax too soon.

HOW IS THE CONDOM USED?

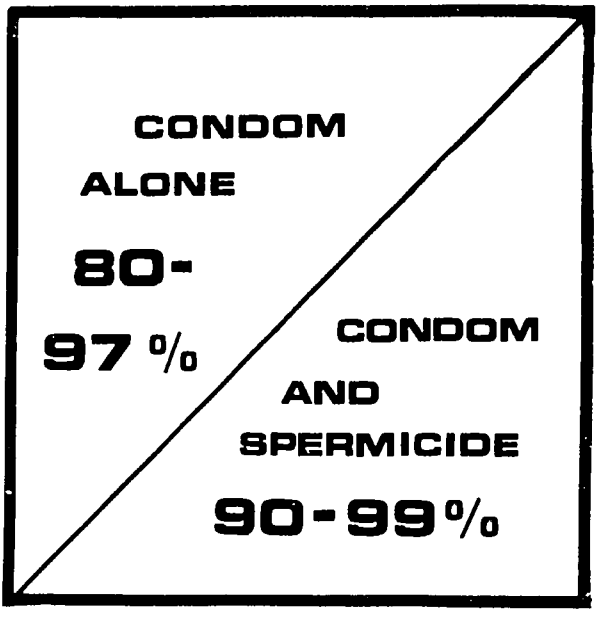
The condom is easy to use. Just open the package and unroll it onto the erect penis. This can be done by either the man or the woman.

Be sure to leave about one-half to one inch of empty space at the tip of the condom (with no air inside) to provide space for coital thrusts and for the man's semen when it is ejaculated. Some condoms have a special empty space at the tip provided for this purpose.

The man should never insert his penis into the woman's vagina without the condom, even in preliminary sex play. Sperm (male sex seed) can be on the tip of the penis, even though there has been no ejaculation, and pregnancy can take place.

Soon after the man has reached his sexual climax, he should hold on to the ring of the condom at the base of his penis and withdraw from the vagina, in order to prevent the semen from entering the woman's vagina.

EFFECTIVENESS



The condom should be used only once, then discarded. Do not try to wash and reuse it; it might tear or break on second use.

Condoms can be nearly 99 percent effective when used together with a spermicide, such as foam, jelly, or foaming tablets.

ARE THERE DISADVANTAGES TO USING THE CONDOM?

Several years ago the rubber used in condoms was so thick that for some men the condoms dulled the sensation of the penis during sex. That created a prejudice against this method for many men. The modern condom is much thinner (though even more safe from breaking), and sensation problems have been greatly reduced. Most men and women who have sex while using the condom say that they are unaware of its presence during intercourse. However, some men still report that they enjoy intercourse less while wearing the condom.

Some couples say that the condom interferes with their sexual activities. This criticism may be avoided if the woman is encouraged to put the condom on the man as a part of the loveplay, which can erotically heighten rather than interrupt sexual relations.

Condoms occasionally leak, break, or come off the penis during sex, and expose the woman to an unwanted accidental pregnancy. Modern methods of manufacture have greatly reduced the dangers of breaking or leaking, so that now most failures with the condom are human failures—due to improper use or negligence.

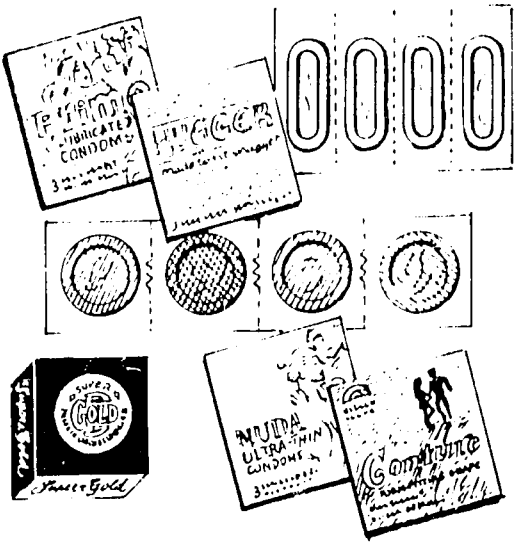
WHAT DIFFERENT KINDS OF CONDOMS ARE AVAILABLE?

Since condoms are a commercial product, they are marketed under different brand names. Some brands are of very high quality; others may be of lesser quality with inadequate testing, and hence are less reliable. It is important to use only the reliable brands.

Family planning organizations always provide condoms of high quality at especially subsidized low prices (often they are given away without cost). Usually they give condoms to anyone who asks, without requiring the person to register his name or otherwise identify himself.

Pharmacists usually carry only the better grades of condoms and price them according to quality. Although the more reliable brands may cost a little more, they are worth the added protection.

For some countries the national family planning programs arrange for top-quality condoms to be sold through pharmacists or other distributors at very low (subsidized) prices.



Men who have used condoms for years know the names of most of the brands being sold and which ones are believed to be the most reliable. A new condom user will find that a simple question to such a person will bring him information about brands. Wives are usually able to name the brand of condom their husband uses, and they can inform other women.

QUESTIONS THAT PEOPLE ASK MOST OFTEN ABOUT CONDOMS

Why is the condom popular among young people? There are several reasons why young people choose the condom. Some young people only wish to be protected at certain, irregular times. Also, some doctors do not recommend the pill for use by very young girls (under 16 years of age) because of the possible side effects upon their still maturing reproductive system. Women who have not yet had a baby may find the IUD difficult to use. Under all of these circumstances, the condom continues to be a good and reliable method to use.

The condom also helps protect against syphilis and gonorrhea, diseases to which sexually active people are often exposed.

Will unused condoms last indefinitely? Condoms tend to deteriorate slowly with time, particularly in tropical climates. When stored in a cool place, they will be of good quality even after 18 to 24 months.

Do condoms ever break? Yes, but condoms manufactured by reliable firms are tested for pinholes and weak spots at the time they are produced. There is very little danger that such a product will tear or break during use.

Most failures with condoms are due to improper use:

(a) Completely forgetting or neglecting to use the condom.
(b) Putting them on too late, after sexual relations have already been started.
(c) Not removing the condom properly and reasonably promptly after the male climax has taken place
(d) Damaging the condom before use by inflating it with air, scratching it with fingernails, or stretching it to test its elasticity
(e) Washing out condoms after use and re-using them.

If the condom does happen to break or tear or come off in the vagina during sex, contraceptive foam or jelly should be *immediately* inserted. It is good to have this foam or jelly available for such an emergency. As reported on page 82, a very high level of protection can be attained by using one of these spermicides together with the condom. (See Chapter V, "Spermicides.")

Chapter IV

The Diaphragm

WHAT IS A DIAPHRAGM?

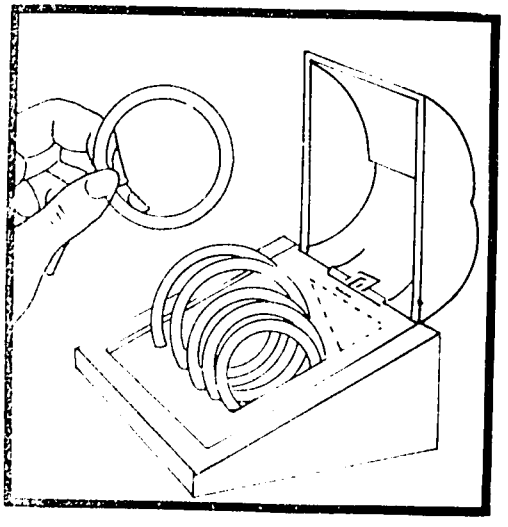
A diaphragm (sometimes called a "cap") is a thin, dome-shaped rubber cap that rises from a flexible, circular metal ring. It ranges from 55 to 100 mm. in diameter. It is used as a barrier to prevent a man's sperm (sex cells) from entering the woman's uterus and making her pregnant.

The diaphragm fits in the vagina covering the mouth of the womb, preventing the man's sperm from reaching it.

The diaphragm should always be used with a spermicide. This could be a contraceptive foam, jelly, or cream, that helps kill the sperm in the vagina in case some of them get past the cap.

Each woman must be fitted for her own diaphragm by a trained medical person.

Diaphragms come in different sizes because women have vaginas of different sizes. The device must be of the right size to work properly. Each woman must be fitted for her own diaphragm by a trained medical person. A woman must be refitted after childbirth, miscarriage, abortion, or after any weight loss or gain of 10 pounds (5 kilograms) or more.



Health workers use graduated rings to determine diaphragm size.

WHY IS THE DIAPHRAGM A GOOD METHOD TO USE?

Properly used, the diaphragm is highly effective (80-97 percent) and has been used successfully for more than 80 years. Since the end of the 19th century, couples have used diaphragms successfully and safely to limit their family size at a time when the choice of contraceptive methods was small. With the advent of the pill and the IUD, the diaphragm took a back seat to these methods in family planning circles.

However, with the greater awareness among the public about contraceptive alternatives and the possible complications of the various methods along with the increased awareness of health on the part of couples, the diaphragm is becoming popular again. The reasons for the diaphragm's new popularity include the high effectiveness of this method when used properly, the fact that it can be used only when needed, and the absence of any serious side effects.

WHAT ARE THE SPECIAL ADVANTAGES OF THE DIAPHRAGM?

Women use the diaphragm only at those times when they expect to have intercourse.

The diaphragm and spermicide need not be inserted just before intercourse. A woman may insert them as much as six hours beforehand and still be protected.

When the diaphragm is properly positioned in the vagina, the woman should not feel it no matter how active she may be. If she does, the cap is either the wrong size for her or has been inserted incorrectly.

There is no need to get up after intercourse to douche or remove the cap. In fact, the diaphragm should be left in place for at least six hours after intercourse.

Whether or not intercourse takes place, the diaphragm may be safely left in place for 24-36 hours but should be removed and washed after this time.

The diaphragm does not in any way interfere with sexual sensation for either partner.

Whether or Not Intercourse Takes Place, the Diaphragm May be Left in Place for 24 to 36 Hours

ARE THERE DISADVANTAGES TO USING THE DIAPHRAGM?

The diaphragm cannot normally be obtained without a medical prescription.

The health worker must take measurements to learn the correct size for the woman. The woman must be instructed on how to insert and remove it properly. This may prove embarrassing for some women.

The diaphragm must be used whenever intercourse takes place. Inserting may be an interruption, particularly when intercourse is not anticipated.

Women who have a strong dislike of touching their own vagina may not be comfortable using a diaphragm.

Sometimes the diaphragm can become dislodged during sex relations, especially with the woman-superior positions.

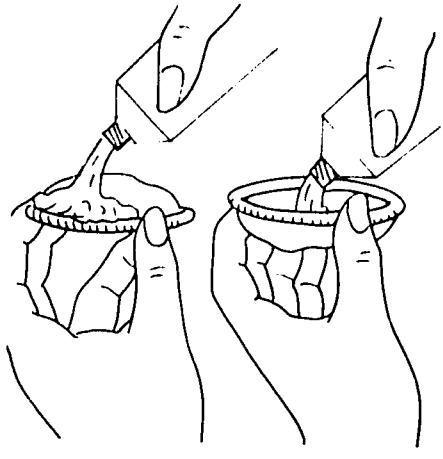
Because the diaphragm requires the use of contraceptive cream or jelly and because it must not be removed for at least six hours after sex relations, it can be somewhat messy.

Some couples who engage in oral sex find the spermicide to have an unpleasant taste. If there is going to be oral-genital sex, the diaphragm and spermicide must be inserted only when sexual intercourse is about to be performed.

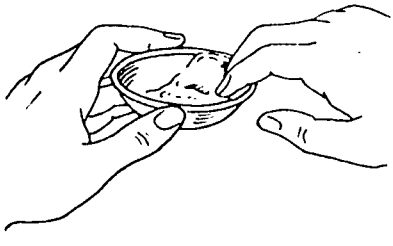
Use of the diaphragm requires access to a private source of clean water for washing it.

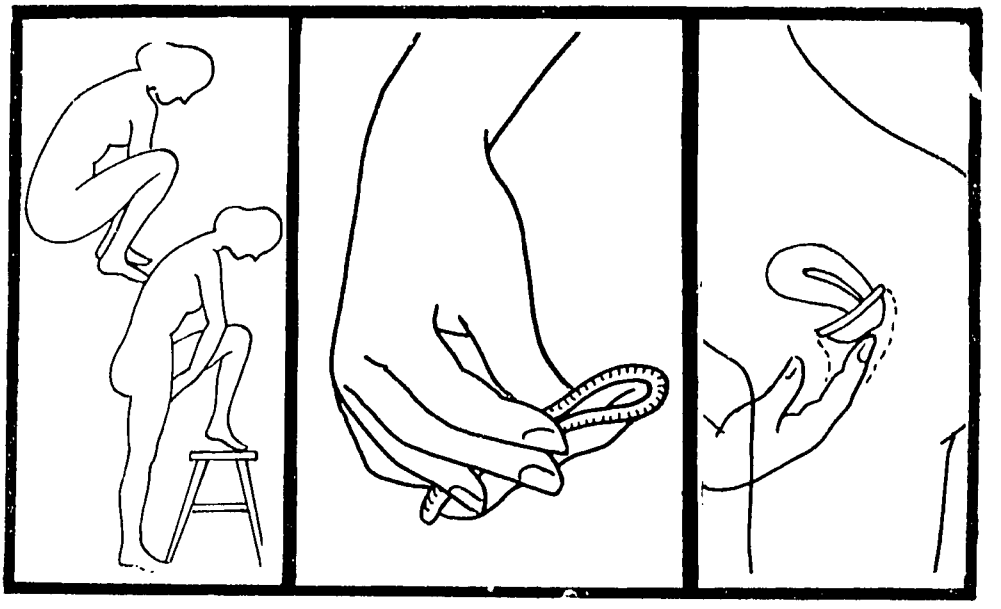
HOW IS THE DIAPHRAGM INSERTED AND REMOVED?

About a tablespoon or 2 inches of contraceptive jelly or cream should be spread inside of the dome and around the edges of the cap. Jelly and cream are equally effective, but jelly is more lubricating.



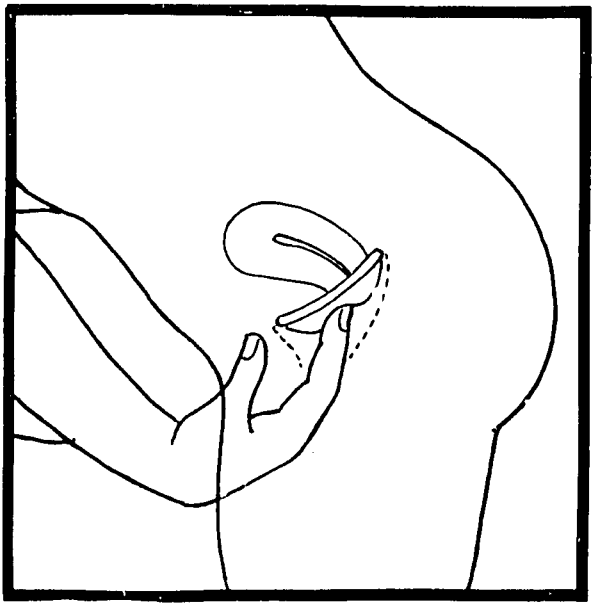
The diaphragm can be inserted by the woman or her partner. With one hand, the diaphragm dome is held down and the rim pinched together in the middle to narrow the circle or to form an arch. The lips of the vagina are spread with the fingers of the other hand. Squatting, or standing with one leg propped up, the woman inserts the diaphragm in and back into the vagina as far as it will go. The front rim is then tucked up into the ridge in the vagina, behind the pubic bone.

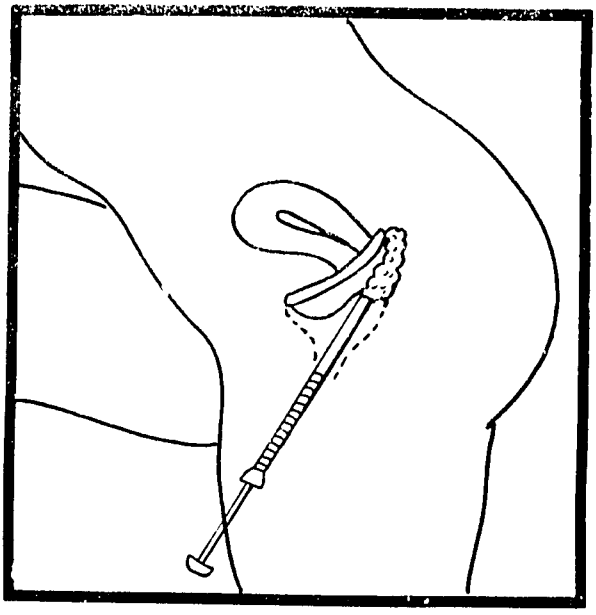




Some diaphragms come packed with a plastic inserter which some women find handy to make the insertion properly.

To make sure that the cap is placed correctly, the woman should be able to feel her cervix covered by the diaphragm by touching it with her finger. She should make sure that the front part of the rim is securely tucked behind the pubic bone.

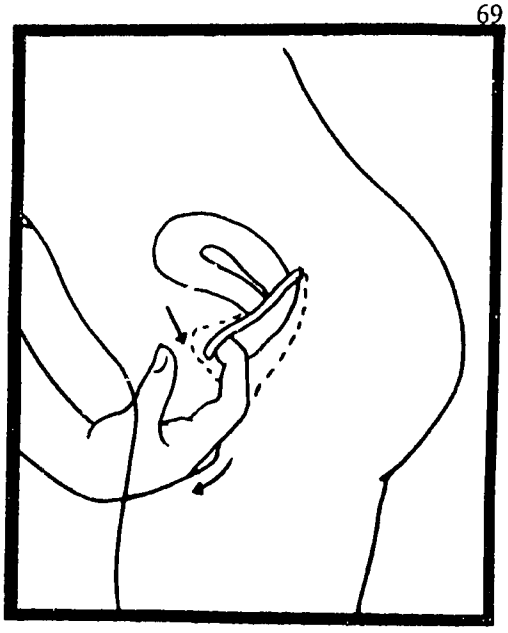




Before the couple has sex relations a second time, an applicatorful of additional jelly or cream should be inserted. The device should not be removed, however.

The diaphragm should not be removed until at least six hours after intercourse to enable the spermicide to do its job, nor should the woman douche before six to eight hours have elapsed.

The Diaphragm Should Be Left in Place for at Least Six Hours After Intercourse



To remove the diaphragm, the woman should hook a finger behind the front rim of the diaphragm, and then pull down and out.

After removal, the diaphragm should be washed with mild soap, thoroughly rinsed, dried, dusted with cornstarch (*not* talcum powder or any oil or grease-containing product), and returned to its container.

After a while, the diaphragm often develops holes or tears. Occasionally, it should be held up to the light or filled with water to see if there are any cracks or leaks. When taken good care of, a diaphragm of good quality may last two to three years. Discoloration of the rubber during use does not damage the diaphragm. A woman should obtain a new one if holes or cracks are found.

QUESTIONS THAT PEOPLE ASK MOST OFTEN ABOUT THE DIAPHRAGM

What is the most important factor to be considered when choosing and fitting a diaphragm? The most important factor in choosing and fitting is that the best size will be the largest diaphragm that the client can accommodate comfortably.

How does a woman know which brand to use? Diaphragms are made by several different companies. There are slightly different shapes and types of construction for each brand. Doctors or other trained persons can advise the woman on the type most suitable for her.

Are there any side effects? Occasionally (very rarely), a woman or her partner may have an allergic reaction to the jelly or cream or to the rubber of the diaphragm. This can usually be corrected by changing the brand of jelly or cream used.

Can a woman pass water with the diaphragm in place? The woman can urinate with the device in place. If a bowel movement takes place with the diaphragm in place and before intercourse, it is advisable to recheck for positioning before engaging in sex.

What happens if a woman's menstruation starts while the diaphragm is in place? The woman should not worry if her menstrual period starts. No harm will result.

Does the diaphragm interfere with sexual intercourse? It does not. Neither the man nor the woman will be able to feel it during intercourse.

Does a woman need to douche after using the diaphragm? A douche should not be used before removing the device, and it is not necessary afterwards. However, she may do so, if she chooses, after waiting at least six hours.

How long does the diaphragm last? When properly cared for, it may last for as long as two or more years. A woman should make sure that there are no punctures or holes in the device.

Chapter V

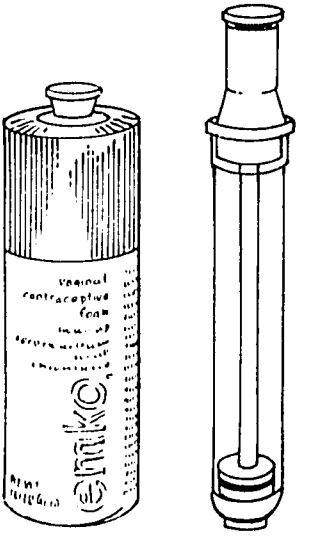
Spermicides

WHAT ARE SPERMICIDES?

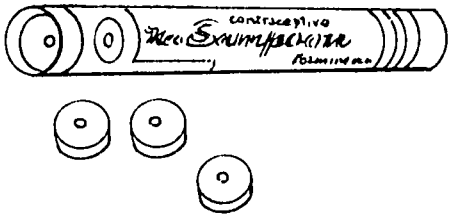
Spermicides are chemical preparations that are placed in a woman's vagina just before having sex in order to prevent pregnancy. They work in two ways. First, they put up a barrier to make it difficult for the sperm (male sex cells) to enter the womb. Second, when the sperm come into contact with the chemicals, they are neutralized and die.

There are a number of types of spermicides, and they are sold under a variety of brand names. The principal types are:

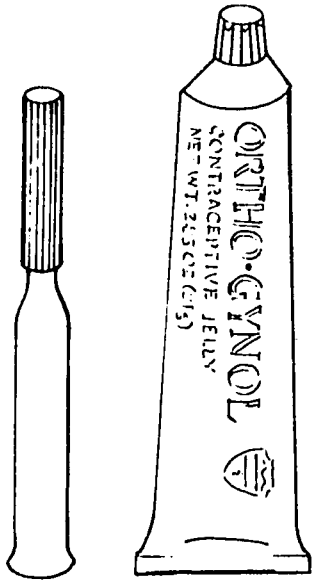
Foam—Chemicals packed under pressure in a can or bottle with inert gas, creating when freed a thick foam which is collected in a hollow plunger-type applicator and inserted into the vagina.



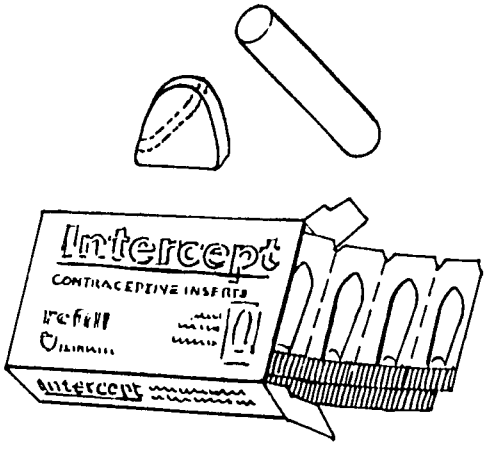
Foaming tablets—Round, dry tablets (usually with a hole in the center) which begin to melt and create a spermicidal foam when they come into contact with water or moisture. When inserted into the vagina, they begin to foam.



Creams and jellies—Tubes of contraceptive material with a creamy or jelly-like consistency; the proper quantity is squeezed into an applicator and inserted into the vagina.



Vaginal suppositories—Contraceptive products of a waxy, solid consistency that melt quickly at body temperature when inserted into the vagina. A foaming suppository is also available.



These spermicides all work by destroying male sperm upon contact. Only if the male sperm escape the chemicals and succeed in reaching the opening of the womb can pregnancy take place.

WHY ARE SPERMICIDES A GOOD METHOD TO USE?

They are easy to learn to use. Women can learn to use spermicides properly with very little instruction. Each package comes with simple instructions.

They are available in many places—most pharmacies can supply them. They are offered in most health and family planning clinics. In many countries, they are distributed door-to-door by health or family planning field workers.

They do not require a visit to a clinic or a physician to get started. Instead, they are available completely without medical prescription. To avoid pregnancy, all a woman needs to do is to have spermicides available at all times. Each time a woman uses a spermicide she only needs to follow the simple instructions. All women can be taught these instructions in a few minutes.

WHAT ARE THE SPECIAL ADVANTAGES OF SPERMICIDES?

The spermicidal chemical almost never produces side effects upon the body of either the man or the woman. This fact is especially important for people who get strong reactions from using the contraceptive pill or the IUD.

Spermicides are easy to get. Almost everywhere, people of any age or sex (married or unmarried) can buy spermicides at the pharmacy with no questions asked and without a doctor's prescription.

They are relatively inexpensive. Each can, tube, or package contains enough material for about twenty uses. The cost for each use is very little, particularly when compared with the cost of having a baby.

They are convenient to use when sex relations take place unexpectedly or when no other preparations for sex have been made.

They are easy to carry. A woman can carry spermicidal contraceptives in her cosmetic bag.

The woman can use them to protect herself when her male partner does not use a condom or other method of contraception.

They are a good back-up method to use with other contraceptives in case the couple feels they need added protection.

Some spermicides, especially foam tablets, when used create a warm sensation which some couples find sexually stimulating.

No physical or medical examination is necessary to use spermicides.

There is nothing to remove after intercourse.

Spermicides need to be used only at those times when intercourse takes place.

Spermicides are 70-97% EFFECTIVE

HOW RELIABLE ARE SPERMICIDES?

Spermicides are moderately effective (70 to 97 percent effective). Persons who use them are running a somewhat higher risk than with the pill or IUD, but the spermicides are far superior to unprotected intercourse.

The reliability of spermicides, like that of condoms, varies from couple to couple, and depends greatly on how correctly and conscientiously they are used. When used absolutely correctly and every time there is sex, the failure rate can be quite low; when used carelessly and irregularly, the failure rate can be high.

Many countries require the manufacturers of vaginal suppositories to enclose a printed warning to users that spermicides have moderate, not high, reliability.

A very high reliability (equal to that of the pill) can be obtained by using *both* a spermicide and a condom each time there is sex.

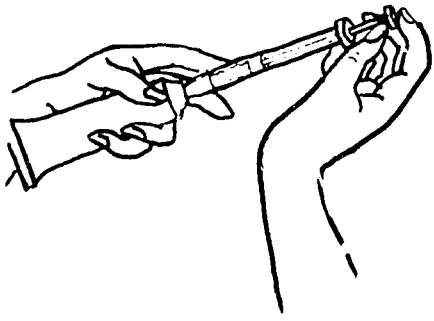
Spermicides can also help prevent the transmission of venereal and other sexually transmittable diseases.

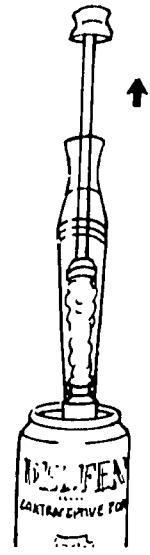
HOW ARE FOAMS, JELLIES, AND CREAMS USED?

Most bottles, tubes, and packets of spermicides carry instructions on how they should be used; these are simple and should be followed carefully.

Spermicidal foam, jelly, or cream is supposed to come with an applicator (a plastic tube with a plunger) which the woman can use to place the spermicide in her vagina. If no applicator is available, the recommended amount should be squeezed into the vagina straight from the tube or can and as deep as possible. Spermicides are more effective when placed deep in the cervix (the opening of the womb), with an applicator.

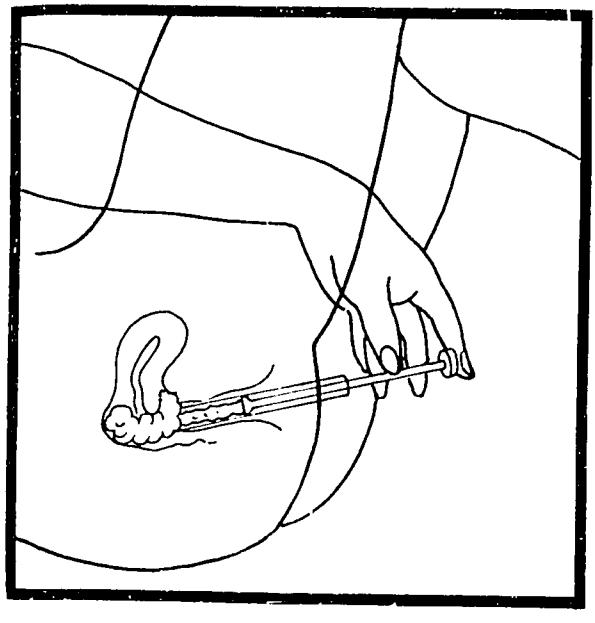
If the spermicide comes in a tube, the woman can simply squeeze it into the applicator and apply it deeply into the vagina. If the spermicide comes in a can, the can should be shaken vigorously at least twenty times before using. Shaking insures that there will be plenty of bubbles for the barrier and that the spermicide will be mixed with the foam.





The cap should be removed after shaking. With the can in an upright position the woman should place the applicator on to the nozzle. The plunger is then lifted all the way to the top of the applicator. When she tilts the applicator very slightly or presses it down, the nozzle will start the flow of the spermicide into the applicator. The foam should be allowed to fill the applicator to the ridge.

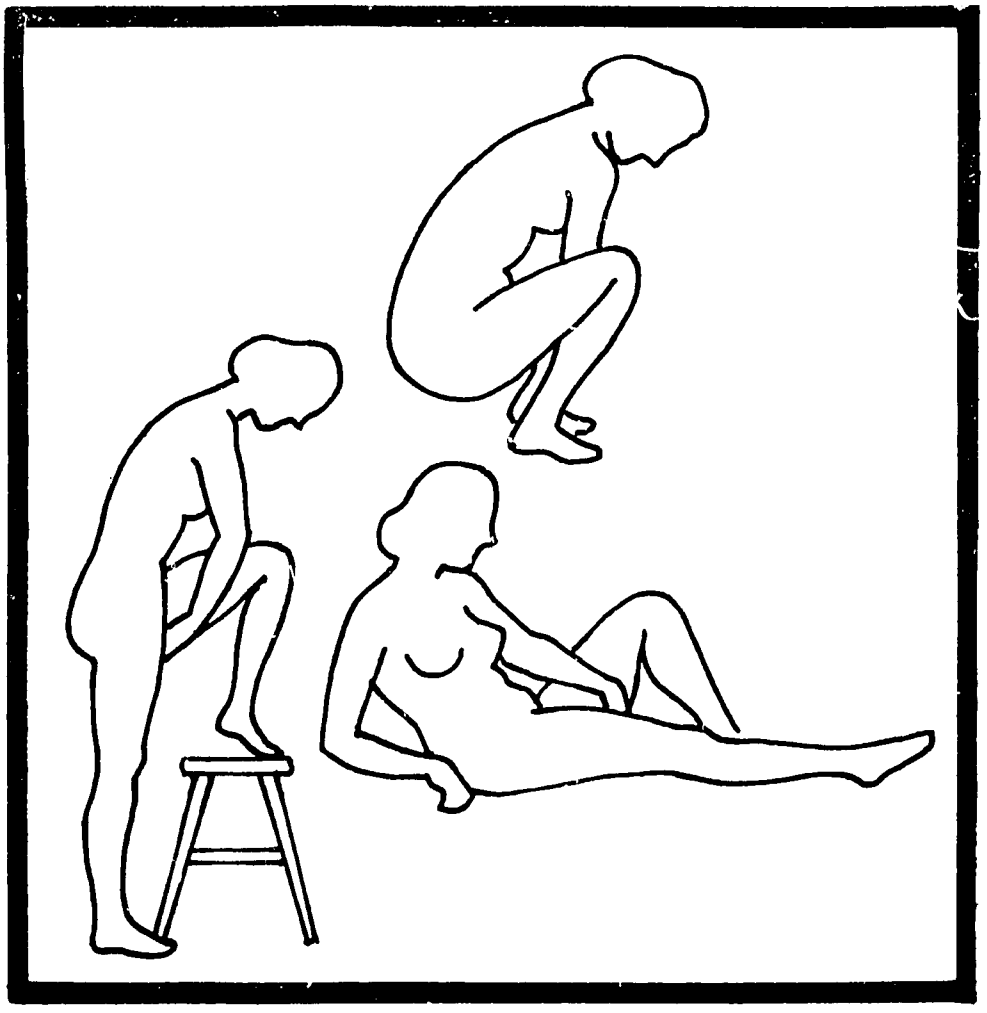
Then the applicator is placed deep into the vagina near the cervix as shown in the diagram. The plunger is pushed back into the applicator to deposit the foam. When the plunger is completely pushed in, the applicator is removed.



Position for Inserting Spermicide

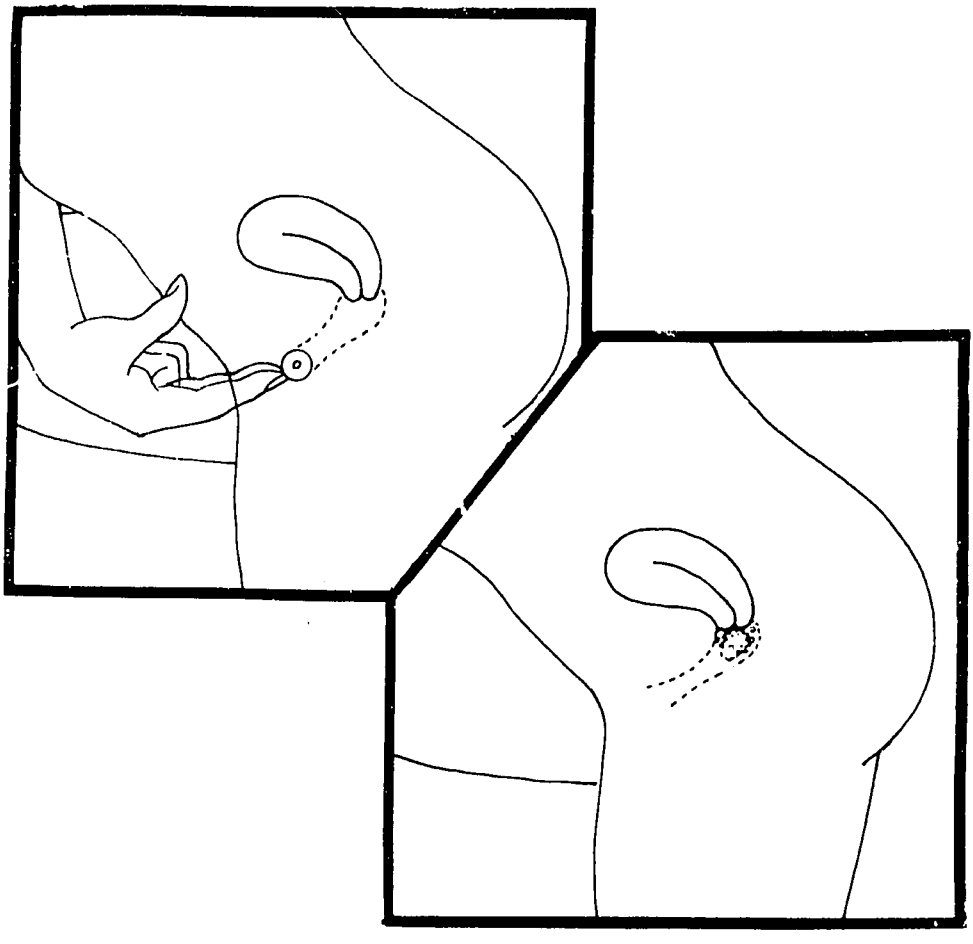
Either the woman or her partner may insert the spermicide from whatever is the most comfortable position—lying down, squatting, or standing up. The woman should not get up and walk around once the spermicide is in place.

Because these methods start to become ineffective within one hour, the woman should try to insert or apply them about 10 to 15 minutes before having sex.



HOW ARE FOAMING TABLETS AND SUPPOSITORIES USED?

Foaming tablets should be put into the vagina about 5 to 10 minutes before sexual intercourse. The moisture in the vagina causes them to dissolve and create a foam. To use them, the woman should lie down and put the tablet as far into the vagina as possible near the cervix (opening to the womb). It takes nearly 10 minutes for the foaming tablet to dissolve completely, so it is important not to start sex too soon after insertion. Some doctors advise moistening the tablet with water before inserting, in order to make certain there is enough moisture for it to dissolve.



A *suppository* does not need moistening. After removing its protecting package or wrapping, it should be put as far as possible into the vagina.

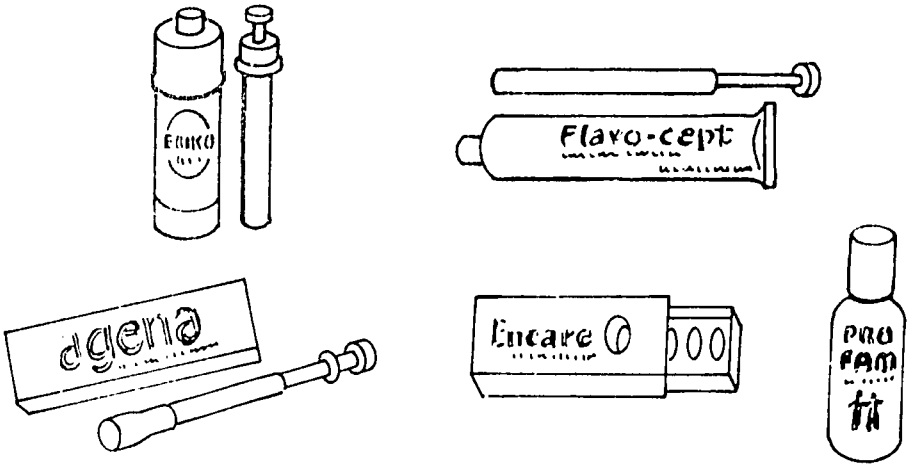
At body temperature, it quickly melts and becomes a contraceptive fluid that surrounds the walls of the vagina. At least five minutes should be allowed before intercourse begins, in order to give the suppository time to melt.

If a second intercourse takes place soon after the first, a second dose of the spermicide should be used.

IMPORTANT TIPS ON USING SPERMICIDES

1. *Be sure to use enough* spermicide. Using more than the recommended amount is better than using less.
2. Keep spare spermicides on hand. With most brands (except foam tablets and suppositories), there is no way of telling when they are about to run out.

Keep Spare Spermicides On Hand



ARE THERE DISADVANTAGES TO THE USE OF SPERMICIDES?

Occasionally, the woman or her partner may be allergic to the spermicides and must use either another brand or another effective method.

Sometimes the chemical causes irritation or a sensation which some couples find unpleasant during or immediately after intercourse. Trying another type or brand of spermicide will usually eliminate the problem.

The spermicide must be applied just before intercourse, which some couples find troublesome.

After intercourse some of the melted spermicide may drain from the vagina, especially if the woman stands or walks. This may make her feel a bit messy for a short while.

If intercourse is repeated, another applicator-full must be inserted beforehand. One application provides protection for only one intercourse.

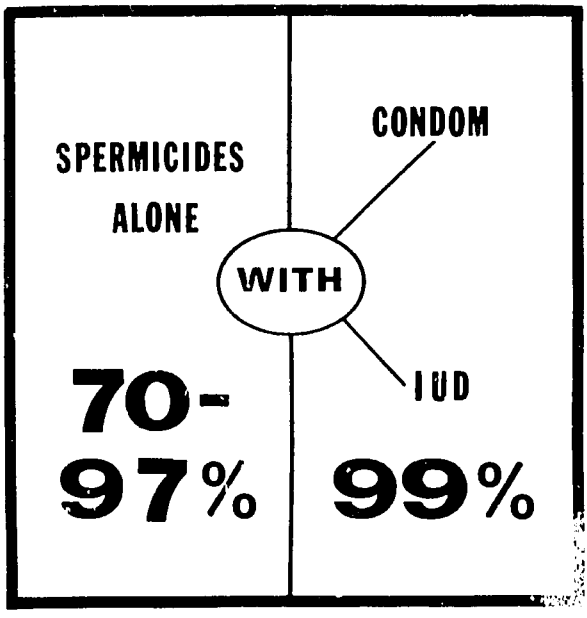
The applicator must be washed with soap and water after each use.

Couples having oral-genital stimulation have noticed that some spermicides may have an unpleasant taste. If there is going to be oral-genital sex the spermicide should be inserted only when actual coitus (sexual intercourse) is about to be performed.

QUESTIONS THAT PEOPLE ASK MOST OFTEN ABOUT SPERMICIDES

Can spermicides be harmful? Spermicides are harmless and safe to use. Sometimes (very infrequently) a particular type of spermicide may cause a slight irritation, itching, or soreness in the woman's vagina, in which case she should switch to another brand or to another method.

Can a woman increase the effectiveness of the spermicide? The effectiveness of all types of spermicides in preventing pregnancy can be greatly increased if the spermicide is used in combination with another method of birth control, such as condoms. In fact, if a condom and a spermicide are used together, the effectiveness can be as high as 97 percent. Using a spermicide in conjunction with an IUD also provides almost 100 percent effectiveness.



EFFECTIVENESS

What are some of the mistakes in the use of spermicides? There are a number, which include:

(a) Not using any
(b) Not using enough
(c) Not shaking foam can long enough
(d) Not allowing the foaming tablet or the suppository enough time to dissolve before starting intercourse
(e) Allowing too much time to elapse between the insertion of the foaming spermicide and the act of intercourse itself
(f) Not realizing that the foam bottle is empty
(g) Failing to have a supply available
(h) Douching right after intercourse.

Should a woman douche after using a spermicide? Douching is not necessary. If a woman wishes to douche it is important to wait at least eight hours after sexual intercourse before using a douche; the spermicide should not be washed out of the vagina during this time.

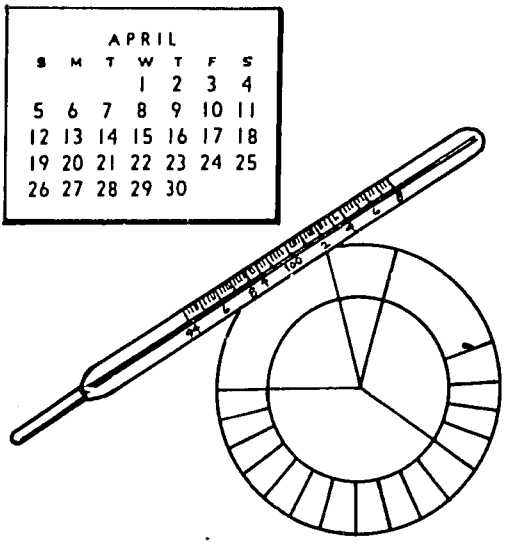
Are spermicides the same as the creams and jellies intended for use with a diaphragm? They are not. It is not advisable to use a preparation designed for use with a diaphragm in any other way.

How popular are spermicides? Estimating the popularity of spermicides in terms of distribution and actual use is difficult. Most spermicides are sold without prescription and are therefore not easily tracked down. However, shipments from international donor agencies suggest that the use of foams, jellies, and creams has been fairly constant worldwide, but the use of foaming tablets appears to be increasing. Studies also indicate that Latin America has the highest proportion of spermicide users in the developing world, with Africa ranking second, and Asia third. Many countries also have community-based distribution programs or social marketing, which are particularly appropriate for spermicides (as are condoms and oral contraceptives). In the developed countries, where spermicides are widely available through commercial outlets, the low usage rate may reflect the availability of other more effective methods and user preferences for them.

Periodic Abstinence

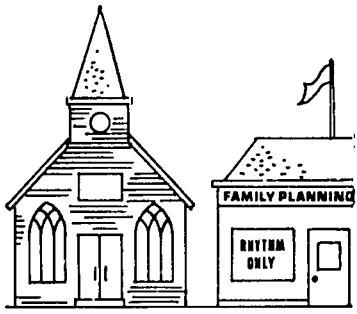
HOW DOES THE PERIODIC ABSTINENCE METHOD WORK?

During the time a woman is menstruating and usually for a day or two after she stops, there is little danger of getting pregnant. Also for a few days before the next monthly period begins, there is little danger of pregnancy. These days during, just after, and just before menstruation are called the "safe days," because a woman is fairly safe from pregnancy during this time.



This method (also called rhythm, "safe period," or natural family planning) is based on a knowledge of the menstrual cycle and the basic process of human reproduction. In order to understand this method fully, the reader should study Chapter IX on the "Physiology of Reproduction" before continuing with this chapter.

The periodic abstinence method is perhaps the simplest of all contraceptive methods, but it is also the most difficult to use effectively because of the complex problems of determining exactly on which days a woman is safe from pregnancy and the problem of complying with long periods of abstinence.



WHY IS THE PERIODIC ABSTINENCE METHOD A GOOD METHOD TO USE?

This is the only acceptable method of birth control to theologians of certain religious groups.

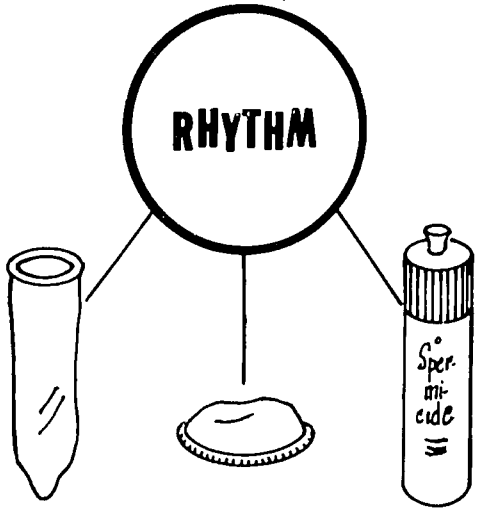
It creates an awareness of the body and its reproductive functions. It is good for a woman to know at all times whether she is in her most fertile days or in her safer days. She can use this knowledge to take extra precautions in using other methods of contraception, like condoms or spermicides, when necessary.

It is considered the best method of contraception for those whose physical or emotional conditions make it difficult or not advisable to use other methods of birth control.

It works best for those couples who are trying to get pregnant.

WHAT ARE THE SPECIAL ADVANTAGES OF THE PERIODIC ABSTINENCE METHOD?

It requires no chemicals or special preparations, and this makes it available under all circumstances.	
It has no medical side effects, no allergic reactions, and no contraindications for either the man or the woman, such as those associated with other methods of contraception.	
It costs very little.	
It does not require a visit to the clinic nor a prescription.	
During the safe period, sex relations can be as spontaneous as possible.	
On fertile days, it can be easily combined with other barrier methods such as the condom, diaphragm, or spermicides. Thus, it can be an arrangement for having sexual intercourse without having to use a contraceptive for about half of all intercourse.	



There are three important assumptions that provide a scientific basis for the periodic abstinence method:

1. A woman normally produces only one egg during each menstrual cycle. This period, called "ovulation," occurs 12 to 16 days before the next menstruation begins. This is also about 12 to 16 days from the first day of the last menstruation, if the woman has a 28-day menstrual cycle.
2. This egg lives for about 24-28 hours. Only during this one day can it be fertilized by the male sperm, resulting in pregnancy. If it is not fertilized, it dies and passes out of the woman's body as menstrual flow.
3. The male sperm is capable of living for only about 48-72 hours after it is released into the vagina. It is only during this two-to-three-day interval that the sperm can fertilize the female egg and cause pregnancy to occur.

The idea behind the periodic abstinence method is to avoid having intercourse on the days when it can lead to pregnancy. According to the above assumptions, there are only three to five days each month when a woman could become pregnant, with the rest of the monthly cycle being a "safe" period. *However, the problem with the periodic abstinence method is determining just when these three to five days will be.* Because of this difficulty, the techniques of the periodic abstinence method suggest that the period when the woman could get pregnant lasts much longer than the three days.

The periodic abstinence method is also based on two physiological facts:

1. Before ovulation, there is normally an increase in the amount and texture of the cervical secretion of the woman as a result of hormonal changes. (See also *Ovulation* in Chapter IX, "Human Reproduction.")
2. Immediately after ovulation, hormonal changes also result in an increase in the total body temperature.

A basic understanding of these facts will help a couple practice periodic abstinence more effectively.

ARE THERE DISADVANTAGES TO THE USE OF THE PERIODIC ABSTINENCE METHOD?

This method restricts the total number of days on which a couple can safely have sexual intercourse unless it is combined with another method on the fertile days.

The periodic abstinence method relies heavily on the regularity of menstrual cycles, which may itself be subject to changes in weather, workload, health, and anxiety.

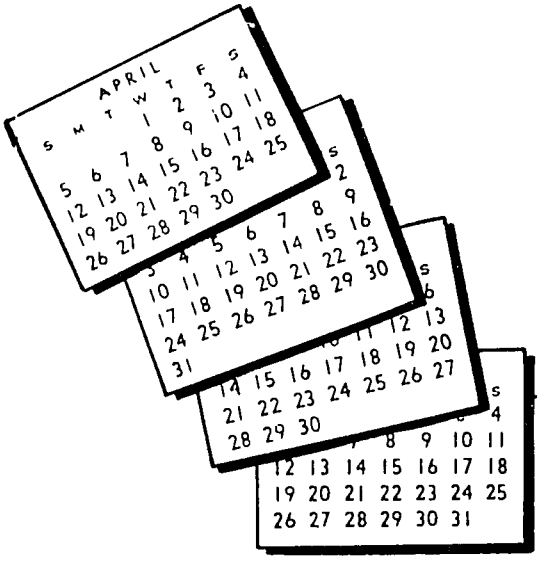
Couples must be strongly committed and motivated to use this method. It takes a great deal of will power and cooperation from both the man and the woman to make this method really work. It can be difficult for a woman to say "no" to her husband on the fertile days, or for a man to avoid asking, or to take "no" for an answer on these days.

In actual practice, many couples break the rules and have sex on the fertile days, with the result that its reliability rate in general public use is lower than for the methods discussed in previous chapters.

The success of this method depends on the accurate prediction of the time when a woman will ovulate (release an egg). This requires daily recording and attention to body signs. At times, body signs may be misinterpreted and mistakes can be made.

WHAT ARE THE WAYS TO DETERMINE THE "SAFE" AND "UNSAFE" DAYS?

There are three basic ways to practice periodic abstinence.



THE CALENDAR METHOD

Using a calendar, a woman should record her menstrual pattern (average number of days in her menstrual cycle) for 8 to 12 months before actually using the rhythm method. Here is how to do this.

The first day of the cycle is the day when the menstruation first starts. The last day of the cycle is the day before the start of the next menstruation. By marking off these days, the woman can obtain the number of days in her cycle every month.

From this pattern, she should note the longest cycle and the shortest cycle. Only then can she use the following formula to calculate her fertile days:

Deduct 18 days from the shortest cycle. Deduct 11 days from the longest cycle.

EXAMPLE

Suppose the shortest cycle consisted of 26 days and the longest of 30 days. Then:

26 - 18 = 8
30 - 11 = 19

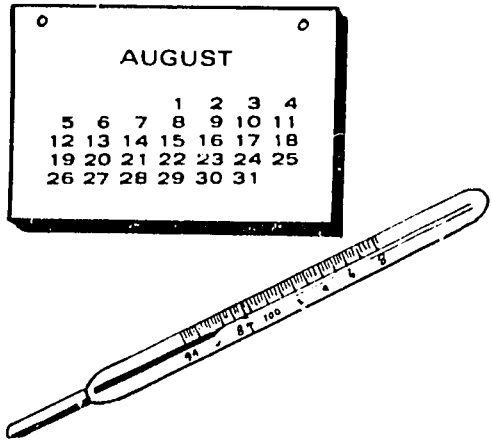
This means that:

* From the first day to the eighth day of a cycle are safe days.
* From the ninth day to the 19th day of a cycle are fertile days.
* From the 20th day to the start of the next menstruation are safe again.

After a record has been kept for a woman to know the length of her longest and shortest cycles, she does not necessarily have to make the above calculations. Instead, she can consult the following standard chart that has been used by doctors as a guide to the rhythm method for many years.

HOW TO FIGURE "UNSAFE" DAYS FOR INTERCOURSE

Length of shortest cycle	*First unsafe day after start of any period*	*Length of longest cycle*	*Last unsafe day after start of any period*
21 days	3rd day	21 days	10th day
22 days	4th day	22 days	11th day
23 days	5th day	23 days	12th day
24 days	6th day	24 days	13th day
25 days	7th day	25 days	14th day
26 days	8th day	26 days	15th day
27 days	9th day	27 days	16th day
28 days	10th day	28 days	17th day
29 days	11th day	29 days	18th day
30 days	12th day	30 days	19th day
31 days	13th day	31 days	20th day
32 days	14th day	32 days	21st day
33 days	15th day	33 days	22nd day
34 days	16th day	34 days	23rd day
35 days	17th day	35 days	24th day
36 days	18th day	36 days	25th day
37 days	19th day	37 days	26th day
38 days	20th day	38 days	27th day



THE BASAL BODY TEMPERATURE (BBT) METHOD

The calendar method can be refined by using a special thermometer to help learn more exactly during each month when ovulation has occurred and when the woman, therefore, has become fertile. As a result of hormonal activity at the time of ovulation, the release of the egg coincides with a slight rise in a woman's temperature. The temperature change is noticeable only with a "basal body" thermometer, which can accurately read tenths of a degree. To plot the changes, a woman needs to take her temperature every morning before getting out of bed. The thermometer may be used orally or rectally. Oral is easier, but rectal is more accurate. Whichever is chosen must be used consistently. Any kind of activity (going to the bathroom, eating something, or even just raising the voice) can affect the reading, so one must see to it that the reading is done before anything else in the morning.

The temperature remains fairly consistent during the first set of "safe days" of the monthly cycle and (assuming the woman remains physically healthy) then registers a small sudden rise of about 0.3°C (0.54°F). This rise indicates the release of an egg from one of the ovaries. This release occurs sometime during the middle of the cycle. The woman is fertile at this point. The increased temperature continues until just before the start of the next menstruation, when the temperature drops to its normal level of about 37°C (98.6°F).

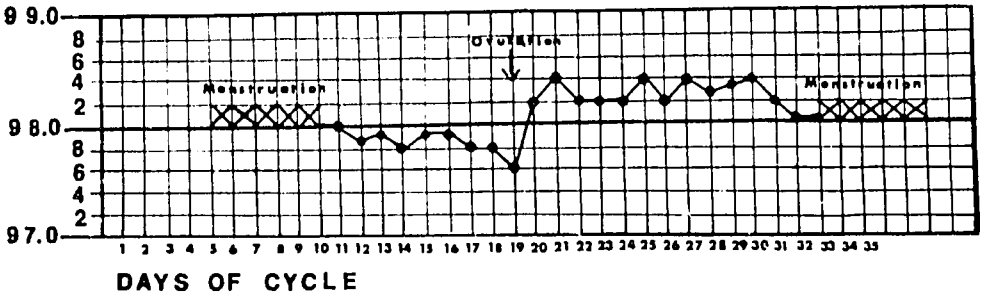
It is safe to conclude that, after three days of continued high rise of temperature, the egg must have disintegrated and the woman is no longer fertile. She may have intercourse from this day until the onset of her next menstruation. The temperature records, if kept for several months, can be very useful in determining a more accurate schedule of safe and unsafe days.

The BBT method depends on how accurately the temperature is taken and recorded. For highest effectiveness, intercourse must be limited to the after-ovulation phase of the menstruation cycle.

Using a temperature chart like the example shown below, one can see that the unsafe (fertile) period is from the fifth day following the start of the menstrual period until the temperature has peaked and dropped back to normal range.

To have the best chance of working, a combined approach to the periodic abstinence method using both calendar and thermometer is advisable. The calendar method is useful in calculating the start of the period as well as its length, and the thermometer method can assist in determining when to abstain from or resume sexual relations.

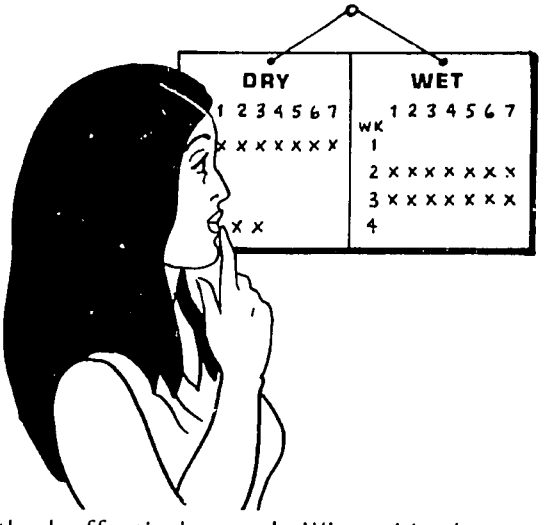
TEMPERATURE CHART



MUCUS (OR BILLINGS) METHOD

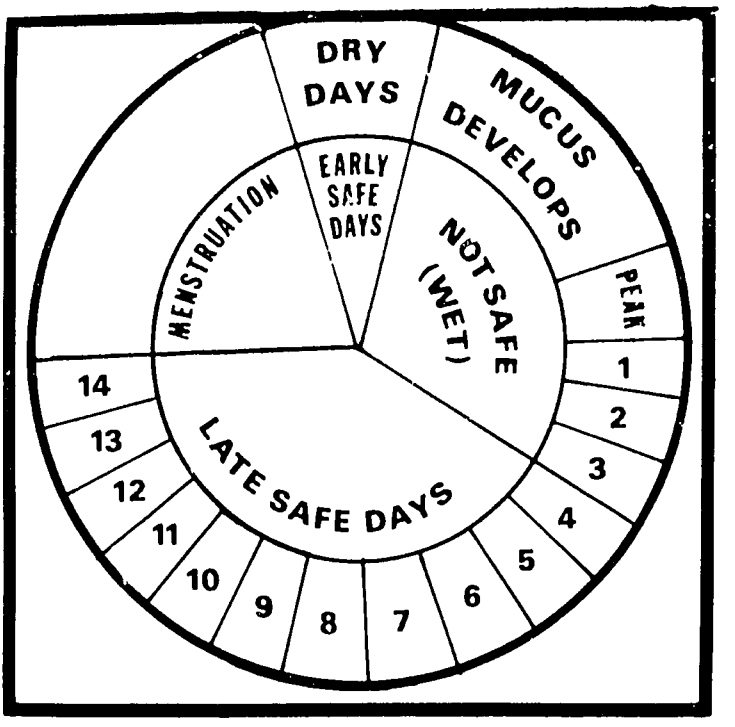
With this method, a woman is supposed to be able to tell whether she is fertile or not by observing the amount and consistency of mucus that flows out of her cervix and the corresponding wetness or dryness of her genitals.

If her genitals are more wet with mucus than most of the time, this means that her ovulation period is near, and she should abstain from sexual relations. If she feels comparative dryness around the genital area (less mucus than usual), she is in her safe period.

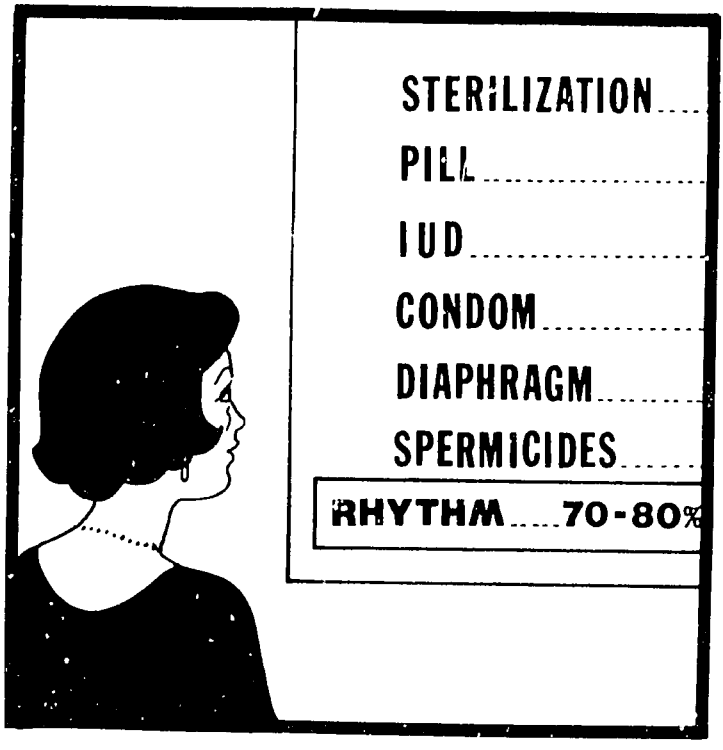


To use this method effectively, a woman must be familiar with her own vaginal discharge patterns. After menstruation and before ovulation, there is comparatively little vaginal discharge, and that which does occur is white, cloudy, or yellowish in color, and thick and sticky. A few days before ovulation, the volume of discharge increases and the discharge becomes clear and slippery, much like raw egg white. When this change occurs, the woman should avoid intercourse or use another method of birth control throughout the first half of her cycle, or at least until she notices increasing discharge and until four days after her peak day of slippery discharge. Some women use a calendar to record mucus changes so that they can compare patterns from cycle to cycle.

Following is a diagram for plotting safe and unsafe days with this method.



Medical experts are continually experimenting on the techniques of the periodic abstinence method in order to predict the ovulation period accurately. Because careful and thorough instruction is essential for the successful use of these techniques, interested couples are advised to get more information from the nearest health center before attempting to use them.



HOW RELIABLE IS THE PERIODIC ABSTINENCE METHOD?

If periods are regular and the couple is very careful, the periodic abstinence method can be 70 to 80 percent effective. This is a considerably lower reliability rating than the other methods. When used carelessly, this reliability can be even lower.

Knowing that fertile days are usually in the middle of the cycle (averaging 14 days before menstruation among typical women), it can be said that the longer a woman abstains during the middle of the month and the more precisely she pinpoints ovulation, the better rhythm works.

For most women, the danger of getting pregnant is least during the three or four days just after menstruation and during the week just before menstruation takes place.

WHO CAN USE THE PERIODIC ABSTINENCE METHOD?

Not every woman can use this method. Approximately 15 percent of women menstruate too irregularly to use it at all. It is generally reliable only for women between the ages of 20 to 40.

This method is also not recommended for any woman during the first few months after childbirth. It is usually considered unsafe to apply it until after the third menstrual period following delivery.

Some women seem to have relatively stronger sexual feelings near midcycle or about the time of ovulation; periodic abstinence is likely to be an unreliable method for them.

QUESTIONS THAT PEOPLE ASK MOST OFTEN ABOUT THE PERIODIC ABSTINENCE METHOD

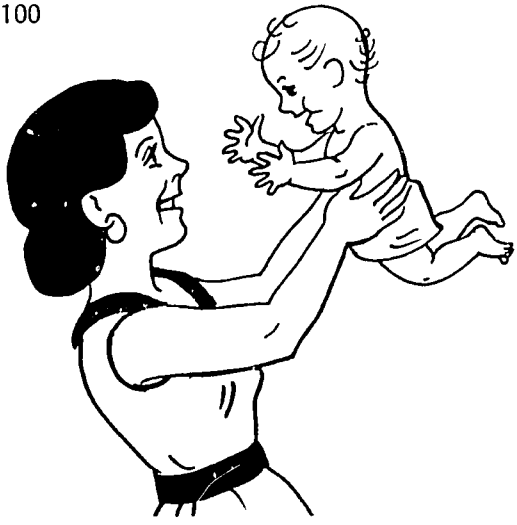
Is it dangerous to have intercourse during the menstrual period? No. Although some couples refrain because they find it less pleasant and a bit messy, having sex during the menstrual period is almost certain not to result in pregnancy and it does not interfere with the menstruation process. In some cultures, it is taboo to have sex with a woman who is menstruating; however, menstrual blood is not unsanitary. If a woman's flow is light and she has no cramps, she may enjoy sex especially during the last days of her period, in part because of the complete absence of the fear of pregnancy.

Do Catholics use the periodic abstinence method only? Many do. But surveys have shown that many Catholics do use other methods of contraception. Nonetheless, there are those who strictly follow the Church-approved method. On the other hand, many couples who are not Roman Catholics use the periodic abstinence method because they have no other method or they want to get relief from having to use an appliance.

If the periodic abstinence method has such a high failure rate, why do many people still choose to use it? Observant Catholics use it. Also, many young people who are too embarrassed about sexual activity to make advance plans feel they have little choice but to fall back on periodic abstinence. This method is considerably better than no method at all. If use of the periodic abstinence method results in as many as 35 pregnancies per 100 women, remember that no protection can result in as many as 80-90 pregnancies per 100 women each year.

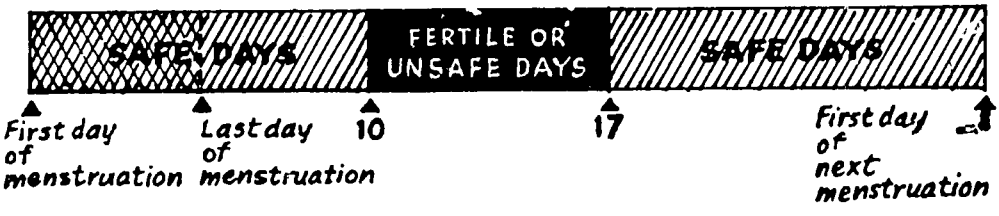
Does the periodic abstinence method encourage a husband to "fool around" with other women during the fertile or unsafe days? No. If both husband and wife agree beforehand to use the periodic abstinence method and together plan to have sex only during the safe days, there should be no problem. This is the reason why periodic abstinence is strongly advised for couples who have the will power to observe "safe" and "unsafe" days.

Is it true that if a woman holds back her feelings so that she does not reach a sexual climax, she will not get pregnant? No. This is completely untrue. She will get pregnant anyway.



Can a woman get pregnant while breastfeeding? As long as the woman is exclusively breastfeeding her baby, she generally does not ovulate and therefore does not get pregnant. However, some women are able to get pregnant again within 4 to 6 weeks after a baby is born, even while they are still nursing the baby. Although breastfeeding does tend to delay the return of ovulation, it is much too variable and unreliable to be used as a method of contraception. A woman can get pregnant after childbirth even though she has not had a monthly period since the child was born. It is very important that the couple begin to practice contraception as soon as the first month after childbirth, or abstain from any sexual intercourse until after the woman's menstrual period returns.

When exactly is the safe period? There is no definite way to determine the safe period yet. There is one idea to remember though: *the fertile days are in mid-cycle.* Usually this occurs around 14 to 16 days before the next monthly cycle begins. Assuming a woman has a regular 28-day cycle, her safe days are as follows:



This period varies in length from woman to woman and even from month to month in the same woman. The best way to find out the safe period is to use a combination of the methods (i.e., calendar, thermometer, mucus) discussed earlier in this chapter.

Female Sterilization

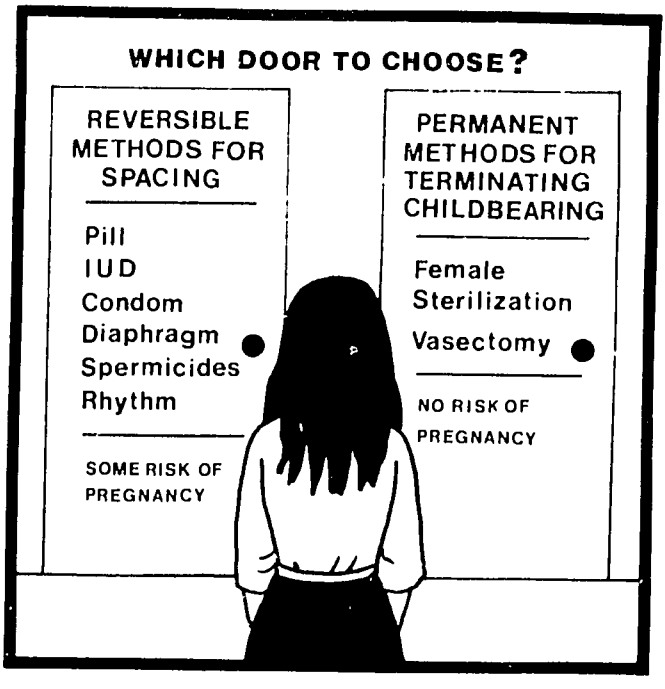
WHAT IS FEMALE STERILIZATION?

Female sterilization is a simple surgical procedure which a woman chooses to have done, after which she cannot become pregnant.

This procedure consists of tying or sealing the two tubes that carry ova (human eggs) from the place where they are released (woman's ovaries) to her uterus (womb).

By blocking the passage of the egg from the ovaries to the uterus, the woman can no longer become pregnant.

This procedure should be regarded as a permanent form of birth control and not reversible. It should be performed only when the woman is absolutely sure she does not want any more babies.



WHY IS FEMALE STERILIZATION A GOOD METHOD?

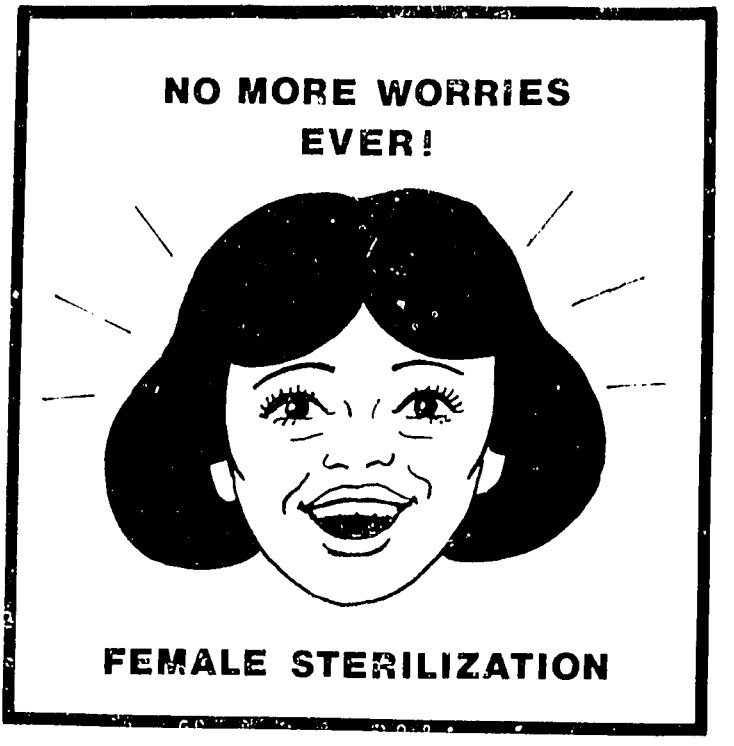
The procedure is the most reliable and effective way to prevent pregnancy. Once it is performed, the chance of pregnancy practically disappears completely.

It has no other effects upon the woman's body. It can be performed on almost any woman of reproductive age, no matter what other illnesses or health problems she may have, unlike the pill and the IUD, which cannot be used by women with certain health problems.

The procedure is simple and easily performed. It is quite safe, and is accompanied by only moderate and temporary discomfort for most women.

It is not an expensive operation.

It can be performed anytime during the reproductive age. Many women find it convenient to have this operation performed in connection with childbirth. When a woman delivers the last child she wants to have, she can have the operation immediately after the baby is born. During her rest after childbirth, she will also be healing from the operation. Other women prefer to wait until their infant is older before they decide to get sterilized.



WHAT ARE THE SPECIAL ADVANTAGES OF FEMALE STERILIZATION?

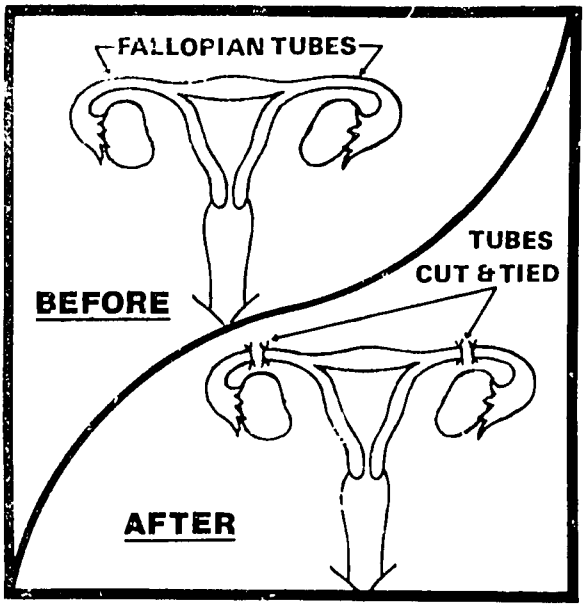
Sterilization does not interfere with sexual enjoyment for either the woman or the man.

There is nothing to do or to remember. The operation makes it unnecessary to take a pill every day, to wear an IUD, to use a condom for each sexual relation, or to do anything else about family planning.

Because the fear of pregnancy is gone, a woman and her partner are able to get increased enjoyment from sexual relations. This may make them more relaxed since the woman is no longer worrying about the possibility of conceiving another child.

HOW DOES STERILIZATION WORK?

When a woman is fertile, once each month her body produces an ovum (human egg). The egg is produced in the ovaries (see Figure 9.2, page 128). When an egg is released, it is through the Fallopian tubes one on each side of the body. The sterilization operation consists of cutting or tying or blocking the two Fallopian tubes.



After the operation, the woman will produce an egg once each month, exactly as before. But because each tube has been closed, the egg is unable to reach the uterus and the male sperm cannot meet it to fertilize it. The egg shortly dissolves and is absorbed by the body.

The reproductive system of the woman functions exactly as before the operation. She experiences sex feelings just as strongly.

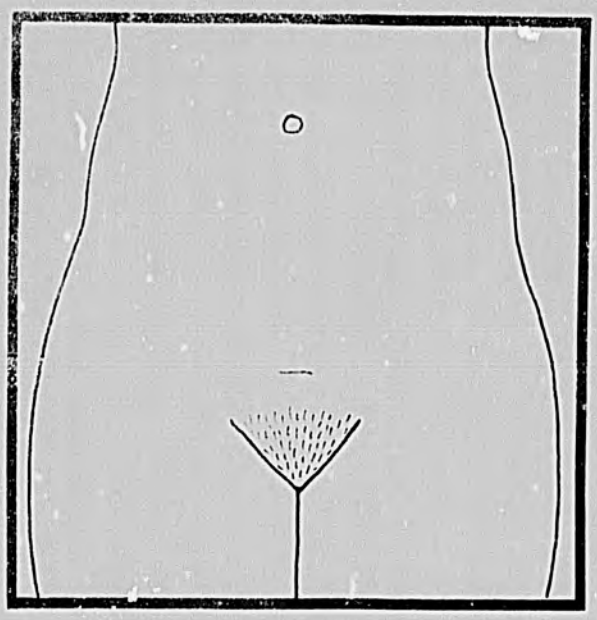
The ovaries and the uterus remain unchanged. The woman's body continues to produce the female sex hormones that give her female characteristics and that keep her every bit as feminine and womanly as before the operation.

After the operation the woman continues to menstruate every month as before.

HOW IS THE STERILIZATION OPERATION PERFORMED?

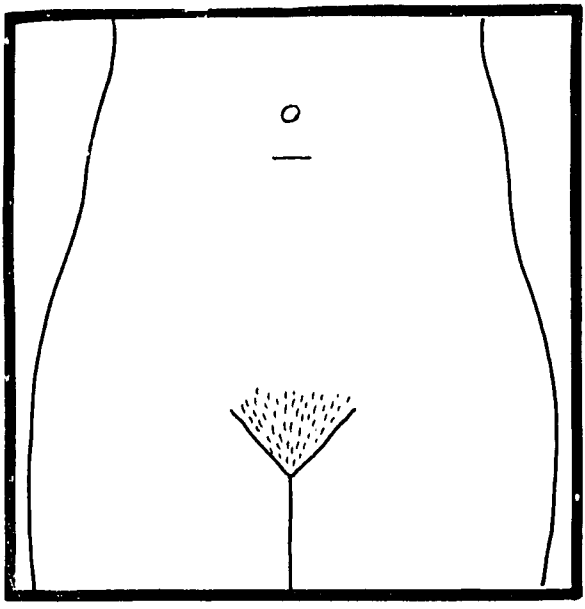
Doctors have discovered new and simple ways to do the sterilization operation. One is called mini-laparotomy and another is called laparoscopy.

Tubal ligation by mini-laparotomy is an operation through a small cut (opening) in the lower abdomen in which the Fallopian tubes usually are cut and tied to block the passage of the egg from the ovaries. This prevents the sperm cells released during the sexual intercourse from fertilizing the ovum. Thus, pregnancy does not result.



The few minutes' operation is performed in an operating room under local or general anesthesia since it requires a small incision in the abdomen. The patient stays in the and rests at home afterwards. She may feel some minor discomfort for two to three days. After a week, she can resume work and also sexual relations with her husband.

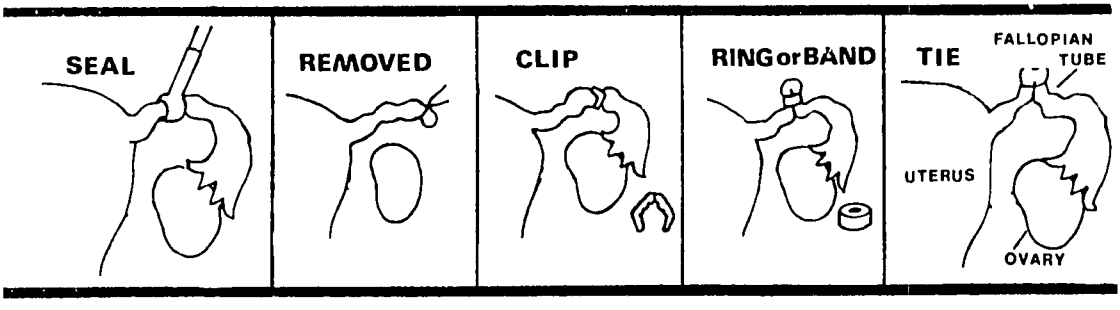
When performed in conjunction with childbirth, laparotomy consists of two incisions in the abdomen directly over the Fallopian tubes.



Another type of sterilization operation is laparoscopy, in which the Fallopian tubes are not cut and tied, but are sealed off by an electric current in a process called cauterization or are closed with a clip or a special band. The method involves the use of a laparoscope, a long, thin tube inserted into a small incision near the navel. Through this instrument, the doctor can see what is happening internally. He then makes a second incision below the navel through which he inserts special forceps. These forceps, which carry an electric current, are then used to cauterize the Fallopian tubes. Other special small instruments permit the placement of clips or bands. Sometimes the end of the tubes closest to the ovary is simply removed.

In the majority of cases, tubal ligation is done on an outpatient basis, and some people have in fact called it "the Band-Aid operation."

Although laparotomy and laparoscopy are the most common types of sterilization, there are other types done through the vagina.



HOW SHOULD A WOMAN DECIDE WHETHER TO HAVE THE STERILIZATION OPERATION?

The decision to have the sterilization operation should be completely voluntary. The woman should have it performed after having considered that sterilization is an irreversible procedure. She should not allow herself to be pressured or forced into it by anyone--her husband, a family planning worker, a doctor, or anyone else.

She should make sure that both she and her husband definitely do not want any more children.

She should talk it over with her spouse. He should know her thoughts and should express his, even though the final decision should be hers.

A number of things should be considered before a woman decides on having a sterilization operation. She should:

(a) Count the number of years that will pass before menopause arrives. Often young women with 3-4 children still have 10-15 years of exposure to pregnancy.
(b) Consider how satisfied she is with the method of family planning she and her partner have been using.
(c) Consider the possibility of an accidental pregnancy during the years ahead, if she used another method of family planning, and the inconvenience of an unwanted pregnancy.
(d) Consider the disappointment she and her spouse might feel if they decided they desired another baby after all, and would be unable to have one.

Sterilization operations are offered only at clinics equipped to perform them. A physician, nurse, or family planning worker can provide information about the nearest reliable clinic to a woman's residence and about the costs of the operation.

At the clinic, she will have a chance to talk to a counselor or advisor on family planning who can give her more information about the operation. She may meet the doctor who will do the surgery.

If she decides to have the operation, the woman should make an appointment and then make preparations to rest for a few days afterwards.

WHAT IS THE HUSBAND'S PART IN FEMALE STERILIZATION?

At first thought, it may seem that having the sterilization operation is completely a woman's decision, since she has the right to control her own body. This is not the best way to look at sterilization. The decision to get sterilized should be a joint decision between the husband and wife.

The operation is not easily reversible; that is, if the woman gets sterilized, she should be certain that she does not want any more children. The couple should talk it over together to make sure they both agree that they do not want to have any more children.

There are old-fashioned rumors about sterilization. Men sometimes believe the rumors that sterilization would somehow make women less feminine, less responsive during sex relations or that it would affect their health. It is just as important for the husband as for the wife to understand that these rumors are completely false.

They should both have confidence in the operation.

It is possible that the couple may decide that it would be simpler and easier for the man to have the vasectomy operation.

QUESTIONS THAT PEOPLE ASK MOST OFTEN ABOUT FEMALE STERILIZATION

What medical complications can arise from female sterilization? Any surgery that is not performed under hygienic conditions can result in infection. If the woman has an operation at a reputable clinic, with a qualified doctor, the risk of infection should be nearly zero. If an infection does develop (inflammation, swelling, pain, discharge from the incision), the woman should go to the doctor immediately and have it treated. More serious complications are extremely rare.

Consult a doctor if these complications develop:

- **PAIN (severe or prolonged)**
- **INFLAMMATION**
- **SWELLING**
- **DISCHARGE FROM INCISION**
- **LATE MENSTRUATION**

Can the sterilization operation fail? Yes. In rare cases, when the tubes have been shut off poorly, or when they grow back together and reopen the canal, the woman can become fertile again. This happens so rarely that it need not be considered seriously.

How many women get the sterilization operation? This operation has been popular with women all over the world because it is a permanent way of getting rid of the fear of pregnancy. It is very common in all parts of the world. In Asia, Africa, and Latin America, it is reported that there are more women asking for sterilization than there are doctors and facilities to perform them. In the United States, nearly 20 percent of women over age 35 have been sterilized for family planning reasons. The percentage in most European countries is nearly as high.

Is female sterilization increasing in popularity? Yes, and rapidly. The newer and simpler methods are making it possible to do female sterilizations safely in small clinics and in doctors' offices. These facilities are rapidly appearing in developing countries in Asia, Africa, and Latin America, as well as in the industrialized countries. Previously it could be done only in hospitals with complete surgical facilities. It is now the most commonly used method of birth control in the world--even more than all the women on pills.

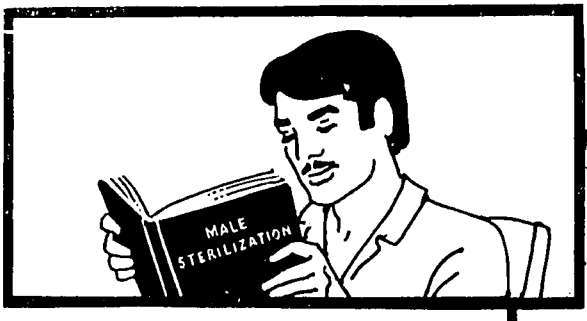
Is the woman sterile right after the operation? Yes. Unless the woman was already pregnant when she came in for the operation, she will not be able to get pregnant. (This is different from the sterilization operation for men. Men can be fertile for several weeks after a vasectomy.)

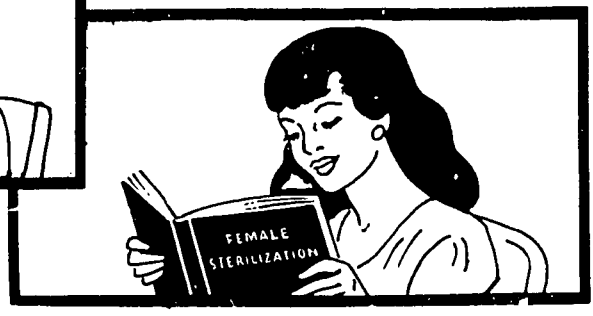
How many days after the operation can the woman start having sexual relations again? Most doctors will ask a couple to wait about a week to allow the healing to be completed before they have sexual relations again. However, if the woman delivered a baby and had the operation at the same time, the waiting period will be longer.

Why are doctors confident that there is no long-term ill effect from female sterilization? Surgeons have been performing this type of operation for more than 50 years and have studied the lack of adverse effects on millions of women. Nothing is removed from the body. No significant long- or short-term biological adverse side effects of female sterilization have been demonstrated in practice or contemplated in theory. Once the woman has recovered from the operation, it can be said with considerable confidence that the operation is essentially without biological side effects.

Is it possible to sterilize a woman or girl without her knowing it such as by giving her special medicine, an injection, or a pill? No This is only a rumor. The only way a doctor can sterilize a woman is by interrupting the passage of the human egg through the Fallopian tubes. This process requires an operation in a clinic or a hospital.

Which is easier and has less risk of infection, female sterilization or male sterilization? Male sterilization is a simpler operation, with less risk of infection or complications and has a shorter recovery time. Although both operations are safe and offer very little danger of complications, the male operation is somewhat more safe.





If male sterilization is easier, why should women get sterilized? If all human beings were completely rational, there would be more male sterilization than female sterilization. But most often, men dominate in family decision-making. Although female sterilization is an old and established medical practice, male sterilization is something new in many countries. Many men have a negative emotional reaction to the thought of vasectomy, perhaps because they do not understand that it does not affect their sex life. On the other hand, some women are often more comfortable with making the decision that they will have no more children, whatever changes might occur in their lives. Under these circumstances, the woman may decide that the long-run emotional adjustment of the couple would be promoted if she undergoes the operation instead of trying to insist that her husband have it.

If a woman gets sterilized and then wants to have another baby, can a doctor perform another operation and make her fertile again? Yes, it has been done with considerable success. But the operation is much more complicated and expensive than the sterilization operation. It can be done only by a skilled surgeon working with modern equipment. Depending on the method used to close the tubes, there may be up to a 50-percent chance of restoring fertility. However, it should be emphasized that this is a major operation which should be resorted to only in very unusual situations.

Chapter VIII

Male Sterilization

WHAT IS VASECTOMY (MALE STERILIZATION)?

Vasectomy is a permanent male method of preventing pregnancy. It is a surgical procedure which a man chooses to have done that prevents his sperm (male seeds which cause pregnancy) from getting mixed with his seminal fluid when he comes to climax during sex relations.

After this operation the man still has the same sexual drives as before. He comes to a sex climax just as strongly as before. He ejaculates the same amount of fluid from his penis as before, but this fluid contains no sperm which can cause pregnancy.

Because it is essentially not reversible, this is a method which mature men use after they have had all the children they will ever want to father.

This is a very popular method of contraception among men in Europe and North America and in some countries of Asia. It is growing rapidly all over the world. Each year there are more than one million vasectomy operations performed in the United States alone.

ALMOST

100%

THE WORLD'S
MOST RELIABLE
MALE METHOD
IS

VASECTOMY

YOUR FAMILY
PLANNING CLINIC

WHY IS VASECTOMY A GOOD METHOD TO USE?

It is almost 100 percent effective. It is the only totally effective male contraceptive method known today. Once it is performed, the man never needs to worry again about causing pregnancy or having more children to support.

The incision that is made is very small and shallow; it heals quickly.

The man can do light work the next day after the operation, and within a week he can return to any type of activity or work.

HOW MUCH DISCOMFORT IS THERE AND HOW LONG WILL IT LAST?

Since the vas deferens tubes are just below the surface of the skin, only a tiny and shallow incision is required. No muscle tissue is cut. The local anesthetic keeps the patient from feeling any sharp pain. Any pain or discomfort felt will be minor and will end within 2 or 3 days as healing takes place.

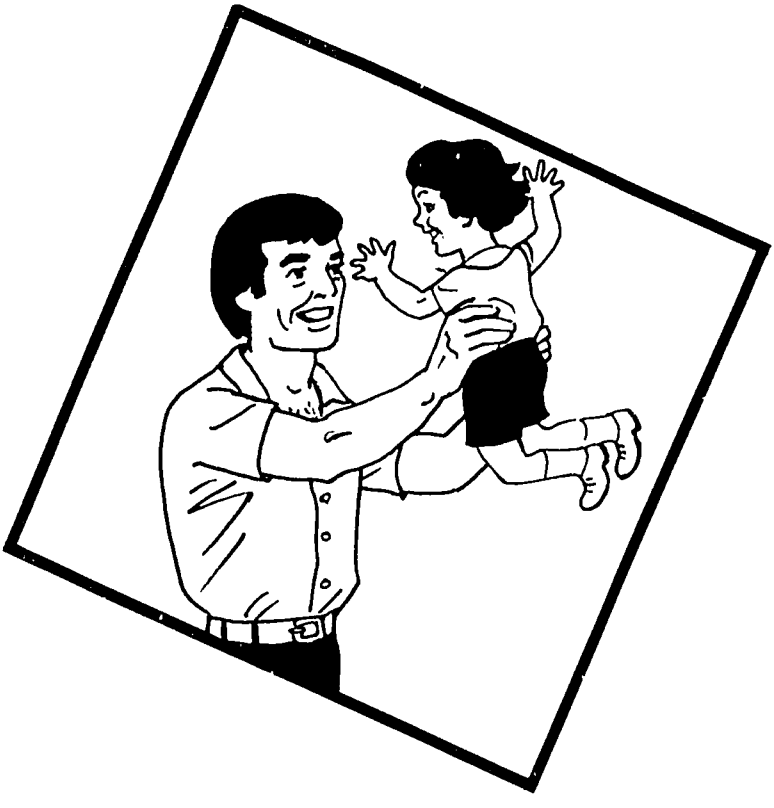
It is a simple and safe operation. The chances of having serious complications are slight. It is simpler and safer than female sterilization. Like all surgery, it must be performed under very hygienic conditions.

It does not produce any strong side effects. Once the healing is completed, there are no symptoms to cause worry or concern about health.

WHAT ARE THE SPECIAL ADVANTAGES OF A VASECTOMY?

It reduces worries about pregnancy and family planning which the man may have. He need not be concerned about unplanned children. Neither he nor his partner needs to worry about the problems which other methods can cause. It gives him security about the future, which is very important to family men.

It is a good method for the man who wants to be completely responsible for planning his family.



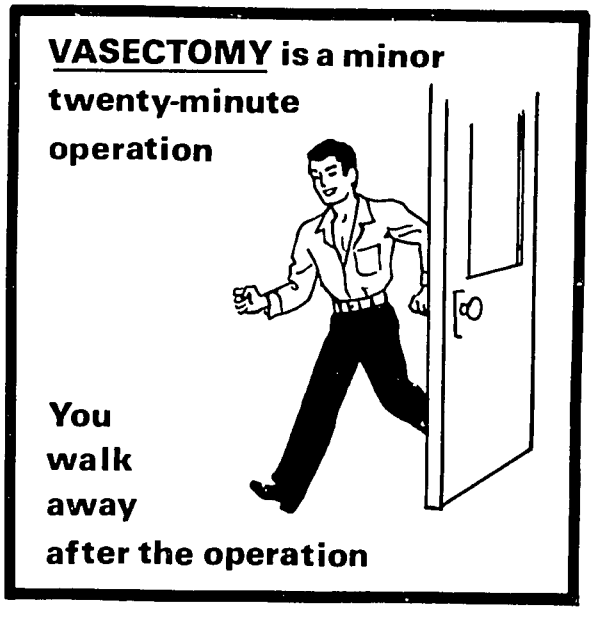
It does not affect a man's health or strength or masculinity in any way.

Sex is natural and uninhibited. There is nothing to use or do at the time of having sex to interfere with sex pleasure.

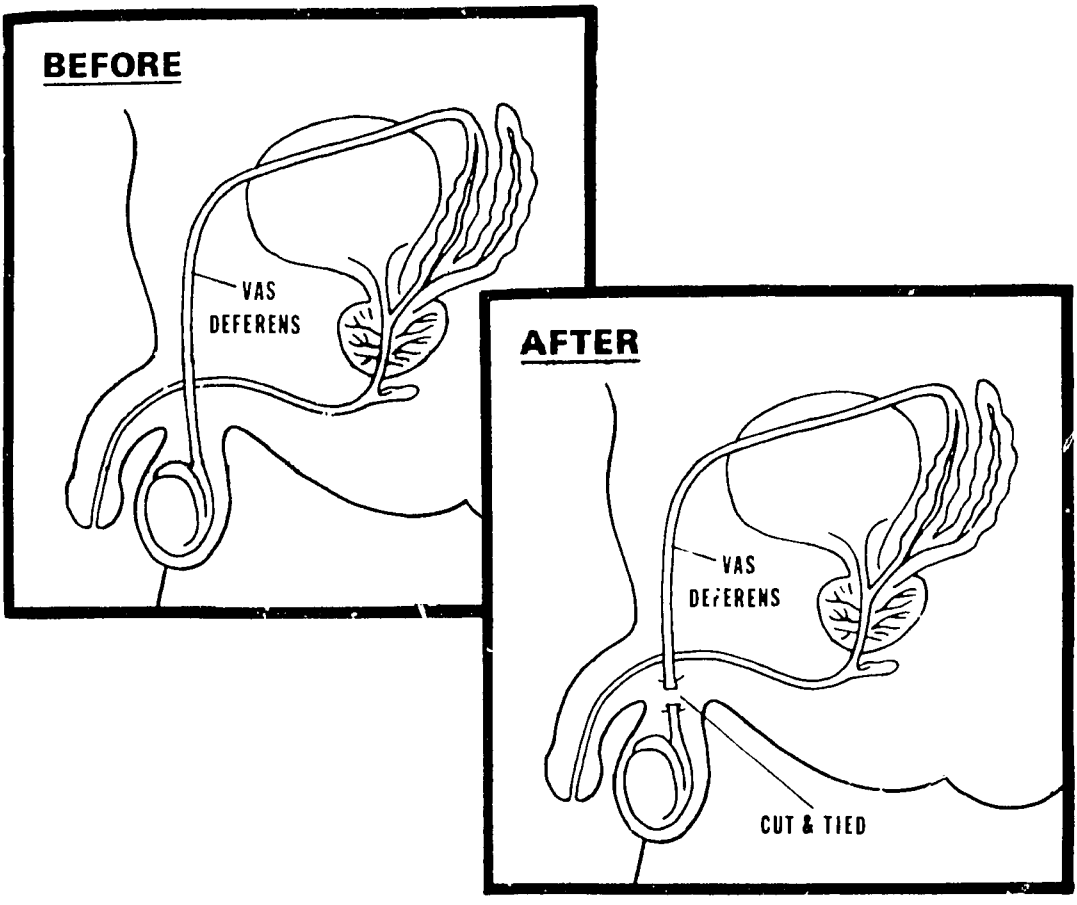
HOW IS THE VASECTOMY OPERATION PERFORMED?

The operation is a minor surgical procedure and is done under local anesthesia in a clinic or in a doctor's office. It only takes about 20 minutes. The man may go home shortly after it is done.

A local anesthetic is given in order to keep the man from feeling pain during the procedure.



The doctor makes a small incision in each side of the upper part of the scrotum (the skin sack that holds the testicles and tubes—the vas deferens—leading from the testicles to the penis or male organ).



The doctor locates one of the tubes and cuts it. The ends of the tube are tied shut. He repeats the operation on the tube on the other side.

During the first day or two after the operation, a few men report that they have a small ache in the testicles. A few others report a little pain at the time of the first sex climax after the operation. All these symptoms are temporary and will disappear when the healing process, internal and external, is completed.

Very infrequently, complications may occur. Tenderness, discoloration of skin, slight oozing or bleeding, or a bruise caused by bleeding usually clears up in a short time. Very rare persistent swelling, infection, or other complications should cause the man to consult his doctor. These problems respond readily to treatment.

The sterilization of a man is simple, quick, less expensive than other methods, and almost completely without discomfort or pain.

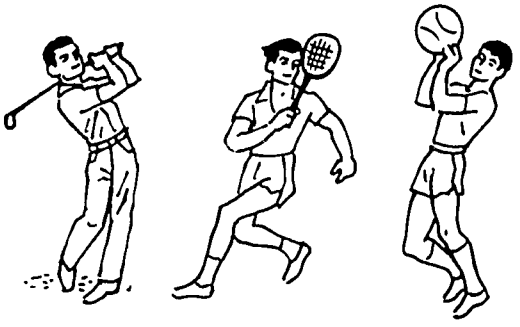
HOW DOES A VASECTOMY AFFECT SEX LIFE?

A vasectomy does not interfere in any way with a man's desire for, ability to perform, or enjoyment of the sex act. The vasectomy operation does not affect a man's penis or his testicles. He continues as usual to produce and release the same amount of sex fluid at his climax.

A vasectomy performed on a healthy, psychologically well-adjusted man does not affect his capacity for erection or ejaculation of seminal fluid.

Some men who do not understand the nature of the vasectomy operation have unfounded fears that it might weaken their sex powers. If a man who has had a vasectomy believes this rumor and worries about it, he can make his own fears come true by being anxious during sexual relations. For this reason, the man should be fully informed of the facts and fully convinced that the operation will not affect his sex life in any way.

VASECTOMY
saves
MANLINESS



For an interesting life

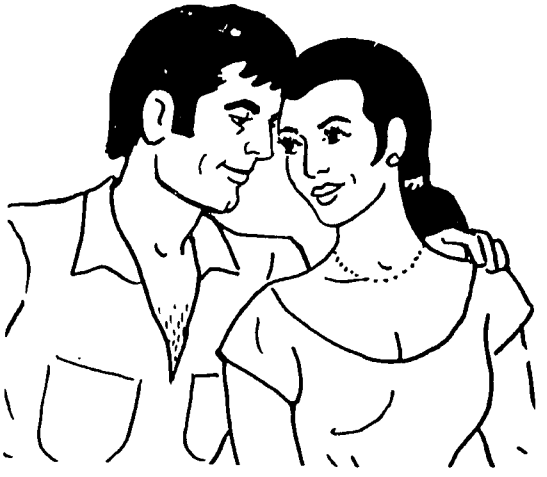
As a man grows older, there is a natural, though very gradual, decrease in his sex drive. A vasectomy cannot stop this from happening, but it certainly does not speed it up The few men who think that a vasectomy has caused them to have less sex drive than they used to have are probably forgetting that they are a few years older. Some vasectomized men report increased sex drive. This also is only another psychological side effect.

HOW DOES A VASECTOMY AFFECT HEALTH?

There is no medical reason for a vasectomy to affect a man's health. All of his male glands are present and functioning normally, and everything is the same as before except for the closing of the sperm tube. Medical examinations of vasectomized men several months or years after the operation have revealed no adverse effects. Research is continuing to determine if there are any long-term effects. As of now, there is no medical reason for a man to believe that a vasectomy will affect his health.

WHAT IS THE WIFE'S PART IN A VASECTOMY?

Having a vasectomy is not a man's decision alone. It should be a joint decision of the man and his wife. This is the right way to look at a vasectomy for two reasons.



First, since a vasectomy is not often reversible, it means that the wife can never have any more children with him. The man should therefore talk it over with her to make sure she agrees that they really have had all the children they ever will want, and that she will never regret his having had the operation.

Second, a lot of misconceptions about male sterilization are still in some women's minds. The wife may believe some of these rumors. Because she may not understand what is involved, she may be afraid for her partner's health, his potency, and so forth. It is just as important for the wife to understand the nature of the operation and to have confidence in it as it is for the husband.

QUESTIONS THAT PEOPLE ASK MOST OFTEN ABOUT THE VASECTOMY

Is the vasectomy increasing in popularity? Yes. Vasectomy is growing rapidly in popularity. Each year more men are having vasectomies than ever before. Vasectomies are now being offered in family planning clinics in Latin America, Asia, Africa, and Europe. As word of the ease, safety, and convenience of vasectomy has spread, more and more men are asking for it. It is quite possible that within another ten or fifteen years, either male or female sterilization will be the leading method of birth control among couples where the desired family size has been attained.

If a man goes to a family planning center to get more information or to ask questions about a vasectomy, will they pressure him into having the operation right away? Definitely not. Having a vasectomy is an important decision that should not be made hastily. The family planning people will give a man whatever information he needs, but will not ask him to have the operation. He must ask them for it.

What medical complications can arise from vasectomy? Any surgery that is not performed under absolutely hygienic, germ-free conditions can result in an infection. If you have your vasectomy at a reputable clinic, with a licensed doctor or medical assistant, the risk of infection should be very nearly zero. If an infection does develop (inflammation, swelling, or discharge of blood through the penis), the clinic can effectively treat it. If an infection appears to be developing, the man should report to the doctor promptly so that it can be taken care of.

Consult a doctor if these complications develop:

* **Tenderness and discolororation of skin.**
* **Slight oozing or bleeding.**
* **Slight bruise caused by bleeding.**
* **Swelling.**
* **Infection.**

Is the man sterile right after the operation? At the time of the operation there will be some live sperm in the reproductive system that can cause pregnancy. These sperm must be used up in sex acts. Each time sex takes place the quantity of sperm is reduced. It usually takes about 15 ejaculations to completely remove all sperm from the sex fluid. The couple should continue to use whatever method of birth control they were using before until the man has had 15 ejaculations. In order to be absolutely sure that he is sterile, the man should have his semen examined by the doctor or his assistant.

Use another method of birth control for the first 15 ejaculations after the operation.

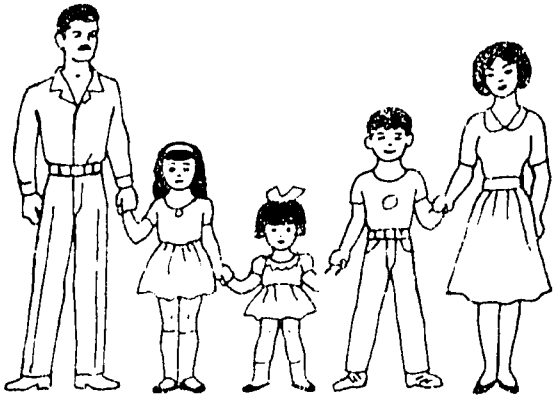
What happens to the sperm that the testicles produce after the sperm duct is closed? The testicles continue to produce fresh sperm just as before. The body absorbs them as they become in excess so that there is no storing up or pressure from sperm unable to escape. This is a normal process that occurs among men who have infrequent or no sex. In fact, every healthy, normal, young man produces more sperm between sex acts than are used, with the result that this absorption process takes place constantly.

Can the vasectomy be reversed? Surgeons are continuallv experimenting with ways of reversing vasectomy. It has been reported that they are able to accomplish it in a significant (but less than 50 percent) proportion of cases. However, it requires greater surgical skill and more specialized surgical equipment than performing the simple vasectomy operation. Reversal is difficult, expensive, and still uncertain enough that people should not get sterilized until they are sure that they do not want more children.

How many days after the operation can the man start having sexual relations again? Some doctors will permit it as quickly as the discomfort of the operation has subsided to a point where the normal sex urges return (usually three or four days). Others will ask their patients to wait for a week for the healing to be completed and the sensitivity reduced.

Can the sterilization operation fail? In a very few cases, where the ducts have been missed or tied poorly, the two ends of the sperm duct may be able to join themselves together and reestablish fertility. This occurs so rarely that it need not be a major concern.

After the operation, how can a man be absolutely certain that all free sperm have been ejaculated and that the operation is a success? The test is a very simple one. A sample of the man's sex fluid is examined under a microscope to see if there are live sperm in it. If there are none, sterility is complete. This test should be made wherever possible.

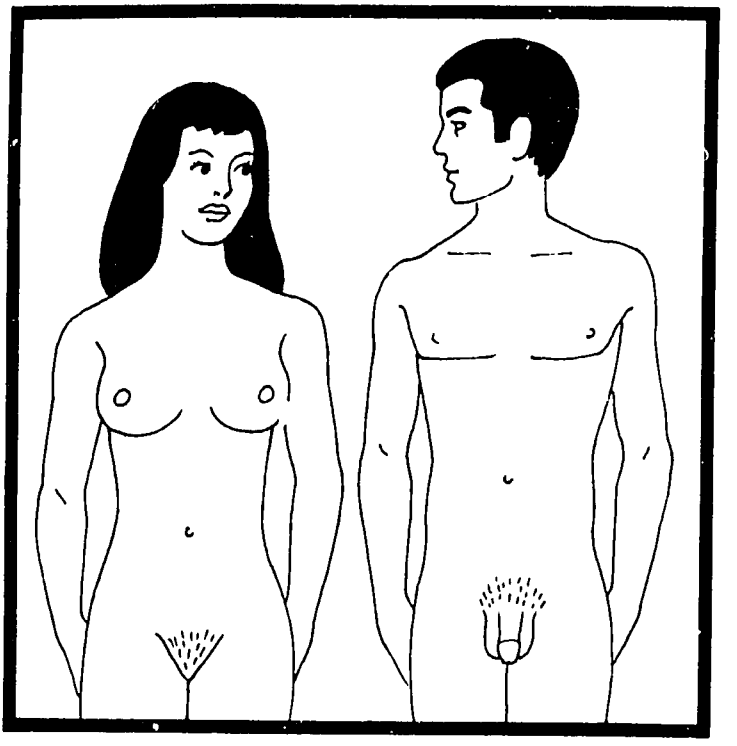


Who are the most resistant to the vasectomy? Resistance to the vasectomy is concentrated among rural and less educated men. Many of these men were brought up on a farm, and confuse the operation with castration (removal of the testicles). Men who clearly understand that the vasectomy has no relation whatsoever to castration, that the testicles remain in place and are just as active as before, should not continue to be resistant to this procedure. Until a man clearly appreciates this difference and has full confidence that his sex life will be unchanged, he should not have the vasectomy.

What kinds of men have vasectomies? For many years, the vasectomy has been the method of fertility control used by many doctors, lawyers, college professors, and scientific workers. They have understood the facts and have had contact with surgeons to have the operation performed on themselves. For these professional and scientific men, vasectomy is almost a "traditional" method. They have used it for more than a quarter-century.

Chapter IX

Human Reproduction



Reproduction has a male and a female component. The two components are of equal importance, despite the fact that it is the woman who becomes pregnant and carries the child for the nine months of the normal pregnancy and then goes through childbirth to deliver a new member of the human species. Every adult person should know about the physiology of reproduction and about the reproductive system of his or her own sex and of the opposite sex. It is not sufficient just to know that pregnancy results from a man and a woman having sexual relations. It is important to know about each of the male and female organs involved in pregnancy and childbirth and how they are interrelated. This information is necessary not only for the preservation of personal health and the bearing of healthy children, but also for understanding how a couple can arrange for the woman not to get pregnant until a baby is wanted.

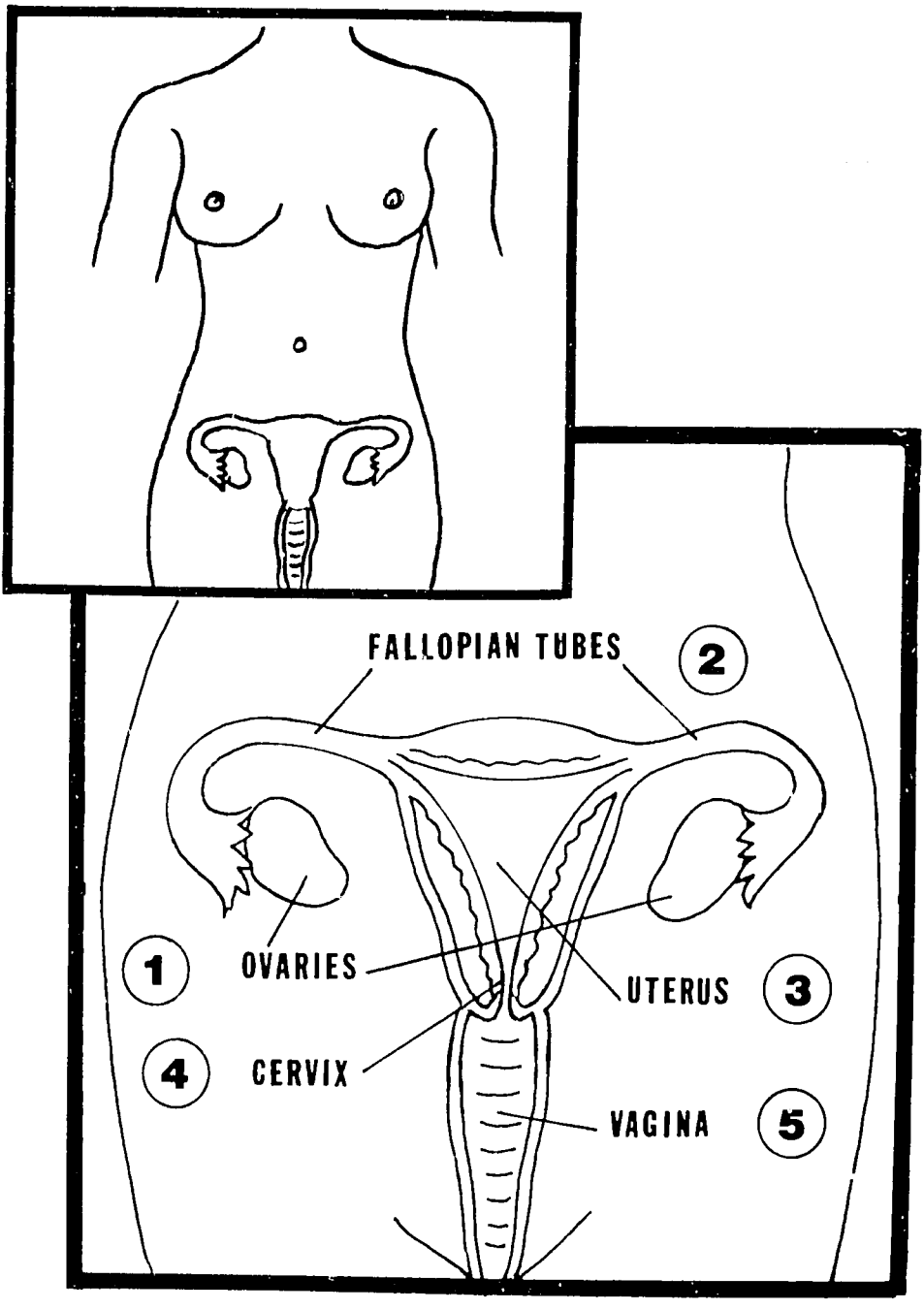


Figure 9.1 -THE FEMALE REPRODUCTIVE SYSTEM
Pregnancy and Childbirth Are Made Possible by Five Internal Organs

The Female Reproductive System

Pregnancy and childbirth are made possible by five internal organs, located in the lower abdomen and pelvis. Reference to Figure 9.1 will help the reader gain a better understanding.

The ovaries (see Organ 1, Figure 9.1) are the principal sex glands of the woman. There are two of them—one on each side of the body. Their job is to produce the female sex cells (human egg) which, when fertilized by male sex cells (sperm), may grow into human beings. A female sex cell is called an **ovum** (plural, **ova**) (see Figure 9.2). In the adult female, the ovaries are oval-shaped (similar to an almond) and measure about 4 cm. (1.5 inches) long, about 2.5 cm. (1 inch) wide, and 1.5 cm. (one-half inch) thick.

Ovulation is the process by which the human egg matures and becomes available for fertilization. When a female infant is born, each of her ovaries contains about 500,000 immature eggs. Each immature egg is contained in a unit called a **follicle**. Once approximately every 24 to 30 days, one of these follicles becomes active and brings its egg to maturity. This is a some-

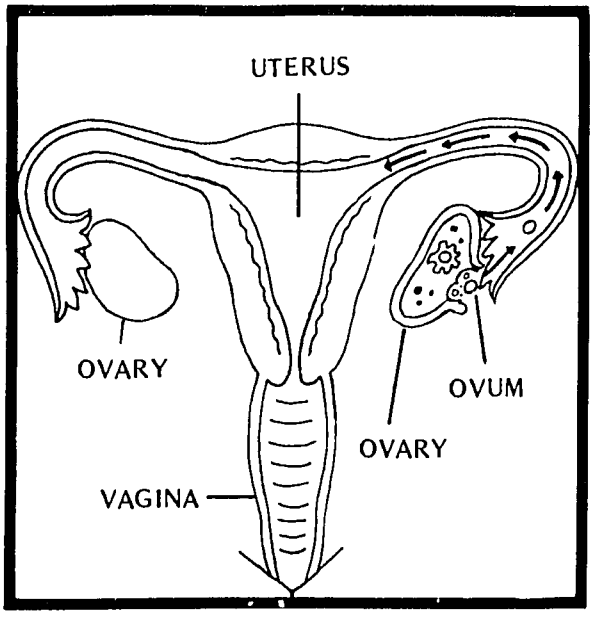
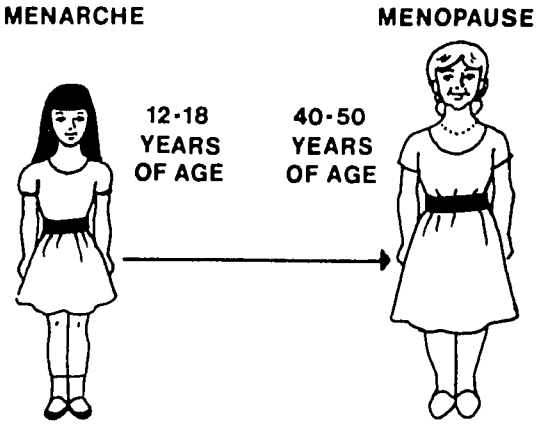


Figure 9.2--THE OVARIES PRODUCE THE FEMALE SEX CELLS



THE FEMALE REPRODUCTIVE SPAN

what complicated process which involves the production within the ovary of two reproductive hormones, estrogen and progesterone. The estrogen hormone, produced by the follicle, stimulates the maturation of the egg. About 14 days before the start of the menstrual period, the egg is mature and passes from the ovary into the other organs of the reproductive system. This release of the mature egg is called *ovulation*. The egg is very tiny and can only be seen through a microscope. The ovary then produces the other reproductive hormone, progesterone, which causes changes to take place in the lining of the uterus to nurture a pregnancy or otherwise to result in menstruation.

Ovulation usually begins when a girl is about 12 years of age. (It can begin anytime between 10 and 14 years of age.) This is called menarche. It climaxes the gradual sexual development during adolescence, and signals entrance into womanhood.

It is not known if the two ovaries take turns in ovulating; however, it is likely that, in most normal women of reproductive age, ovulation may occur alternately in both ovaries. One month it will be the left ovary and the next month it will be the right ovary. (If for any reason one ovary is removed, the other takes over the work of both, and the reproductive span of the woman will not be altered; that is, she will not experience menopause at an earlier age.) During a woman's entire lifetime, only about 350 to 450 of the hundreds of thousands of female sex cells with which she is born are released. Each of the released ova has the potential to produce a pregnancy. The ovaries continue to produce ova more or less on schedule until the woman is about 40 to 50 years of age, when ovulation becomes irregular and then stops. When a woman no longer has menstrual periods, she is said to have entered "menopause," and she is no longer fertile.

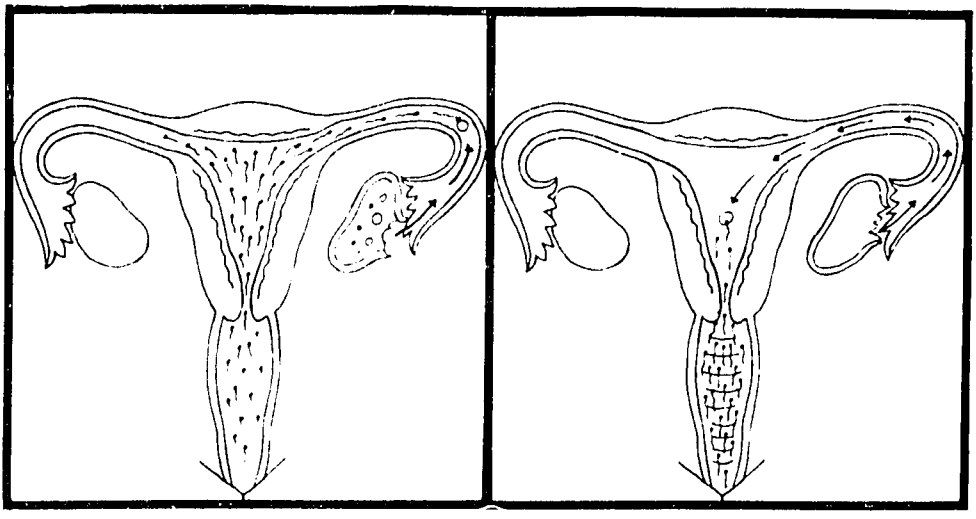


Figure 9.3–FERTILIZATION OCCURS EITHER IN THE FALLOPIAN TUBE OR IN THE UTERUS

The **Fallopian** tubes (see Organ 2, Figures 9.1 and 9.3) are two muscular conduits about 14 cm. (5.5 inches) long that receive the egg released by the ovary and transport it to the uterus where, if it has been fertilized (joining of ovum and one sperm), it may grow into a baby. One of the Fallopian tubes connects the uterus next to the right ovary and the other Fallopian tube connects the uterus with the left ovary. When ovulation takes place, the ovum is released by the ovary and is gathered by the finger-like structures at the opening of the Fallopian tube. Shortly after it enters the Fallopian tube, the egg slowly begins its journey to the uterus through the tube. Rhythmic contractions of tiny muscles in the wall of the Fallopian tube assist the transport of the egg. About three to five days are required for the egg to make the journey from the ovary to the uterus.

Fertilization is the process by which a male sperm penetrates the egg and the male and female sex cells unite. Although the male sperm can meet the female egg and cause fertilization either in the Fallopian tube or in the uterus, fertilization usually occurs in the Fallopian tube, in the section near the ovary and continues in the uterus (see Figure 9.3). Male sperm swim up from the lower organs of the reproductive system to meet the ovum as it descends through the tubes. If the egg is not fertilized, either in the tubes or in the uterus, it passes out of the body and pregnancy does not occur. If the egg is fertilized, it becomes a zygote and then continues its progress toward the uterus. The zygote later develops into an embryo.

The uterus (see Organ 3, Figure 9.1 and Figure 9.3) is a pear-shaped muscular organ located at the upper end of the vagina. The uterus is the organ of gestation and childbirth. It holds and nourishes a fertilized egg for the nine months it takes to develop into a full-term baby. In mature women who have never had a baby, the uterus is about 7.5 cm. (3 inches) long, 4 cm. (1.5 inches) wide at its top, and 2.5 cm. (1 inch) thick (after child deliveries, the uterus is somewhat larger). The outer walls of the uterus are made of muscle fibers. The inner lining (called the endometrium) is specially designed to nurture a fertilized human egg so it can attach to it and grow into a baby. This process of attachment (called nidation) takes place about seven days after ovulation and only if the egg was fertilized.

The cervix (see Organ 4 in Figure 9.1 and Figure 9.4) is the opening of the uterus into the vagina. It is through this opening that the sperm must pass to enter the uterus and ascend the Fallopian tubes to fertilize the ovum. All of the "barrier methods" (see Chapters III-V) of family planning try to prevent pregnancy by stopping the sperm from reaching and passing through the cervix.

During most of the menstrual cycle, the secretions produced by the cervix are of a type that hinder the progress of the sperm. But some days before the time of ovulation, the secretions change in character and facilitate the penetration and ascent of the sperm through the cervix into the uterus.

The vagina (see Organ 5, Figure 9.1 or Figure 9.4), or birth canal, is the passageway from outside the body to the cervix, or opening of the uterus. It is the woman's organ for sex relations and, as such, receives the male penis. It is also the channel through which the baby passes from the uterus to the out-

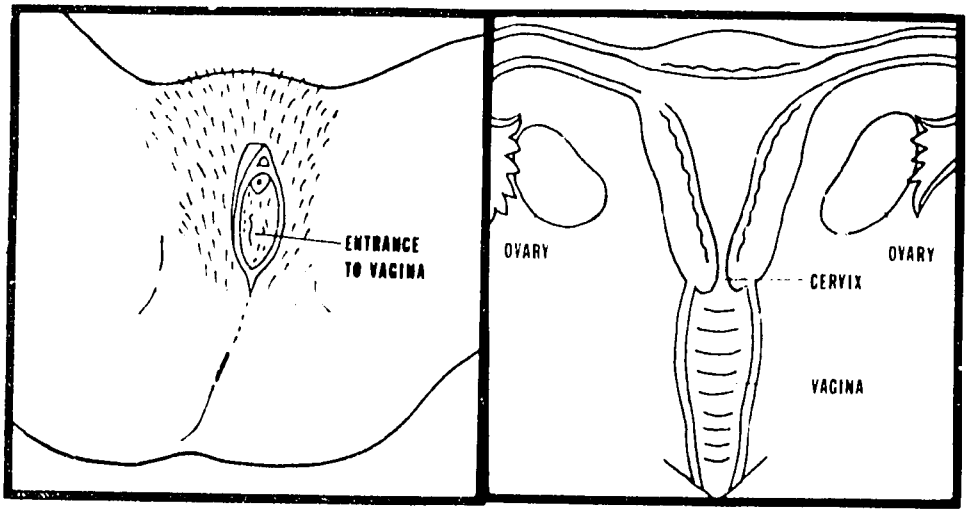


Figure 9.4—THE CERVIX IS THE OPENING OF THE UTERUS INTO THE VAGINA

side world during birth, as well as the outlet for the menstrual flow. The vagina is about 7 to 8 cm. (2½ to 3 inches) long and 2 cm. (¾ inch) wide, but its structure is very elastic. At the upper end it envelops the cervix, while at the lower end it leads to the external genital organs (or vulva). The vagina is a muscular organ with constrictive muscles at its vulvar or lower end.

Conception or *pregnancy* occurs when an ovum, released by the ovary and caught by the Fallopian tube, is penetrated by a sperm (fertilization). Figure 9.3 illustrates how this happens. It then fastens itself to the endometrium (inner wall of uterus) and begins to grow. Figure 9.5 illustrates how growth progresses. Figure 9.5 illustrates the position of the baby in the woman's body during the various weeks of pregnancy.

Figure 9.5--
PREGNANCY OCCURS AS A RESULT OF FERTILIZATION

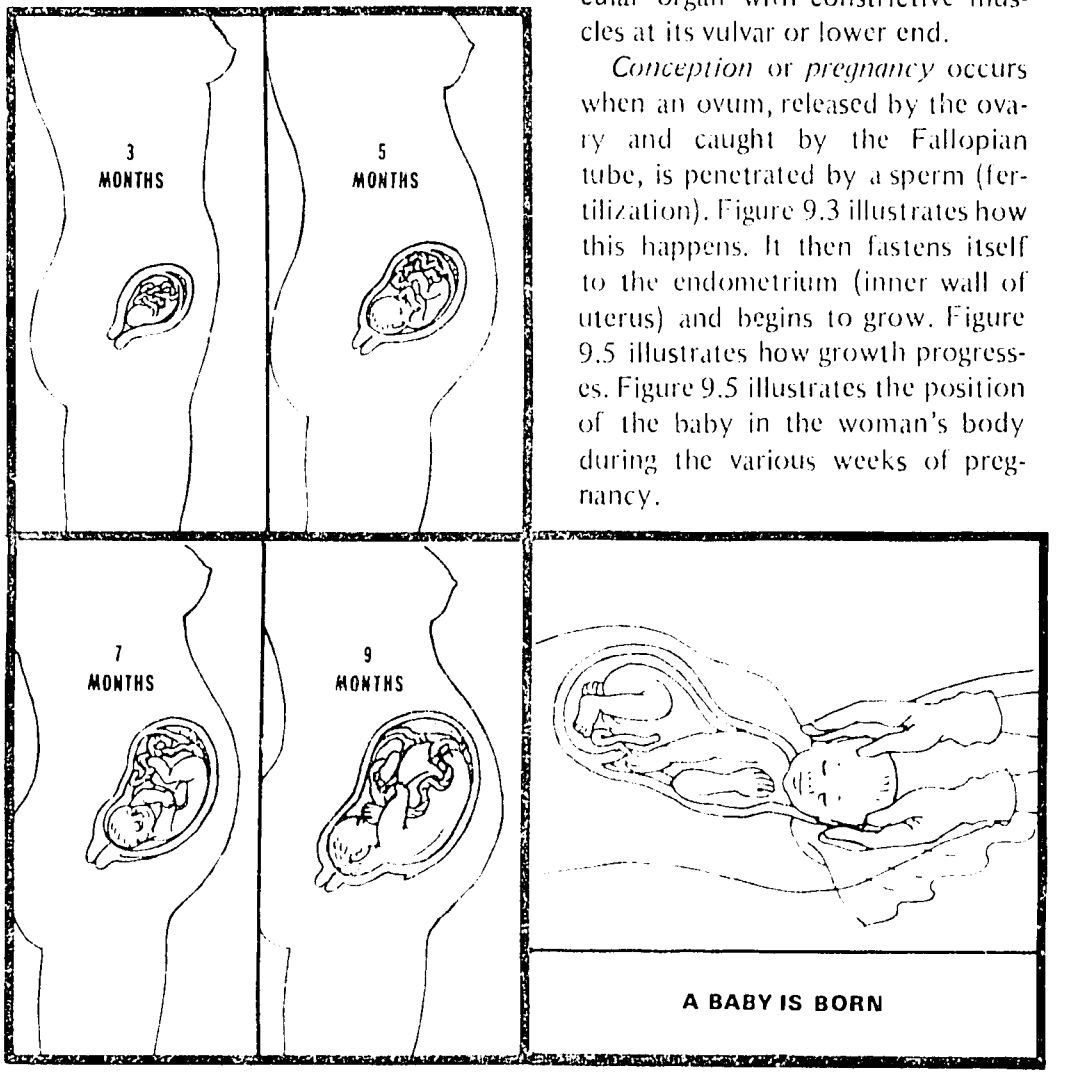
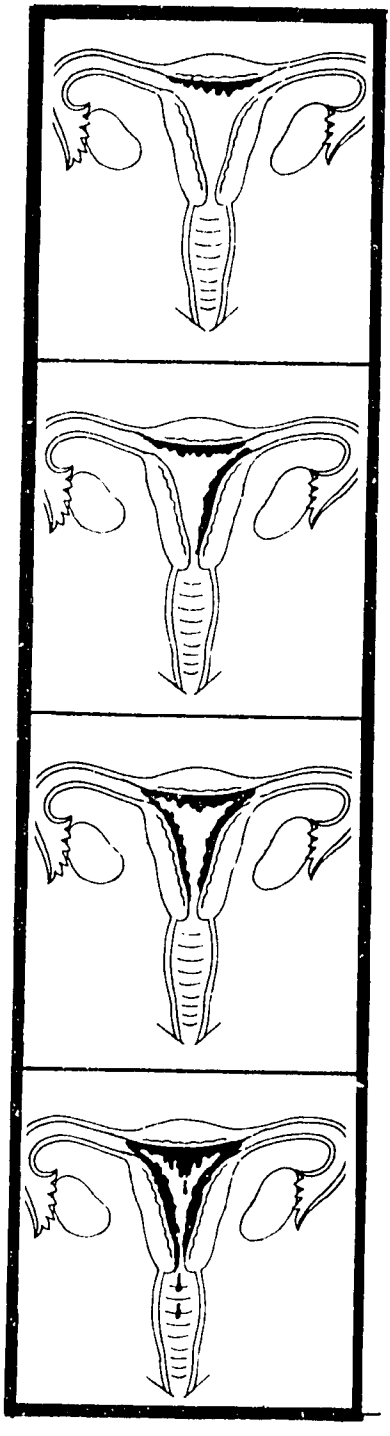


Figure 9.6--
MENSTRUATION TAKES PLACE WHEN THERE IS NO PREGNANCY



Menstruation (also called *menses* or *periods*) takes place if there is no conception following an ovulation. If conception does not occur, all the changes in the lining of the uterus in preparation for the fertilized egg become superfluous and the lining is shed (see Figure 9.5). This process of changing of the lining of the uterus is called menstruation. It involves some bleeding which passes through the cervix and out the vagina. It marks the end of the monthly ovulatory cycle and usually lasts for 3 to 5 days.

As menstruation proceeds, hormones released by organs in the base of the brain stimulate the start of maturation of a new follicle and ovum. The ovarian estrogen production associated with this process also stimulates the regeneration of the lining of the uterus each month. The second hormone, progesterone, secreted after ovulation, helps to prepare a new uterine lining so it can receive the fertilized egg. The process keeps repeating every ovulatory cycle as long as conception does not take place or the process is not interfered with by an illness or controlled by such action as the use of birth control pills.

The *menstrual cycle* is the term used to refer to the number of days that separate the first day of one menstruation and the first day of

the next. In menstruation, the bloody discharge flowing from the uterus into the vagina occurs about every 28 days (though normal ovulatory menses may be as short or shorter than 21 days and as long or longer than 35 days), marking the end of a cycle of ovulation without conception. The length of the menstrual cycle and the amount of menstrual flow vary in different women and may also vary from month to month. If a woman with previously regular menses fails to menstruate, it is a sign that pregnancy has probably taken place. The menstrual cycle passes through four phases, which are:

Phase 1:
Menstrual flow (lasting about 3 to 5 days)

Phase 2:
Follicular phase (during which the ovulatory follicle grows and secretes estrogen)

Phase 3:
Ovulation

Phase 4:
Progestational phase (during which estrogen and progesterone are secreted by the ovary in preparation for pregnancy).

When pregnancy does not occur, as stated above, the cycle repeats itself.

Pregnancy and Amenorrhea. If pregnancy does occur, the menstrual cycle is suspended. Ovulation is suppressed and there is amonorrhea (no menstruation). Instead, the reproductive system is oriented toward the nurture of the embryo into a live-born child (see "Prenatal Care" at the end of this chapter). This state of suspension is maintained by a balance of the reproductive hormones of estrogen and progesterone, discussed earlier. Ovulation and the menstrual cycle are not resumed until several weeks after childbirth. If a woman breastfeeds her infant, ovulation is postponed even longer.

The Male Reproductive System

The male reproductive system is made up of several organs: the testicles, the epididymides, the spermatic ducts (vas deferens), the seminal vesicles, the prostate gland, and the penis with its ejaculatory canal, the urethra. Figure 9.7 will help to explain the discussion.

The **testicles** (see Organ 1 in Figure 9.7) are two glands that produce male sex cells called **spermatozoa** and the male sex hormone, **testosterone**. The testicles perform the same function for the male that the ovaries perform for the female; both are involved in the production of sex cells. Located in a skin sac called the **scrotum** (see Organ 2 in Figure 9.7), the testicles are suspended toward the front and between the man's legs below the base of the penis. In adult males, they average about 5 cm. (2 inches) long, 3 cm. (1.5 inches) wide, about 3 cm. (1.5 inches) thick. Usually the left testicle hangs somewhat lower than the right.

The **epididymides** (see Organ 3 in Figure 9.7) are tubular organs that lie on top of and behind the testicles which the sperm must cross through before reaching the vas deferens. Sperm mature in the epididymides.

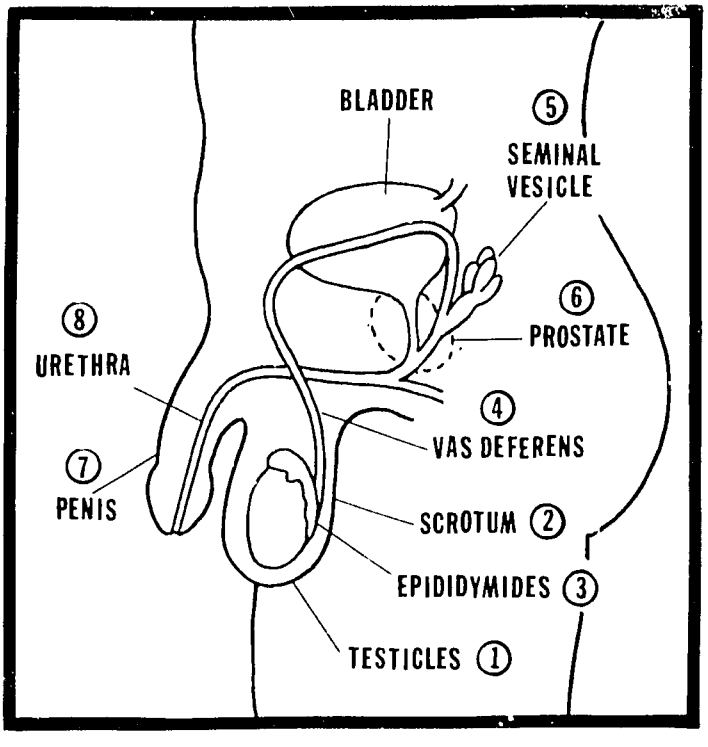


Figure 9.7--THE MALE REPRODUCTIVE SYSTEM

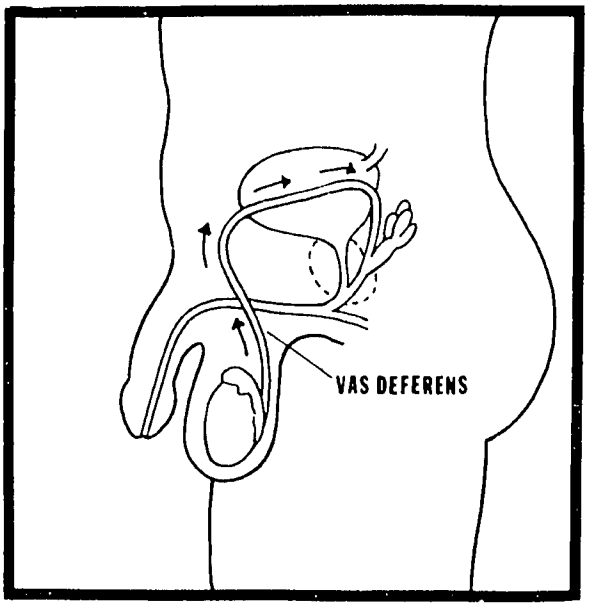


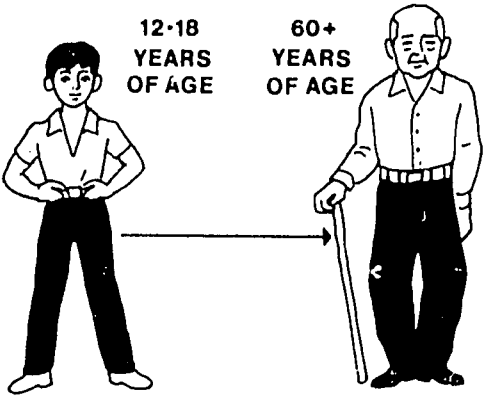
Figure 9.8--
THE VAS DEFERENS are the tubes connecting the epididymides to the seminar vesicles and the prostate gland. In a vasectomy, the vas deferens are cut to prevent sperm from being ejaculated.

The **vas deferens** (or **sperm ducts**) (see Organ 4 in Figures 9.7 and 9.8) are two tubes that lead from the epididymides to the seminal vesicle and the prostate gland. They have muscles which contract rhythmically during the sexual climax to expel the sperm collected at the end of the vas deferens and epididymides and also from the prostate gland into the urethra or ejaculatory canal inside the penis.

The **seminal vesicles** (see Organ 5, Figure 9.7) contribute to the volume of ejaculation by producing the sticky fluid in which the sperm move and feed. They are linked to the vas deferens and to the prostate.

The **prostate** (see Organ 6, Figure 9.7), located inside the body at the opening of the bladder, is formed by a set of interrelated glands that secrete fluid into the urethra under sexual stimulation. At the moment of ejaculation, a large amount of prostate fluid is forced into the ejaculatory canal and is mixed with a smaller amount of fluid containing spermatozoa from the vas deferens and epididymides. The prostate fluid has a chemical composition and a viscous quality which help provide a favorable environment for maintaining the male cells as they are deposited in the upper vagina.

The **penis** (see Organ 7, Figure 9.7) is the male organ for sex relations. At the time of sexual arousal, it becomes erect as a result of becoming engorged with blood in its special tissues. It is then capable of entering the vagina and depositing the ejaculated seminal fluid (semen, containing the male seeds or sperm) in the upper vagina. The **urethra** (see Organ 8, Figure 9.7), which runs along the entire length of the



THE MALE REPRODUCTIVE SPAN

penis, leads to both the prostate and the bladder. It is therefore both an ejaculatory canal and a urinary canal.

The spermatozoa (see Figure 9.9), the male sex cells or sperm, are so tiny that they can be seen only with the aid of a microscope. Each cell has an oval head, an intermediate segment, and a very long tail. By fast vibratory movements of its tail, each mature spermatozoan is able to propel itself forward. Each normal human ejaculation usually contains 100 to 200 million sperm cells, although only a single cell fertilizes the female ovum.

The substance ejaculated by the male at the time of sexual climax is called semen. It is a mixture of sticky fluids from the prostate gland, the seminal vesicle, and other minor glands. The spermatozoa are mixed in with these other secretions. Most of the ejaculated fluid (semen) is not spermatozoa, but the secretions of the prostate gland and seminal vesicles. The semen not only carries the spermatozoa into the vagina, but also helps to create an environment that facilitates their survival and mobility.

Boys become fertile (begin producing spermatozoa) at about 14 years of age. (This onset of manhood can begin as early as 11 or 12 years of age or be delayed until 16 or 18 years of age.) Capacity to produce spermatozoa continues until a man is quite elderly—60-70 years of age. Thus, the average reproduction span of men starts a couple of years later than women, but lasts much longer.

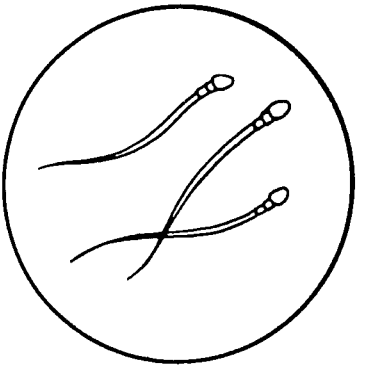
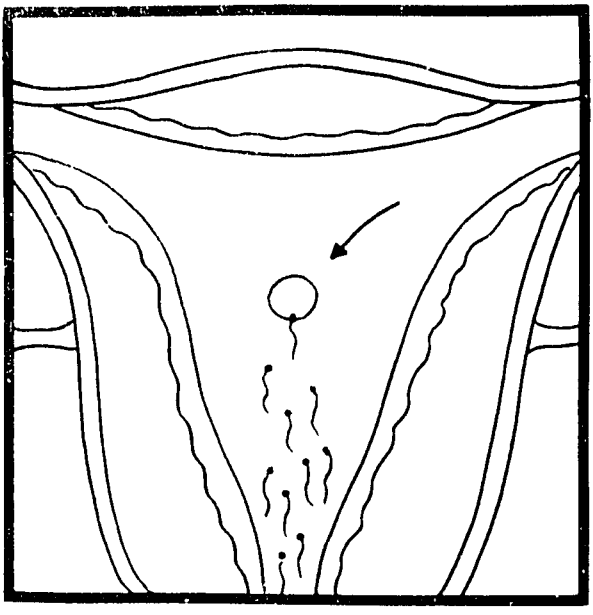


Figure 9.9 MALE SPERM CELLS [Greatly Magnified]

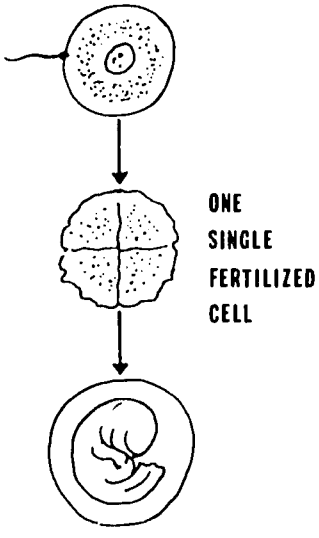


Fertilization occurs when the male and female cells unite.

How Fertilization Takes Place

The ejaculation of the semen inside the vagina delivers the spermatozoa near the entrance to the uterus (cervix). When a woman has her fertile days, the female organs' secretions produce a chemical environment that helps the male sex cells to survive and makes it easier for them to penetrate the cervix opening, and ascend into the uterus and Fallopian tubes. If ovulation is about to occur, the secretions at the mouth of the uterus (called "cervical mucus") become quite fluid and assist the inward mobility of the sperm. Large numbers of male sex cells may enter the uterus and begin to cross it toward the Fallopian tubes. Sperm cells are capable of surviving in the uterus and Fallopian tubes for 2-3 days. If an ovum has been released and gets fertilized as it travels down toward the uterus, pregnancy follows.

Only one of the many sperm cells that may reach the vicinity of the ovum is involved in fertilization. If more than one penetrates the egg, the egg dies. The egg also dies if fertilization by a single normal sperm does not occur within the first day or so of ovulation. A single fertilized egg may sometimes develop into two embryos, resulting in identical twins (two boys or two girls). In rare instances, two separate eggs may each be fertilized by a sperm and develop into two different embryos, resulting in fraternal twins, triplets, quadruplets, etc. which can be of any combination of sexes. The woman may ovulate two or more eggs which can be fertilized.



The hereditary material contributed by the male (male genes) is contained in the head of the sperm. This merges during fertilization with the hereditary material contributed by the female (female genes). As both sperm and ovum unite, the genetic composition of the parents mingle and the hereditary traits of the child (i.e., the ethnic characteristics, the color of hair and eyes, etc.) are determined. The sex of the future offspring, male or female, is determined by the sex chromosome (containing the genetic or hereditary materials) provided by the father in his sperm.

The fertilized egg slowly proceeds through the Fallopian tubes as the subdivision of cells begins to take place. About 3 to 5 days after ovulation, the fertilized egg reaches the uterus and, about 3 days later, implants itself in the endometrium lining the uterus, which, in the meantime, has been specially prepared to receive it. Pregnancy occurs when the fertilized cell has implanted itself (nidation) in the uterus and the body of the woman and its sexual organs and glands recognize this physiological event.

Prenatal Care

As soon as a woman thinks she is pregnant, she should go to a clinic so that her progress can be supervised by a medical specialist. During pregnancy, a woman has a higher risk of a number of disorders that can be dangerous for her health. Among them are blood clotting, kidney infection, and high blood pressure. Medical supervision is also needed to help assure proper development of the child. The pregnant woman must eat plenty of good food rich in proteins and minerals, as advised by the medical specialists. Periodic visits for medical supervision throughout pregnancy will reveal disorders or problems if they develop and provide opportunity for early correction. Death as a result of pregnancy and childbirth is not very frequent when there is good prenatal care and medical assistance at childbirth. It can be shockingly common where prenatal care is neglected and childbirth takes place without a trained doctor, midwife, or nurse.

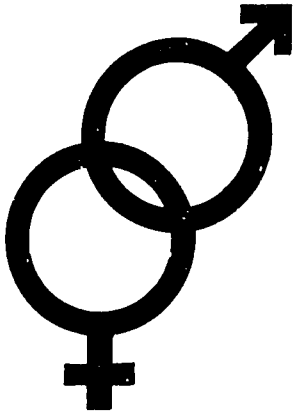
Prenatal care is outside the scope of this book, but it is so *important* that it is mentioned here to encourage every pregnant woman to seek medical care as soon as pregnancy is suspected and to have periodic medical checkups throughout her pregnancy.

IF YOU ARE PREGNANT:

- **GO TO A CLINIC FOR ADVICE**
- **EAT PLENTY OF GOOD FOOD RICH IN PROTEINS AND MINERALS**
- **HAVE PERIODIC MEDICAL CHECKUPS THROUGHOUT PREGNANCY**

Chapter X

Human Sexuality



Why Is It Important to Know About Human Sexuality?

The physiology of reproduction explains how conception takes place but does not explain human sexuality, which is concerned with the influence of sex on personality and emotional life. Sexuality involves the sexual impulses, the use of sex as an expression of love, and the physical and emotional behavior associated with the sex act.

It is important to understand human sexuality because the ability to use, control, and enjoy sex in a responsible manner is an important part of healthful and happy living; mutually satisfying sex relations provides a solid base for a happy marriage. A well-adjusted sex life depends on the capacity to know what normal sex impulses are and how to control and direct them in a responsible way. The proper and successful use of contraception depends also on this understanding. Some men and women have rejected the idea of contraception for fear that use of a contraceptive may diminish sexual enjoyment. The fact is that the use of contraceptives may make sex even more enjoyable for couples because it removes the fear of pregnancy. It is therefore essential for those learning about contraceptives also to learn how to incorporate them into their sex life in a way that leads to even greater affection, happiness, and adjustment.

In order to understand human sexuality, it is necessary to learn about some additional organs not discussed in the preceding section. These are the genital or external sex organs.

Female Genital Organs and Female Sexuality

The external female genital organs, considered together, are called the vulva. They include the Mound of Venus, the large lips, the small lips, the clitoris, and the entrance to the vagina or introitus.

The *Mound of Venus* (see Organ 1, Figure 10.1) is a padded elevation of the female at the bottom of her abdomen, covering the pubic region (front bone of the pelvis), where the legs join. It is covered with pubic or sexual hair.

The *large lips* (see Organ 2, Figure 10.1) are two thick folds of skin and fat with numerous lubricating glands on its inner side covered with hairs in their outer sides. Together with the small lips, the large lips cover the entrance to the vagina.

The *small lips* (see Organ 3, Figure 10.1) are two thin folds located between the large lips surrounding the immediate opening to the vagina. These also have many glands but no hairs. There is considerable variation among women in the shape and size of this organ.

The *clitoris* (see Organ 4, Figure 10.1) is the female equivalent of the male penis. It is a small, button-like, sometimes slightly elongated, erectile protuberance placed between the upper part of the two small lips.

The *hymen* (see Organ 5, Figure 10.1) is the stretchable skin that surrounds the vaginal opening.

The *introitus* (see Organ 6, Figure 10.1) is the entrance to the vagina.

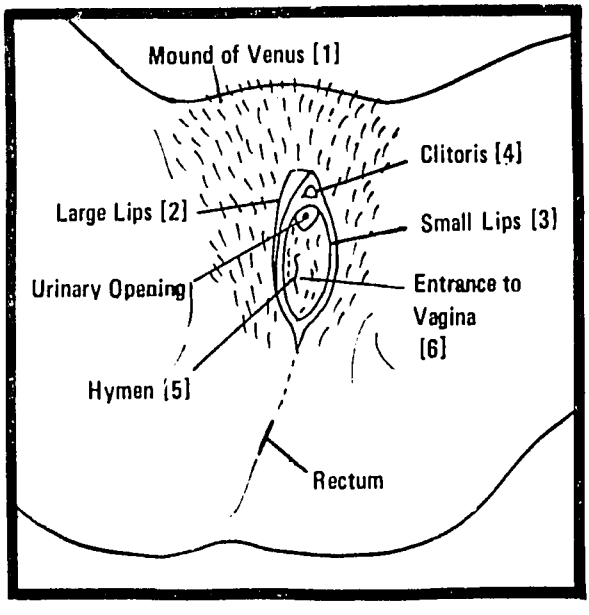


Figure 10.1— THE FEMALE EXTERNAL ORGANS

At the time of sexual excitement, the female genital organs undergo an engorgement of blood analogous to, but not as obvious as, the erection of the penis in the male. The clitoris increases in size, becomes distended and more sensitive. The entire vulva and especially the clitoris and small lips have numerous nerve endings that arouse sexual excitement in the female when touched under conditions of sexual interest. Other parts of the female body (especially breasts, inner thighs, back) tend to arouse or heighten sexual excitement when caressed. These areas are called the "erogenous zones" and may differ from person to person in their location and comparative sensitivity.

The female vagina (described in the preceding chapter) is very elastic and can stretch during sexual excitement to accommodate and adapt to any size of penis. It also has a few nerve endings which arouse and heighten sexual excitement, especially when the penis is thrust inside it.

When sexual desire is aroused the glands of the large and small lips and the vagina secrete fluids which lubricate them. These changes facilitate sexual intercourse.

A small membrane that partially obstructs the vaginal opening, the hymen, seems to serve no physiological function, but it has traditionally been assigned great cultural significance. Normally the hymen has one or more openings to allow for the passage of menstrual blood. Since the hymen usually ruptures during the first intercourse, the slight bleeding that results has been thought to be positive proof of virginity. But in some women, the hymen is elastic enough to stretch during intercourse without breaking or it may have been torn earlier during athletic activity, by manual manipulation of the vagina, or even by the use of vaginal tampons during menses.

Stimulation of all parts of the vulva and vagina as well as other types of caressing heightens the sexual experience for both the woman and the man. The woman's clitoris is especially sensitive to stimulation and is actually the primary focus of female orgasm or sexual climax for the woman.

A woman's orgasm is characterized by muscular contractions of the vaginal walls and involvement of her whole body. However, the woman does not have an ejaculation similar to the male. The orgasm may vary considerable in intensity and duration, not only from person to person, but also from one sexual act to another.

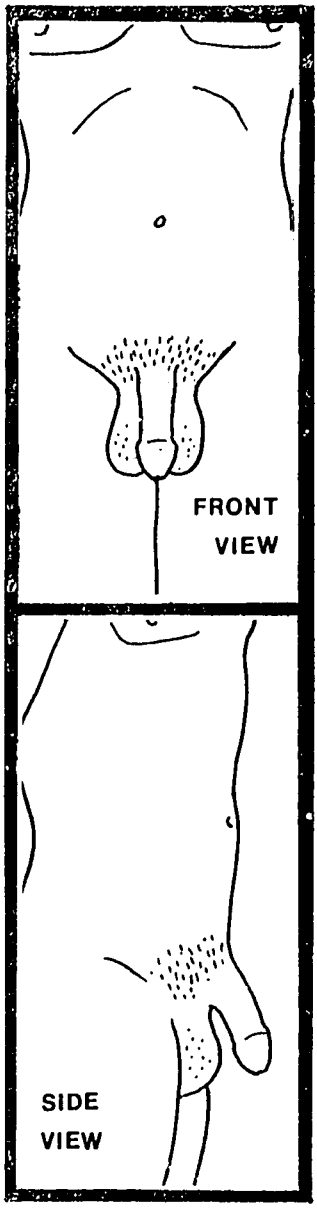
Some women are capable of having one or more orgasms. In some cases, women find enough satisfaction in physical closeness during intercourse that they do not feel the need to reach orgasm every time.

Male Genital Organs and Male Sexuality

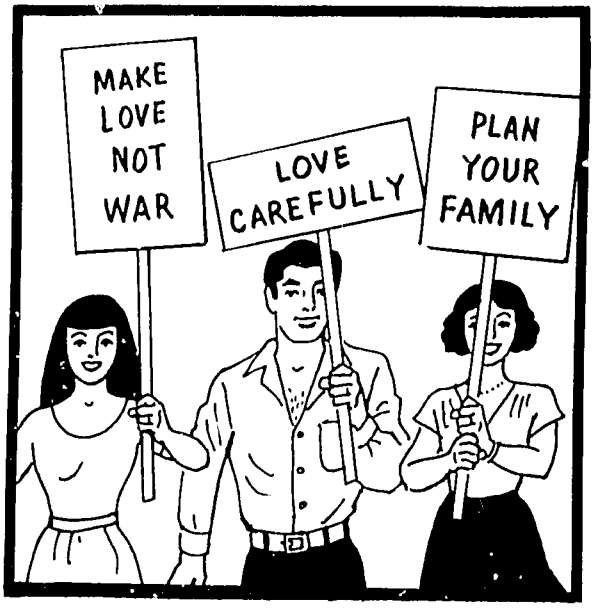
Like that of a woman, the entire genital area of the man is very high in nerve endings that facilitate sexual stimulation and respond similarly to caressing. The blood vessels in the penis react to sexual excitement by allowing more blood to flow into the erectile tissues, which makes the penis larger and stiffer. This "erect" condition enables the penis to penetrate the vagina.

The head of the penis is especially sensitive, and the opening to the ejaculatory canal (urethra) is similar to the clitoris of the woman in being maximally subject to sexual excitement.

During intercourse, stimulation of the sexual organs must continue in order for both partners to be able to reach climax. Thus, a series of mostly rhythmic pelvic movements is used to assure the necessary stimulation. The male orgasm normally involves ejaculation. This consists of the actual expulsion through the penis of the seminal fluid containing the sperm. After a man ejaculates, the blood collected in his penis is released into the general body circulation, causing the organ to become soft and limp. Usually the man is capable of having a second or additional orgasms after a brief rest.



THE MALE GENITAL ORGANS



Techniques for Having Sex

There are many techniques that a man and a woman can use for having sex. Greater enjoyment of sex is gained if there is adequate "foreplay" or preparatory caressing, kissing, and other expressions of sexual interest, caring, and love.

Research has shown that whatever the means of stimulation, the sexual response follows a basic pattern that is similar for men and women. This response cycle usually begins with a period of increased excitement caused by psychological and physical stimuli and heightened by caressing and foreplay. These responses are generally followed by coitus, which is climaxed by orgasm. When sexual activity reaches its orgasmic peak, both the man and the woman respond by a sudden release of accummulated tensions through strong body and pelvic rhythmic contractions. In women, there may be as few as 2 or 3 mild contractions of the vaginal walls or as many as 15 or more. In men, orgasm is evidenced by the ejaculation of the semen.

Couples usually work out ways to enable them to reach orgasm simultaneously. Some men are capable of holding an erection and thrusting long enough to allow their partners to have more than one orgasm. In some women, the peak sexual excitement necessary to achieve one or repeated orgasms is often possible only through persistent stimulation of the genital organs (especially the clitoris) either manually or by the penis.

The sexual act can be done in a number of positions. The most common is for either the man or the woman to assume a prone position (with the woman's limbs astride the

man) and for the other person to take a superior position. It is equally acceptable and enjoyable for either the man or the woman to have the superior position. By experimentation and experience (sometimes with the aid of booklets on sexual techniques), couples can learn which positions are best for them. Varying the way the sex act is performed heightens pleasure and desire. These techniques are also subject to cultural coloring, personal preferences, and taste.

Sexual Malfunctions

Like any other set of organs, both male and female reproductive organs are subject to malfunctions or disorders.

Illnesses, either physical or mental, can influence the capacity of the sex organs to function. In both men and women, occasional or temporary orgasmic failure may be due to anxiety, fatigue, or distractions. In older persons, it may be due to aging.

Some women are able to reach orgasm only after several months or even years of sexual experience, as they gradually get to know their bodies. A few women experience decreased sexual response due to female circumcision. There are some couples who are simply unable to find enough satisfaction during intercourse because of lack of sexual know-how. That is one of the reasons why appropriate sex education from early childhood is important.

Due to inhibitions resulting from cultural, religious, or personal beliefs or misunderstandings about sex, many men and women get much less enjoyment from sex than nature intended. For example, many men are concerned about the size of their penis; they fear it might be too small to satisfy their sexual partner. There is little relation between the size of the penis and its size when erect. Similarly, some women who have borne many children fear their vagina is too large. Sexual gratification of both partners does not depend on the size of the organs. Together, the penis and the vagina can adapt perfectly and closely to each other.

Communication between partners is also essential to sexual satisfaction. Couples should be patient and understanding with each other and should take time to work out their sexual problems. It helps a great deal to be sensitive to each other's sexual needs and desires.

Couples who do not quickly achieve a mutually satisfying sexual relationship should seek counselling or medical assistance.

Sexuality and Contraception

People have been concerned with matters relating to sexuality and contraception for many centuries. Before the advent of modern contraceptives, couples resorted to various methods of avoiding pregnancy—from the use of herbs and other liquid mixtures to total abstinence from sexual relations.

Perhaps one of the oldest methods of birth control known to be still in use is coitus interruptus, popularly called "withdrawal." Sometimes referred to as "being careful," this method requires the man to withdraw his penis when he feels he is about to ejaculate. This is done so that the semen is released away from the female genital area and the sperm is prevented from coming in contact with the vagina. This and other traditional methods are considered very unreliable and most people have abandoned them in favor of the more effective forms of birth control. The fact remains, however, that no matter how unreliable, to use any method is better than to use no method at all.

The previous chapters have described in detail how each of the different methods of birth planning currently in prevalent use can help couples avoid pregnancy.

Contraception permits couples to separate their sexual life from reproduction whenever and for as long as they wish. This ability to fulfill their sexual needs in a continuous and secure way without having to undergo pregnancy until the couple really desires and is prepared for it is one of the greatest blessings of modern medical science.

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