6.9: Reproductive Health

Both the male and female reproductive systems play a role in pregnancy. Problems with these systems can affect fertility and the ability to have children. There are many such problems in men and women. Reproductive health problems can also be harmful to overall health and impair a person's ability to enjoy a sexual relationship.

Your reproductive health is influenced by many factors. These include your age, lifestyle, habits, genetics, use of medicines and exposure to chemicals in the environment. Many problems of the reproductive system can be corrected.

Reproductive health includes a variety of topics, such as:

- Menstruation and menopause
- Pregnancy and preconception care
- Fertility/Infertility
- Contraception

Menstruation

The menstrual cycle is the process by which a woman’s body gets ready for the chance of a pregnancy each month. The average menstrual cycle is 28 days from the start of one to the start of the next, but it can range from 21 days to 35 days.

Most menstrual periods last from three to five days. In the United States, most girls start menstruating at age 12, but girls can start menstruating between the ages of 8 and 16.

Menstruation is a woman's monthly bleeding. When you menstruate, your body sheds the lining of the uterus (womb).
Menstrual blood flows from the uterus through the small opening in the cervix and passes out of the body through the vagina (see how the menstrual cycle works below). Most menstrual periods last from 3 to 5 days.

When periods (menstruations) come regularly, this is called the menstrual cycle. Having regular menstrual cycles is a sign that important parts of your body are working normally. The menstrual cycle provides important body chemicals, called hormones, to keep you healthy. It also prepares your body for pregnancy each month. A cycle is counted from the first day of 1 period to the first day of the next period. The average menstrual cycle is 28 days long. Cycles can range anywhere from 21 to 35 days in adults and from 21 to 45 days in young teens.

In the first half of the cycle, levels of estrogen (the female hormone) start to rise. Estrogen plays an important role in keeping you healthy, especially by helping you to build strong bones and to help keep them strong, as you get older. Estrogen also makes the lining of the uterus (womb) grow and thicken. This lining of the womb is a place that will nourish the embryo if a pregnancy occurs. At the same time the lining of the womb is growing, an egg, or ovum, in one of the ovaries starts to mature. At about day 14 of an average 28-day cycle, the egg leaves the ovary. This is called ovulation.

After the egg has left the ovary, it travels through the fallopian tube to the uterus. Hormone levels rise and help prepare the uterine lining for pregnancy. A woman is most likely to get pregnant during the 3 days before or on the day of ovulation. Keep in mind, women with cycles that are shorter or longer than average may ovulate before or after day 14.

A woman becomes pregnant if the egg is fertilized by a man’s sperm cell and attaches to the uterine wall. If the egg is not fertilized, it will break apart. Then, hormone levels drop, and the thickened lining of the uterus is shed during the menstrual period.

**The Menstrual Cycle**

- Day 1 starts with the first day of your period. This occurs after hormone levels drop at the end of the previous cycle, signaling blood and tissues lining the uterus (womb) to break down and shed from the body. Bleeding lasts about 5 days.
- Usually by Day 7, bleeding has stopped. Leading up to this time, hormones cause fluid filled pockets called follicles to develop on the ovaries. Each follicle contains an egg.
- Between Day 7 and 14, one follicle will continue to develop and reach maturity. The lining of the uterus starts to thicken, waiting for a fertilized egg to implant there. The lining is rich in blood and nutrients.
- Around Day 14 (in a 28-day cycle), hormones cause the mature follicle to burst and release an egg from the ovary, a process called ovulation.
- Over the next few days, the egg travels down the fallopian tube towards the uterus. If a sperm unites with the egg here, the fertilized egg will continue down the fallopian tube and attach to the lining of the uterus.
- If the egg is not fertilized, hormone levels will drop around Day 25. This signals the next menstrual cycle to begin. The egg will break apart and be shed with the next period.

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**Pregnancy**

Pregnancy is the term used to describe when a woman has a growing fetus inside of her. In most cases, the fetus grows in the uterus. Human pregnancy lasts about 40 weeks, or just more than 9 months, from the start of the last menstrual
period to childbirth.

What are prenatal and preconception care and why are they important?

Prenatal care is the care woman gets during a pregnancy. Getting early and regular prenatal care is important for the health of both mother and the developing baby. In addition, health care providers are now recommending a woman see a health care provider for preconception care, even before she considers becoming pregnant or in between pregnancies.

Knowing if you are pregnant

A missed period is often the first clue that a woman might be pregnant. Sometimes, a woman might suspect she is pregnant even sooner. Symptoms such as headache, fatigue, and breast tenderness, can occur even before a missed period. The wait to know can be emotional. These days, many women first use home pregnancy tests (HPT) to find out. Your doctor also can test you.

All pregnancy tests work by detecting a special hormone in the urine or blood that is only there when a woman is pregnant. It is called human chorionic gonadotropin (koh-er-ee-ONihk goh-NAD-uh-TROH-puhn), or hCG. hCG is made when a fertilized egg implants in the uterus. hCG rapidly builds up in your body with each passing day you are pregnant. Read on to learn when and how to test for pregnancy.

Home pregnancy tests

HPTs are inexpensive, private, and easy to use. Most drugstores sell HPTs over the counter. The cost depends on the brand and how many tests come in the box. They work by detecting hCG in your urine. HPTs are highly accurate. But their accuracy depends on many things. These include:

- **When you use them** – The amount of hCG in your urine increases with time. So, the earlier after a missed period you take the test the harder it is to spot the hCG. Some HPTs claim that they can tell if you are pregnant one day after a missed period or even earlier. But a recent study shows that most HPTs don't give accurate results this early in pregnancy. Positive results are more likely to be true than negative results. Waiting one week after a missed period will usually give a more accurate result. You can take the test sooner. But just know that a lot of pregnant women will get negative test results during the first few days after the missed period. It's a good idea to repeat the test again after a week has passed. If you get two negative results but still think you're pregnant, call your doctor.

- **How you use them** – Be sure to check the expiration date and follow the directions. Many involve holding a test stick in the urine stream. For some, you collect urine in a cup and then dip the test stick into it. Then, depending on the brand, you will wait a few minutes to get the results. Research suggests waiting 10 minutes will give the most accurate result. Also, testing your urine first thing in the morning may boost the accuracy. You will be looking for a plus sign, a change in color, or a line. A change, whether bold or faint, means the result is positive. New digital tests show the words "pregnant" or "not pregnant". Most tests also have a "control indicator" in the results window. This line or symbol shows whether or not the test is working. If the control indicator does not appear, the test is not working properly. You should not rely on any results from a HPT that may be faulty.

- **Who uses them** – The amount of hCG in the urine is different for every pregnant woman. So, some women will have accurate results on the day of the missed period while others will need to wait longer. Also, some medicines affect HPTs. Discuss the medicines you use with your doctor before trying to become pregnant.

- **The brand of test** – Some HPT tests are better than others at spotting hCG early on.

The most important part of using any HPT is to follow the directions exactly as written. Most tests also have toll-free
If a HPT says you are pregnant, you should call your doctor right away. Your doctor can use a more sensitive test along with a pelvic exam to tell for sure if you're pregnant. Seeing your doctor early on in your pregnancy can help you and your baby stay healthy.

**Unplanned Pregnancy**

Unplanned pregnancy is common. About 1 in 2 pregnancies in America are unplanned. Ideally, a woman who is surprised by an unplanned pregnancy is in good preconception health and is ready and able to care for a new child. But this sometimes isn't the case.

If you have an unplanned pregnancy, you might not know what to do next. You might worry that the father (or mother) won't welcome the news. You might not be sure you can afford to care for a baby. You might worry if past choices you have made, such as drinking or drug use, will affect your unborn baby's health. You might be concerned that having a baby will keep you from finishing school or pursuing a career.

If you are pregnant after being raped, you might feel ashamed, numb, or afraid. Unplanned pregnancy is common among abused women. Research has found that some abusers force their partners to have sex without birth control and/or sabotage the birth control their partners are using, leading to unplanned pregnancy.

You might wonder what options you have. Here are some next steps to help you move forward:

- Start taking care of yourself right away. Take 400 to 800 micrograms (400 to 800 mcg or 0.4 to 0.8 mg) folic acid every. Stop alcohol, tobacco, and drug use.
- Make a doctor's visit to confirm your pregnancy. Discuss your health and issues that could affect your pregnancy. Ask for help quitting smoking. Find out what you can do to take care of yourself and your unborn baby.
- Ask your doctor to recommend a counselor who you can talk to about your situation.
- Seek support in someone you trust and respect.

**Trying to Get Pregnant**

How do you figure out when you're fertile and when you're not? Wondering if you or your partner is infertile? Read on to boost your chances of conception and get help for fertility problems.

**Fertility awareness**

*The menstrual cycle*

Being aware of your menstrual cycle and the changes in your body that happen during this time can help you know when you are most likely to get pregnant.

The average menstrual cycle lasts 28 days. But normal cycles can vary from 21 to 35 days. The amount of time before ovulation occurs is different in every woman and even can be different from month to month in the same woman, varying from 13 to 20 days long. Learning about this part of the cycle is important because it is when ovulation and pregnancy can occur. After ovulation, every woman (unless she has a health problem that affects her periods or becomes
pregnant) will have a period within 14 to 16 days.

*Charting your fertility pattern*

Knowing when you're most fertile will help you plan pregnancy. There are three ways you can keep track of your fertile times. They are:

1. **Basal body temperature method** – Basal body temperature is your temperature at rest as soon as you awake in the morning. A woman's basal body temperature rises slightly with ovulation. So by recording this temperature daily for several months, you'll be able to predict your most fertile days.

2. Basal body temperature differs slightly from woman to woman. Anywhere from 96 to 98 degrees Fahrenheit orally is average before ovulation. After ovulation most women have an oral temperature between 97 and 99 degrees Fahrenheit. The rise in temperature can be a sudden jump or a gradual climb over a few days.

3. Usually a woman's basal body temperature rises by only 0.4 to 0.8 degrees Fahrenheit. To detect this tiny change, women must use a basal body thermometer. These thermometers are very sensitive. Most pharmacies sell them for about $10. You can then record your temperature on a basal body temperature chart.

4. The rise in temperature doesn't show exactly when the egg is released. But almost all women have ovulated within three days after their temperatures spike. Body temperature stays at the higher level until the woman's period starts.

5. A woman is most fertile and most likely to get pregnant:
   - Two to three days before your temperature hits the highest point (ovulation)
   - and 12 to 24 hours after ovulation

6. A man's sperm can live for up to three days in a woman's body. The sperm can fertilize an egg at any point during that time. So if you have unprotected sex a few days before ovulation, you could get pregnant.

7. Many things can affect basal body temperature. For your chart to be useful, make sure to take your temperature every morning at about the same time. Things that can alter your temperature include:
   - Drinking alcohol the night before
   - Smoking cigarettes the night before
   - Getting a poor night’s sleep
   - Having a fever
   - Doing anything in the morning before you take your temperature — including going to the bathroom and talking on the phone

8. **Calendar method** – This involves recording your menstrual cycle on a calendar for eight to 12 months. The first day of your period is Day 1. Circle Day 1 on the calendar. The length of your cycle may vary from month to month. So write down the total number of days it lasts each time. Using this record, you can find the days you are most fertile in the months ahead:
   - To find out the first day when you are most fertile, subtract 18 from the total number of days in your shortest cycle. Take this new number and count ahead that many days from the first day of your next period. Draw an X through this date on your calendar. The X marks the first day you're likely to be fertile.
   - To find out the last day when you are most fertile, subtract 11 from the total number of days in your longest cycle. Take this new number and count ahead that many days from the first day of your next period. Draw an X through this date on your calendar. The time between the two Xs is your most fertile window.

9. This method always should be used along with other fertility awareness methods, especially if your cycles are not always the same length.
Optional: Use this Ovulation and due date calculator to find out when you (or a woman you know) are most likely to become pregnant and to estimate your due date should conception occur.

Did you know?

The cervical mucus method is less reliable for some women. Women who are breastfeeding, taking hormonal birth control (like the pill), using feminine hygiene products, have vaginitis or sexually transmitted infections (STIs), or have had surgery on the cervix should not rely on this method.

1. **Cervical mucus method** (also known as the ovulation method) – This involves being aware of the changes in your cervical mucus throughout the month. The hormones that control the menstrual cycle also change the kind and amount of mucus you have before and during ovulation. Right after your period, there are usually a few days when there is no mucus present or "dry days." As the egg starts to mature, mucus increases in the vagina, appears at the vaginal opening, and is white or yellow and cloudy and sticky. The greatest amount of mucus appears just before ovulation. During these "wet days" it becomes clear and slippery, like raw egg whites. Sometimes it can be stretched apart. This is when you are most fertile. About four days after the wet days begin the mucus changes again. There will be much less and it becomes sticky and cloudy. You might have a few more dry days before your period returns. Describe changes in your mucus on a calendar. Label the days, "Sticky," "Dry," or "Wet." You are most fertile at the first sign of wetness after your period or a day or two before wetness begins.

2. To most accurately track your fertility, use a combination of all three methods. This is called the symptothermal (SIM-toh-thur-muhl) method. You can also purchase over-the-counter ovulation kits or fertility monitors to help find the best time to conceive. These kits work by detecting surges in a specific hormone called luteinizing hormone, which triggers ovulation.

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**Infertility**

Some women want children but either cannot conceive or keep miscarrying. This is called infertility. Lots of couples have infertility problems. About one-third of the time, it is a female problem. In another one-third of cases, it is the man with the fertility problem. For the remaining one-third, both partners have fertility challenges or no cause is found.

**Causes of infertility**

Some common reasons for infertility in women include:

- **Age** – Women generally have some decrease in fertility starting in their early 30s. And while many women in their 30s and 40s have no problems getting pregnant, fertility especially declines after age 35. As a woman ages, normal changes that occur in her ovaries and eggs make it harder to become pregnant. Even though menstrual cycles continue to be regular in a woman's 30s and 40s, the eggs that ovulate each month are of poorer quality than those from her 20s. It is harder to get pregnant when the eggs are poorer in quality. As a woman nears menopause, the ovaries may not release an egg each month, which also can make it harder to get pregnant. Also, as a woman and her eggs age, she is more likely to miscarry, as well as have a baby with genetic problems, such as Down syndrome.

- **Health problems** – Some women have diseases or conditions that affect their hormone levels, which can cause infertility. Women with polycystic ovary syndrome (PCOS) rarely or never ovulate. Failure to ovulate is the most common cause of infertility in women.
• With primary ovarian insufficiency (POI), a woman's ovaries stop working normally before she is 40. It is not the same as early menopause. Some women with POI get a period now and then. But getting pregnant is hard for women with POI.
• A condition called luteal phase defect (LPD) is a failure of the uterine lining to be fully prepared for pregnancy. This can keep a fertilized egg from implanting or result in miscarriage.

Common problems with a woman's reproductive organs, like uterine fibroids, endometriosis, and pelvic inflammatory disease can worsen with age and also affect fertility. These conditions might cause the fallopian tubes to be blocked, so the egg can't travel through the tubes into the uterus.

**Lifestyle factors** — Certain lifestyle factors also can have a negative effect on a woman's fertility. Examples include smoking, alcohol use, weighing much more or much less than an ideal body weight, a lot of strenuous exercise, and having an eating disorder. Stress also can affect fertility.

Unlike women, some men remain fertile into their 60s and 70s. But as men age, they might begin to have problems with the shape and movement of their sperm. They also have a slightly higher risk of sperm gene defects. Or they might produce no sperm, or too few sperm. Lifestyle choices also can affect the number and quality of a man's sperm. Alcohol and drugs can temporarily reduce sperm quality. And researchers are looking at whether environmental toxins, such as pesticides and lead, also may be to blame for some cases of infertility. Men also can have health problems that affect their sexual and reproductive function. These can include sexually transmitted infections (STIs), diabetes, surgery on the prostate gland, or a severe testicle injury or problem.

**When to see your doctor**

You should talk to your doctor about your fertility if:

• You are younger than 35 and have not been able to conceive after one year of frequent sex without birth control.
• You are age 35 or older and have not been able to conceive after six months of frequent sex without birth control.
• You believe you or your partner might have fertility problems in the future (even before you begin trying to get pregnant).
• You or your partner has a problem with sexual function or libido.

Happily, doctors are able to help many infertile couples go on to have babies.

If you are having fertility issues, your doctor can refer you to a fertility specialist, a doctor who treats infertility. The doctor will need to test both you and your partner to find out what the problem is. Depending on the problem, your doctor might recommend treatment. About 9 in 10 cases of infertility are treated with drugs or surgery. *Don't delay seeing your doctor as age also affects the success rates of these treatments.* For some couples, adoption or foster care offers a way to share their love with a child and to build a family.

**Infertility treatment**

Some treatments include:

• **Drugs** — Various fertility drugs may be used for women with ovulation problems. It is important to talk with your doctor about the drug to be used. You should understand the drug's benefits and side effects. Depending on the type of fertility drug and the dosage of the drug used, multiple births (such as twins) can occur.
• **Surgery** – Surgery is done to repair damage to a woman's ovaries, fallopian tubes, or uterus. Sometimes a man has an infertility problem that can be corrected by surgery.

• **Intrauterine (in-truh-YOOT-uh-ruhn) insemination (IUI), also called artificial insemination** – Male sperm is injected into part of the woman's reproductive tract, such as into the uterus or fallopian tube. IUI often is used along with drugs that cause a woman to ovulate.

• **Assisted reproductive technology (ART)** – ART involves stimulating a woman's ovaries; removing eggs from her body; mixing them with sperm in the laboratory; and putting the embryos back into a woman's body. Success rates of ART vary and depend on many factors.

• **Third party assistance** – Options include donor eggs (eggs from another woman are used), donor sperm (sperm from another man are used), or surrogacy (when another woman carries a baby for you).

Finding the cause of infertility is often a long, complex, and emotional process. And treatment can be expensive. Many health insurance companies do not provide coverage for infertility or provide only limited coverage. Check your health insurance contract carefully to learn about what is covered. Some states have laws that mandate health insurance policies to provide infertility coverage.

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**Preconception Care: Why Preconception Health Matters**

Preconception health is a woman's health before she becomes pregnant. It means knowing how health conditions and risk factors could affect a woman or her unborn baby if she becomes pregnant. For example, some foods, habits, and medicines can harm your baby — even before he or she is conceived. Some health problems, such as diabetes, also can affect pregnancy.

Every woman should be thinking about her health whether or not she is planning pregnancy. One reason is that about half of all pregnancies are not planned. Unplanned pregnancies are at greater risk of preterm birth and low birth weight babies. Another reason is that, despite important advances in medicine and prenatal care, about 1 in 8 babies is born too early. Researchers are trying to find out why and how to prevent preterm birth. But experts agree that women need to be healthy before becoming pregnant. By taking action on health issues and risks before pregnancy, you can prevent problems that might affect you or your baby later.

**Five most important things to boost your preconception health**

Women and men should prepare for pregnancy before becoming sexually active — or at least three months before getting pregnant. Some actions, such as quitting smoking, reaching a healthy weight, or adjusting medicines you are using, should start even earlier. The five most important things a woman can do for preconception health are:

1. Take 400 to 800 micrograms (400 to 800 mcg or 0.4 to 0.8 mg) of folic acid every day if you are planning or capable of pregnancy to lower your risk of some birth defects of the brain and spine, including spina bifida. All women need folic acid every day. Talk to your doctor about your folic acid needs. Some doctors prescribe prenatal vitamins that contain higher amounts of folic acid.

2. Stop smoking and drinking alcohol.

3. If you have a medical condition, be sure it is under control. Some conditions that can affect pregnancy or be affected by it include asthma, diabetes, oral health, obesity, or epilepsy.

4. Talk to your doctor about any over-the-counter and prescription medicines you are using. Note: These include dietary or herbal supplements. Be sure your vaccinations are up to date.
5. Avoid contact with toxic substances or materials that could cause infection at work and at home. Stay away from chemicals and cat or rodent feces.

Contraception

According to the Guttmacher Institute: "In 2008, there were 6.4 million pregnancies to the 62 million women of reproductive age (15–44) in the United States. Sixty-six percent of these pregnancies resulted in live births and 19% in induced abortions. And, nearly half of pregnancies among American women—more than three million each year—are unintended."

An unintended pregnancy is a pregnancy that is either mistimed or unwanted at the time of conception. It is a core concept in understanding the fertility of populations and the unmet need for contraception. Unintended pregnancy is associated with an increased risk of morbidity for women, and with health behaviors during pregnancy that are associated with adverse effects. For example, women with an unintended pregnancy may delay prenatal care, which may affect the health of the infant. Women of all ages may have unintended pregnancies, but some groups, such as teens, are at a higher risk. Efforts to decrease unintended pregnancy include finding better forms of contraception, and increasing contraceptive use and adherence.

Contraception, also known as birth control, is designed to prevent pregnancy. Some types of birth control include (but are not limited to):

- **Barrier methods**, such as condoms, the diaphragm, and the cervical cap, are designed to prevent the sperm from reaching the egg for fertilization. Intrauterine device, or IUD, is a small device that is inserted into the uterus by a health care provider. The IUD prevents a fertilized egg from implanting in the uterus. An IUD can stay in the uterus for up to 10 years until a health care provider removes it.

- **Hormonal birth control**, such as birth control pills, injections, skin patches, and vaginal rings, release hormones into a woman’s body that interfere with fertility by preventing ovulation, fertilization, or implantation.

- **Sterilization** is a method that permanently prevents a woman from getting pregnant or a man from being able to get a woman pregnant. Sterilization involves surgical procedures that must be done by a health care provider and usually cannot be reversed.

The choice of birth control depends on factors such as a person's overall health, age, frequency of sexual activity, number of sexual partners, desire to have children in the future, and family history of certain diseases. A woman should talk to her health care provider about her choice of birth control method.

It is important to remember that even though birth control methods can prevent pregnancy, they do not all protect against sexually transmitted diseases or HIV.

Contraception Methods

There is no "best" method of birth control. Each method has its pros and cons. All women and men can have control over when, and if, they become parents. Making choices about birth control, or contraception, isn't easy. There are many things to think about. To get started, learn about birth control methods you or your partner can use to prevent pregnancy. You can also talk with your doctor about the choices.
Before choosing a birth control method, think about:

- Your overall health
- How often you have sex
- The number of sex partners you have
- If you want to have children someday
- How well each method works to prevent pregnancy
- Possible side effects
- Your comfort level with using the method

You can choose from many methods of birth control. They are grouped by how they work:

- Continuous abstinence: This means not having sex (vaginal, anal, or oral) at any time. It is the only sure way to prevent pregnancy and protect against sexually transmitted infections (STIs), including HIV.
- Natural family planning/rhythm method: This method is when you do not have sex or use a barrier method on the days you are most fertile (most likely to become pregnant). A woman who has a regular menstrual cycle has about 9 or more days each month when she is able to get pregnant. These fertile days are about 5 days before and 3 days after ovulation, as well as the day of ovulation.

To have success with this method, you need to learn about your menstrual cycle. Then you can learn to predict which days you are fertile or "unsafe." To learn about your cycle, keep a written record of:

- When you get your period
- What it is like (heavy or light blood flow)
- How you feel (sore breasts, cramps)

This method also involves checking your cervical mucus and recording your body temperature each day. Cervical mucus is the discharge from your vagina. You are most fertile when it is clear and slippery like raw egg whites. Use a basal thermometer to take your temperature and record it in a chart. Your temperature will rise 0.4 to 0.8° F on the first day of ovulation. You can talk with your doctor or a natural family planning instructor to learn how to record and understand this information.

**Barrier Methods** - Put up a block, or barrier, to keep sperm from reaching the egg

**Contraceptive Sponge**

Before having sex, you wet the sponge and place it, loop side down, inside your vagina to cover the cervix. The sponge is effective for more than one act of intercourse for up to 24 hours. It needs to be left in for at least 6 hours after having sex to prevent pregnancy. It must then be taken out within 30 hours after it is inserted.

Only one kind of contraceptive sponge is sold in the United States. It is called the Today Sponge. Women who are sensitive to the spermicide nonoxynol-9 should not use the sponge.

**Diaphragm, cervical cap, and cervical shield**

These barrier methods block the sperm from entering the cervix (the opening to your womb) and reaching the egg.
• The diaphragm is a shallow latex cup.
• The cervical cap is a thimble-shaped latex cup. It often is called by its brand name, FemCap.
• The cervical shield is a silicone cup that has a one-way valve that creates suction and helps it fit against the cervix. It often is called by its brand name, Lea's Shield.

The diaphragm and cervical cap come in different sizes, and you need a doctor to "fit" you for one. The cervical shield comes in one size, and you will not need a fitting. Before having sex, add spermicide (to block or kill sperm) to the devices. Then place them inside your vagina to cover your cervix. You can buy spermicide gel or foam at a drug store.

All three of these barrier methods must be left in place for 6 to 8 hours after having sex to prevent pregnancy. The diaphragm should be taken out within 24 hours. The cap and shield should be taken out within 48 hours.

**Female condom**

This condom is worn by the woman inside her vagina. It keeps sperm from getting into her body. It is made of thin, flexible, manmade rubber and is packaged with a lubricant. It can be inserted up to 8 hours before having sex. Use a new condom each time you have intercourse. And don't use it and a male condom at the same time.

**Male condom**

Male condoms are a thin sheath placed over an erect penis to keep sperm from entering a woman's body. Condoms can be made of latex, polyurethane, or "natural/lambskin". The natural kind do not protect against STIs. Condoms work best when used with a vaginal spermicide, which kills the sperm. A new condom needs to be used with each sex act.

Condons are either:

• Lubricated, which can make sexual intercourse more comfortable
• Non-lubricated, which can also be used for oral sex. It is best to add lubrication to nonlubricated condoms if you use them for vaginal or anal sex. You can use a waterbased lubricant, such as K-Y jelly. You can buy them at the drug store. Oil-based lubricants like massage oils, baby oil, lotions, or petroleum jelly will weaken the condom, causing it to tear or break.

Keep condoms in a cool, dry place. If you keep them in a hot place (like a wallet or glove compartment), the latex breaks down. Then the condom can tear or break.

Hormonal methods - Prevent pregnancy by interfering with ovulation, fertilization, and/or implantation of the fertilized egg

**Oral contraceptives** - combined pill ("The pill")

The pill contains the hormones estrogen and progestin. It is taken daily to keep the ovaries from releasing an egg. The pill also causes changes in the lining of the uterus and the cervical mucus to keep the sperm from joining the egg.

Some women prefer the "extended cycle" pills. These have 12 weeks of pills that contain hormones (active) and 1 week of pills that don't contain hormones (inactive). While taking extended cycle pills, women only have their period three to four times a year.

Many types of oral contraceptives are available. Talk with your doctor about which is best for you.
Your doctor may advise you not to take the pill if you:

- Are older than 35 and smoke
- Have a history of blood clots
- Have a history of breast, liver, or endometrial cancer

Antibiotics may reduce how well the pill works in some women. Talk to your doctor about a backup method of birth control if you need to take antibiotics. Women should wait three weeks after giving birth to begin using birth control that contains both estrogen and progestin. These methods increase the risk of dangerous blood clots that could form after giving birth. Women who delivered by cesarean section or have other risk factors for blood clots, such as obesity, history of blood clots, smoking, or preeclampsia, should wait six weeks.

The patch

Also called by its brand name, Ortho Evra, this skin patch is worn on the lower abdomen, buttocks, outer arm, or upper body. It releases the hormones progestin and estrogen into the bloodstream to stop the ovaries from releasing eggs in most women. It also thickens the cervical mucus, which keeps the sperm from joining with the egg. You put on a new patch once a week for 3 weeks. You don't use a patch the fourth week in order to have a period.

Women should wait three weeks after giving birth to begin using birth control that contains both estrogen and progestin. These methods increase the risk of dangerous blood clots that could form after giving birth. Women who delivered by cesarean section or have other risk factors for blood clots, such as obesity, history of blood clots, smoking, or preeclampsia, should wait six weeks.

Shot/injection

The birth control shot often is called by its brand name Depo-Provera. With this method you get injections, or shots, of the hormone progestin in the buttocks or arm every 3 months. A new type is injected under the skin. The birth control shot stops the ovaries from releasing an egg in most women. It also causes changes in the cervix that keep the sperm from joining with the egg.

Vaginal ring

This is a thin, flexible ring that releases the hormones progestin and estrogen. It works by stopping the ovaries from releasing eggs. It also thickens the cervical mucus, which keeps the sperm from joining the egg. It is commonly called NuvaRing, its brand name. You squeeze the ring between your thumb and index finger and insert it into your vagina. You wear the ring for 3 weeks, take it out for the week that you have your period, and then put in a new ring.

Women should wait three weeks after giving birth to begin using birth control that contains both estrogen and progestin. These methods increase the risk of dangerous blood clots that could form after giving birth. Women who delivered by cesarean section or have other risk factors for blood clots, such as obesity, history of blood clots, smoking, or preeclampsia, should wait six weeks.

Implantable devices — Devices that are inserted into the body and left in place for a few years.

Implantable rod
This is a matchstick-size, flexible rod that is put under the skin of the upper arm. It is often called by its brand name, Implanon. The rod releases a progestin, which causes changes in the lining of the uterus and the cervical mucus to keep the sperm from joining an egg. Less often, it stops the ovaries from releasing eggs. It is effective for up to 3 years.

**Intrauterine devices or IUDs**

An IUD is a small device shaped like a "T" that goes in your uterus. There are two types:

- **Copper IUD** The copper IUD goes by the brand name ParaGard. It releases a small amount of copper into the uterus, which prevents the sperm from reaching and fertilizing the egg. If fertilization does occur, the IUD keeps the fertilized egg from implanting in the lining of the uterus. A doctor needs to put in your copper IUD. It can stay in your uterus for 5 to 10 years.

- **Hormonal IUD** The hormonal IUD goes by the brand name Mirena. It is sometimes called an intrauterine system, or IUS. It releases progestin into the uterus, which keeps the ovaries from releasing an egg and causes the cervical mucus to thicken so sperm can't reach the egg. It also affects the ability of a fertilized egg to successfully implant in the uterus. A doctor needs to put in a hormonal IUD. It can stay in your uterus for up to 5 years.

**Sterilization implant (essure)**

Essure is the first non-surgical method of sterilizing women. A thin tube is used to thread a tiny spring-like device through the vagina and uterus into each fallopian tube. The device works by causing scar tissue to form around the coil. This blocks the fallopian tubes and stops the egg and sperm from joining.

It can take about 3 months for the scar tissue to grow, so it's important to use another form of birth control during this time. Then you will have to return to your doctor for a test to see if scar tissue has fully blocked your tubes.

**Surgical sterilization**

For women, surgical sterilization closes the fallopian tubes by being cut, tied, or sealed. This stops the eggs from going down to the uterus where they can be fertilized. The surgery can be done a number of ways. Sometimes, a woman having cesarean birth has the procedure done at the same time, so as to avoid having additional surgery later.

For men, having a vasectomy (vuh-SEK-tuh-mee) keeps sperm from going to his penis, so his ejaculate never has any sperm in it. Sperm stays in the system after surgery for about 3 months. During that time, use a backup form of birth control to prevent pregnancy. A simple test can be done to check if all the sperm is gone; it is called a semen analysis.

**Emergency contraception**

Used if a woman's primary method of birth control fails. It should not be used as a regular method of birth control. Emergency contraception (Plan B One-Step or Next Step. It is also called the "morning after pill.") Emergency contraception keeps a woman from getting pregnant when she has had unprotected vaginal intercourse. "Unprotected" can mean that no method of birth control was used. It can also mean that a birth control method was used but it was used incorrectly, or did not work (like a condom breaking). Or, a woman may have forgotten to take her birth control pills. She also may have been abused or forced to have sex. These are just some of the reasons women may need emergency contraception.

Emergency contraception can be taken as a single pill treatment or in two doses. A single dose treatment works as well.
as two doses and does not have more side effects. It works by stopping the ovaries from releasing an egg or keeping
the sperm from joining with the egg. For the best chances for it to work, take the pill as soon as possible after
unprotected sex. It should be taken within 72 hours after having unprotected sex.

A single-pill dose or two-pill dose of emergency contraception is available over-the-counter (OTC) for women ages 17
and older.

Can all types of birth control prevent sexually transmitted infections (STIs)?

No. The male latex condom is the only birth control method proven to help protect you from STIs, including HIV.
Research is being done to find out how effective the female condom is at preventing STIs and HIV. For more
information, see Will birth control pills protect me from sexually transmitted infections (STIs), including HIV/AIDS?

How well do different kinds of birth control work? Do they have side effects?

All birth control methods work the best if used correctly and every time you have sex. Be sure you know the right way to
use them. Sometimes doctors don't explain how to use a method because they assume you already know. Talk with
your doctor if you have questions. They are used to talking about birth control. So don't feel embarrassed about talking
to him or her. Some birth control methods can take time and practice to learn. For example, some people don't know you
can put on a male condom "inside out." Also, not everyone knows you need to leave a little space at the tip of the
condom for the sperm and fluid when a man ejaculates, or has an orgasm. The misuse of contraceptives is known as
human error and is the main reason why effectiveness is determined by typical use and perfect use. Below is a table
showing the percentage of woman experiencing an unintended pregnancy during the first year of typical use and the first
year of perfect use of different types of contraception.

![Figure](https://med.libretexts.org/Bookshelves/Health/Book%3A_Health_Education_(Rienk_and_Lundin)/06%3A_Sexual_Health/6.09…)

**Figure** *(PagelIndex{1})*. Success Rates of Common Contraception

Where to Get Birth Control

Where you get birth control depends on what method you choose.

You will need surgery or a medical procedure for:

- Sterilization, female and male
You need a prescription for these forms:

- Skin patch
- Diaphragm (your doctor needs to fit one to your shape)
- Cervical shield
- IUD (inserted by a doctor)
- Implantable rod (inserted by a doctor)

You can buy these forms over the counter:

- Male condoms
- Female condoms
- Sponges
- Spermicides
- Emergency contraception pills (girls younger than 17 need a prescription)
- Spermicides: They work by killing sperm. They come in many forms:
  - Foam
  - Gel
  - Cream
  - Film
  - Suppository
  - Tablet

Spermicides are put in the vagina no more than 1 hour before having sex. If you use a film, suppository, or tablet, wait at least 15 minutes before having sex so the spermicide can dissolve. Do not douche or rinse out your vagina for at least 6 to 8 hours after having sex. You will need to use more spermicide each time you have sex.

Spermicides work best if used along with a barrier method, such as a condom, diaphragm, or cervical cap. Some spermicides are made just for use with the diaphragm and cervical cap. Check the package to make sure you are buying what you need.

All spermicides contain sperm-killing chemicals. Some contain nonoxynol-9, which may raise your risk of HIV if you use it a lot. It irritates the tissue in the vagina and anus, so it can cause the HIV virus to enter the body more freely. Some women are sensitive to nonoxynol-9 and need to use spermicides without it. Medications for vaginal yeast infections may lower the effectiveness of spermicides. Also, spermicides do not protect against sexually transmitted infections.

Withdrawal

Withdrawal is when a man takes his penis out of a woman’s vagina (or “pulls out”) before he ejaculates, or has an orgasm. This stops the sperm from going to the egg. "Pulling out" can be hard for a man to do. It takes a lot of self-control. Even if you use withdrawal, sperm can be released before the man pulls out. When a man’s penis first becomes
erect, preejaculate fluid may be on the tip of the penis. This fluid has sperm in it. So you could still get pregnant. Withdrawal does not protect you from STIs or HIV.

**Dental Dams**

The dental dam is a square piece of rubber that is used by dentists during oral surgery and other procedures. It is not a method of birth control. But it can be used to help protect people from STIs, including HIV, during oral-vaginal or oral-anal sex. It is placed over the opening to the vagina or the anus before having oral sex. You can buy dental dams at surgical supply stores.

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**Abortion**

Abortion is the ending of pregnancy by removing a fetus or embryo before it can survive outside the uterus. An abortion that occurs spontaneously is also known as a miscarriage.

An abortion may be caused purposely and is then called an induced abortion, or less frequently, "induced miscarriage". The word abortion is often used to mean only induced abortions. A similar procedure after the fetus could potentially survive outside the womb is known as a "late termination of pregnancy".

When allowed by law, abortion in the developed world is one of the safest procedures in medicine. Modern methods use medication or surgery for abortions. The drug mifepristone in combination with prostaglandin appears to be as safe and effective as surgery during the first and second trimester of pregnancy. Birth control, such as the pill or intrauterine devices, can be used immediately following abortion. When performed legally and safely, induced abortions do not increase the risk of long-term mental or physical problems. In contrast, unsafe abortions (those performed by unskilled individuals, with hazardous equipment, or in unsanitary facilities) cause 47,000 deaths and 5 million hospital admissions each year. The World Health Organization recommends safe and legal abortions be available to all women.

Around 56 million abortions are performed each year in the world, with about 45% done unsafely. Abortion rates changed little between 2003 and 2008, before which they decreased for at least two decades as access to family planning and birth control increased. As of 2008, 40% of the world's women had access to legal abortions without limits as to reason. Countries that permit abortions have different limits on how late in pregnancy abortion is allowed.

Historically, abortions have been attempted using herbal medicines, sharp tools, with force, or through other traditional methods. Abortion laws and cultural or religious views of abortions are different around the world. In some areas abortion is legal only in specific cases such as rape, problems with the fetus, poverty, risk to a woman's health, or incest. In many places there is much debate over the moral, ethical, and legal issues of abortion. Those who oppose abortion often maintain that an embryo or fetus is a human with a right to life and may compare abortion to murder. Those who favor the legality of abortion often hold that a woman has a right to make decisions about her own body.

**Methods of Abortion**

How many weeks a woman is pregnant is usually the main factor in determining which abortion methods are practiced. Below are the two main methods for abortion.

**Medical**
Medical abortions are performed without entering the uterus. Instead, medical abortions terminate a pregnancy by abortifacient pharmaceuticals, which are drugs that cause abortion. These drugs induce abortion by blocking the action of progesterone, which results in the lining of the embryo being expelled from the uterus, thus terminating the pregnancy.

If medical abortion fails, surgical abortion must be used to complete the procedure. Early medical abortions account for the majority of abortions before 9 weeks gestation in Britain, France, Switzerland, and the Nordic countries. In the United States, the percentage of early medical abortions is far lower.

Medical abortion regimens using mifepristone in combination with a prostaglandin analog are the most common methods used for second-trimester abortions in Canada, most of Europe, China and India, in contrast to the United States where 96% of second-trimester abortions are performed surgically by dilation and evacuation.

Surgical

Up to 15 weeks into a pregnancy, suction-aspiration or vacuum aspiration are the most common surgical methods of induced abortion. Manual vacuum aspiration (MVA) consists of removing the fetus or embryo, placenta, and membranes by suction using a manual syringe, while electric vacuum aspiration (EVA) uses an electric pump. These techniques differ in the mechanism used to apply suction, in how early in pregnancy they can be used, and in whether cervical dilation is necessary.

![Diagram](https://med.libretexts.org/Bookshelves/Health/Book%3A_Sexual_Health_(Rienk_and_Lundin)/06%3A_Sexual_Health/6.09%3A_Sexual_Health_in_Females/6.09.02_Clinical_Abortion/fig2)

**Figure** (PageIndex[2]). Vacuum Aspiration Abortion

1. Amniotic sac
2. Embryo
3. Uterine lining
4. Speculum
5. Vacurette
6. Attached to a suction pump

MVA, also known as "mini-suction" and "menstrual extraction", can be used in very early pregnancy, and does not require cervical dilation. Dilation and curettage (D&C), the second most common method of surgical abortion, is a
standard gynecological procedure performed for a variety of reasons, including examination of the uterine lining for possible malignancy, investigation of abnormal bleeding, and abortion. Curettage refers to cleaning the walls of the uterus with a curette. The World Health Organization recommends this procedure, also called sharp curettage, only when MVA is unavailable.

From the 15th week of gestation until approximately the 26th, other techniques must be used. Dilation and evacuation (D&E) consists of opening the cervix of the uterus and emptying it using surgical instruments and suction. After the 16th week of gestation, abortions can also be induced by intact dilation and extraction (IDX) (also called intrauterine cranial decompression), which requires surgical decompression of the fetus's head before evacuation. IDX is sometimes called "partial-birth abortion", which has been federally banned in the United States.

In the third trimester of pregnancy, induced abortion may be performed surgically by intact dilation and extraction or by hysterotomy. Hysterotomy abortion is a procedure similar to a caesarean section and is performed under general anesthesia. It requires a smaller incision than a caesarean section and is used during later stages of pregnancy. First-trimester procedures can generally be performed using local anesthesia, while second-trimester methods may require deep sedation or general anesthesia.

**Abortion Debate**

Induced abortion has long been the course of considerable debate.

Ethical, moral, philosophical, biological, religious and legal issues surrounding abortion are related to value systems. Opinions of abortion may be about fetal rights, governmental authority, and women's rights.

In both public and private debate, arguments presented in favor of or against abortion access focus on either the moral permissibility of an induced abortion, or justification of laws permitting or restricting abortion. The World Medical Association Declaration on Therapeutic Abortion notes, "circumstances bringing the interests of a mother into conflict with the interests of her unborn child create a dilemma and raise the question as to whether or not the pregnancy should be deliberately terminated." Abortion debates, especially pertaining to abortion laws, are often spearheaded by groups advocating one of these two positions. Anti-abortion groups who favor greater legal restrictions on abortion, including complete prohibition, most often describe themselves as "pro-life" while abortion rights groups who are against such legal restrictions describe themselves as "pro-choice". Generally, the former position argues that a human fetus is a human person with a right to live, making abortion morally the same as murder. The latter position argues that a woman has certain reproductive rights, especially the choice whether or not to carry a pregnancy to term.

**Roe v. Wade**

*Roe v. Wade* is a landmark decision issued in 1973 by the United States Supreme Court on the issue of the constitutionality of laws that criminalized or restricted access to abortions. The Court ruled 7–2 that a right to privacy under the Due Process Clause of the 14th Amendment extended to a woman's decision to have an abortion, but that this right must be balanced against the state's interests in regulating abortions: protecting women's health and protecting the potentiality of human life. Arguing that these state interests became stronger over the course of a pregnancy, the Court resolved this balancing test by tying state regulation of abortion to the third trimester of pregnancy.

Later, in *Planned Parenthood v. Casey* (1992), the Court rejected *Roe*'s trimester framework while affirming its central
holding that a woman has a right to abortion until fetal viability. The Roe decision defined "viable" as "potentially able to live outside the mother's womb, albeit with artificial aid." Justices in Casey acknowledged that viability may occur at 23 or 24 weeks, or sometimes even earlier, in light of medical advances. In disallowing many state and federal restrictions on abortion in the United States, Roe v. Wade prompted a national debate that continues today about issues including whether, and to what extent, abortion should be legal, who should decide the legality of abortion, what methods the Supreme Court should use in constitutional adjudication, and what the role should be of religious and moral views in the political sphere. Roe v. Wade reshaped national politics, dividing much of the United States into pro-life and pro-choice camps, while activating grassroots movements on both sides.