

This module was developed as part of NIDA Grant DA06162-06A1, *Improving Drug Abuse Treatment Assessment and Research (DATAR-2)*.

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Human Sexuality

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Human Sexuality

Introduction

This section is designed to help you review information about men's sexual and reproductive health issues. In order to become comfortable with the subject matter you also may want to do further reading. A few references are listed below and most libraries and bookstores will have general textbooks on human sexuality that will be helpful.

Ortiz, Elizabeth, *Your Complete Guide to Sexual Health*, Prentice-Hall, Englewood Cliffs, NJ, 1989.

McCary, James & McCary, S. P. , *Human Sexuality, 3rd Edition*, Wadsworth Publishing, Belmont, CA, 1984.

Nowinski, Joseph, *Becoming Satisfied: A Man's Guide to Sexual Fulfillment*, Prentice-Hall, Englewood Cliffs, NJ, 1980.

Oppenheim, M., *The Man's Health Book*, Prentice-Hall, Englewood, Cliff, NJ, 1994.

Wertheimer, N. (Ed.), *Total Health for Men*, Rodale Press, Emmaus, PA, 1995.

Sessions 6 and 7 of the module deal with sexuality, health, and safer sex issues. You may prefer to invite a guest speaker to help you lead these sessions, using this manual as a guide. The following organizations may be able to provide guest speakers or other assistance. Check your telephone book for offices that serve your area:

- Planned Parenthood or other family planning organizations
- Public health departments
- Medical societies or physician's associations
- Nurse's associations
- Hospital education departments
- AIDS/HIV resource and service organizations

This section contains a brief, general discussion of men's reproductive and sexual health concerns, including information about anatomy, human reproduction, testicular and prostate health, sexual dysfunction, and sexually transmitted diseases. Because men often will have questions, information about women's physiology, including menstruation, menopause, and pregnancy also is included. In Appendix B you'll find additional information about reproductive health issues, including *FACT SHEET* handouts and a glossary of sexual terminology.

Our socialization often creates the expectation that men are supposed to be totally knowledgeable, worldly, and in-control. Unfortunately, this mind-set prevents many men from being able to ask questions and admit the need for more information, especially in the arena of sexuality. The rationale for presenting this material is to provide a nonthreatening setting where men can ask questions, gain knowledge, and learn appreciation for their bodies (and women's bodies). This is seen as an important step toward improving health, intimacy, and relationships.

Male Reproductive and Sexual Anatomy

A man's sexual anatomy is complex and surprisingly delicate. There are both internal and external organs in the male reproductive system, including the penis, the testicles and scrotum, the vas deferens, the urethra, the prostate, and various glands.

The **penis** is the major external sex organ in men. It has both a reproductive function and a urinary function. The size of the penis varies, but for the average adult the flaccid or limp penis measures 3 to 4.5 inches and the erect penis measures between 4.5 and 9 inches. The size of the penis is unrelated to height, weight, or other physical characteristics. Also the size of the penis is not related to sexual potency, fertility, or the ability to satisfy a woman.

The penis is a fairly complicated organ, made up of specialized tissues and hollow spaces that fill with blood during sexual excitement. This swelling and stiffening of the penis is called an **erection**. Inside the body or **shaft** of the penis there are two sections called **corpus cavernosum** and **corpus spongiosum**. These are the specialized tissues that fill with blood. The end of the penis is rounded and covered with very thin and sensitive tissues. This area is called the **glans**, and the ridge-like area where it joins the shaft is called the **corona**. The **urethra** is a long, tubelike organ that runs through the inside of the penis into the pelvis where it connects with the prostate and the bladder. This is the tube through which both urine or semen exit the man's body. The opening at the tip of the penis is called the **urinary opening**.

The penis is covered in thin, loose skin that is somewhat wrinkled when the penis is limp. This skin forms a loose sac that covers the glans and corona and

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is called the **foreskin**. When a male is **circumcised**, this foreskin is removed. Circumcision is usually performed on newborn infants. Although some religions require that males be circumcised, doctors nowadays believe there is no **medical** reason why all newborn males should undergo this procedure. If an adult man who has not been circumcised develops an infection or other health problem, he may need to undergo circumcision as part of treatment.

The **testes** or **testicles** are important organs in a man's sexual anatomy. The testicles are small, round organs about the size of walnuts. They are covered and protected by a sac of loose skin called the **scrotum** that changes in size and shape in response to cold, heat, and sexual stimulation. A special muscle called the **cremaster muscle** pulls the testicles and scrotum closer to the body when it's cold, and relaxes to allow them to hang lower when it's warm. These changes in response to temperature are not under a man's conscious control. They happen as a normal bodily response, designed to protect the functioning of the testicles.

The testicles produce **sperm cells** and the primary male hormone **testosterone**. In this sense, they function much like the ovaries in the female that produce **egg cells** and the female hormone **estrogen**. Inside each testicle there are areas made up of tiny, coiled tubes called **seminiferous tubules**. This is where the sperm cells are produced in an ongoing process. It's estimated that each testicle contains about ½ mile of these tiny, coiled, sperm-producing tubes. Newly produced sperm take about 10 weeks to mature. The sperm cells leave the seminiferous tubules and are collected in larger tubelike structures called the **epididymis** that lie along the back side of each testicle.

The sperm cells continue maturing in the epididymis and are eventually funneled into larger tubes called the **vas deferens** that run from each testicle into the pelvis. The vas deferens loop behind the bladder and join with **seminal vesicles**, which are glands that produce some of the fluids found in **semen** ("cum"). These connect with the **ejaculatory ducts** and run through the **prostate gland**. The prostate gland produces most of the fluids that make up semen. The urethra, which carries urine out of the bladder, also runs through the prostate gland and joins with the ejaculatory ducts. During sexual intercourse or stimulation the ejaculatory ducts close off the bladder so that urine cannot be passed when a man **ejaculates** (or "comes"). Two tiny glands called **Cowper's glands** are situated just below the prostate. They secrete the clear, sticky fluid that appears at the opening of the penis when a man first becomes sexually aroused. This fluid is designed to "clean" the urethra so that sperm cells are not damaged by traces of urine that may be present.

During sexual stimulation (which can be triggered by touch, sight, smell, or thoughts), the nerves in the penis respond and blood vessels in the area expand, causing an increased flow of blood that fills the specialized spongy tissues in the core of the penis causing an erection. About 5 times the normal amount of blood flows into the penis during an erection. As stimulation increases, through touch or sexual intercourse, the urethra, prostate, and seminal vesicles begin to

contract rhythmically and semen and sperm cells are expelled from the penis during ejaculation.

About a tablespoon of fluid is released during ejaculation, and it may contain as many as 300 million sperm cells, depending on the man's general health, fertility, and how often he has sex. During his lifetime, a man may produce several hundred billion sperm cells. Age does not completely diminish sperm production, although it does slow it down. However, there are records of men in their 90s fathering children.

Sperm cells are among the tiniest cells in the human body. Each one has a body and a taillike structure that wiggles back and forth to push the sperm forward. When sperm cells are deposited inside a woman's vagina, they begin to "swim" upwards into her uterus (womb), then out into specialized tubes connected to her uterus where an egg cell from her ovaries may be present. When a sperm cell succeeds in penetrating an egg cell, fertilization occurs and a pregnancy may follow. (See "What About Women?" section at the end of this article.)

Reproductive and Sexual Health

General health concerns

Sexual health is a part of a man's general, overall health and is influenced by many of the same things. By paying attention to good health practices over which he has some control, a man can help ensure a healthy and vigorous life. These include:

Nutrition

A man's daily diet should include several servings of fruits, vegetables, and lean meats in addition to carbohydrates or starches. It's a good idea to avoid high-fat foods, sugar, and too much salt. Most public health departments can provide a pamphlet on general nutrition and health.

Exercise

Regular exercise is important for muscle and bone strength, weight maintenance, stress reduction, and heart and lung fitness. Special strength building exercises, such as sit-ups, leg lifts, and weight training help prevent back problems and injuries, an important consideration for men who work in physically demanding jobs.

Substance abuse

Alcohol, illicit drugs, and tobacco contribute to many of the health problems experienced by men. Avoiding use of these substances can help improve health and fitness. These substances may impair a man's fertility and sexual functioning, especially when used in heavy amounts.

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Hygiene

Attention to hygiene and cleanliness is important for good health. Daily baths or showers with careful attention to cleansing the genital and rectal area is recommended. Men who have not been circumcised (who still have a foreskin) should take care to pull back the foreskin and wash the skin underneath when bathing. This helps prevent the build up of secretions that can contribute to irritation and infections.

Self-examination of the testicles

Most men are unaware that they should perform a self-examination of their testicles each month. Cancer of the testicles is rare, but it is one of the most common types of cancer in younger men (under age 35). When treated early, testicular cancer can be cured. When it spreads, it most commonly spreads to the lungs, liver, or bones, and it can be fatal. Treatment involves surgery to remove the affected testicle and also may involve radiation, chemotherapy, or hormone treatments. A tumor in one testicle normally will not spread to the other, so treatment involves only the diseased testicle.

The **Testicular Self-Exam (TSE)** can be easily performed after a warm shower or bath, and should be done *each month*. The warm temperature of the bath or shower encourages the scrotum to relax so that the testicles can be easily examined.

The **following steps** are recommended by the American Cancer Society for TSE:

1. Stand naked in front of a mirror and visually examine the testicles and scrotum, looking for any type of swelling or bumps.
2. Use your fingers to gently and carefully examine the surface of each testicle. Use your thumbs and fingers to gently slide or roll the testicle back and forth so that all surfaces can be felt. The testicle should feel firm and slippery, a bit like the firmness of a boiled egg. Each testicle should feel completely smooth, except for the epididymis (discussed earlier). The epididymis will feel like a soft, firm ridge or cord running up the back side of each testicle.
3. Testicular cancer may first appear as a small, hard, pea-sized lump or nodule on the side or front of the testicle. These lumps are painless and can usually be easily detected.
4. A lump, thickening, or bumpy area discovered in the testicle should be examined by a doctor *at once*. Pain, swelling, and lumps in the testicles may be caused by many kinds of problems or infections. Most are not cancer, but it's always a good idea to have any problem with the testicles checked out.

Other testicular problems

Men do not usually need frequent medical care for their sexual and reproductive systems (compared to women for whom annual exams are recommended). However, men should be aware of problems that can develop and seek medical care when needed. Some common problems that can affect a man's testicles include:

Mumps

Most adult men are immune to mumps through vaccination or from having had it in childhood. However, when adult men are infected by mumps, there is a 1 in 3 chance the virus will move to the testicles, a complication called **mumps orchitis**. The testicles become swollen and painful to touch and the condition lasts about a week. There is a high probability that the infected testicle(s) will be damaged, rendering the man infertile. Men who never had mumps in childhood or who were not vaccinated should avoid exposure to children who have the disease. A man may want to talk with a doctor or clinician about having a mumps vaccination.

Torsion

Under some circumstances, a testicle may become twisted inside the scrotum, cutting off its blood supply. When this happens, the testicle rapidly becomes swollen and painful. If the testicle doesn't become untwisted on its own within an hour or so, medical attention should be sought immediately. Without a blood supply, the testicle will be severely damaged and lose the ability to make sperm cells and testosterone, the male hormone. Symptoms of torsion of the testicle include sudden onset of severe pain and swelling in one side of the scrotum. Treatment may involve manipulation by a trained physician in order to untwist the testicle. In some cases surgery is needed to correct the condition.

Epididymitis

Epididymitis is an inflammation of the epididymis, the tube that runs along the back of each testicle where sperm are stored until they mature. In some cases, infection in the urinary tract or prostate gland can enter the epididymis and cause problems. In other cases, epididymitis is caused by sexually transmitted bacteria such as gonorrhea or chlamydia. Symptoms include pain and swelling in the testicle, fever, pain when urinating, and sometimes pus in the urine. In mild cases, a man may experience pain and soreness in the testicle that seems to come and go. Treatment requires antibiotics to eliminate the infection. Often the doctor or the clinic will run tests to determine what organism caused the infection. If the infection can be sexually transmitted, the man's sexual partner(s) also must be treated with antibiotics.

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Problems affecting the penis

There are relatively few disorders that affect the penis. Nonetheless, it's helpful for a man to be aware of indications of a possible problem so that he can seek medical attention promptly. The most common problems include:

Injury

The penis may be bruised or injured by being struck or during a fall. It's also possible to bruise the penis during rough sexual intercourse. These minor bruises or injuries, while painful, are not serious and will usually heal with time. Aspirin or other over-the-counter pain medication and cool compresses may help relieve the discomfort. Although there is no bone in the penis, it's possible for the penis to be fractured or sprained. This can happen when the erect penis is violently pulled to the side or bent. This causes the supporting structures (ligaments) of the penis to become torn from the groin area, resulting in internal bleeding, pain, and bruising. Surgery may be needed to repair the damaged ligaments.

Priapism

In rare circumstances the penis can become erect and stay erect over an unnaturally long period of time without subsiding. This often painful condition is called priapism and it's considered a serious medical problem. If an erection stays over several hours, the tissues inside the penis can become damaged permanently. This will result in impotence (inability to have future erections). Priapism develops when there is some damage to the circulatory or nervous system that controls blood entering and draining from the penis. This may be caused by diseases such as leukemia, sickle-cell anemia, tumors, or infection. Certain drugs and medications may also bring on priapism. If a man experiences a painful erection that lasts several hours without subsiding, he should seek medical help immediately. Treatment may involve medications or minor surgery to drain the blood from the penis. Without medical help permanent damage to the penis can occur.

Peyronie's Disease

In this disorder, patches of scar tissue form in the connective tissues under the skin of the penis, causing the penis to curve upward at a bent angle when erect. The cause of Peyronie's disease is unknown and it is not considered serious. However, the curvature of the penis may make erections painful and may make penetration of the vagina during sex difficult or impossible. The condition develops slowly over several years, and in some cases it will regress and disappear on its own. A mild case is usually left alone since it causes few problems. Severe cases may be helped with surgery.

Cancer

Cancer of the penis is very rare and usually tends to develop in older men. It may be associated with a previous history of viral infections such as herpes or genital warts. Penile cancer is slow growing, but requires surgery to keep it

from spreading. The major symptom is a sore, lump, ulcer, or growth that does not heal. The sore or lump is usually located near the head of the penis (the glans), but also may be located on the shaft. Pain, bleeding, and difficulty urinating also may occur. These symptoms are similar to those of some sexually transmitted diseases, and should be checked by a doctor. Small tumors may be treated with chemotherapy or radiation; larger tumors may be treated with laser surgery. In some cases amputation of the area of the penis where the tumor is located is required.

The prostate gland and men's health

The prostate gland is about the size and shape of a small plum and is situated near the lower end of the bladder, close to the wall of the rectum. A healthy prostate is very important for a man's sexual functioning. It produces the fluids in semen that nourish sperm cells, and many of the blood vessels and nerves near the prostate influence a man's ability to have an erection. Muscles near the prostate contract during orgasm, contributing to pleasurable feelings.

Although men of any age can experience prostate problems, they are much more common in men over age 45. An examination of the prostate gland is a common part of a routine checkup for men. A doctor or clinician checks the prostate by inserting a gloved finger into the man's rectum while he is bent forward. This allows the clinician to feel the surface of the gland and check for swelling, inflammation, or hard, small lumps, which may be a sign of cancer. Although somewhat uncomfortable and embarrassing, the prostate examination is an important part of a man's health care. The most common prostate problems include:

Enlargement

As a man ages, his prostate gland enlarges (a condition known as **benign prostatic hypertrophy**). Almost all men will develop problems associated with an enlarged prostate as they grow older. These problems may be minor and cause little discomfort, or they may be extremely uncomfortable, disrupting the quality of the man's life. The most common symptoms associated with benign enlargement include needing to urinate frequently, difficulty urinating, a slowing down in the force and flow of the urine stream, and difficulty starting the urine flow. A man should consult a doctor or clinician if these symptoms are experienced. In some cases, the condition can be treated with medications; in other cases surgery may be required. In severe cases, the prostate becomes so enlarged it interferes with the ability to urinate at all. This is a severe medical emergency that usually requires surgery in order to avoid infection or kidney damage.

Infection and inflammation

The prostate gland can become swollen and inflamed, causing pelvic pain during urination. The condition is known as **prostatitis** and it can occur in men of any

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age. In some cases, sudden changes in frequency of ejaculations (coming) may cause temporary prostatitis. For example, it may occur when a man used to a certain level of sexual activity experiences either a dramatic increase or decrease in frequency. Prostatitis caused by changes in sexual frequency will usually resolve itself through either rest or masturbation. Sitting in a bath tub filled with hot water may help smooth the discomfort.

However, prostatitis commonly occurs because of infection or other health problems. The primary symptom is a strong ache or pain experienced in the groin or pelvic area during urination. Low back pain and sudden urges to urinate may be experienced, along with fever, chills, and pus in the urine. Symptoms of prostatitis should be checked by a doctor or clinician. Urine specimens will be taken to determine if bacteria (infection) is causing the problem, and if so, antibiotics may be prescribed. In some cases, the man's sexual partner(s) also may need to be treated.

Prostate Cancer

Although men of any age can develop prostate cancer, it is most common in men over 50. The American Cancer Society recommends an annual prostate exam (digital rectal exam or DRE) for men in this age group. During the prostate exam, the doctor or clinician will insert a gloved finger in the man's rectum to check the gland for lumps, nodules, swelling, or enlargement. In addition, men over 50 should consider having a special blood test called the prostate-specific antigen test (PSA) each year. The PSA measures levels of antigens in the blood that may increase when cancer is present. If the PSA or the rectal exam indicate a possible problem, further evaluation may be needed. A biopsy (microscopic examination of prostate cells) may be ordered by the physician to determine if cancer is present, and what type of cancer it is. Some types of cancer of the prostate are slow growing and slow to spread, and may respond to medication or minor treatment. Other types of prostate cancer are faster growing and may spread to the bones, spine, liver or lungs. When caught early, prostate cancer is treatable. This is why it's important for older men to have their prostate checked each year as part of a regular physical exam. Surgical treatment for prostate cancer may cause impotence, however, newer surgical techniques such as laser surgery reduce this risk. Radiation, chemotherapy (anti-cancer drugs), and hormone therapy also may be used for treatment.

Problems with sexual functioning

Men often are reluctant to discuss sexual functioning, afraid that their manliness may be drawn into question. Many men grow up believing that a "real man" is willing and able to make sex happen whenever the opportunity presents itself. Unfortunately, men still receive these unrealistic sexual messages from the media, music, and society in general. In truth, all men experience problems with sexual functioning sometime during their lives. A man's body is not a ma-

chine—there are many physical, emotional, and/or drug-related reasons why sexual problems occur. If a man is experiencing trouble with sexual functioning, the following recommendations may be helpful:

Quit using drugs and alcohol.

Alcohol has long been known to have a negative impact on a man's sexual functioning. Even Shakespeare kidded that "wine increases the desire but takes away the power." Heavy alcohol use over time interferes with both desire and the ability to have an erection. In addition, heroin, other opiates (including methadone), barbiturates, and tranquilizers, such as Valium, may negatively affect sexual functioning. Studies show that over time, most men who use cocaine or crack (especially heavy users) end up reporting a lack of interest in sex, along with problems getting and keeping an erection. When alcohol is used in combination with other drugs, the potential for problems increases. Quitting alcohol and drug use will usually reverse the problem. If a man is on methadone maintenance, he should discuss any sexual problems he may be experiencing with the clinic physician. In most cases, methadone dose can be adjusted over time to relieve the problem.

Have a physical exam (checkup).

If a man is not using alcohol or drugs, yet continues to have sexual problems, the cause may be health-related. Medical conditions such as diabetes, high blood pressure, heart and lung diseases, thyroid disorder, severe depression, prostate inflammation, or simply being fatigued or exhausted may cause problems with sexual functioning. In addition, some drugs used to treat medical problems, such as high blood pressure medication, interfere with the ability to keep an erection. A doctor or clinician should be consulted if there is concern that the problem might be health-related or caused by medications.

Seek marriage or relationship counseling.

Some problems with sexual functioning may be related to anger, stress, nervousness, or other feelings and emotions, and may reflect troubles in a man's marriage or relationship. Sometimes sexual partners are unable to talk openly with each other about their feelings, fears, needs, or resentments. This kind of breakdown in communication can lead to sexual problems for men and women alike. Psychological or emotional difficulties can sometimes create an unconscious mental block that interferes with getting and keeping an erection or having an orgasm. Counseling (either individually or as a couple) can provide education, reassurance, and helpful techniques for improving communication, dealing with feelings, and overcoming sexual problems.

Sexually Transmitted Diseases

Sexually transmitted diseases (STDs) are infections that result from having sex or close intimate contact with an infected person. (Years ago these infections also were known as Venereal Diseases or VD.) Sexually transmitted diseases are very common in the United States, infecting an estimated 25 million people each year. On average, about 1 in 4 people between ages 14–55 will become infected with some type of STD.

There are over 25 different types of infections that can be transmitted sexually, each one caused by a different organism. It's possible to be infected with more than one STD at a time; in fact, it's fairly common. STDs may be caused by bacteria, viruses, or fungus, and in the case of pubic lice ("crabs"), the infection is caused by infestation with tiny, bloodsucking insects. Most STDs can be cured with antibiotics or other medications. However, STDs that are caused by a virus usually cannot be cured, although there are treatments available to relieve the symptoms.

All STDs have one thing in common—they are spread through some type of sexual or intimate contact. This includes vaginal, oral, and anal sex. Some diseases, such as herpes or genital warts can be spread through direct contact with the sores or infected skin. There is a tendency to think of STDs as "dirty," but in truth, they are no more "dirty" than any other disease. Most of the organisms that cause STDs require a warm, moist environment in order to survive. The mucous membranes that line the genitals, mouth, and rectum provide the right environment for these organisms, as do the fluids and secretions associated with sex. During sex with an infected person there may be direct contact with infected areas or with sexual fluids and this provides an easy route for the organisms to pass from one person to another. This is also why condoms help prevent the spread of STDs. A condom blocks direct contact with infected skin or body fluids, and this prevents the spread of infection.

Many times STDs are spread by people who have no idea that they are infected. This is because some STDs cause no symptoms for months or even years. In some cases the symptoms may be so mild or difficult to see that the infected person fails to notice them. It's not uncommon for symptoms to come and go on their own. However, even if the symptoms go away, the disease may still be present. Any symptoms of STD should be checked by a doctor or health clinic. Special tests must be run to determine the cause of the infection and to prescribe treatment. Some of the most common signs or symptoms of STD include:

- Sores, bumps, blisters, or warts around the sex organs or rectum
- Burning or pain when urinating
- Swelling, redness, blisters, or sores in the mouth or throat

- Pus or milky discharge from the penis
- Swelling, inflammation, or pain in the testicles
- Swelling, burning, itching around the sex organ or rectum

If an STD is diagnosed, a man should inform his sexual partner(s) so that they also can be treated. Women often don't develop noticeable symptoms of STD, so it's very important for a man to tell a woman if he knows he's infected. If a woman becomes pregnant, she can pass an STD to her unborn child during pregnancy or childbirth. Some STDs cause blindness, brain damage, pneumonia, and even death in newborn infants. If a man is too embarrassed or uncomfortable to tell his sexual partners, he should contact the nearest public health department. The health department can contact exposed sex partners without revealing names. This gives the person exposed to the STD an opportunity to get treatment and avoid possible complications from the disease.

Using a condom during sex is the best protection against STDs for men (and for women, too). Properly used, the condom prevents exposure by creating a barrier that protects against infected fluids (vaginal secretions, semen, blood) or infected skin areas (e.g., herpes blisters). To provide the best protection, a new latex condom should be used for each sex act (vaginal, oral, or anal sex). Lubricants or gels containing the chemical Nonoxynol-9 also may help prevent the spread of STDs. Nonoxynol-9 is found in many types of birth control products, including foams, suppositories, and gels. Birth control pills **do not** provide protection against STDs for either the woman or the man. Reducing the number of sexual partners helps reduce the chance of exposure to an STD. Sexually active men with more than one partner should have regular checkups and request tests for STDs. Information about symptoms and treatment for the most common STDs can be found in Appendix B of this manual.

What About Women?

Reproductive and sexual anatomy

A woman's reproductive and sexual anatomy is also fascinating and complex. The internal organs are small in size and located below the navel. The **uterus** or **womb** is about the size and shape of a small pear (about the size of a woman's closed fist.) The uterus is lined with a layer of tissue called the **endometrium**, (sometimes called the **endometrial lining**.) The uterus resembles a hollow muscle, lined with the spongy, blood-rich tissue of the endometrium. The function of the uterus is to contain the developing fetus until birth. The endometrium sustains the fertilized egg. After an egg has been fertilized by a male sperm, it will implant itself in the endometrium and begin to grow.

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Extending from either side of the uterus are two hollow, tubelike structures called the **fallopian tubes**. Directly below these tubes are the **ovaries**, which are held in place on either side of the uterus by bands of ligaments. The ovaries have two primary functions: 1) they produce the female hormones **estrogen** and **progesterone**, and 2) they produce and release the female egg cells called **ova**. When the ovary releases an egg, it is collected by the adjacent fallopian tube. The fallopian tube holds an egg cell during fertilization. The egg cell lives about 24–48 hours, during which time it may be fertilized by sperm in the fallopian tube. If it is not fertilized, the egg cell simply dissolves.

The lower end of the uterus is called the **cervix**. The cervix is located at the upper back portion of the **vagina**, the elastic, muscular passage that leads to the outer body. The cervix is like the “door” of the uterus. Through the **cervical opening**, sperm pass during intercourse. The menstrual flow leaves the uterus through this opening. Also, during childbirth, the cervical opening stretches to allow a full term infant to pass. The vagina serves to hold the male penis during intercourse so that sperm will be deposited at the opening of the cervix. During childbirth, the vagina becomes the birth canal and stretches to allow the infant to pass through.

The **vaginal opening** is centered within two folds of tissue. The innermost folds are called **minor labia**; the outermost folds are called **major labia**. These “lips,” as they are sometimes called, serve a protective function. Directly above the vaginal opening is the **urethral** or **urinary opening** through which a woman empties her bladder. Directly above the urinary opening is the **clitoris**, which is surrounded by a tiny fold of skin called the **clitoral hood**. The clitoris is the center of sexual sensations for the woman. It contains many nerve endings and blood vessels. It is made of the same type of tissue as the male penis. During sexual excitement it fills with blood and swells, much like a tiny penis. The clitoral hood is the equivalent of the male’s foreskin.

The Menstrual Cycle

The onset of **menstruation** signals the beginning of reproductive maturity in the female (but not necessarily psychosocial maturity.) Women are born with about 400,000 immature egg cells, called **follicles**, in their ovaries. As a woman enters puberty, her **pituitary gland** increases production of special hormones that influence the ovaries to produce **estrogen and progesterone**. Menstruation usually begins between ages 9 to 15; the actual age is determined primarily by heredity.

As estrogen and progesterone are produced, some of the follicle egg cells in each ovary begin to mature. The lining of the uterus, the **endometrium**, begins to thicken and become rich with blood vessels. When hormone production

peaks, an egg cell is released by the ovary and enters the fallopian tube. The release of the egg cell is called **ovulation**. Ovulation is most likely to occur at the midway point in a woman's cycle. If this egg cell isn't fertilized within 24 to 48 hours, it dissolves. Several days later, hormones begin to slow and the endometrium breaks down. Approximately two weeks after ovulation has occurred, this endometrial lining is completely destroyed and is pushed from the uterus, along with blood and other secretions. This is the **menstrual flow**, which can vary from 3 to 7 days in duration. The first day of flow (bleeding) is considered the **first day of the cycle**. Over the next 25 to 35 days, depending on the woman, the cycle will repeat itself. This cycle of increased hormone production, buildup of the endometrial lining, ovulation, decreased hormone production and shedding of the endometrium will continue until a woman reaches **menopause**.

For most women, **menopause**, or the end of menstruation, occurs between age 45 and 55. Menopause is part of the natural aging process for women and is brought on by reduced estrogen production in the ovaries. The exact age that a woman will experience menopause is usually based on heredity. Menopause is a gradual process that may begin in the early forties with a decline in ovulation and estrogen production. The first symptoms are usually irregular periods that become less and less frequent. Eventually menstruation stops altogether and estrogen production diminishes. Estrogen will continue to be naturally produced in a woman's body throughout the remainder of her life in smaller quantities.

These changes in hormones are responsible for many of the physical and psychological symptoms that some women experience during menopause. The most common symptoms include hot flashes, insomnia, depression, and vaginal dryness. The majority of women have only mild symptoms during menopause that cause few or no problems. Some women are helped with estrogen replacement therapy; others choose not to use synthetic hormones. A woman's physician is the best source for information about hormone replacement.

Pregnancy and Prenatal Care

Pregnancy occurs when a fertilized egg **implants** in the **endometrium** (lining) of the uterus and begins to grow. When an egg cell is released by the ovary, it may be fertilized in the **fallopian tube** by a sperm cell. The release of the woman's egg usually happens mid-cycle (3–15 days after her last period and about 14 days before her next period.) If the egg is fertilized it travels down the fallopian tube into the uterus, a journey that takes about five days. Once **implantation** has occurred, the woman's body will begin producing increased amounts of hormones to sustain the pregnancy.

Most **pregnancy tests** available today are able to accurately detect pregnancy within a week of a missed period. Pregnancy tests are based on the presence of special hormones that are produced once the embryo has implanted. These

**What About
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hormones can be detected in a woman's blood and urine. If a sexually active woman who is able to conceive misses her period, a pregnancy test should be considered. There are many things that may cause a woman to have a missed or delayed period. However, since the early stages of pregnancy are extremely critical for the developing fetus, a pregnancy test is recommended so that a woman can begin prenatal care.

After implantation has occurred, the **placenta** begins to form. This is specialized tissue that is filled with blood vessels and serves to connect the fetus to the mother via the **umbilical cord**. Through these structures the fetus gets nutrition and oxygen from the mother, and wastes from its body are removed. The placenta grows as the fetus develops. After an infant is born, the placenta is expelled and is usually referred to as "afterbirth."

The first 12 weeks of pregnancy are a critical time for the development of the brain and other organs. During this time, drugs, alcohol, and diseases such as German Measles are most likely to seriously damage the fetus.

A pregnant woman should be concerned about over-the-counter medications, in addition to illegal or street drugs. The best advice is to consult a physician before taking any drug, even aspirin, when pregnant. Some women believe that the fetus is naturally protected from drugs and other substances that the mother might take. This isn't true. The function of the placenta is limited, and many drugs, including alcohol, can reach the fetus and cause damage at any stage of pregnancy. Smoking cigarettes also has an impact on the fetus and may retard its growth. Babies born to women who smoke may weigh less than babies born to women who don't smoke. Cigarettes also seem to increase the chances of miscarriage, and for women with high blood pressure, the chances of having a stroke during delivery.

Babies born to women addicted to heroin or methadone will also be addicted and must go through withdrawal. Cocaine and amphetamines may increase the mother's blood pressure and may cause brain or cardiovascular damage to the fetus. In addition, for women who inject drugs, there is the added risk of contracting the AIDS virus (HIV) which can be fatal to both mother and infant.

Supplemental discussion outline:

Condoms and Safer Sex

- **Include the following key points when discussing condoms for safer sex:**

- **Condoms provide protection by covering the penis, keeping semen and vaginal fluids from coming in contact with membranes or broken blood vessels.**

Latex condoms provide the best protection — “natural” condoms made of animal membranes aren’t as effective in blocking the virus (and they’re unbelievably expensive as well). Latex condoms are inexpensive in stores and may also be available through many public health and family planning clinics at low cost or no cost.

- **The first step is deciding.**

Sometimes denial about being at risk for HIV can interfere with our decision-making. Accepting our *right* to protect ourselves from HIV is the first step toward planning *how* we’ll protect ourselves from sexual risks. If using condoms makes sense to you, then you’ll give them a try.

- **If you’re not ready to use condoms, then you’ll want to think seriously about other ways to protect yourself from sexual risks.**

As we discussed earlier, monogamy with a non-infected partner who avoids other HIV-risky behaviors is an option. For this option to work, both partners should be tested for HIV and counseled about risk reduction.

- **When we make the decision to use condoms, here’s what we need to think about:**

The key to successful condom use is **communication**. Talk with your partners and agree about using condoms *before* having sex.

Source: *Approaches to HIV/AIDS Education in Drug Treatment* (DATAR Training Manual), Institute of Behavioral Research, Texas Christian University, Fort Worth, Texas, 1995.

**Condom
Demonstration
and Practice**
(continued)

If you wait until you're caught up in strong sexual feelings, you may forget to use a condom. Talking about it ahead of time will help strengthen your decision. Remember, you have the *right* to protect your health by using a condom or asking your partner to use a condom.

🔑 **Have a condom available, at all times.**

One of the primary reasons given for not using a condom is "I didn't have one/she didn't have one/we didn't have one." So, have one with you. Better yet, have two or three.

🔑 **Know how to use a condom.**

Also, know how to prevent them from breaking and how to make them comfortable and pleasurable.

■ **Demonstrate the correct way to use a condom as you present the following instructions.**

Encourage questions and comments. Use a condom demonstration model, condoms, and lubricants. If a model is unavailable, demonstrate by rolling the condom over two fingers (or ask for a volunteer, and roll the condom over his/her fingers). **Cover the following key points:**

🔑 **Putting on a condom:**

1. The condom is put on when the penis gets hard, not before. Always use a new condom. A condom is used the same way for vaginal sex, oral sex on a man, and rectal sex.
2. Place the rolled condom over the end of the erect penis, then pinch the tip of the condom and squeeze it gently to push out any trapped air. (Trapped air in the tip is like a little balloon— it could burst during sex.)
3. Once the air is squeezed out, roll the condom down over the shaft of the penis. Leave space at the tip of the condom to catch the semen (cum).

🔑 Make it comfortable:

Try out several brands until you find the one that's most comfortable. Believe it or not—not all condoms are shaped the same. Condoms are available in different shapes and sizes.

Many men prefer a condom that allows a bit of friction at the tip and is thin enough to conduct warmth. Latex is strong, so even thin condoms offer good protection.

Condoms and lubricants containing nonoxynol-9, a type of chemical used in some birth control foams and gels, may help protect against HIV. However, many people are allergic to nonoxynol-9, and may develop irritation, burning, or a rash. If you develop irritation, switch to a condom or lubricant that doesn't have nonoxynol-9.

Before putting the condom on, put a tiny dab of lubricant (like K-Y[®] Lubrins, etc.) in the tip. (Don't use too much or the condom might slip off.) Then roll the condom on as discussed before. The tiny dab in the tip of the condom will help the head of the penis move smoothly inside the condom, and provide extra pleasure and sensations for the man.

If possible, keep several condoms "peeled" (with the wrapper off), and ready to go when you have sex. This way, if you are interrupted or if you like to start and stop while having sex, you'll have a new condom ready and waiting. You can use more than one condom per sex act — there's no rule that says *one* condom is the limit when you have sex.

Try out different colors and flavors. Flavored condoms are especially popular for oral sex.

🔑 Keep the condom from breaking:

Latex is a strong type of thin rubber, strong enough to bear up to even the most passionate love-making. However, it can be weakened — so be careful.

Never store condoms in extreme heat and don't freeze them. Don't use a condom that's been exposed to heat (for example, left for hours in a car in the summer time) or has been frozen (especially if it hasn't thawed out yet!).

**Condom
Demonstration
and Practice**
(continued)

Be careful with fingernails, jewelry, rings, or anything sharp that could break or tear a condom while it's being put on.

And most important — use only **water-based** lubricants with condoms. For example, K-Y® or any kind of lubricant sold in the condom section of stores. Some brands are called “personal” lubricants. When you read the box, it will say that the product is *safe for use with condoms*. Oily lubricants (like Vaseline®, baby oil, hand lotion, or massage oils) can actually weaken latex and make it easier to break. So don't put anything greasy/oily on your condom.

🔑 **Take care when you take it off:**

After coming or climaxing, the penis should be pulled out soon. One partner should reach down and hold on to the condom at the base of the penis while pulling out. This will prevent the condom from slipping off.

Pull out carefully and take off the condom so that nothing spills out. You can tie a knot at the top so the cum can't spill out. Wrap it in some tissues and throw away in the trash can. Don't flush it down the toilet because it can clog up your pipes.

■ **Demonstrate additional safer sex techniques for non-intercourse behaviors.**

- **Discuss the use of flavored or unlubricated condoms to cover the penis during oral sex.**
- **Demonstrate how to cut an unlubricated or flavored condom lengthwise down one side to create a barrier for covering the vaginal and anal area during for oral sex.** If available, demonstrate how dental dams also may be used as barriers. Also demonstrate the use of plastic food wrap (e.g., Saran Wrap®) for covering the vaginal and anal areas. Mention that these barriers should also be used for any oral-anal contact or foreplay activities (e.g., “rimming, ” etc.). **Stress that plastic wrap should not be used as a condom. Wrapping the penis in Saran Wrap® for intercourse or oral sex is not considered an effective barrier because semen can leak out.**

- **Demonstrate the use of a thin latex glove** for mutual masturbation and sexual activities such as fingering, “fisting,” and other activities where broken skin on the hand may come in contact with semen or vaginal fluids.

■ **Allow each participant to practice with condoms and barriers.**

You can invite them to gather around the demonstration table, and take turns with the teaching model, if you only have one. Another approach is to put people in pairs, and have them demonstrate proper condom technique to each other using models, vegetables, or their fingers. Have them practice with barriers as well.

■ **Distribute *CONDOMS AND SAFER SEX* handout.**

Ask:

What did you learn today about condoms that you didn't know before?

■ **Discuss the Reality[®] “female condom” (vaginal pouch).**

Review how the pouch is used, and pass a sample around for participants to inspect, if you have one available. Encourage questions and comments. Let participants know if and where the pouch is available in your community. **Cover the following key points:**

- **The female condom is a thin, long pouch made out of a special type of strong plastic.**

It protects both partners by lining the vagina so that there's no contact with semen or vaginal fluids. It has an outer ring to hold it in place around the opening of the vagina, and an inner ring used to guide it during insertion and hold it in place inside the vagina.

**Condom
Demonstration
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(continued)

- **It is put inside the vagina, much like a diaphragm or tampon.**
The inner ring is folded and guided into the vagina, using a finger to push it into place past the pubic bone. Lubricant is then added to the opening of the pouch. Lubricant may also be placed on the man's penis. The man's penis is then guided to be *inside* the pouch, surrounded by the outer ring.

- **After sex, the pouch is removed before standing up by gently pulling and squeezing the outer ring.**

Wrap it in tissue and dispose of in the trash. Each pouch can only be used once. **The female condom should *not* be used together with a male condom.**

■ **Conclude with the following key points:**

- **Condoms and female condoms are barriers for making oral, vaginal, and rectal sex safer.**

For oral sex on women, you should use plastic wrap as a barrier, or an unlubricated (or flavored) condom cut lengthwise down the middle. These barriers should be placed over the entire vaginal and/or anal area. For oral sex on men, the penis should be covered with an unlubricated (or flavored) condom. (Lubricated condoms will work, but they may have an unpleasant taste.)

- **Other types of contraception, such as diaphragms, contraceptive sponges, or contraceptive gels and foams are not effective by themselves in stopping HIV. They must be used with a condom for complete protection.**

- **Condoms, female condoms, and barriers should be used every time you have sex.**

If you and your partner are moving into a steady or serious relationship, both of you may want to have HIV tests, and if that shows you are both non-infected, you may want to switch to exclusivity/monogamy as your safer sex choice. **Don't stop using condoms or female condoms until you both have been tested and given a clean bill of health.**