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## Sexually Transmitted Infection - (STI)

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These are infections passed from person to person primarily through intimate sexual contact, also called sexually transmitted diseases, or STDs. STI's are among the most common infectious diseases. There are more than 30 different sexually transmissible bacteria, viruses and parasites. Several, in particular HIV and syphilis, can also be transmitted from mother to child during pregnancy and childbirth, and through blood products and tissue transfer.

Depending on the disease, the infection can be spread through any type of sexual activity involving the sex organs, the anus, or the mouth; an infection can also be spread through contact with blood during sexual activity. STIs are infrequently transmitted by any other type of contact (blood, body fluids or tissue removed from an STI infected person and placed in contact with an uninfected person); however, people that share unsterilized needles markedly increase the chance to pass many diseases, including STI's especially hepatitis B (a potentially serious form of liver inflammation due to infection by the hepatitis B virus (HBV), to others.

The presence of untreated STIs (both those which cause ulcers and those which do not) increase the risk of both acquisition and transmission of HIV by a factor of up to 10. Prompt treatment for STIs is thus important to reduce the risk of HIV infection, particularly in people with high-risk sexual behaviours.

Some diseases are not considered to be officially an STI (for example, hepatitis types A, C, E) but are infrequently noted to be transferred during sexual activity. Consequently, lists of STI's can vary, depending on whether the STI is usually transmitted by sexual contact or only infrequently transmitted.

The traditional method of diagnosing STIs is by laboratory tests. However, these are often unavailable or too expensive. Since 1990 WHO has recommended a syndromic approach to diagnosis and management of STIs in patients presenting with consistently recognized signs and symptoms of particular STIs. The syndromic approach uses flowcharts to guide diagnosis and treatment is more accurate than diagnosis based on clinical tests alone, even in experienced hands. The syndromic approach is a scientific approach and offers accessible and immediate treatment that is effective. It is also more cost-effective for some syndromes than use of laboratory tests.

## **Symptoms of STIs caused by bacteria**

### **Chancroid Symptoms**

Common in developing countries, symptoms include painful ulcers on the genitals. Can be confused with syphilis or herpes, is treatable with antibiotics.

### **Chlamydia symptoms**

Most common of all STIs caused by bacteria, when symptoms are present, commonly there is discharge from the vagina or the penis, and burning or pain during urination, treatable with antibiotics.

### **Gonorrhoea symptoms**

Discharge from the vagina or the penis, painful urination, treatable with antibiotics.

### **Granuloma inguinale (donovanosis) symptoms**

Symptoms are painless genital ulcers in the groin area, treatable with antibiotics, usually for three or more weeks.

### **Lymphogranuloma venereum**

Symptoms are abscesses (buboes) in the groin, rectum or other areas; fistulas that drain pus may occur and are treatable with antibiotics.

### **Syphilis**

Symptoms are mild and often go undetected initially, starts with a painless genital ulcer that goes away on its own, treatable with antibiotics.

## **Symptoms of STIs caused by Viruses**

### **Genital herpes**

Recurring outbreaks of blister-like sores on the genitals, can be transmitted from a mother to her baby during birth, can be transmitted by a partner who has herpes even if no blisters are present.

### **Genital warts**

Caused by a virus related to skin warts, human papillomavirus (HPV) Small, painless bumps in the genital or anal areas (sometimes in large clusters that look like cauliflower), various treatments available (for example, freezing or painting the warts with medication, vaccines are available against the most common types of HPV).

### **Hepatitis**

Hepatitis B and D are most often associated with sexual contact, hepatitis A, C, E are less frequently transmitted by sexual contact.

Both may be transmitted via contact with blood; for hepatitis B, sexual transmission is believed to be responsible for 30% of the cases worldwide.

The hepatitis B virus can cause both an initial (acute) and a chronic form of liver inflammation.

## **STIs and Pregnancy**

STDs affect women of every socioeconomic and educational level, age, race, ethnicity, and religion. The CDC 2010 Sexually Transmitted Diseases Treatment Guidelines recommend that pregnant women be screened on their first prenatal visit for STDs which may include: Chlamydia, Gonorrhea, Hepatitis B, HIV, and Syphilis.

Women who are pregnant can become infected with the same sexually transmitted infections (STIs) as women who are not pregnant. Pregnancy does not provide women or their babies any protection against STIs. The consequences of an STI can be significantly more serious, even life threatening, for a woman and her baby if the woman becomes infected with an STI while pregnant. It is important that women be aware of the harmful effects of STIs and know how to protect themselves and their children against infection.

STIs can cause cervical and other cancers, chronic hepatitis, pelvic inflammatory disease, infertility, and other complications. Many STIs in women are silent; that is, without signs or symptoms.

STIs can be passed from a pregnant woman to the baby before, during, or after the baby's birth. Some STDs (like syphilis) cross the placenta and infect the baby while it is in the uterus (womb). Other STIs (like gonorrhea, chlamydia, hepatitis B, and genital herpes) can be transmitted from the mother to the baby during delivery as the baby passes through the birth canal. HIV can cross the placenta during pregnancy, infect the baby during the birth process, and unlike most other STIs, can infect the baby through breastfeeding.

A pregnant woman with an STI may also have early onset of labor, premature rupture of the membranes surrounding the baby in the uterus, and uterine infection after delivery.

The harmful effects of STIs in babies may include stillbirth (a baby that is born dead), low birth weight (less than three kg), conjunctivitis (eye infection), pneumonia, neonatal sepsis (infection in the baby's blood stream), neurologic damage, blindness, deafness, acute hepatitis, meningitis, chronic liver disease, and cirrhosis. Most of these problems can be prevented if the mother receives routine prenatal care, which includes screening tests for STIs starting early in pregnancy and repeated close to delivery, if necessary. Other problems can be treated if the infection is found at birth.

Pregnant women should ask their doctors about getting tested for these STIs, since some doctors do not routinely perform these tests. New and increasingly accurate tests continue to become available. Even if a woman has been tested in the past, she should be tested again when she becomes pregnant.

Chlamydia, gonorrhea, syphilis, trichomoniasis, and bacterial vaginosis (BV) can be treated and cured with antibiotics during pregnancy. There is no cure for viral STIs, such as genital herpes and HIV, but antiviral medication may be appropriate for pregnant women with herpes and definitely is for those with HIV. For women who have active genital herpes lesions at the time of delivery, a cesarean delivery (C-section) may be performed to protect the newborn against infection. C-section is also an option for some HIV-infected women.



Women who test negative for hepatitis B may receive the hepatitis B vaccine during pregnancy.

The surest way to avoid transmission of sexually transmitted diseases is to abstain from sexual contact, or to be in a long-term mutually monogamous relationship with a partner who has been tested and is known to be uninfected.

Latex condoms, when used consistently and correctly, are highly effective in preventing transmission of HIV, the virus that causes AIDS. Latex condoms, when used consistently and correctly, can reduce the risk of transmission of gonorrhea, chlamydia, and trichomoniasis. Correct and consistent use of latex condoms can reduce the risk of genital herpes, syphilis, and chancroid only when the infected area or site of potential exposure is protected by the condom. Correct and consistent use of latex condoms may reduce the risk for genital human papillomavirus (HPV) and associated diseases (e.g. warts and cervical cancer).

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### Ways to prevent STIs

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- **Don't have sex.** The surest way to keep from getting any STI is to practice abstinence. This means not having vaginal, oral, or anal sex. Keep in mind that some STIs, like genital herpes, can be spread without having intercourse.
- **Be faithful.** Having a sexual relationship with one partner who has been tested for STIs and is not infected is another way to lower your risk of getting infected. Be faithful to each other. This means you only have sex with each other and no one else.
- **Use condoms correctly and every time you have sex.** Use condoms for all types of sexual contact, even if intercourse does not take place. Use condoms from the very start to the very end of each sex act, and with every sex partner. A male latex condom offers the best protection. You can use a male polyurethane condom if you or your partner has a latex allergy. For vaginal sex, use a male latex condom or a female condom if your partner won't wear a condom. For anal sex, use a male latex condom. For oral sex, use a male latex condom. A dental dam (a thin, square piece of rubber which is placed over the labia or anus during oral-vaginal or oral-anal intercourse) might also offer some protection from some STIs.

- **Know that some methods of birth control, like birth control pills, shots, implants, or diaphragms, will not protect you from STIs.** If you use one of these methods, be sure to also use a condom correctly *every time* you have sex.
- **Talk with your sex partner(s) about STIs and using condoms before having sex.** It's up to you to set the ground rules and to make sure you are protected.
- **Don't assume you're at low risk for STIs if you have sex only with women.** Some common STIs are spread easily by skin-to-skin contact. Also, most women who have sex with women have had sex with men, too. So a woman can get an STI from a male partner and then pass it to a female partner.
- **Talk frankly with your doctor and your sex partner(s) about any STIs you or your partner has or has had.** Talk about symptoms, such as sores or discharge. Try not to be embarrassed. Your doctor is there to help you with any and all health problems. Also, being open with your doctor and partner will help you protect your health and the health of others.
- **Have a yearly pelvic exam.** Ask your doctor if you should be tested for STIs and how often you should be retested. Testing for many STIs is simple and often can be done during your checkup. The sooner an STI is found, the easier it is to treat.
- **Avoid using drugs or drinking too much alcohol.** These activities may lead to risky sexual behavior, such as not wearing a condom.

Information Sourced from:

1. <http://womenshealth.gov/publications/our-publications/fact-sheet/sexually-transmitted-infections.cfm#>
2. <http://www.womenshealth.gov/minority-health/african-americans/stis.cfm>
3. <http://www.cdc.gov/std/pregnancy/STDFact-Pregnancy.htm>