

STDs & Pregnancy



Women who are pregnant can become infected with the same sexually transmitted diseases (STDs) as women who are not pregnant. Pregnant women should ask their doctors about getting tested for STDs, since some doctors do not routinely perform these tests.



Can pregnant women become infected with STDs?

Women who are pregnant can become infected with the same sexually-transmitted diseases (STDs) as women who are not pregnant. Pregnancy does not provide women or their babies any additional protection against STDs. Many STDs are 'silent,' or have no symptoms, so women may not know they are infected. A pregnant woman should be tested for STDs, including HIV (the virus that causes AIDS), as a part of her medical care during pregnancy. The results of an STD can be more serious, even life-threatening, for a woman and her baby if the woman becomes infected while pregnant. It is important that women be aware of the harmful effects of STDs and how to protect themselves and their children against infection. Sexual partners of infected women should also be tested and treated.

How do STDs affect a pregnant woman and her baby?

STDs can complicate pregnancy and may have serious effects on both a woman and her developing baby. Some of these problems may be seen at birth; others may not be discovered until months or years later. In addition, it is well known that infection with an STD can make it easier for a person to get infected with HIV. Most of these problems can be prevented if the mother receives regular medical care during pregnancy. This includes tests for STDs starting early in pregnancy and repeated close to delivery, as needed.

Human Immunodeficiency Virus

Human immunodeficiency virus (HIV) is the virus that causes acquired immune deficiency syndrome, or AIDS. HIV destroys specific blood cells that are crucial to helping the body fight diseases. According to CDC's 2011 HIV surveillance data, women make up 25% of all adults and adolescents living with diagnosed HIV infection in the United States. The most common ways that HIV passes from mother to child are during pregnancy, labor and delivery, or through breastfeeding. However, when HIV is diagnosed before or during pregnancy and appropriate steps are taken, the risk of mother-to-child transmission can be lowered to less than 2%. *HIV testing is recommended for all pregnant women.* A mother who knows early in her pregnancy that she is HIV-positive has more time to consult with her healthcare provider and decide on effective ways to protect her health and that of her unborn baby.

Syphilis

Syphilis is primarily a sexually transmitted disease, but may be passed to a baby by an infected mother during pregnancy. Passing syphilis to a developing baby can lead to serious health problems. Syphilis has been linked to *premature births, stillbirths* and, in some cases, death shortly after birth. Untreated infants that survive tend to develop problems in multiple organs, including the brain, eyes, ears, heart, skin, teeth, and bones. Screening for syphilis should be performed in all pregnant women during their first prenatal medical visit and repeated in the third trimester, if the patient is considered to be at high risk.

Hepatitis B

Hepatitis B is a liver infection caused by the hepatitis B virus (HBV). A mother can pass the infection to her baby during pregnancy. While the risk of an infected mother passing HBV to her baby varies depending on when she becomes infected, the greatest risk happens when mothers become infected close to the time of delivery. Infected newborns also have a high risk (up to 90%) of becoming chronic (lifelong) HBV carriers themselves. Infants who have a lifelong infection with HBV are at an increased risk for developing chronic liver disease or liver cancer later in life. Approximately one in four infants who develop chronic HBV infection will eventually die from chronic liver disease. Mother-to-child transmission of HBV can be prevented by screening pregnant women for the infection and providing treatment to at-risk infants shortly after birth. Information on mother-to-child transmission of HBV can be found at <http://www.cdc.gov/hepatitis/HBV/PerinatalXmntn.htm>.

Hepatitis C

Hepatitis C is a liver infection caused by the hepatitis C virus (HCV), and can be passed from an infected mother to her child during pregnancy. Overall, an infected mother will pass the infection to her baby 10% of the time, but the chances are higher in certain subgroups, such as women who are also infected with HIV. Regular testing of pregnant women for HCV is not recommended, however, it should be considered for individuals who have risk factors known to be linked to HCV, including injection drug use. In some studies, infants born to HCV-infected women have been shown to have an increased risk for being small for *gestational age*, *premature*, and having a *low birth weight*. Newborn infants with HCV infection usually do not have symptoms, and a majority will clear the infection without any medical help. Liver disease tends to move forward more slowly in children infected with hepatitis C and they respond slightly better to treatment compared to adults.

Chlamydia

Chlamydia is the most common sexually transmitted bacterium in the United States. Although the majority of chlamydial infections do not have symptoms, pregnant women may have abnormal vaginal discharge, bleeding after sex, or itching/burning with urination. Untreated chlamydial infection has been linked to problems during pregnancy, including *preterm labor*, *premature rupture of the membranes* surrounding the baby in the uterus, and *low birth weight*. The newborn may also become infected during delivery as the baby passes through the birth canal. Neonatal (newborn) infections lead primarily to eye and lung infections. All pregnant women should be tested for chlamydia at their first prenatal visit. Repeat testing in the third trimester should be done for women at high risk.

Gonorrhea

Gonorrhea is a common STD in the United States. Untreated gonococcal infection in pregnancy has been linked to *miscarriages*, *premature birth and low birth weight*, *premature rupture of the membranes* surrounding the baby in the uterus, and infection of the fluid that surrounds the baby during pregnancy. Gonorrhea can also infect an infant during delivery as the infant passes through the birth canal. If untreated, infants can develop eye infections. Because gonorrhea can cause problems in both the mother and her baby, it is important to accurately identify the infection, treat with effective antibiotics, and closely follow up to make sure that the infection has been cured.

Bacterial Vaginosis

Bacterial vaginosis (BV), a common cause of vaginal discharge in women of childbearing age, is a condition in which the 'good' and 'bad' bacteria in the vagina are out of balance. BV is often not considered an STD, but it is linked to sexual activity. There may be no symptoms or a woman may complain of a foul-smelling, fishy, vaginal discharge. BV during pregnancy has been linked to serious pregnancy complications, including *premature rupture of the membranes* surrounding the baby in the uterus, *preterm labor*, *premature birth*, infection of the fluid that surrounds the baby, as well as infection of the mother's uterus after delivery. Testing all pregnant women for bacterial vaginosis is not currently recommended. However, there is some evidence to support testing and treating BV among women at high risk for preterm delivery. There are no known direct effects of BV on the newborn.

Trichomoniasis

Vaginal infection due to the parasite *Trichomonas vaginalis* is a very common STD. Symptoms can vary widely among those women infected. Although some women report no symptoms, others complain of itching, foul odor, discharge, and bleeding after sex. Pregnant women are not usually screened for the infection. However, pregnant women with abnormal vaginal discharge should be evaluated for *Trichomonas vaginalis* and treated appropriately. Infection in pregnancy has been linked to *premature rupture of the membranes* surrounding the baby in the uterus, *preterm birth*, and *low birth weight* infants. Rarely, the female newborn can get the infection when passing through the birth canal during delivery and have vaginal discharge after birth.

Herpes Simplex Virus

Herpes Simplex Virus (HSV) is a virus that has two distinct types, HSV-1 and HSV-2. Infections of the newborn can be of either type, but most are caused by HSV-2. Overall the symptoms of genital herpes are similar in pregnant and non-pregnant women; however, the major concern regarding HSV infection relates to complications linked to infection of the newborn. Although transmission may occur during pregnancy and after delivery, 80 - 90% of HSV infections in newborns occur when the baby passes through the mother's



Glossary of Terms

- **Preterm labor** – Labor that starts after 20 weeks but before the end of the 37th week of pregnancy.
- **Premature birth** – Birth of a baby before the 37th week of pregnancy.
- **Premature rupture of membranes**– Rupture of the membranes surrounding the baby in the uterus before the start of labor.
- **Low birth weight** – Birth weight of less than 5.5 pounds.
- **Miscarriage** – Death of the fetus before the 20th week of pregnancy.
- **Stillbirth** – Death of the fetus after the 20th week of pregnancy.
- **Gestational age** – Gestation is the period of time between conception and birth during which the fetus grows and develops inside the mother's womb. Gestational age is the time measured from the first day of the mother's last menstrual cycle to the current date, and it is measured in weeks.

infected birth canal. HSV infection can have very serious effects on newborns, especially if the mother's first outbreak occurred late in pregnancy (third trimester). Women who are infected for the first time in late pregnancy have a high risk of infecting their baby. Cesarean section is recommended for all women in labor with active genital herpes lesions or early symptoms, such as vulvar pain and itching.

Human Papillomavirus

Human papillomaviruses (HPV) are viruses that most commonly involve the lower genital tract, including the cervix (opening to the womb), vagina, and external genitalia. Genital warts are symptoms of HPV infection that can be seen, and they frequently increase in number and size during pregnancy. Genital warts often appear as small cauliflower-like clusters which may burn or itch. If a woman has genital warts during pregnancy, treatment may be delayed until after delivery. When large or spread out, genital warts can complicate a vaginal delivery. In cases where there are large genital warts that are blocking the birth canal, a cesarean section may be recommended. Infection of the mother may be linked to the development of laryngeal papillomatosis in the newborn. This is a rare growth in the larynx (voice box) that is not cancer.

Should pregnant women be tested for STDs?

Screening and treating pregnant women for STDs is a vital way to prevent serious health complications to both mother and baby that may otherwise happen with infection. *The sooner a woman begins receiving medical care during pregnancy, the better the health outcomes will be for herself and her unborn baby.* The Centers for Disease Control and Prevention's 2010 STD Treatment Guidelines recommend screening pregnant women for STDs. The CDC screening recommendations are incorporated into the recommendations below.

Disease	CDC Recommendation
Chlamydia	Screen all pregnant women at first prenatal visit; 3rd trimester rescreen if younger than 25 years of age and/or high risk group
Gonorrhea	Screen all pregnant women at risk at first prenatal visit; 3rd trimester rescreen women at continued high risk Risk factors include: young women aged 25 years or younger, living in a high morbidity area, previous GC infection, other STDs, new or multiple sex partners, inconsistent condom use, commercial sex work, drug use
Syphilis	Screen all pregnant women at first prenatal visit; during 3rd trimester rescreen women who are at high risk for syphilis or who live in areas with high numbers of syphilis cases, and/or those who were not previously tested or had a positive test in the first trimester
Bacterial Vaginosis	Test pregnant women who have symptoms or are at high risk for <i>preterm labor</i>
Trichomoniasis	Test pregnant women with symptoms
Herpes (HSV)	Test pregnant women with symptoms
HIV	Screen all pregnant women at first prenatal visit; rescreening in the third trimester recommended for women at high risk for getting HIV infection
Hepatitis B	Screen all pregnant women at first prenatal visit Retest those who were not screened prenatally, those who engage in behaviors that put them at high risk for infection and those with signs or symptoms of hepatitis at the time of admission to the hospital for delivery Risk factors include: having had more than one sex partner in the previous six months, evaluation or treatment for an STD, recent or current injection-drug use, and an HBsAg-positive sex partner
Human Papillomavirus	There is not enough evidence to make a recommendation
Hepatitis C	All pregnant women at high risk should be tested at first prenatal visit

Pregnant women should ask their doctors about getting tested for these STDs. It is also important that pregnant women discuss any symptoms they are experiencing and any high-risk sexual behavior that they engage in, since some doctors do not routinely perform these tests. Even if a woman has been tested in the past, she should be tested again when she becomes pregnant.

Can STDs be treated during pregnancy?

STDs, such as chlamydia, gonorrhea, syphilis, trichomoniasis and BV can all be treated and cured with antibiotics that are safe to take during pregnancy. STDs that are caused by viruses, like genital herpes, hepatitis B, hepatitis C, or HIV cannot be cured. However, in some cases these infections can be treated with antiviral medications or other preventive measures to reduce the risk of passing the infection to the baby. If a woman is pregnant or considering pregnancy she should be tested so she can take steps to protect herself and her baby.

How can pregnant women protect themselves against infection?

Latex male condoms, when used consistently and correctly, can reduce the risk of getting or giving STDs and HIV. The surest way to avoid STDs and HIV is to abstain from vaginal, anal, and oral sex or to be in a long-term mutually monogamous relationship with a partner who has been tested and is known to be uninfected.

Where can I get more information?

Division of STD Prevention (DSTDP)
Centers for Disease Control and Prevention
www.cdc.gov/std

CDC-INFO
1-800-CDC-INFO (800-232-4636)
TTY: 1-888-232-6348
In English, en Español

Resources:
CDC National Prevention Information Network (NPIN)
<http://www.cdcnpin.org/scripts/index.asp>
P.O. Box 6003
Rockville, MD 20849-6003
E-mail: info@cdcnpin.org

American Sexual Health Association (ASHA)
<http://www.ashastd.org/>
P. O. Box 13827
Research Triangle Park, NC 27709-3827
1-800-783-9877

