**Sexually Transmitted Diseases**

 Sexually Transmitted Diseases, or STDs, are extremely common diseases that are transmitted from person to person through sexual activity and through intimate physical contact. These infections do not always present themselves through symptoms, which is why it is vital for sexually active individuals to get tested. The most effective way to avoid contracting an STD is by simply not having sexual intercourse. However, a sexually active person can protect themselves and their partner from the spread of STDs by using condoms. Fortunately, there are treatments available for all STDs.

**Chlamydia**

 One of the most common STDs is Chlamydia, a bacterial infection that affects approximately 3 million Americans annually. Transmission occurs through semen and vaginal fluids. Chlamydia usually does not present itself with symptoms, making it difficult to know if it has been contracted. However, if the infection *is* accompanied with symptoms, these often include pain/burning during urination, pain during sexual intercourse, lower abdominal pain, abnormal vaginal discharge, bleeding between menstrual cycles, pus or discharge from the penis, swollen testicles, or pain, discharge, or bleeding around the anus. Occasionally, Chlamydia may cause irritation of the eyes or throat.

 Chlamydia can easily be treated with antibiotics. However, if left untreated, Chlamydia can cause pelvic inflammatory disease in women, which could cause pain, infertility, or ectopic pregnancy, which is a rare situation where a fertilized egg attaches somewhere other than the uterine lining, such as in the fallopian tube. In men, Chlamydia can cause chronic joint pain and infertility.

 It is important to note than when prescribed an antibiotic, it is vital to finish taking all of the medication, even if the symptoms seem to have cleared up. Failing to do so can contribute to the creation of antibiotic-resistant bacteria.

**Gonorrhea**

 Another common bacterial infection is Gonorrhea, which is sometimes referred to as “the clap.” Transmission occurs through semen and vaginal fluids. Similar to Chlamydia, Gonorrhea does not usually present itself with symptoms. Women with Gonorrhea do not usually present with symptoms, but if they do, their symptoms may include pain during urination, abnormal vaginal discharge, or bleeding between menstrual cycles. Men with Gonorrhea are more likely to present with symptoms, which can include penial discharge, pain during urination, or swelling of the testicles. Gonorrhea may also affect those who engage in anal sexual intercourse and can be characterized by itching, discharge, and pain during excrement.

 Like Chlamydia, Gonorrhea can easily be treated with antibiotics. However, left untreated it can cause pelvic inflammatory disease, chronic pain, infertility, or ectopic pregnancy. It can also cause testicular pain or infertility in men. Gonorrhea also increases the risk of contracting Human Immunodeficiency Virus, or HIV.

**Hepatitis B**

Hepatitis B is an easily preventable but highly contagious liver infection caused by a virus. Transmission occurs through semen, vaginal fluids, blood, and urine. Around half of adults who are affected by Hepatitis B will show flu-like symptoms, which include fatigue, abdominal pain, loss of appetite, nausea, vomiting, joint pain, headache, fever, hives, jaundice (yellow skin/eyes), and abnormally colored urine and feces.

 Although there is no cure for Hepatitis B, most affected people recover fully. The infection will clear up on its own. However, some affected individuals will retain the infection, making them contagious carriers of the disease for the rest of their lives. This can cause complications such as cirrhosis (scarring of the liver) and liver cancer.

 Most people receive three vaccinations against Hepatitis B beginning in infancy. These vaccines work by selectively exposing the body to the virus, allowing it to learn how to fight the infection by producing antibodies that are specific to the Hepatitis B virus. Once vaccinated, the body will be able to recognize the virus if it ever comes into contact with it again. An individual who has been vaccinated has not only protected themselves from the virus but has also protected those around them with weakened immune systems.

**Herpes**

 Herpes is a very common infection caused by two viruses, herpes simplex virus type 1 (HSV-1) and herpes simplex virus type 2 (HSV-2). Typically, HSV-1 causes oral herpes, and HSV-2 causes genital herpes. Unfortunately, there is no cure. Once contracted, it lives within the body permanently, often without ever causing any symptoms. Genital herpes symptoms include itchy/painful blisters that burst and become sores. These can be found on the vagina, vulva, cervix, penis, butt, anus, or inner thighs. These sores may also be accompanied by flu-like symptoms such as fever, chills, aches, and swollen glands. Oral herpes is characterized by sores located on the lips or around the mouth, which are known as cold sores or fever blisters. Transmission of the virus occurs when a healthy person comes in contact with the sores of an affected person.

**Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS)**

 Human Immunodeficiency Virus (HIV) is the virus that leads to Acquired Immune Deficiency Syndrome (AIDS). Transmission occurs through semen, vaginal fluids, blood, and breast milk. When an individual is first infected with HIV, they may experience flu-like symptoms for a few weeks. After this initial period, the virus may not present itself again for years.

 HIV acts by killing T cells, a vital part of the immune system responsible for activating other cells when the body encounters a pathogen. Without these cells, the body is much more likely to become infected by pathogens that it normally would be able to fight off. After losing a certain amount of these cells, a person is said to have AIDS, which usually happens about ten years after contracting HIV. Signs of AIDS include, but are not limited to, frequent infections, thrush (thick, white coating on the tongue or mouth), and yeast infections.

 Unfortunately, there is no cure for HIV or AIDS. Once in the body, it remains there permanently. However, there are treatments, known as antiretroviral therapy (ART) that slow down the destruction of T cells. Additionally, there is a preventative option known as pre-exposure prophylaxis (PrEP) designed for healthy individuals who may come in contact with HIV, such as sexual partners of affected individuals. There is also a medication called post exposure prophylaxis (PEP) that can be taken within three days of exposure to the virus, which lowers the chance of becoming infected.

**Human Papillomavirus (HPV)**

Human Papillomavirus (HPV) is the most common STD. Almost every sexually active individual will get the HPV virus at some point, and there are usually no symptoms. Fortunately, most strains of HPV clear up on their own. However, there are some types of the virus that may lead to genital warts or even cancer. These high-risk forms of the virus can be detected by looking for abnormal cervical cells during a Pap test, or Pap smear, which should be conducted regularly for women beginning at age 21 or at the onset of sexual activity. Fortunately, there is also a vaccine for HPV which can be administered to anyone between the ages of nine and twenty-six.

**Syphilis**

 Syphilis is another common bacterial infection. In the beginning stages of infection, an infected individual will experience a syphilis sore (also known as a chancre) that will go away on its own. Transmission occurs through contact with these sores. The next stage of the infection is characterized by rashes on the hands, feet, or other parts of the body. This is often accompanied by flu-like symptoms. These symptoms will also go away with time. Syphilis can then remain in the body undetected and presenting no symptoms for a long period of time. In the early stages of the infection, Syphilis can easily be treated with antibiotics. However, left untreated, Syphilis can cause damage to the nervous system, tumors, blindness, and paralysis, which can occur ten to twenty years after the initial infection.

**Review**

1. True or false? Many STDs do not present with any symptoms.
2. Which STDs are characterized by sores?
3. Which STDs remain in the body permanently after infection?
4. Which STDs have vaccinations?
5. How are the bacterial STDs treated?
6. How does HIV damage the immune system?
7. Why is it important to take all of your antibiotics?
8. True or false? There is no cure for HIV.
9. How can you prevent contracting/spreading STDs if you are sexually active?
10. Why is it important to be tested regularly for STDs?

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