Biology 3201 Unit 2 Reproduction: Sexually Transmitted Infections (STD’s/STI’s)

STI’s

- once called venereal diseases

- More than 20 STIs have now been identified

- most prevalent among teenagers and young adults. Nearly two-thirds of all STIs occur in people younger than 25 years of age.
• Most of the time, STIs cause no symptoms, particularly in women.

• Some STIs can spread into the uterus (womb) and fallopian tubes to cause pelvic inflammatory disease (PID), which in turn is a major cause of both infertility and ectopic (tubal) pregnancy.

• may be associated with cervical cancer. One STI, human papillomavirus infection (HPV), causes genital warts and cervical and other genital cancers.

• STIs can be passed from a mother to her baby before, during, or immediately after birth; some of these infections of the newborn can be cured easily, but others may cause a baby to be permanently disabled or even die.
1. Parasites

- treated with medications or over the counter drugs
- eg: pubic lice
2. Bacteria
- treated with antibiotics
- eg. gonorrhoea, chlamydia

3. Viruses
- can’t be cured but may be controlled
- eg: HIV, herpes, hepatitis
Viral Infections.....

1. HIV Infection and AIDS

- AIDS (acquired immunodeficiency syndrome)
- caused by the human immunodeficiency virus (HIV)
• Virus destroys the body's ability to fight off infection.

• Victims susceptible to opportunistic infections, and to certain forms of cancer.

• Transmission occurs during sexual activity and by sharing needles used to inject intravenous drugs.

2. Genital Herpes

• Caused by herpes simplex virus (HSV).

• Painful blisters or open sores in the genital area.
• L usually disappear within two to three weeks, but the virus remains in the body for life and the lesions may recur

• L antiviral drugs that are available by prescription and may help control the symptoms but do not eliminate the herpes virus from the body.

• L pregnant women can transmit the virus to their babies. Untreated HSV infection in newborns can result in mental retardation and death.

3. Genital Warts

• caused by human papillomavirus (pap il lo ma), a virus related to the virus that causes common skin warts.

Treated with a topical drug, by freezing, or if they recur, with injections of a type of interferon. If the warts are very large, they can be removed by surgery.
4. Hepatitis

- viral infections; 3 types
  1) A - contaminated drinking water
  2) B – sexual contact, exchange of fluids
  3) C – infected needles and syringes
- Symptoms are flu-like, and the skin turns yellowish (jaundice)
- If it spreads, can lead to liver infection, liver failure, and eventually death
- Some people recover, others are asymptomatic carriers
- Vaccines available for hepatitis A and B

4. Hepatitis B (HBV)

causes inflammation of the liver

Transmission through sex; by sharing contaminated drug needles; piercing the skin with contaminated instruments such as those used in dental and medical procedures; and receiving contaminated blood or blood products through transfusions.
• About one-third of people with HBV are asymptomatic.

• When symptoms are present they include fever, headache, muscle aches, fatigue, loss of appetite, vomiting and diarrhea. Symptoms of liver involvement include dark urine, abdominal pain, yellowing of the skin and whites of the eyes.

• Treatment: There is no known cure. Most infections clear up by themselves within 4-8 weeks. Some individuals become chronically infected.

5. Genital Herpes
- Viral infection caused by herpes simplex 2 (HSV 2); HSV 1 causes cold sores and blisters
- Symptoms occur within a month; include tingling or itching followed by blisters that rupture. Outbreaks can occur
- No cure for genital herpes
- Increased chance of AIDS, discomfort
1. Chlamydial Infection

- most common of all bacterial STI
- abnormal genital discharge and burning with urination.
• If untreated may lead to pelvic inflammatory disease, one of the most common causes of ectopic pregnancy and infertility in women.

2. Gonorrhea

• discharge from the vagina or penis and painful or difficult urination.

• complications include PID, ectopic pregnancy, and infertility.
3. Syphilis

- first symptoms may go undetected.
- If untreated, may go on to more advanced stages, eventually, serious involvement of the heart and central nervous system.

- initial symptom is a chancre; it is usually a painless open sore that usually appears on the penis or around or in the vagina. It can also occur near the mouth, anus, or on the hands.
- Penicillin remains the most effective drug to treat people with syphilis.
What Can You Do to Prevent STIs?

- be aware that the risk of acquiring an STD also increases with the number of partners over a lifetime.
- Use a condom.
- Have regular checkups for STIs even in the absence of symptoms, and especially if having sex with a new partner.
- Use clean needles if injecting intravenous drugs.