CHAPTER 7
PRINCIPLES OF DISEASE

THE ETIOLOGY OF DISEASE

- The cause of a disease is referred to as the etiology.
- The body contains normal microbial flora made up of bacteria that are beneficial to the host and even protect against opportunistic pathogens.

THE ETIOLOGY OF DISEASE

- There are three types of relationship between bacteria and their hosts:
  - commensalism
  - mutualism
  - parasitism
- Koch’s postulates are an important way of evaluating the etiology of a disease.
DEVELOPMENT OF DISEASE

- The development of a disease can be broken down into five periods:
  - incubation
  - prodromal
  - illness
  - decline
  - convalescence

DEVELOPMENT OF DISEASE

- Communicable diseases can be spread from one person to another
- Contagious diseases are communicable on contact with an infected individual
- Methods for the control of communicable and contagious diseases include isolation, quarantine, and vector control

DURATION OF DISEASE

- Disease can be acute, chronic, subacute or latent
- In latent disease pathogens remain in the host after signs and symptoms have disappeared but can be reactivated after long periods
- Pathogens such as *Mycobacterium tuberculosis* can cause persistent disease in which infections continue even though the host has a working immune defense
THE SCOPE OF INFECTIONS

- Infection can be localized or systemic and can be classified as:
  - primary (with acute initial symptoms)
  - subclinical (without symptoms)
  - secondary (occurring after a primary infection)
- Infection can result in toxic shock or sepsis