

CHAPTER 7
PRINCIPLES OF DISEASE

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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

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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

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DEVELOPMENT OF DISEASE

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

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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

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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

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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

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