

Pathogens of the Digestive System

Chapter 24 (Pages 625 - 661)

1. Digestive System Review (Pages 627 - 629)

A. Oral Cavity

B. Esophagus

C. Stomach

D. Small Intestine

E. Pancreas

F. Liver

G. Gall Bladder

H. Large Intestine

2. Bacterial Diseases of the Mouth

A. Oral Cavity Overview

B. *Streptococcus mutans* (Pages 629 - 633) (see also handout)

- Cariogenic (Page 630)

i. Etiology

a. Biofilm

- Dental Plaque
- Metabolic Pathways (see handout)
 - * Dextran (Glycocalyx)
 - * Lactic Acid

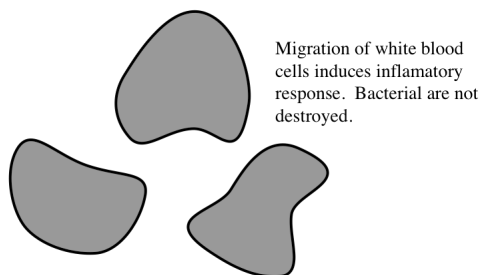
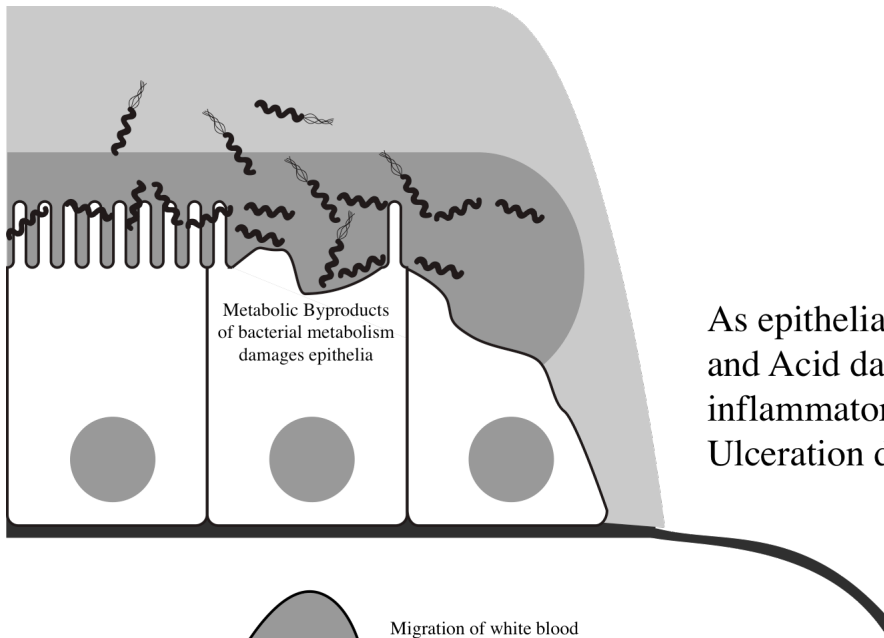
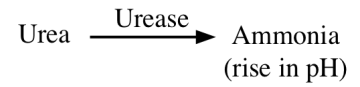
ii. Diseases (Pages 631 - 632)

- a. Dental caries
- b. Gingivitis
- c. Periodontitis

3. *Helicobacter pylori* (Pages 633 - 635)

A. Stomach Review

B. Mechanism of Disease



iii. Chemotherapy

VIRAL DISEASES OF THE UPPER DIGESTIVE SYSTEM (Page 636 - 639)

4. Mumps (Pages 636 - 639)

- Parotid Gland

A. Transmission

- i. Respiratory Route
- ii. Viremia
- iii. Dissemination and Complications

B. Vaccine (MMR)

BACTERIAL DISEASES OF THE LOWER DIGESTIVE SYSTEM (Page 639 - 650)

5. Introduction

A. Gastroenteritis

- i. Preformed Bacterial Toxins
- ii. Noninvasive Bacteria
- iii. Intracellular Invasion

B. Systemic or Neurological Infections

C. Oral Lesions

6. Cholera (Pages 640 - 642)

A. *Vibrio cholerae*

i. General Characteristics

- a. Bacteria
- b. Epidemics

ii. Disease

- a. Cholera
 - Fecal-oral route
 - Non-invasive
 - Mortality

iii. Virulence Factors

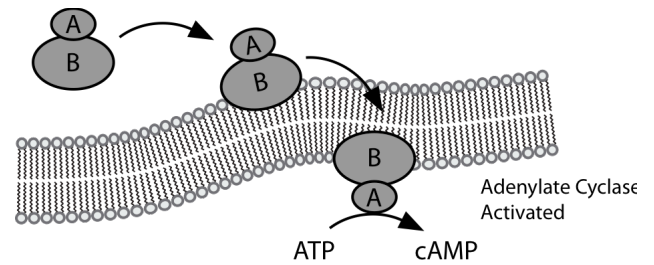
- a. Cholera toxin

iv. Control

- a. Sanitation
- b. Vaccine

v. Treatment

- a. Antibiotics
- b. Rehydration



7. Shigellosis (Pages 642 - 644)

A. *Shigella sp.*

- i. General Information
 - a. Reservoir
 - b. Symptoms
 - c. Species
- ii. Disease
 - a. Bacillary Dysentery (or Shigellosis)
 - b. Transmission
 - c. Invasiveness
 - e. Dysentery
- iii. Virulence Factor
 - a. Shiga Toxin
 - b. Conjugation
- iv. Control

8. *Escherichia coli* Gastroenteritis (Pages 644 - 646)

A. *Escherichia coli*

i. *E. coli* Strains

a. Enterotoxigenic *E. coli* (ETEC)

- Colonizing Factors
 - * Fimbriae
- Toxins
 - * LT (Heat Labile Toxin)
 - * ST (Heat Stable Toxin)

b. Enteroinvasive *E. coli* (EIEC)

- General Information
 - * Outbreaks

c. Enterohemorrhagic *E. coli* (EHEC)

- General Information
 - * Outbreaks
 - * Fimbrial Adhesion
 - * Two shiga like toxins
 - * Serotype: 0157:H7
- Hemolytic Uremic Syndrome
- Control

9. Salmonellosis (Pages 646 - 648)

A. *Salmonella sp.*

- i. General Information
 - a. Peritrichious flagella
 - b. Reservoir
- ii. Pathogenesis of Salmonellosis
 - a. Transmission
 - Cases
 - Associations
 - Eggs
 - b. Etiology
- iii. Control
 - a. “Scramble or Gamble”
 - b. Industrial Issues
- iv. Symptoms

B. *Salmonella typhi*

- i. General Information
 - a. Transmission
 - b. Acid resistant

- ii. Typhoid Fever
 - a. Invasiveness
 - b. Gall Bladder
 - c. Symptoms
 - d. Chronic Carriers
 - “Typhoid Mary”
 - e. Vaccine

10. Listeriosis

A. *Listeria monocytogenes*

- i. General Information
 - Transmission
 - Source
 - Growth
- ii. Reservoir
- iii. Diseases
 - a. Listeriosis
 - b. Meningitis
 - c. Still birth
 - d. Carriers

PROTOZOAL / PARASITIC DISEASES OF THE DIGESTIVE TRACT

11. Amebic Dysentery (Amoebiasis) (Pages 661 - 662) (See Handout)

A. *Entamoeba histolytica*

- i. General Information
- ii. Disease
 - a. Amebic Dysentery (Amoebiasis)
 - b. Carriers

12. Primary Amebic Meningoencephalitis (Page 720)

A. *Naegleria fowleri*

- i. Disease
 - a. Primary Amebic Meningoencephalitis

13. Balantidiasis (See Handout)

A. *Balantidium coli*

- i. Disease
 - a. Balantidiasis

14. Giardiasis (Pages 657 - 659) (See Handout)

A. *Giardia lamblia*

- i. Disease
 - a. Giardiasis

15. Toxoplasmosis (Pages 718 - 719) (See Handout)

A. *Toxoplasma gondii*

- i. Introduction
- ii. Stages
 - a. Acute
 - b. Chronic
- iii. Forms
- iv. Life Cycle
- v. Disease
 - a. Toxoplasmosis
 - Congenital Toxoplasmosis
 - Toxoplasma Encephalitis (TE)
- iv. Treatment and Prevention
 - a. AIDS patients
 - Acute Stage Therapy
 - Maintenance Treatment

Microbiology - Pathogens of the Digestive System

- b. Immunocompromized Patients and Pregnant Women
- c. Prevention

Parasitic (Multicellular Eucharotic) Diseases of the Digestive Tract

16. Pork Tapeworm (See Handout)

A. *Taenia saginata*

- i. General Information
 - a. Definitive Host
 - b. Intermediate Host
- ii. Life Cycle
- iii. Disease
 - a. Symptoms
 - b. Psychological Distress
 - c. Control

17. Beef Tapeworm (and Cysticercosis) (See Handout)

A. *Taenia solium*

- i. General Information
 - a. Definitive Host
 - b. Intermediate Host
- i. Disease
 - a. Cysticercosis

18. Trichinosis (See Handout)

A. *Trichinella spiralis*

- i. Life Cycle
- ii. Disease
 - a. Trichinosis

19. Pinworm

A. *Enterobius vermicularis*

- i. Disease
 - a. Pinworm

20. Ascariasis (Page 322) (See Handout)

A. *Ascaris lumbricoides*