

Study Guide for Exam 2

Cardiovascular System and the Immune System

Page #s indicate where the topic begins.

7th Day

Physiology of Circulation p. 723 / 703

Maintaining Systemic Blood Pressure p. 724 / 706

Short-Term Mechanisms

Neural Controls via the Vasomotor Center

Baroreceptor-initiated reflex

Chemoreceptor- initiated reflex

Influence of higher brain centers

Hormonal Controls

Long-Term Mechanisms

Renal Regulation

Direct

Indirect

8th Day

Tissue perfusion p. 733 / 713

Local Regulation of Blood Flow at tissues

Blood Flow in Special Areas

Capillary Exchange p. 738 / 717

Circulatory Shock p. 740 / 719

Stages of Circulatory Shock

The Immune System

9th Day

INNATE (Nonspecific) IMMUNITY - Good summary in Table 21.2 p. 796 / 772

First Line of Defense: Surface Membrane Barriers

Second Line of Defense: Nonspecific Cellular and Chemical Defenses

Other terms: mast cells, perforins, leukocytosis, diapedesis, chemotaxis, and pyrogens.

Fever: Explain how a mild or moderate fever is beneficial.

ADAPTIVE (Specific) IMMUNITY – Good summary in Table 21.4 p. 817 / Table 21.5 p. 795

**Ask me for list of recommended readings in text.

LYMPHOCYTES P. 800 / 777

Immunocompetence: Positive and Negative Selection

B cells and T cells

10th Day

ANTIGEN-PRESENTING CELLS (APCs) P. 803 / 779

Antigens and MHC/Antigen Complexes

THE HUMORAL IMMUNE RESPONSE - via B CELLS and ANTIBODIES p. 804 / 780

Activation

Clonal Selection yields Plasma cells and Memory cells

Antibodies (effects of...)

Immunological Memory

Antibody Production in Primary and Secondary Responses

Vaccines

THE CELL MEDIATED IMMUNE RESPONSE - via T CELLS p. 810 / 786

T cell Activation

Clonal Selection of T cells

Helper Ts, Cytotoxic Ts, Suppressor Ts, Memory Ts

11th Day

Antibiotics

Transplant Rejections and Immunosuppression

AIDS due to HIV

Autoimmune Diseases

Hypersensitivities (OYO from handout available on my web page)

Immediate Hypersensitivities

Anaphylaxis, Anaphylactic Shock, and Atopy

Delayed Hypersensitivities

EXAM 2