

Immune System Study Guide

Be able to compare and contrast innate and acquired immune functions (with specific examples of each [physical, chemical, cellular])

Be able to describe the different immune cells featured in class - where they are formed, where they mature, where they are typically found (tissue/blood) and their role in the immune response.

Define cytokine, antigen and hapten

Describe antibody mediated immunity

- (1) how B cells are activated
- (2) production of clones
- (3) roles of plasma and memory cells
- (4) differentiate between the primary and secondary response (time differences)

List five classes of antibodies.

Distinguish between roles and/or physical characteristics of IgM, IgE, IgA, IgG.

Describe how antibodies directly attack pathogens.

Be able to differentiate between passive and active immunity.

Describe how macrophages act as an APC (antigen presenting cell).

Give the immune cell and antibody class most involved in allergic reactions. Describe the process of allergy (type I hypersensitivity).

Give the immune cell involved in type IV hypersensitivity. Describe and give examples of this type of immune reaction.

Describe the immune response to viruses, cancer.

Describe the immune response to bacterial invasion of the skin (cut, scrape, etc.).

Know what chemotaxis is and what causes it.

Know what initiates the complement cascade and what is the final result.

Explain the process of diapedesis.

Know what endotoxin is and the role it plays in the immune response.

Differentiate between cytotoxic T cells and T helper cells.

Autoimmune disease are where the body attacks itself. Give four ways this can occur with examples.