**Chap 43: Immune System**

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What are the basic purposes of the immune system?

What are some parts of organisms that make up the immune system?

How is innate immunity different than adaptive immunity?

What type of organisms have innate immune systems?

What is phagocytosis?

What are Toll-like receptors (TLRs)?

What are the 4 types of phagocytic cells?

How are Natural killer cells different than phagocytic cells?

Explain how the Inflammatory response works.

What are the main types of lymphocytes?

How are B cells different than T cells?

What is an antigen? What is an epitope?

Know how antigen recognition happens with B cells.

What is a v region? How does it help the adaptive system?

What is a(n) antibody/immoglobulin?

What is antigen presentation? How is it associated with T cells?

How can organisms create millions of variable receptor regions from only 20,000 different protein-coding genes?

What is self-tolerance?

When more B and T cells are needed how does the organism create the effector and memory cells?

What is the primary immune response and how is it different than the secondary immune response? (see graph 43.15)

What is the difference between humoral immune response and cell-mediated immune response?

What is a helper T cell? What two things must happen for T cells to work?

What is a cytotoxic T cell’s job?

Be able to explain any part of the diagram on page 944 (fig 43.20)

What is passive immunity and how is it similar/different to active immunity?

How does a vaccination work?

Why do mammals potentially reject tissue (organs or blood)?

Know how the immune systems can be disrupted and what is happening (Autoimmune, Allergies, Immunodeficiencies, etc)

How does HIV work? (understand fig 43.25 as part of your description process)