

Immunology Class Preparation

1. Label each example as either active or passive immunity:
 - a. Antibodies are passed from the mother to the fetus: **Passive**
 - b. Antibodies are produced after exposure to a killed virus: **Active**
 - c. Antibodies are produced after an infection: **Active**
 - d. Antibodies are administered in the form of immune globulins: **Passive**

2. A nurse is assessing a client for HIV. The nurse should identify which of the following risk factors associated with this virus? Select all that apply.
 - a. **Perinatal exposure**
 - b. Monogamous partner
 - c. **Blood transfusion**
 - d. **Occupational exposure**

3. A nurse in an outpatient clinic is assessing a client who reports night sweats, fatigue, cough, nausea, diarrhea and has a temperature of 38.1° C (100.6° F). The client is concerned about the possibility of having HIV. Which actions should the nurse take? Select all that apply.
 - a. **Perform a physical assessment**
 - b. **Determine when the manifestations began**
 - c. Request a prescription for an antibiotic
 - d. **Request a prescription for HIV testing**
 - e. **Obtain a sexual history**

4. List three effects of aging on the immune system:
 - a. **Thymic shrinking and related, decrease number of T cells.** This is a primary cause of immunosenescence, which dysregulates geriatric patient's immune system, causing them to be susceptible to autoimmune disease and cancer.
 - b. **Delayed hypersensitivity reaction:** decreased or absent in geriatric patients due to anergy, a decreased or lowered reaction to one or more antigens.
 - c. **Decreased primary and secondary antibody response:** B cells show deficiencies over time, although bone marrow is unaffected by aging. For example, this causes immunizations and vaccines to be less effective with age because less antibodies are produced.

5. Match the type of hypersensitivity reaction to the characteristics:

Type I: IgE-Mediated - A	A. Caused by pollen, food, drugs, dust, immediate reaction, allergic rhinitis, atopic dermatitis, skin test shows wheal and flare
Type II: Cytotoxic - C	B. Occurs when T cells attack antigens or release cytokines, several days to occur, contact dermatitis
Type III: Immune- Complex - D	C. Caused by ABO incompatibility blood transfusion reaction, occurs in minutes to hours, activates
Type IV: Delayed Hypersensitivity - B	D. Caused by fungal, viral, or bacterial antigens, takes hours to days to develop, rheumatoid arthritis, systemic lupus erythema complement system and leads to cell lysis and acute kidney injury