## What is the primary function of lymphocytes in the immune system

- A. To regulate body temperature
- B. To produce insulin
- C. To aid in digestion
- D. To recognize and attack foreign pathogens

**Answer: D. To recognize and attack foreign pathogens**

## What are the two main types of lymphocytes

- A. B cells and T cells
- B. Neutrophils and eosinophils
- C. Plasma cells and macrophages
- D. White blood cells and red blood cells

**Answer: A. B cells and T cells**

## Where are lymphocytes produced in the body

- A. Thymus
- B. Lymph nodes
- C. Spleen
- D. Bone marrow

**Answer: D. Bone marrow**

## What is the role of T cells in the immune response

- A. T cells produce antibodies.

• B. T cells regulate body temperature.

• C. T cells help with digestion.

• D. T cells help coordinate immune responses and kill infected cells.

**Answer: D. T cells help coordinate immune responses and kill infected cells.**

## What is the role of B cells in the immune response

• A. Produce antibodies

• B. Regulate inflammation

• C. Produce cytokines

• D. Attack pathogens directly

**Answer: A. Produce antibodies**

## What is the difference between T cells and B cells

• A. T cells are only found in the blood, while B cells are only found in the lymph nodes.

• B. T cells produce antibodies, while B cells kill infected cells.

• C. T cells are involved in allergies, while B cells are involved in autoimmune diseases.

• D. T cells are involved in cell-mediated immunity, while B cells are involved in humoral immunity.

**Answer: D. T cells are involved in cell-mediated immunity, while B cells are involved in humoral im**

## What is the function of natural killer (NK) cells in the immune system

• A. To regulate body temperature

• B. To assist in blood clotting

• C. To produce antibodies

• D. To kill infected cells and tumor cells

**Answer: D. To kill infected cells and tumor cells**

## What is the significance of lymphocyte activation in the immune response

- A. Lymphocyte activation leads to the production of antibodies and memory cells.
- B. Lymphocyte activation causes inflammation.
- C. Lymphocyte activation enhances blood clotting.
- D. Lymphocyte activation triggers allergies.

**Answer: A. Lymphocyte activation leads to the production of antibodies and memory cells.**

## What is the process of lymphocyte maturation

- A. Lymphocyte proliferation
- B. Lymphocyte activation
- C. Lymphopoiesis
- D. Lymphocyte differentiation

**Answer: C. Lymphopoiesis**

## How do lymphocytes recognize and respond to pathogens

- A. By multiplying rapidly
- B. Through specific receptors on their cell surface
- C. By releasing toxins
- D. By engulfing pathogens

**Answer: B. Through specific receptors on their cell surface**

## What are the different subtypes of T cells and their functions

• A. T cells - produce antibodies

• B. Memory T cells - store information

• C. Helper T cells - help activate other immune cells, Cytotoxic T cells - kill infected cells, Regulatory T cells - suppress immune responses

• D. Dendritic T cells - fight infections

**Answer: C. Helper T cells - help activate other immune cells, Cytotoxic T cells - kill infected cells, R**

## How do B cells produce antibodies to fight infections

• A. B cells produce antibodies by secreting cytokines.

• B. B cells produce antibodies through phagocytosis.

• C. B cells produce antibodies through a process called somatic hypermutation.

• D. B cells produce antibodies through cell division.

**Answer: C. B cells produce antibodies through a process called somatic hypermutation.**

## What is the role of memory lymphocytes in the immune response

• A. Memory lymphocytes produce antibodies.

• B. Memory lymphocytes attack healthy cells.

• C. Memory lymphocytes provide a faster and stronger immune response upon re-exposure to a pathogen.

• D. Memory lymphocytes initiate inflammation.

**Answer: C. Memory lymphocytes provide a faster and stronger immune response upon re-exposure**

## How do lymphocytes communicate with other immune cells

- A. Through light waves
- B. Through physical contact
- C. Through electrical impulses
- D. Through chemical signaling

**Answer: D. Through chemical signaling**

## What is the importance of lymphocyte proliferation in the immune response

- A. Lymphocyte proliferation has no impact on the immune response.
- B. Lymphocyte proliferation increases the number of immune cells to fight off infections.
- C. Lymphocyte proliferation causes autoimmune diseases.
- D. Lymphocyte proliferation only occurs in unhealthy individuals.

**Answer: B. Lymphocyte proliferation increases the number of immune cells to fight off infections.**

## How do lymphocytes differentiate between self and non-self antigens

- A. By attacking all antigens indiscriminately
- B. By avoiding all antigens
- C. By only recognizing non-self antigens
- D. By recognizing the body's own unique proteins

**Answer: D. By recognizing the body's own unique proteins**

## What are the factors that can affect lymphocyte function

- A. Stress
- B. Infections
- C. Poor diet

• D. Sun exposure

**Answer: B. Infections**

## How do lymphocytes contribute to the development of autoimmune diseases

• A. By preventing inflammation

• B. By promoting immune tolerance

• C. By attacking healthy cells and tissues

• D. By releasing anti-inflammatory cytokines

**Answer: C. By attacking healthy cells and tissues**

## What is the relationship between lymphocytes and cancer

• A. Lymphocytes feed cancer cells

• B. Lymphocytes cause cancer

• C. Lymphocytes help the immune system fight cancer

• D. Lymphocytes have no relationship with cancer

**Answer: C. Lymphocytes help the immune system fight cancer**

## How can lymphocyte disorders impact overall health and immunity

• A. Lymphocyte disorders can improve immunity

• B. Lymphocyte disorders can weaken immunity

• C. Lymphocyte disorders have no impact on health

• D. Lymphocyte disorders only affect skin health

**Answer: B. Lymphocyte disorders can weaken immunity**