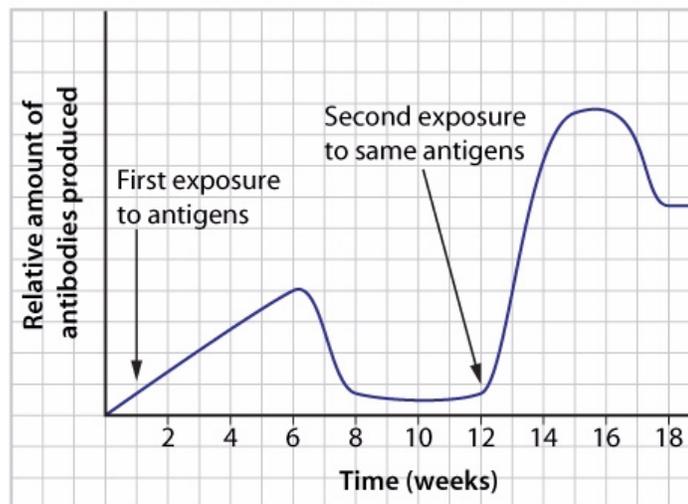


The specific defence system is primarily a function of the B and T lymphocytes (white blood cells in the circulatory system). These cells produce antibodies—proteins that can recognize foreign substances in the body and neutralize or destroy them. B lymphocytes (B cells) are made in the bone marrow, while T lymphocytes (T cells) are made in the thymus gland.

1. Define the term “antigen” in terms of pathogens.

Use the graph below to answer the next three questions.



2. Explain what is happening in the graph.

3. Compare how long the body took to produce antibodies after the first exposure to how long it took after the second exposure.

4. Compare the quantity of antibodies from the first exposure to the second exposure.

5. Create a flow chart that illustrates the B cell response to pathogens.

6. Fill in the chart below, describing the function of each of the T cells in cellular-mediated immunity.

| T Cell Type | Function |
|---------------------------|-----------------|
| Helper T Cell | |
| Killer (Cytotoxic) T Cell | |
| Suppressor T Cell | |
| Memory T Cell | |