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Crash Course Anatomy & Physiology #47: Immune System – Part 3

Name: _____ Date: _____

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1. When other defenses fail, the body relies on the _____ immune response to attack infected cells directly.
2. The main "heroes" of the cellular immune response are the _____ lymphocytes.
3. T cells cause inflammation, activate macrophages, and release chemical messengers called _____.
4. Phagocytes display fragments of pathogens on proteins known as _____ complexes.
5. MHC class _____ proteins are found on every nucleated cell in your body except red blood cells.
6. Macrophages, dendritic cells, and B cells display class _____ MHC proteins as professional antigen presenters.
7. T cells are produced in the bone marrow but mature in the _____ gland.
8. The two main functional types of T cells are helper T cells and _____ T cells.
9. Helper T cells clone themselves and make _____ T cells that remember specific antigens.
10. The cytotoxic T cells kill infected or abnormal cells by releasing enzymes that trigger _____.
11. Regulatory T cells release inhibiting cytokines to prevent _____ diseases.
12. Autoimmune diseases such as multiple sclerosis and _____ _____ diabetes occur when the immune system attacks the body's own tissues.
13. Cytotoxic T cells look for infected cells presenting antigens on class _____ MHC molecules.
14. Before a B cell is fully activated, it must be inspected by a matching _____ T cell.
15. Without helper T cells, there would be little or no _____ immune response.

Crash Course Anatomy & Physiology #47: Immune System – Part 3 KEY

1. When other defenses fail, the body relies on the **cell-mediated** immune response to attack infected cells directly.
2. The main "heroes" of the cellular immune response are the **T** lymphocytes.
3. T cells cause inflammation, activate macrophages, and release chemical messengers called **cytokines**.
4. Phagocytes display fragments of pathogens on proteins known as **major histocompatibility** complexes.
5. MHC class **1** proteins are found on every nucleated cell in your body except red blood cells.
6. Macrophages, dendritic cells, and B cells display class **2** MHC proteins as professional antigen presenters.
7. T cells are produced in the bone marrow but mature in the **thymus** gland.
8. The two main functional types of T cells are helper T cells and **cytotoxic** T cells.
9. Helper T cells clone themselves and make **memory** T cells that remember specific antigens.
10. The cytotoxic T cells kill infected or abnormal cells by releasing enzymes that trigger **apoptosis**.
11. Regulatory T cells release inhibiting cytokines to prevent **autoimmune** diseases.
12. Autoimmune diseases such as multiple sclerosis and **Type One** diabetes occur when the immune system attacks the body's own tissues.
13. Cytotoxic T cells look for infected cells presenting antigens on class **1** MHC molecules.
14. Before a B cell is fully activated, it must be inspected by a matching **Helper** T cell.
15. Without helper T cells, there would be little or no **adaptive** immune response.

WORKSHEET PREVIEW

15 Questions **Answer Key Included**

Save 85% per worksheet!