

Sequence of events, from entry of pathogen into the body to the formation of antibodies:

1. Bacteria enters tissue from a break in skin.

Neutrophils &

2. Monocytes = Phagocytic non-specific WBC in the blood stream.

3. Monocytes = Cell that extravasates from blood vessel into tissue. (is now called an Macrophage)

4. APC = Phagocytic cell in tissue, which finds pathogen, kills it, and puts antigen on its surface.

5. Helper T cell = Cell of cell-mediated adaptive immunity, which becomes activated by interaction with the cell in #4 above.

6. Activated cell from #5 above can now activate these cells:

A. Cytotoxic T cell = Cell of cell-mediated adaptive immunity, which directly kills pathogen.

B. Memory T cell = Cell of cell-mediated adapted immunity, which keeps a memory of pathogen.

C. B cells = Cell that is part of antibody-mediated adaptive immunity)

7. Cell from 6C above can make Antibodies (otherwise known as immunoglobulins)

8. Cell from 6C above encounters its pathogen and the following happens:

A. Agglutination (antibodies bind to and clump pathogens

B. Clonal production of Plasma B cells and Memory B cells