

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

1. Bacteria enters tissue from a break in skin.
2. Neutrophils/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. (APC)
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 adaptive immunity, which keeps a memory of pathogen.
 - C. B-cell = 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. "Throw" antibodies at pathogen & cause agglutination
 - B. Clonal replication of plasma B-cells & memory B-cells

CATEGORIES OF IMMUNITY:

