Acquired Immunity…Activating the immune system (The domino effect)

6.d

6.c

6.b

6.a

5.a

5.b

1.

2.

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| A pathogen (virus/bacteria/parasite) enters the body through an opening  Or  A “dead”, weakened or parts of a pathogen are injected into the body by vaccine | Cytotoxic T cells search the body and destroy any body cells that have already become infected. |
| Most B cells become plasma cells  (Thousands are made) | Interleukin-1 activates other helper T cells to release interleukin-2 |
| Interleukin-2 (cytokine) activates B cells  and causes them to divide | A macrophage cell engulfs the pathogen, breaks it apart, and then presents the pathogens antigens as a major histocompatibility complex (MHC) on its surface. |
| Helper T cells bind their surface protein receptors to the MHC complex displayed on the surface of the macrophage causing the macrophage to release interleukin-1 | Plasma cells make and release antibody proteins that have a specific shape that will bind only with the specific antigen they were made for. The antibodies mark the pathogen for destruction |
| Some B cells become memory cells  (Thousands are made) | Interleukin-2 activates cytotoxic T cells and causes them to divide |