

Immune System

1. Defends against pathogens and distinguish from body cells
2. Functional system rather than organ system
3. Innate or nonspecific and adaptive or specific defenses
4. Innate system
 - a. Surface barriers: skin and mucous membranes
 - b. Antimicrobial proteins and phagocytes
 - i. Internal defenses: natural killer cells, fever, and inflammation
5. Adaptive(specific immunity)
 - a. B cells(humoral immunity) and T cells(cellular immunity)
 - b. Third line of defense and takes **longer to activate than innate system**
 - c. Pathogen “memory” (ex: vaccination)
6. Immune system lines of defenses
 - a. Physical and chemical barriers keep invaders out
 - b. Invaders are “arrested” if the breach
 - c. Specialized forces identify and attack invaders
7. Surface barriers(skin)