

Non-Specific Disease Resistance



Directions:

- Click the "Contents" button,
- Open the *Disease Resistance* File,
- Click *Animations*,
- Click *Non-Specific Disease Resistance*

Introduction

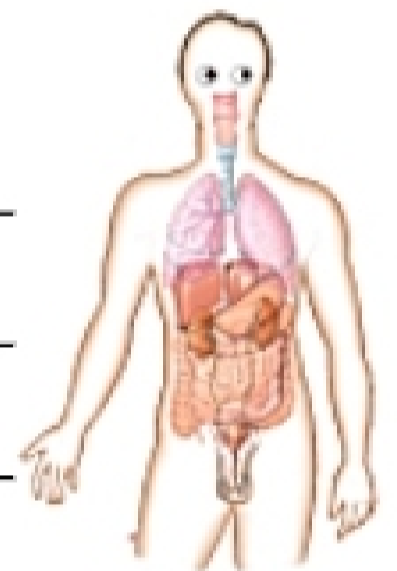
- Name five general non-specific defense mechanisms that act quickly to fight a wide variety of "invaders."



Barriers

- Name five physical barriers that prevent invasion by microbes. _____

- Name five chemical barriers that prevent invasion by microbes. _____



- Click on the eye to investigate defense mechanisms found there. Describe the protective contribution of *lacrimation*.

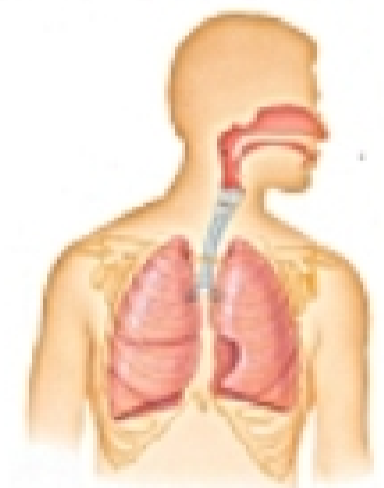


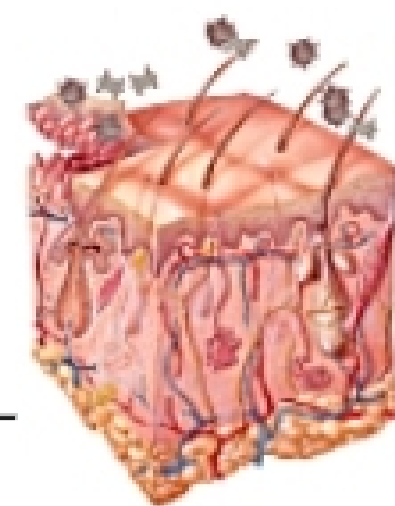
- Click on the respiratory mucosa to investigate defense mechanisms found there.

- Describe the defensive role of lymph tissue located in the airway (MALT). _____

- Describe the defensive role of pseudostratified ciliated columnar epithelium lining the respiratory airway.

- Describe the defensive role of alveolar macrophages. _____





5. Click on the skin to investigate defense mechanisms found there.

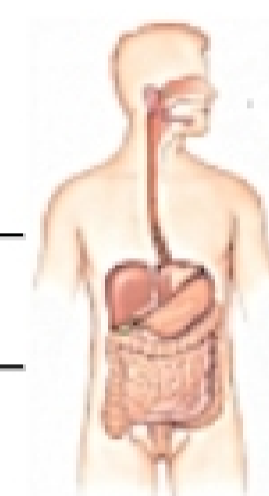
a. Describe the defensive role of the keratinized epidermis. _____

b. Describe the defensive role of sebum. _____

c. Describe the defensive role of perspiration. _____

d. Describe the defensive role of macrophages in the skin. _____

6. Click on the digestive mucosa to investigate defensive mechanisms found there.



a. Describe the defensive role of lymphocytes in the digestive tract. _____

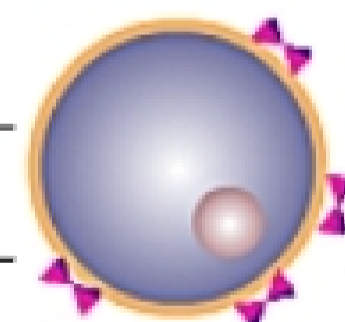
b. Describe the defensive properties of saliva. _____

c. Describe the defensive properties of stomach acids. _____

d. How does peristaltic movement contribute to pathogen resistance? _____

Antimicrobial Substances

7. a. Describe the defensive role of *interferons*. _____



b. Why are interferons non-specific mechanisms? _____

8. a. Define the *complement system*. _____

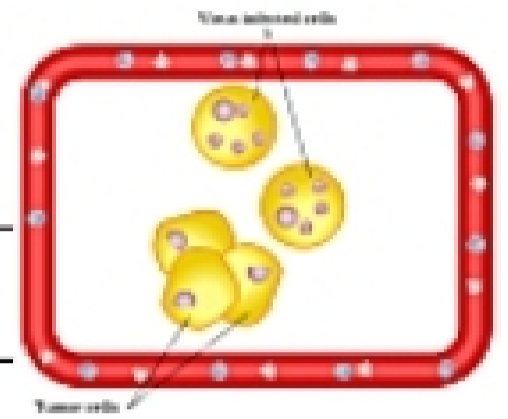
b. What is the function of the complement system? _____

9. Describe how complement proteins can combine to form systems such as the MAC that contribute to pathogen resistance.



Cellular Defenses

10. Natural killer cells are a type of lymphocyte. Explain their function.



11. Describe the defensive role of:

a. *Neutrophils*



b. *Monocytes*

