

Lab 7: Immune System

GOALS:

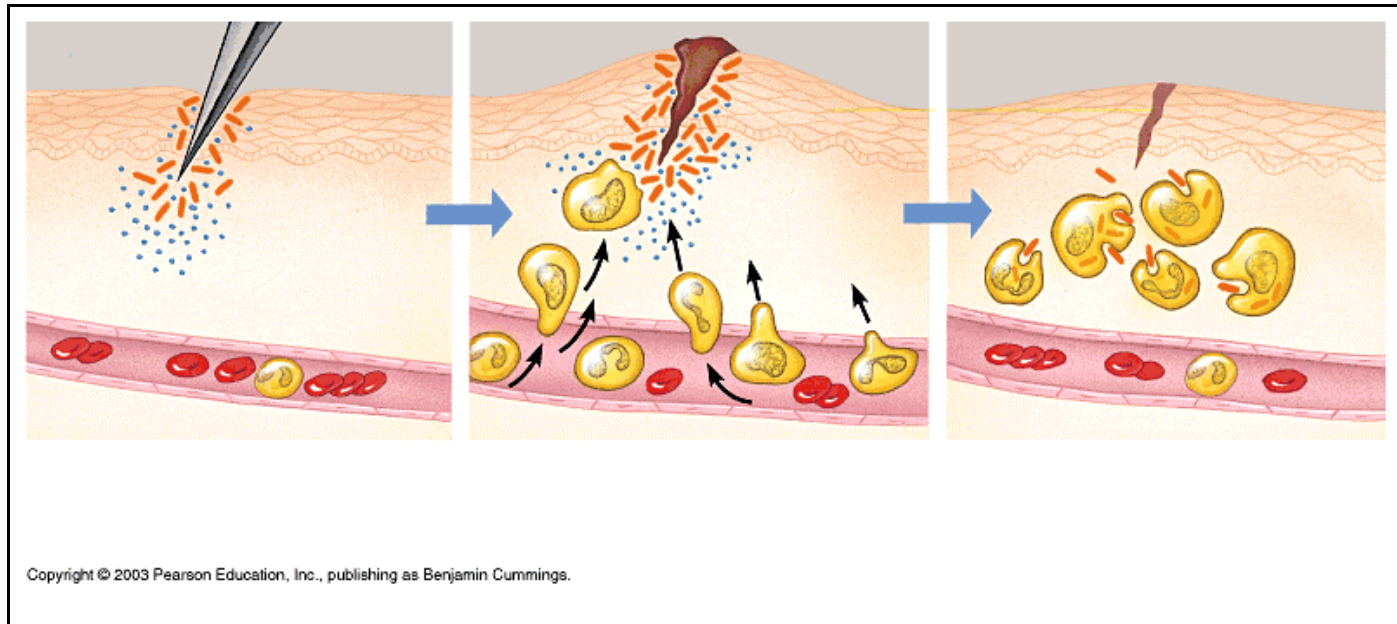
You should be able to.....

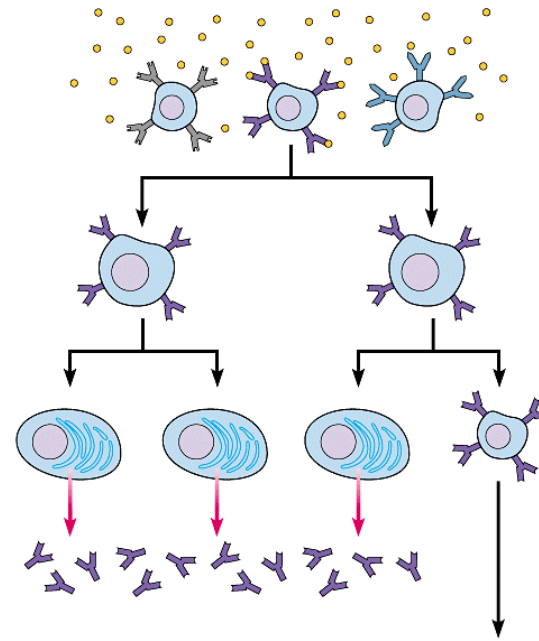
- ★ List nonspecific defenses of the human body against infection.
- ★ Compare and contrast humoral immunity (initiated by B-cells) and cell-mediated immunity (initiated by T-cells).
- ★ Describe the interaction between antigens and antibodies.
- ★ Describe the actions of helper T-cells and cytotoxic T-cells.
- ★ Explain how our bodies can develop immunity against specific diseases.

Key Terms:

- | | |
|------------------------|----------------------------------|
| ✓ pathogen | ✓ humoral immunity |
| ✓ nonspecific defenses | ✓ cell-mediated immunity |
| ✓ macrophages | ✓ memory B-cells |
| ✓ phagocytosis | ✓ effector B-cells |
| ✓ lymphatic system | ✓ agglutination |
| ✓ lymphocytes | ✓ cytotoxic T cells |
| ✓ antigen | ✓ helper T cells |
| ✓ antibody | ✓ antigen-presenting cells (APC) |
| ✓ antigen receptors | ✓ vaccination |
| ✓ B-cells | |
| ✓ T-cells | |

Fig 1. The Inflammatory Response





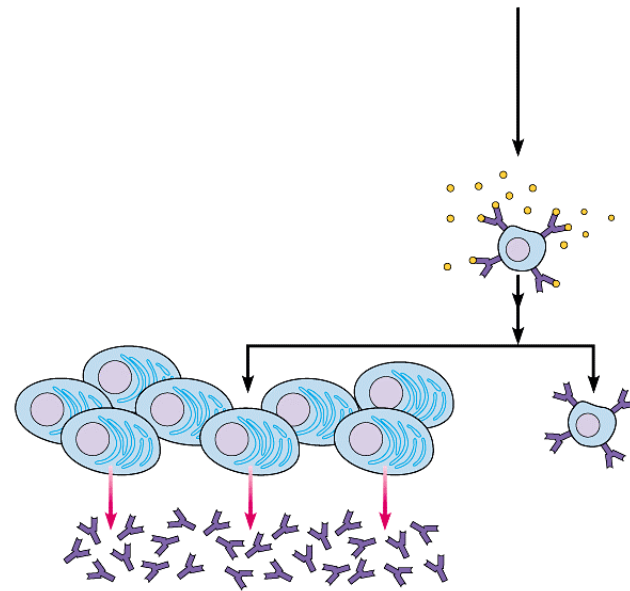
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Fig 2. PRIMARY RESPONSE
(First encounter with antigen)

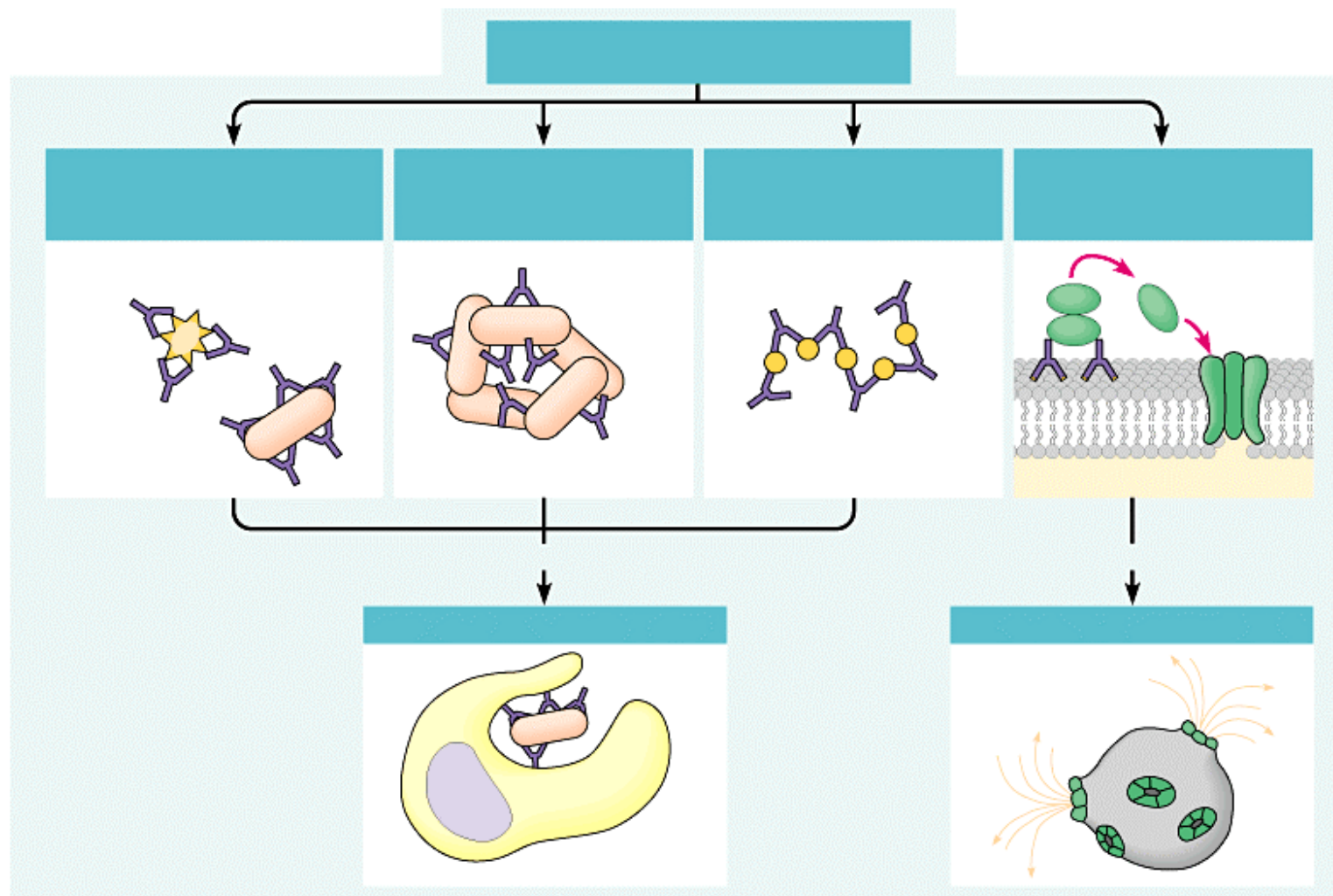
SECONDARY RESPONSE

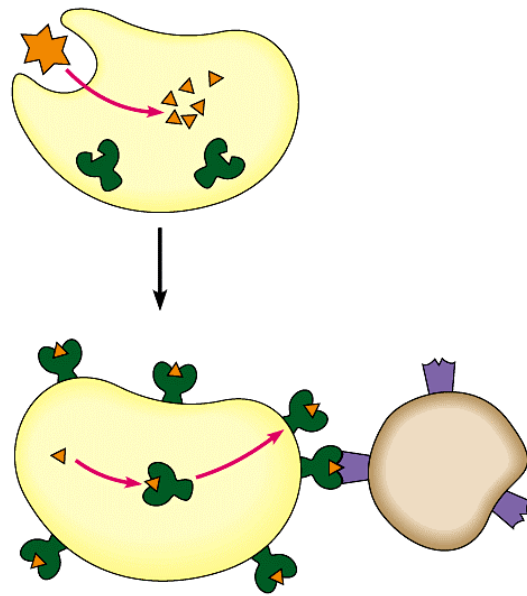
(Can be years later)

Fig 3. EFFECTOR MECHANISMS FOR HUMORAL IMMUNITY



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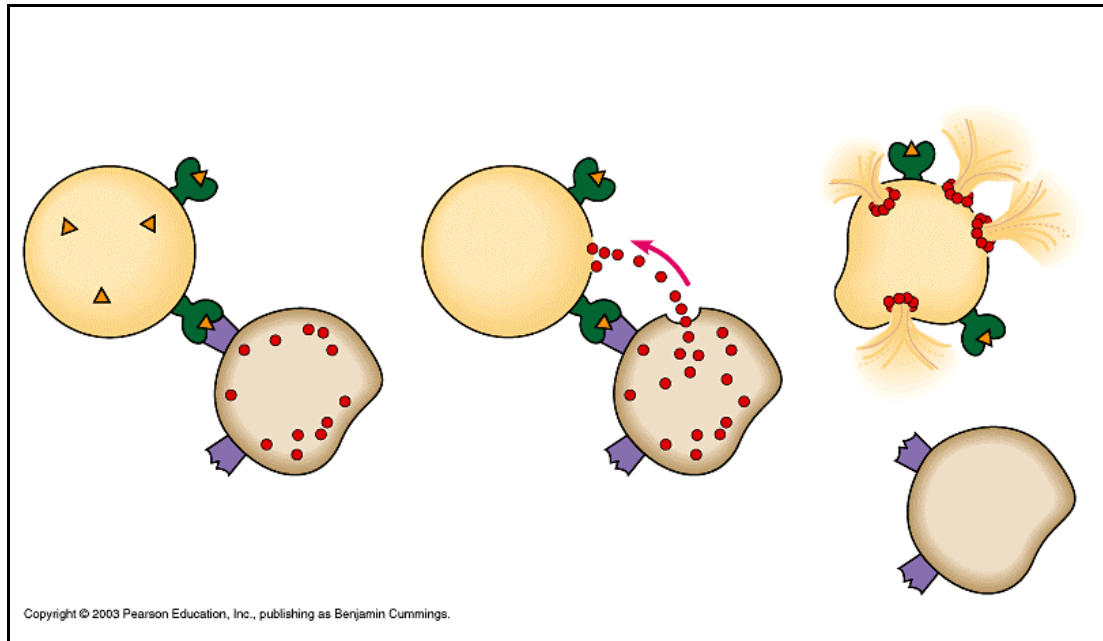




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Fig 4. Development of an APC & its interaction with a helper T cell

Fig 5.
cell and its



**Activation of a helper T
roles in immunity**

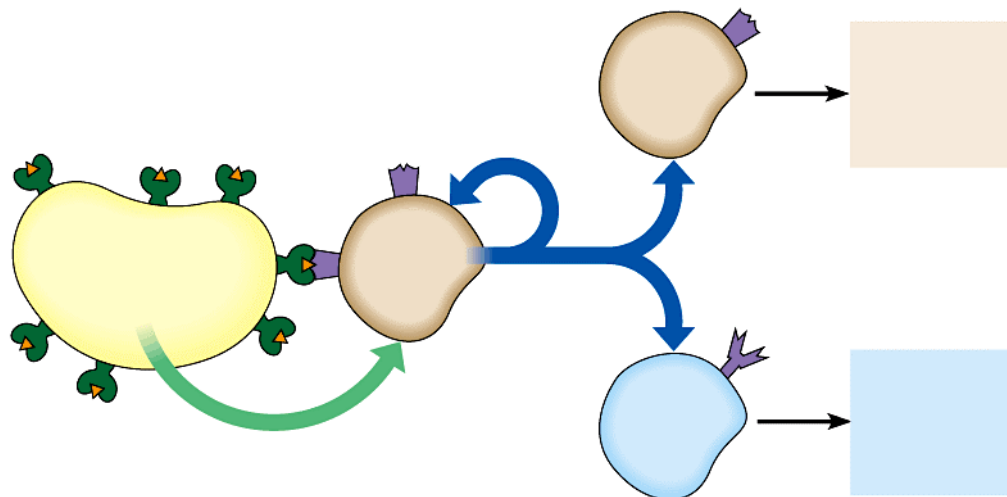


Fig 6. How a cytotoxic T cell kills an infected cell

