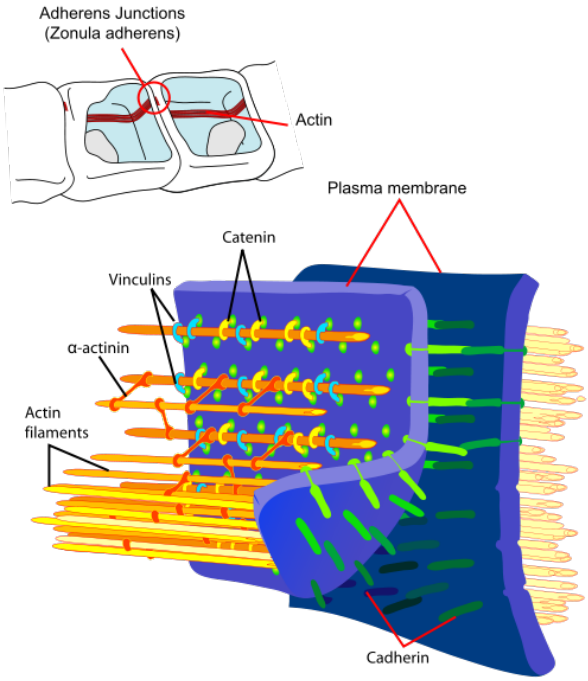
**CONCEPT:** CELL-CELL JUNCTIONS

● Cell junctions connect _____ together

□ **Adherens (Anchoring) junctions** are cell-cell adhesions that anchor cells together

- **Cadherins** are proteins that tether to actin filaments

**EXAMPLE:**

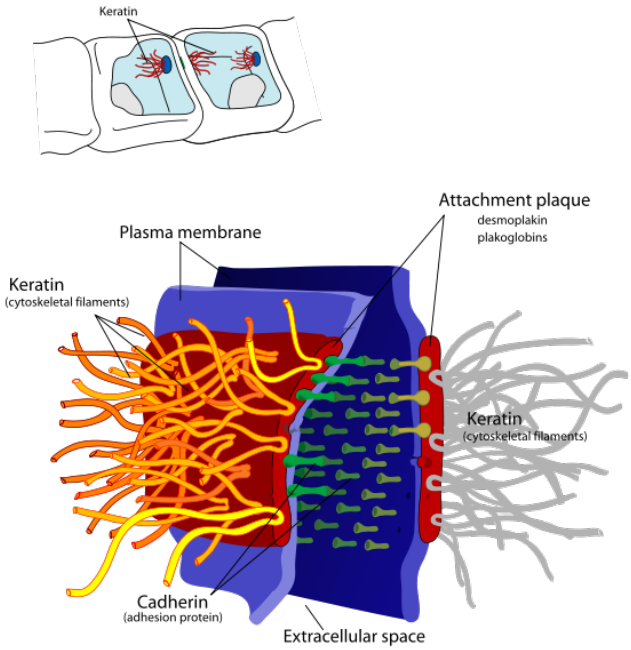


□ **Desmosomes** bind epithelial cells to each other

- *Cadherins* that tether to intermediate filaments

- **Hemidesmosomes** link epitheial cells to the basal lamina

**EXAMPLE:**

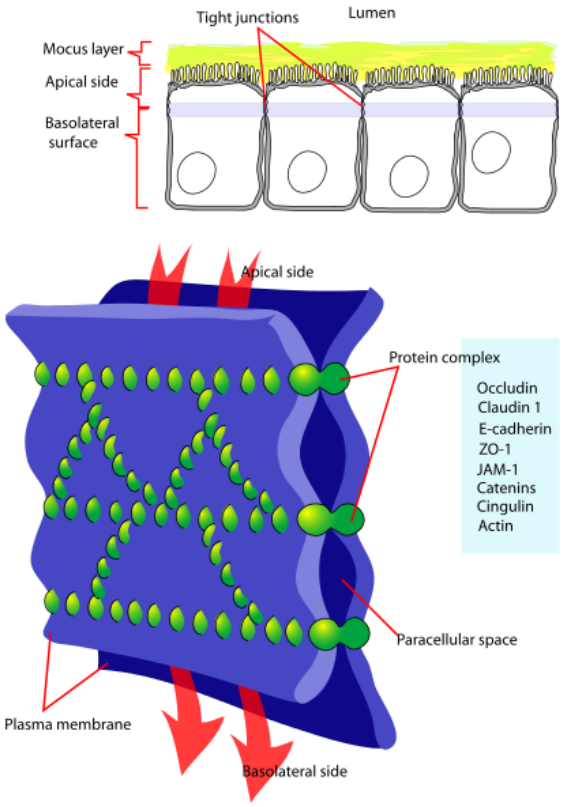


□ **Tight (occluding) junctions** form a seal between cells in order to prevent leakage between the cells

- **Claudins** and **occludins** are proteins that make up tight junctions

- Also forms polarized regions in cells (apical/basal surfaces)

**EXAMPLE:**

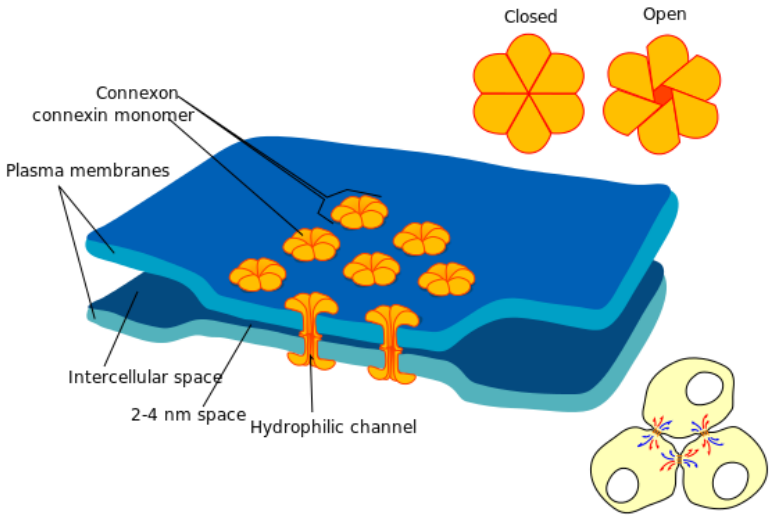


□ **Gap Junctions** are regions of the plasma membranes that align in parallel to connect

- **Connexons** are cylindrical proteins that join the adjacent plasma membranes

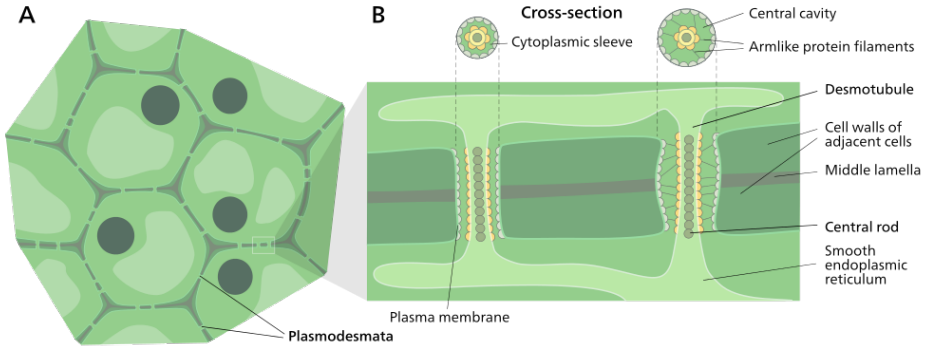
- Allow water and inorganic ions to cross between the cytosols

**EXAMPLE:**




□ **Plasmodesmata** connect plant cells together

**EXAMPLE:**



**PRACTICE:**

1. Which of the following is not a cell cell junction?
    a. Adherens junctions
    b. Tight junctions
    c. Gap junctions
    d. Loose Junctions

2. Which of the following cell-cell junctions forms a seal between cells that prevents leakage?
    a. Adherens junctions
    b. Tight junctions
    c. Gap junctions
    d. Plasmodesmata

3. Connexons are proteins used in which of the following junctions?
    a. Adherens junctions
    b. Tight junctions
    c. Gap junctions
    d. Plasmodesmata