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A. Overview. The cell membrane (also known as the plasma membrane or plasmalemma) is approximately 7.5 nm thick and consists of an inner and an outer leaflet, the lipid bilayer, and its associated integral and peripheral proteins.

1. The inner leaflet faces the cytoplasm and the outer leaflet contacts the extracellular environment.
2. Viewed by transmission electron microscopy (TEM), the plasma membrane displays a trilaminar structure, referred to as the unit membrane.

B. Functions

1. Maintains the cell's structural and functional integrity.
2. Acts as a semipermeable membrane restricting movement of material between the cytoplasm and the external environment.
3. Assists in the recognition not only of macromolecules but also other cells.
4. Allows other cells to recognize it.
5. Controls interaction between cells.
6. Assists in the transduction of extracellular signals into intracellular events.
7. Maintains a potential difference between the cytoplasmic and extracellular sides.
8. Serves as receptor sites for signaling molecules, thereby initiating and/or regulating the second-messenger system.