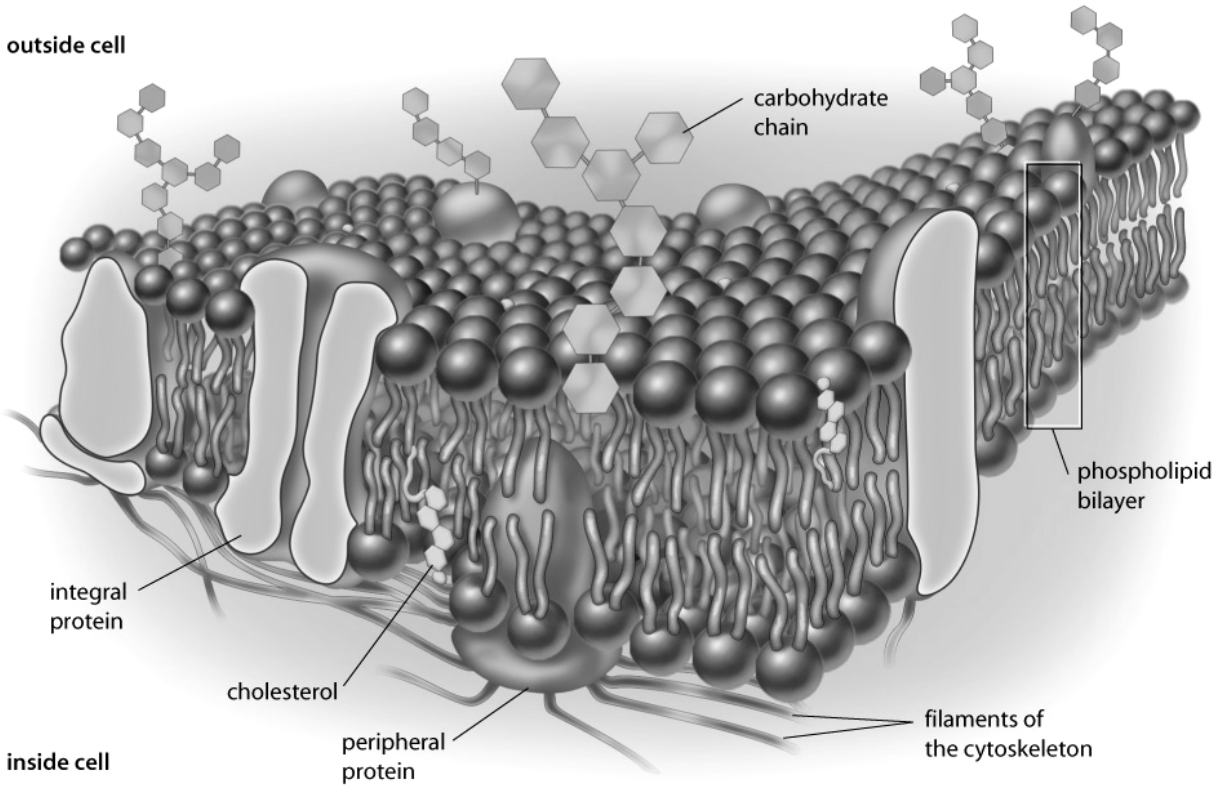
CHAPTER 5 OVERHEAD	**Review of Cell Membrane Structure and Membrane Transport Mechanisms**	BLM 5.0.3



A model of cell membrane structure. Note the two layers of phospholipids (called a phospholipids bilayer), with the distinctive head-and- tail shape of the phospholipid molecules. Inside the cell, parts of the cell's "skeleton" (called the cytoskeleton) support the membrane.

Mechanisms for the Movement of Substances across the Cell Membrane

Membrane Transport Mechanism	Characteristics
diffusion	follows concentration gradient; no energy from the cell is required
osmosis	follows concentration gradient; no energy from the cell is required
facilitated diffusion	follows concentration gradient, assisted by channel proteins or carrier proteins; no energy from the cell is required
active transport	moves against concentration gradient, assisted by channel or carrier proteins and with the input of energy (usually from ATP molecules)
endocytosis (may be pinocytosis, phagocytosis, and receptor-assisted endocytosis)	membrane engulfs a substance and draws it into the cell in membrane-bounded vesicle
exocytosis	membrane-bounded vesicle fuses with cell membrane, releasing the cell's contents outside of the cell