Chapter 7:

Membrane Structure and Function

What type of molecule crosses a cell membrane the fastest?

Size	Polarity	Affinity for Water	Ionization
Small Large	Polar Nonpolar	Hydrophilic Hydrophobic	Ionic Nonionic

CO_2 fits all of these characteristics, so it is often transported across cell membranes.

What happens to animal and plant cells when they are placed in various solutions?

	Hypotonic	Isotonic	Hypertonic
Animal	Lysed	Normal	Shriveled
Plant	Turgid	Flaccid	Plasmolysed

If a human drinks salt water, their cells will **shrivel**.

Tonicity - the ability of a solution to make a cell gain or lose water

Facilitated diffusion is passive transport (no energy needed) aided by proteins.

- **Aquaporins** facilitate water diffusion.
- **Ion channels** open/close in response to stimulus.

Exocytosis - transport vesicles migrate to the membrane, where they fuse with it and release their contents

Endocytosis - the cell takes in macromolecules by forming vesicles from the plasma membrane