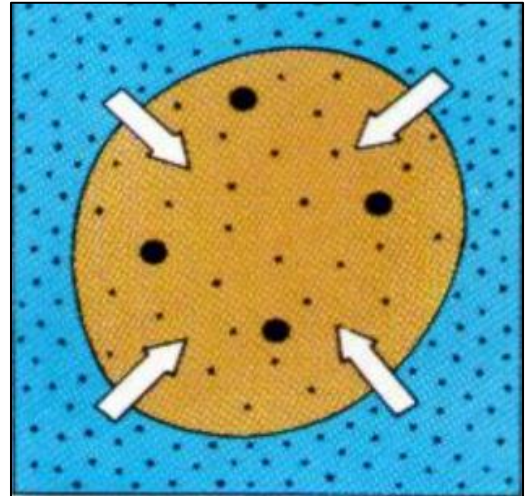
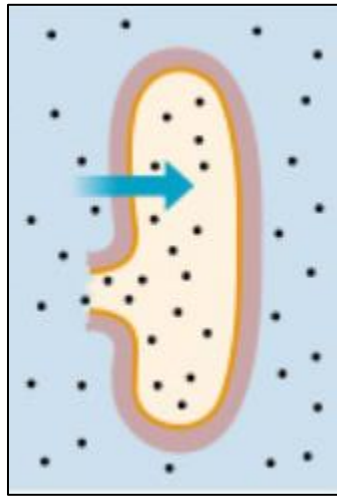
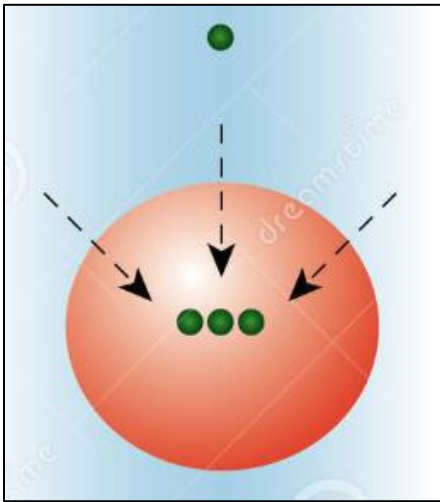


Hypotonic Environment

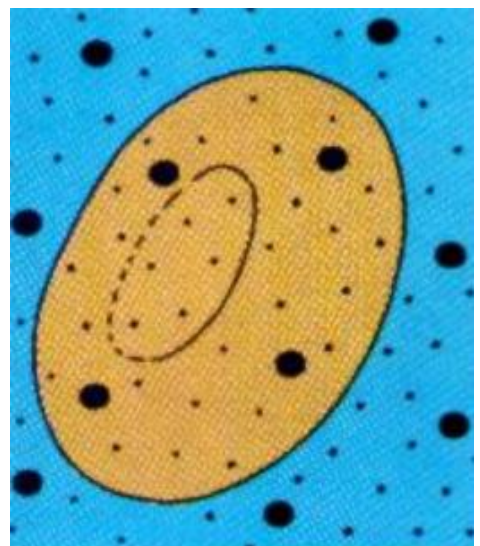
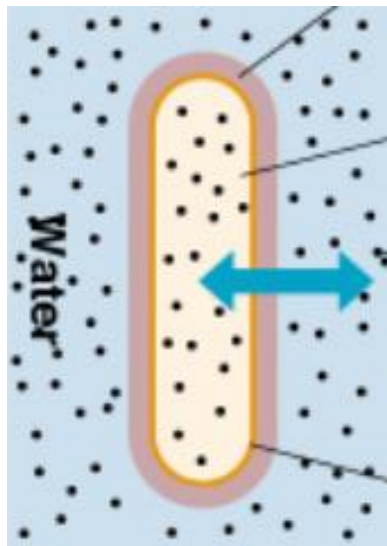
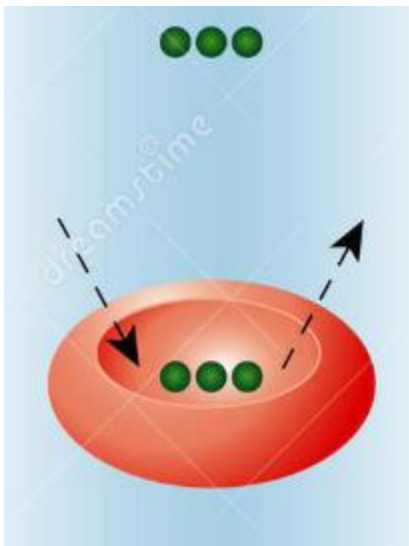
In a hypotonic environment, the solute concentration is lower outside the cell than inside it. In this environment, water will diffuse into the cell, causing the cell to swell and, in the case of cells without a cell wall, possibly explode.



For example, if a saltwater fish were placed in a freshwater tank (low solute environment), the fish's cells would swell and explode.

Isotonic Environment

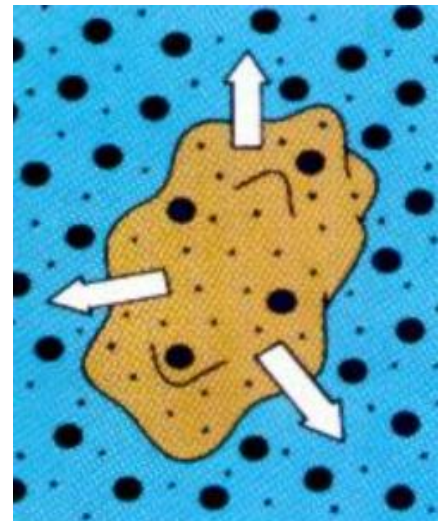
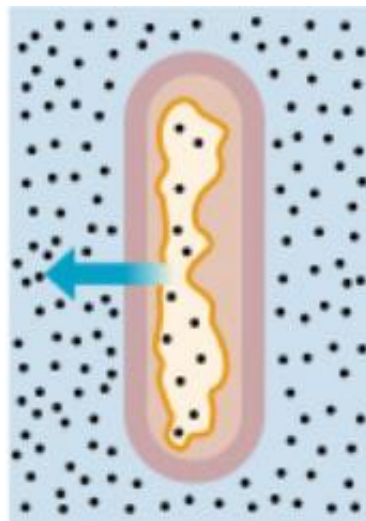
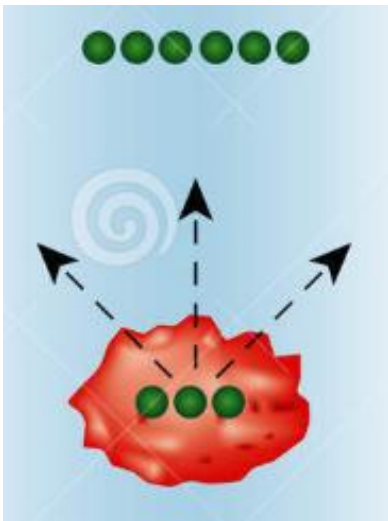
In an isotonic environment, the solute concentrations outside the cell and inside it are equal. In this environment, water will diffuse into and out of the cell equally (equilibrium), so the cell does not change its size.



For example, when someone gets an I.V. in the hospital, the saline solution is slightly salty – containing an equal solute concentration to human red blood cells.

Hypertonic Environment

In a hypertonic environment, the solute concentration is higher outside the cell than inside it. In this environment, water will diffuse out of the cell, causing the cell to shrivel and shrink.



For example, drinking ocean water (high solute) will pull water out of your cells and cause you to dehydrate faster than drinking no water at all. Also, salt is used to “dry out” things like mummies and beef jerky.