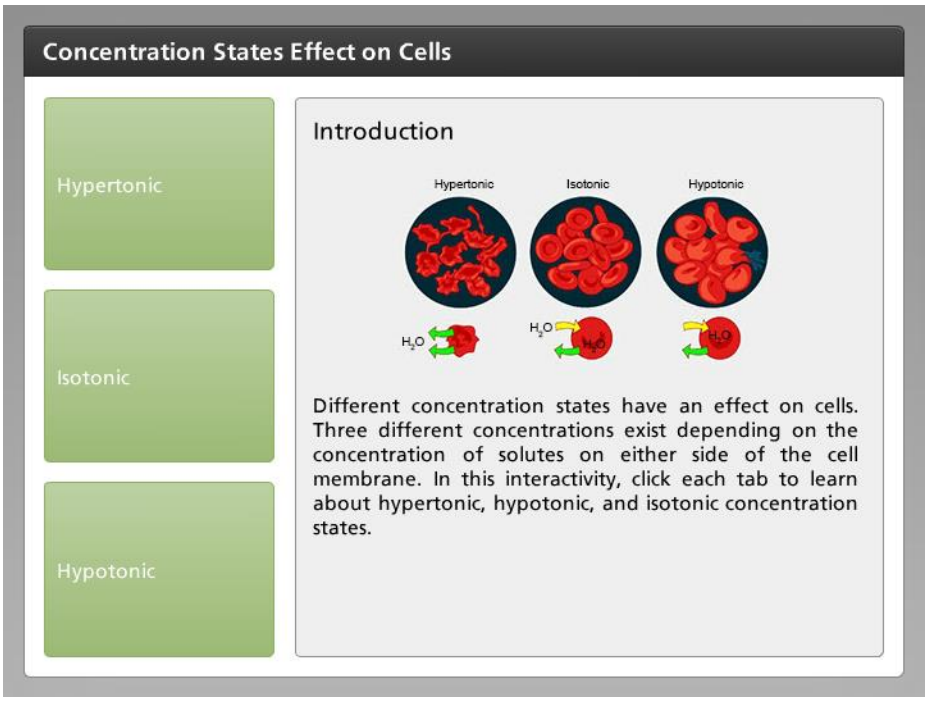
Module 3: Cell Biology - Structure and Function
Topic 4 Content: Concentration States Notes

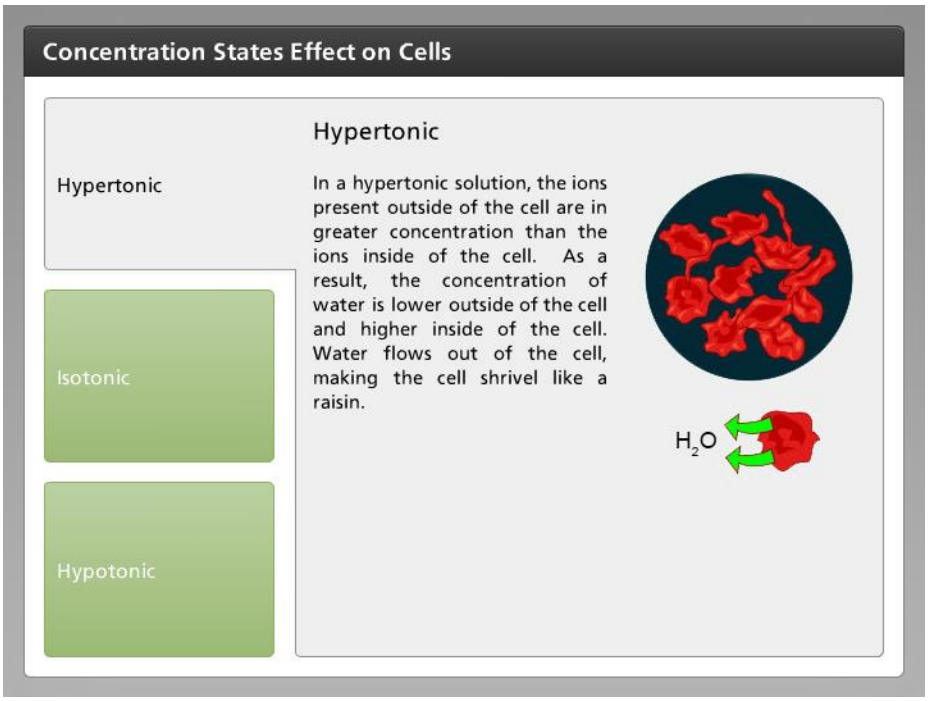
Introduction



Different concentration states have an effect on cells. Three different concentrations exist depending on the concentration of solutes on either side of the cell membrane. In this interactivity, click each tab to learn about hypertonic, hypotonic, and isotonic concentration states.

Module 3: Cell Biology - Structure and Function
Topic 4 Content: Concentration States Notes

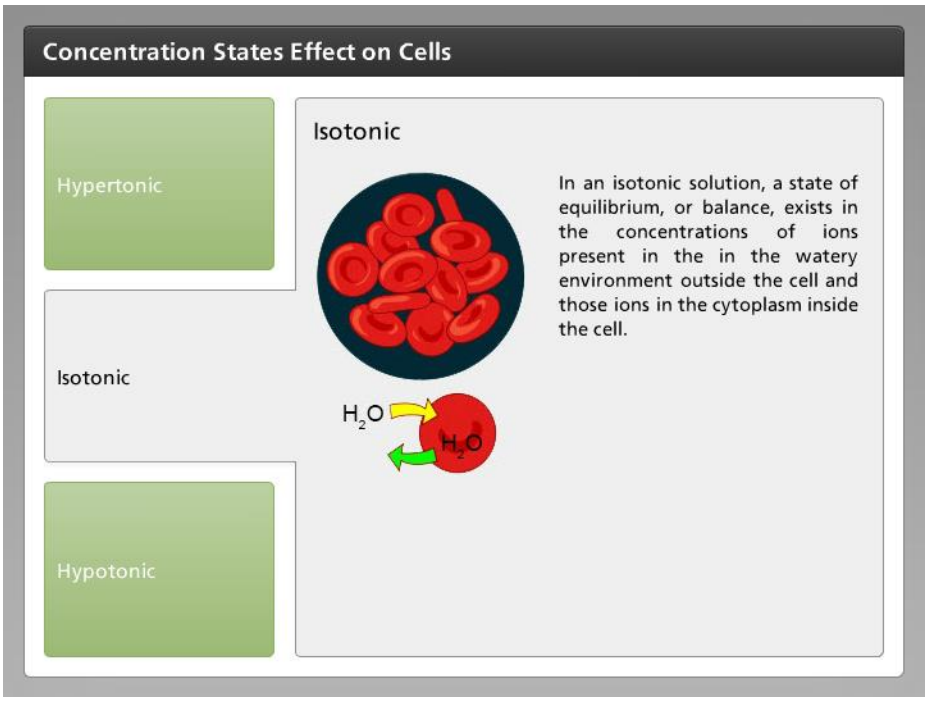
Hypertonic



In a hypertonic solution, the ions present outside of the cell are in greater concentration than the ions inside of the cell. As a result, the concentration of water is lower outside of the cell and higher inside of the cell. Water flows out of the cell, making the cell shrivel like a raisin.

Module 3: Cell Biology - Structure and Function
Topic 4 Content: Concentration States Notes

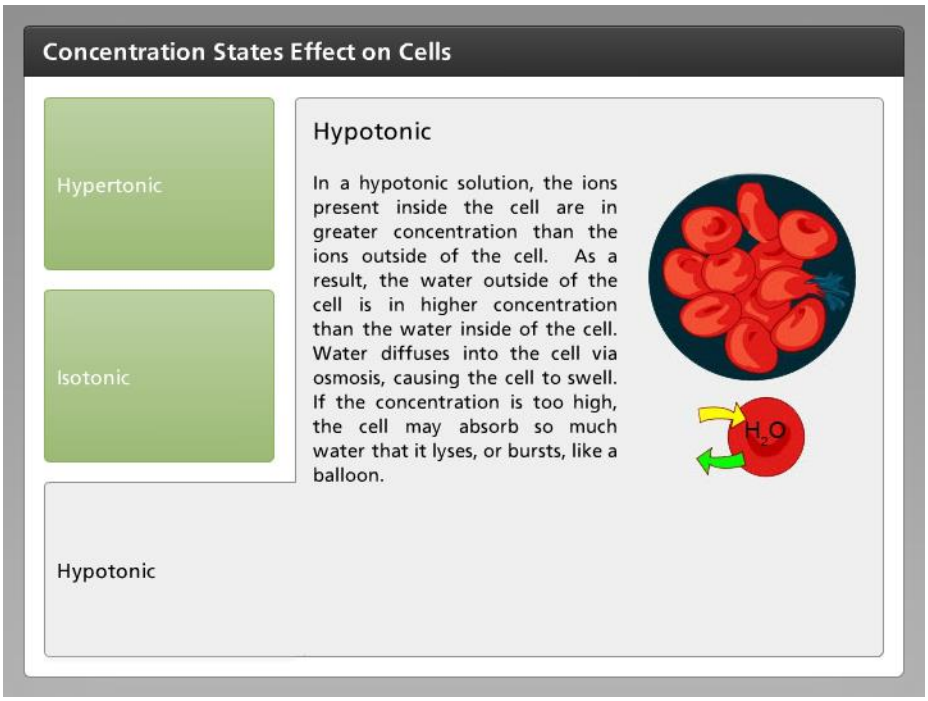
Isotonic Solution



In an isotonic solution, a state of equilibrium, or balance, exists in the concentrations of ions present in the in the watery environment outside the cell and those ions in the cytoplasm inside the cell.

Module 3: Cell Biology - Structure and Function
Topic 4 Content: Concentration States Notes

Hypotonic Solution



In a hypotonic solution, the ions present inside the cell are in greater concentration than the ions outside of the cell. As a result, the water outside of the cell is in higher concentration than the water inside of the cell. Water diffuses into the cell via osmosis, causing the cell to swell. If the concentration is too high, the cell may absorb so much water that it lyses, or bursts, like a balloon.