**Osmosis**

1)Osmosis is the result of diffusion across a 2)selectively 3)permeable membrane. If two solutions of 4)different concentration are separated by a selectively permeable 5)membrane, then the solvent will diffuse across the membrane 6)from the 7)more concentrated to the 8)less concentrated solution. This process is called osmosis. At the cellular level, both processes are types of 9)[passive transport](http://www.diffen.com/difference/Active_Transport_vs_Passive_Transport" \o "Active Transport vs Passive Transport).

Selectively permeable membranes are very thin layers of material that allow small molecules, like oxygen, water, carbon dioxide, ammonia, glucose, amino-acids, etc., to pass through. However, they do not allow larger molecules, like sucrose, protein, etc., to pass through. 10)Water molecules are free to pass across the cell membrane in 11)both directions, either in or out, and thus osmosis regulates 12)hydration, the intake of 13)nutrients and getting rid of 14)wastes. For example, if the solution (liquid) surrounding the [plant or animal cell](http://www.diffen.com/difference/Animal_Cell_vs_Plant_Cell) has a 15)higher water concentration than the cell, then the cell will 16)gain water by osmosis. The overall result is that water 17)enters the cell and the cell is likely to 18)hydrate and 19)swell. If the medium has 20)lower concentration of water than the cell, it will 21)[lose](http://www.diffen.com/difference/Loose_vs_Lose) water by 22)osmosis as this time more water leaves the cell than enters it. Therefore the cell will 23)shrink. If the water concentration in the medium is exactly the same then the cell will stay the same size while that concentration balance remains. In every situation, the movement of solvent is from the less-concentrated (24)[hypotonic](http://en.wikipedia.org/wiki/Hypotonic#Hypotonicity)) to the more-concentrated (25)[hypertonic](http://en.wikipedia.org/wiki/Hypotonic#Hypertonicity)) solution, which tends to reduce the difference in concentration (26)isotonic).

***Remember…..***

Diffusion is the movement of molecules from an area of high concentration to an area of low concentration.

Osmosis is the movement of a solvent through a semipermeable membrane from a more concentrated solution into a less concentrated one, equalizing the concentrations on each side of the membrane.