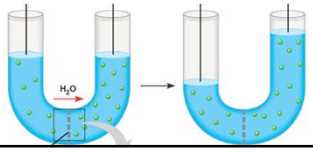
What is osmosis?

- Cells need a balance between water uptake and loss
- Osmosis is the process by which this balance occurs in cells
  - Water moves across cell membranes where as many solutes cannot.
  - If solutes cannot move, equilibrium is established by movement of water.



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Osmosis

- Is the movement of water across a selectively permeable membrane
- Occurs when two solutions are separated by a membrane and differ in osmotic pressure - dissolved solutes

2

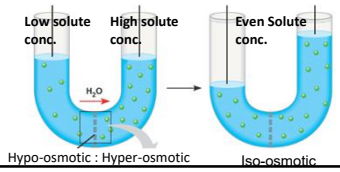
Cells need a balance between water uptake and loss

- 3 Terms you need to know
  - Hypo-osmotic solution is a solution with a lower concentration of solutes.
  - Hyper-osmotic solution is a solution with a higher concentration of solutes.
  - Iso-osmotic solution is a solution with the same concentration of solutes
  - Here the term **Osmotic** can be used interchangeably with **Tonic**… Eg. Hypertonic

3

Cells need a balance between water uptake and loss

- Osmosis is the process by which this balance occurs in cells
  - Through osmosis water moves from a hypo-osmotic solution to a hyper-osmotic solution.
  - This movement will stop once both solutions become iso-osmotic (they have equal solute concentrations)



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