

- Acids and bases are classified as weak or strong.
- A **strong acid** completely dissociates into its separate ions: for example; hydrochloric acid dissociates into H^+ and Cl^- .
- A **strong base** also completely dissociates into its separate ions: for example; NaOH dissociates into Na^+ and OH^- . The OH^- can then react with H^+ to form H_2O , thus removing H^+ from the solution.
- Like a strong acid, a weak acid releases H^+ into a solution, however, it does not completely dissociate into its separate ions. A weak acid releases H^+ until equilibrium with the surrounding solution is reached, and then, no more H^+ dissociates.
- Weak acids are common in living systems, and they play important roles in preventing large changes in body fluid pH.

Differentiate between hypotension and hypertension.

- **Hypotension** means low blood pressure and on the opposite end is **Hypertension**, which means a high blood pressure.
- *Hypertension* is an abnormally high systemic blood pressure, and is related to blood vessel disease.
- Ongoing *hypertension* can cause damage to small blood vessels throughout the body as well as to organs such as the kidneys, brain and heart.
- Treatment for hypertension includes lifestyle changes, medication and exercise.
- Hypotension or low blood pressure, means that blood could not be reaching all areas as it should.
- Chronic *low blood pressure* without any symptoms is not a cause for concern, however, the blood pressure can suddenly drop and deprive the brain of oxygen.
- The causes of *hypotension* are not understood but could be due to age, pregnancy, hormonal problems, due to medication among other things. Treatment includes dietary changes and exercise as well as staying hydrated.

List the signs and symptoms of hypotension.

Could include:

- Dizziness or lightheadedness
- Unsteadiness
- Weakness
- Fatigue
- Nausea
- Cold, clammy skin
- Fainting
- Pale skin

List the signs and symptoms of hypertension.

- Can be symptomless
- A blood pressure reading above 130/80 or higher
- Signs too look out for include; severe headache, fatigue, confusion, problems with vision, chest pain, difficulty breathing, irregular heartbeat, pounding in your chest, ears or neck.