18/MHS06/013

1. Potassium

* Toxicity Value- Hyperkalaemia (also known as high potassium plasma concentration) is a clinical condition associated with elevated plasma K+ above the normal range of 3.5-5mEq/L.
* Deficiency Manifestations- Hypokalaemia (also known as low plasma concentration) could lead to several negativities including; GI loses, Renal loses, alkalosis which are life threatening.

1. Calcium

* Toxicity Value- Hypercalcemia is a condition in which the blood calcium level is above normal (10.5mg/dL).
* Deficiency Manifestations- Hypocalcemia (Calcium Deficiency) puts one at risk of osteoporosis (bone disease when the insides of the bones become weak and porous). It could also lead to dental problems.

1. Magnesium

* Toxicity Value- The normal value of Magnesium in the body is 1.7-2.3mmol/L. Hypermagnesemia begins when serum concentration of Magnesium is above 2.61mmol/L.
* Deficiency Manifestations- Hypomagnesemia is an electrolyte disturbance in which there is a low level of magnesium in the body. Low body magnesium could lead to several illnesses like nausea, vomiting, breathing difficulty, muscle weaknesses, retention of urine, depression, etc.

1. Chloride

* Toxicity Value- Chloride is not toxic to humans naturally but it does pose taste and odour issues at concentrations exceeding 250mg/l.
* Deficiency Manifestations- Hypochloremia occurs when there is a low level of chloride in the body and can lead to muscle weaknesses, excessive fatigue, breathing problems, high blood pressure, etc.

1. Iron

* Toxicity Value- In terms of blood values, Iron levels above 350-500ug/dL are considered toxic and levels over 1000ug/dL indicate severe iron poisoning.
* Deficiency Manifestations- Iron deficiency may result in iron deficiency anaemia (a condition characterized by a reduced number of circulatory RBCs or a reduced amount of haemoglobin in the cell) caused by deficient intake, impaired absorption and excessive loss. Iron deficiency could also cause fatigue, weaknesses, chest pain, headaches, bittle nails, light headedness, etc.