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QUESTION

Outline the toxicity value and deficiency manifestation of the following minerals

- A. Potassium
- B. Calcium
- C. Magnesium
- D. Chloride
- E. Iron

ANSWERS

A. Potassium:

Toxicity value for potassium : Ingestion of potassium higher than 6.0mmol/L leads to severe toxicity.

Deficiency manifestation :

- i. Muscle weakness
- ii. Paralysis
- iii. Mental confusion
- iv. Acidosis

B. Calcium :

Toxicity value for calcium : ingestion of calcium higher than 2.63mmol/L leads to severe toxicity.

Deficiency manifestation :

- i. Tetany
- ii. Muscle Cramps
- iii. Convulsion
- iv. Osteoporosis
- v. Rickets
- vi. Bone fractures

C. Magnesium :

Toxicity value for magnesium : Ingestion of magnesium higher than 1.74 - 2.61mmol/L leads to severe toxicity.

Deficiency manifestation :

- i. Muscle spasms
- ii. Tetany
- iii. Confusions
- iv. Seizures
- v. Poor calcium absorption

D. Chloride :

Toxicity value : ingestion of more than 107mEq/L results in severe toxicity

Deficiency manifestation :

- i. Deficiency secondary to vomiting and diarrhoea

E. Iron:

Toxicity value for iron: ingestion of more than 60mg/kg results in severe toxicity

Deficiency manifestation :

- i. Microcytic anaemia