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18/MHS06/044**

**BCH 202**

**MEDICAL LABORATORY SCIENCE**

**Question**

1. OUTLINE THE TOXICITY VALUES AND DEFICIENCY MANIFESTATIONS OF THE FOLLOWING MINERALS

A. POTASSIUM

B. CALCIUM

C. MAGNESIUM

D. CHLORIDE

E. IRON

ANSWER

1. **POTASSIUM:**

**TOXICITY VALUES:** potassium level higher than 2.5 mmol/L in a person.

**DEFICIENCY MANIFESTATIONS:**

(i). **Constipation:**

(ii).**Muscle weakness**

(iii).**Unexplained fatigue**

(iv). **High blood pressure:**

**(v)Polyuria:**

## **CALCIUM: (i). TOXICITY VALUES:** calcium levels higher than 8.8 mg/dL

**(ii). DEFICIENCY MANIFESTATION:**

1. Weak and brittle nails:
2. Osteoporosis or osteopenia
3. Depression
4. Dental problems

**C. MAGNESIUM:**

**(I) TOXICITY VALUES:** levels higher than 0.6-1.1 mmol/L (1.46–2.68 mg/dL).

**(ii) DEFICIENCY MANIFESTATION:**

I. tetany

Ii. confusions

Iii. seziures

Iv poor calcium absorption

D. CHLORIDE:

(i). TOXICITY VALUES: chloride values higher than 97-107 mEq/L in an adult.

(ii). DEFICIENCY MANIFESTATIONS: deficiency secondary to vomiting and diarrhoea.

E. IRON:

TOXICITY VALUE: iron values more than 60mg/kg in an adult results to severe toxicity.

DEFICIENCY MANIFETATION: microcytic anaemia