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1.Calcium; Muscle aches, cramps, and spasms are the earliest signs of a calcium deficiency. People tend to feel pain in the thighs and arms, particularly the underarms, when walking and otherwise moving. A calcium deficiency can also cause numbness and tingling in the hands, arms, feet, legs, and around the mouth.

The Toxic Condition of Hypercalcemia and Hypercalciuria

Hypercalcemia occurs when serum calcium levels are 10.5 mg/dL (also expressed as 2.63 mmol/L) or greater depending on normative laboratory values.

2.Magnesium; Early symptoms of magnesium deficiency can include nausea and vomiting, loss of appetite, tiredness, and weakness. Although many people are not getting enough magnesium, deficiency is rare, and symptoms usually indicate an underlying health condition.

Aquatic toxicity of magnesium sulfate, and the influence of calcium, in very low ... of water quality guideline values for Mg. The toxicity of MgSO(4) was higher than ..

3.Iron; The red blood cells in a person with iron deficiency anemia are pale and small. They can't carry enough oxygen from the lungs to the tissues, so energy metabolism in the cells falters. The result is fatigue, weakness, headaches, apathy, pallor and poor resistance to cold temperatures.

Toxic effects begin to occur at doses above 10–20 mg/kg of elemental iron. Ingestions of more than 50 mg/kg of elemental iron are associated with severe toxicity. In terms of blood values, iron levels above 350–500 μg/dL are considered toxic, and levels over 1000 μg/dL indicate severe iron poisoning.

4.Potassium; Deficiency typically occurs when your body loses a lot of fluid. Common signs and symptoms of potassium deficiency include weakness and fatigue, muscle cramps, muscle aches and stiffness, tingles and numbness, heart palpitations, breathing difficulties, digestive symptoms and mood changes.

Serum potassium >8 mmol/L. Rapidly rising serum potassium.

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Clinical features:

GI symptoms (abdominal pain, nausea and vomiting), ileus and perforation have also occurred.

Lethargy, weakness, paraesthesia and hyporeflexia.

Paralysis and bradycardia herald cardiac arrest (serum K > 8 mmol/L)

5.Chloride; As the concentration of chlorine gas exposure increases, the severity of symptoms and rapidity of onset increase. The IDHL (immediately dangerous to life or health) is 10 ppm. Concentrations above 400 ppm are often fatal.

Symptoms of Hypochloremia:

Many people do not notice any symptoms, unless they are experiencing very high or very low levels of chloride in their blood. Dehydration, fluid loss, or high levels of blood sodium may be noted. You may be experiencing other forms of fluid loss, such as diarrhea, or vomiting.