

Manganese- Benefits, Dosage, Deficiency, Sources

The correction of bone deformity in poultry with manganese was discovered in 1936 by Norris and Lyons. Later studies in 1961 by Hurley and Everson pronounced importance of manganese in growth, bone development, reproduction, and central nervous system. The human body contains 10-20 mg of manganese, and is widely distributed in body specially in intestinal track, liver and reproductive organs. Its absorption and excretion is on similar lines as of Iron. It is stored in the blood and liver. The serum manganese level gets raised following a heart attack. The defence mechanism of body on manganese. It is excreted in the faeces, which gets enhanced with high calcium intakes. The urine has only traces of it. Manganese is a hard, brittle, grayish white metallic element. It is easily oxidized to form different alloys. Recommended Daily Allowance: The RDA of 1.5 mg for Children and 2 to 5 mg for adults is recommended. Normal mixed diet contains about 2 mg, which is enough. Its essential intake will badly affect absorption of iron. The poisoning with heavy metals like manganese and copper can lead to Parkinson-like disorders, with symptoms of blurred speech, tremors of the hands, and a spastic gait. Dietary Sources: It can be easily obtained from whole grain bran, seeds, nuts, shell-fish, organ meats and black tea. Functions on the Body: It helps the synthesis of haemoglobin, like copper but on a lesser degree. A combination, of iron, copper, and manganese is given to treat hypochromic anaemia. It has a role in normal reproductive physiology and producing more milk and nursing mothers. Manganese ions activate many enzymes and helps in proper utilization of vitamin B and E. It is helpful in diabetes as it increases tolerance. Transmanganin a beta-globulin, which is different from transferrin (in case of iron), is responsible for keeping manganese bound. Manganese as a component of different enzymes helps metabolise carbohydrates, proteins, and fats. It helps in combination with Choline, in digestion and utilization of fat. Manganese nourishes the brain and nerves which helps in right coordination between brain, nerves and muscles in every part of the body. Deficiency Indicators: Its deficiency results in poor growth, digestive disorders, and abnormal bone formation. On prolonged deficiency it may also affect fertility, and cause impotence in men.

About the Author

A doctor, lecturing on nutrition, stated that hydrochloric acid of the stomach was so valuable that law should prohibit the sale of every antacid.

Source: <http://www.products herbal.com>