

Manganese Requirements in Dogs

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Manganese occurs in the body principally in the liver, but it is also present in appreciable amounts in the kidneys, pancreas, and bone. The lowest concentrations are found in skeletal muscle.

Function of manganese

Manganese is essential for the proper use of protein and carbohydrate by the body, reproduction, and the action of many enzymes in the body responsible for the production of energy and making fatty acids.

Dietary sources of manganese

Manganese is present in whole grains, seeds, nuts, eggs, and green vegetables. Many pet food manufacturers also add supplemental manganese to their products. Therefore, most good quality, nutritionally complete and balanced pet foods contain adequate levels of manganese.

Daily manganese requirements

Dogs should receive 2.3 mg of manganese daily for every pound of dog food they eat (on a [dry matter basis](#)).

Manganese absorption

As with magnesium, excess calcium and phosphorus have been known to interfere with the absorption of manganese from the intestinal tract.

Manganese deficiency

Manganese deficiency is very rare in dogs and cats; when it does occur, newborn and young animals are more likely affected. The symptoms of manganese deficiency include poor growth, skeletal abnormalities, reproductive failure, and ataxia (loss of equilibrium).

Manganese toxicity

Manganese toxicity is basically unknown in dogs and cats.