



# Copper

Always keep in mind that there are many complex interactions in the horse's body between different minerals - excesses and deficiencies can be easily caused by supplementing with some minerals and not others. This is why it is important to use a multimineral supplement that addresses the correct levels of minerals required by the body. Very rarely is just one mineral deficient in a diet. Different organs and tissues in the body use many minerals for normal function.

## Why is copper needed by the body?

Copper is a vital trace element required by the horse and it plays a major part in different areas of the body. It is needed for normal bone development, the formation of elastin which lines blood vessels, blood manufacture, pigment formation, and for normal reproductive and immune system function.

## How much copper is required by my horse?

It is generally accepted that horses require from 10-30 mg copper/kg of dry matter fed per day. Forage copper levels vary widely from 3-20mg/kg dry matter with most grasses and hays around 9mg/kg dry matter. Most feeds would be slightly deficient especially for pregnant mares and growing horses. Copper toxicity is rarely a problem in horses so it is generally recommended to supplement your horses feed with a multimineral supplement that contains copper.

## What is a secondary copper deficiency?

Secondary copper deficiency occurs when other minerals interfere with copper absorption. Incorrect and excess supply of zinc, iron, cadmium, molybdenum and sulphur will cause a relative copper deficiency to occur.

## What are the signs of a copper deficiency?

In a young growing horse osteochondritis dissecans (more commonly known as OCD - joint disorder) is due in part to a copper deficiency. Older horses have a higher risk of aortic or uterine artery rupture due to a weakness in the vessel wall. Anaemia is also a symptom of copper deficiency and horses appear to have a faded coat colour due to lack of pigmentation. There is also a general lack of wellness as the immune system is not operating as well as it could and mares can have difficulty with their pregnancies and foaling.

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