

Equine and Canine Hair Tissue Mineral Analysis



NUTRIENT AND TOXIC ELEMENT TESTING

The status of essential nutritional elements and assessing exposure of individuals to toxic elements is important for good health. Animal hair tissue mineral analysis is a comprehensive analytical test that supplies a comprehensive report on 32 nutrients and 27 ratios.

Animal Health

Minerals are essential for all species, requiring an adequate amount of each mineral for healthy bodily functions. They are required for growth, development, reproduction and immunity. Minerals act as part of enzymes, hormones, cells, bone, blood and body fluids. They function in all aspects of life, from hormone and energy production, to digestion, muscle contraction, regulation of body fluids and pH levels.

The correct mineral balance is important for animal health. Biochemical, emotional and physical stressors can deplete the body of essential nutrients. Combined with environmental toxicity and chronic health concerns, these may result in the accumulation of toxins in tissue and disrupt normal body chemistry.

Mineral imbalances in animals can present as a rough coat, flaky skin, poor growth, eating dirt, de-barking trees and tooth decay. Mineral deficiencies, as well as excesses, can lead to ill health and disease. Getting the right amount of minerals in the right ratio is the key to optimal health.

Using hair tissue mineral analysis (HTMA) as a screening test can provide considerable information about the health of the animal, and can help to prevent serious health issues by early detection. These comprehensive results give an indicator of the long term effects of diet, stress and toxic metal exposure.

Hair tissue mineral analysis

Hair tissue mineral analysis is a non-invasive test that measures the levels of nutrients and toxic metals found in the hair. It can detect an excess or deficiency of nutrient minerals such as calcium, magnesium, potassium and zinc. It can also identify over exposure to toxic metals such as arsenic, aluminium, cadmium and lead.

InterClinical Laboratories provides reliable clinical data on 32 nutrient and toxic minerals, 27 significant mineral ratios and a comprehensive interpretive report. Our report features detailed medical discussion of test results commenting on mineral balances, ratios, endocrine and performance indexes, areas of concern and possible contributing factors.

Minerals tested

Nutritional Elements	Toxic	Additional Elements
Calcium	Uranium	Germanium
Magnesium	Arsenic	Barium
Sodium	Beryllium	Lithium
Potassium	Mercury	Nickel
Copper	Cadmium	Platinum
Zinc	Lead	Vanadium
Phosphorus	Aluminium	Strontium
Iron		Tin
Manganese		Tungsten
Chromium		Zirconium
Selenium		
Boron		
Cobalt		
Molybdenum		
Sulphur		

Sources of toxicity

Diet, stress and exposure to heavy metals can all upset optimal mineral balances. Horses and dogs can be exposed to a variety of sources of contamination in their everyday environments. Food, water, food containers, building materials (CCA treated wood, lead based paint), pesticides and land that has been exposed to industrial pollution can all offer exposure to heavy metals, as well as high levels of nutritional elements. These minerals can build up over time and affect overall health.

Hair Samples

To take the hair sample, ensure that the hair has been washed thoroughly, untreated, rinsed completely and dried. Cut the hair close to the skin, in a few small portions, and from several areas on the back of the neck. For a horse sample, cut several sections from the lower section of the mane. The area is similar for a canine sample, take several sections from above and below the collar, avoiding any area where topical treatments are applied. Cut hair as close to the skin as possible. Scissors should be high grade stainless steel or plastic to avoid contamination. The length should not be more than 5-6cm, retain the proximal (root) portion and discard the rest. This part reflects the most recent metabolic activity. The amount of hair necessary for analysis is half a gram, or approximately one tablespoon of hair, which should be placed in the sample collection envelope provided.

Ordering a hair analysis

We suggest that you ask your Veterinarian or Animal Healthcare Practitioner for a hair tissue mineral analysis from InterClinical Laboratories; alternatively you can contact us directly for either a canine or equine HTMA submittal kit.

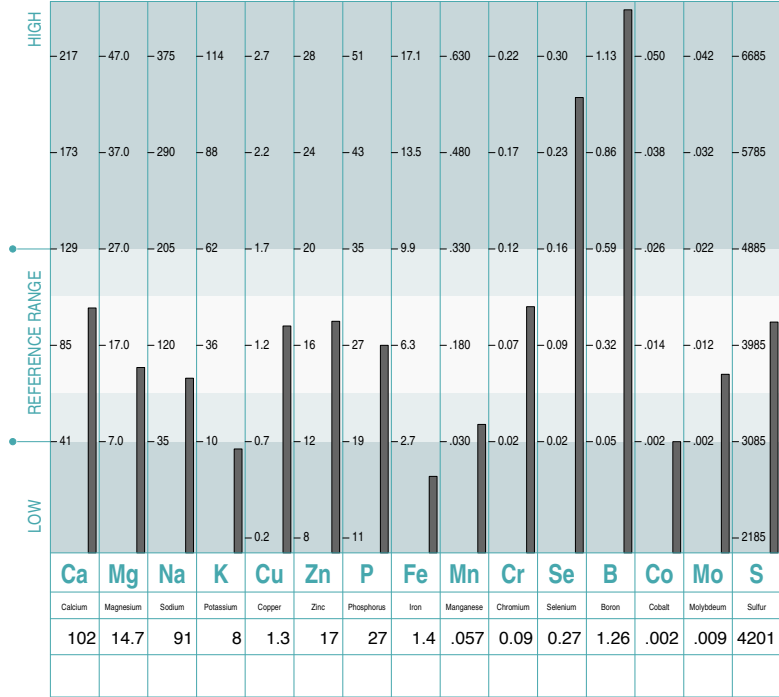
Test results are usually available 10 – 14 days from the date we receive the sample.

Canine sample report (first page only)

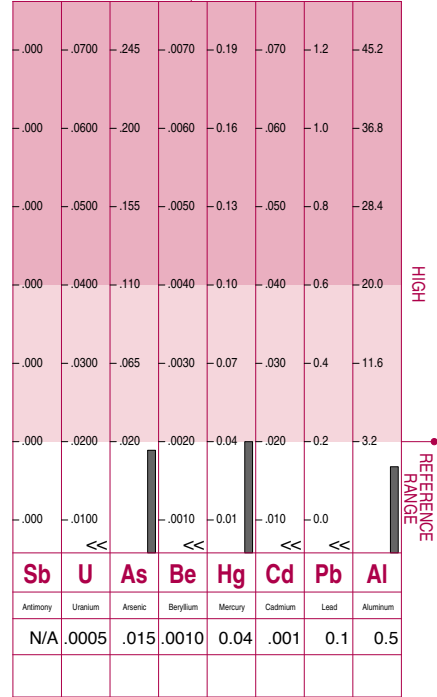
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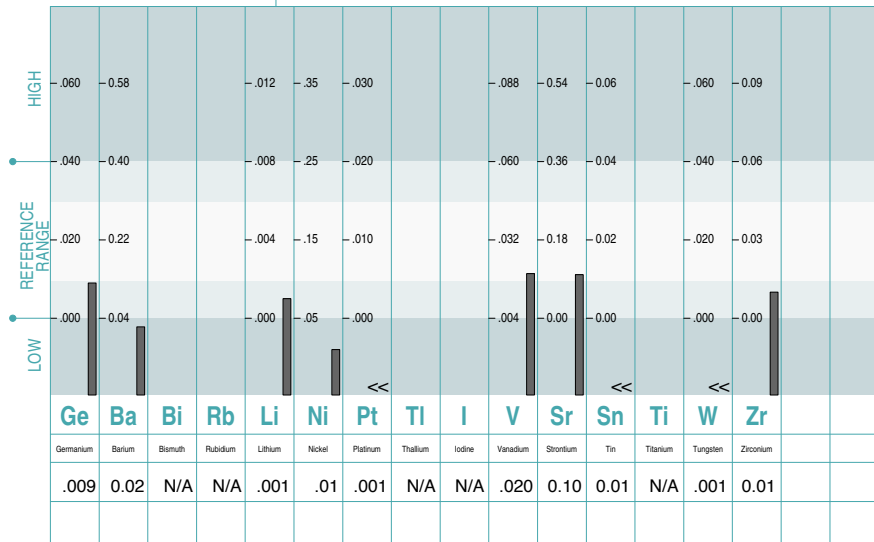
NUTRITIONAL ELEMENTS



TOXIC ELEMENTS



ADDITIONAL ELEMENTS



*<<: Below Calibration Limit; Value Given Is Calibration Limit

QNS: Sample Size Was Inadequate For Analysis.

NA: Currently Not Available

Laboratory Analysis Provided by Trace Elements, Inc., an H. S. Licensed Clinical Laboratory. No. 45 D0481787

21/02/2012
CURRENT TEST RESULTS

PREVIOUS TEST RESULTS

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