

Phone +49.9151.4332 Fax +49.9151.2306

info@microtraceminerals.com https://microtraceminerals.com



MTM Newsletter

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Laboratory News

Glyphosate in Urine

We have included the testing of glyphosate in urine.

Sample requirement: 10ml of morning urine or urine collected within 2 to 6 hours after exposure.

The assessment of glyphosate as a safe herbicide has changed in recent years. New studies indicate significant genotoxic, reproductive toxic and hormonal effects. 30 - 36% of glyphosate is absorbed in the gastrointestinal tract and distributed throughout the organism within 2 - 6 hours. 95% is excreted in the urine.

Glyphosate and its salts are broad-spectrum herbicides that are used in agriculture/forestry and in home/allotment gardens. The best-known product is "Roundup", which has been on sale since 1974. Farmers and amateur gardeners who use glyphosate are considered exposed people.

For more information:

https://microtraceminerals.com/diagnostic-humans/environmental-toxins/glyphosate

More information on environmental pollutants can be seen here: https://microtraceminerals.com/diagnostic-humans/environmental-toxins

Or check our Laboratory Catalog:

https://microtraceminerals.com/en/laboratory-catalog

Urine-Creatinine before and during Chelation

Creatinine is a breakdown product of muscle metabolism that is excreted in the urine. Creatinine is also made when the body digests meat. Healthy kidneys remove creatinine from your blood and excrete it via urine. The creatinine concentration in urine is also a measure of hydration and reflects fluid consumption.



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Baseline Urine

Creatinine is excreted in the urine at a relatively constant rate of approximately 1.0-1.3 g per 24 h for women and 1.5-2.5 g/24 h for men. Higher values reflect dehydration or kidney disease. Urine creatinine values decrease with increased fluid consumption. We determined the mean creatinine value of over 17,000 baseline urine samples. It was 0.8 g/l; The standard deviation was 0.6 g/l. For women we determined an mean value of 0.7 g/l. The standard deviation was 0.53 g/l. The mean urine crease value for men was 1 g/l; the standard deviation 0.63 g/l.

More information:

https://microtraceminerals.com/en/diagnostic-humans/urine

DMPS Infusion

The intravenous injection, or the infusion of DMPS in 100ml NaCl does not significantly affect the urine creatinine value. The mean value of over 700 samples was 0.95 g/l; the standard deviation was 0.6 g/l.

Urine Creatinine after Combination Treatment

Overhydration results in a lowering of the urine crea-value. When two chelators are infused separately (using two infusion bottles) during one chelation session, hydration is considerable. We evaluated the creatinine value of such combination treatments and noted an average urine crea-value of 0.38 g/l. The standard deviation was 0.36 g/l. In a number of samples, the urine crea-value was below 0.3 g/l. This reflects overhydration and a considerable dilution effect.

Comparison of Provocation Test Results

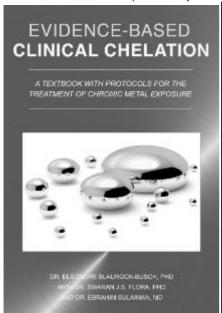
We provide Comparison Reports. For a reliable comparison, certain precautions must be taken:

1. The amount and administration of the respective chelating agent should be the same.

Size

- 2. The fluid intake should is the same.
- 3. The urine collection period should be the same.

Chelation Protocols (oral and parenteral)



A Textbook with Protocols for the Treatment of Chronic Metal Exposure

Softcover DIN A4, 120 pages

ISBN Print 9783750428676

€ 35.00

Print book price (about US\$ 40.00,

depending on exchange rate)

ISBN eBook 9783750458109

€ 19.99

eBook price: (about US\$ 21.50,

depending on exchange rate)

https://www.bod.de/buchshop/evidence-based-clinical-chelation-dr-eleonore-blaurock-busch-phd-9783750428676

https://www.amazon.de/dp/3750428670



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Vitamin B12 and Cobalt (Co)

Cobalamins or vitamin B12 are chemical compounds that contain the trace element cobalt as a central atom. Therefore, the administration of Vitamin B12 before or during a challenge test leads to increased cobalt measurements in the urine. If metal-containing substances such as B12 are administered before or during the provocation, the binding capacity of the respective chelating agent is more readily saturated, i.e. difficult to reach elements are bound less effectively.

Healing clays and Aluminum

From a mineralogical point of view, healing clays, zeolite, bentonite or the like consist of aluminum silicates and other minerals in varying compositions, depending on the area of origin. In addition to the silicates mentioned, trace elements are found in varying amounts in these products. This should be taken into account when assessing test results.

Important information about Chromium (Cr)

Chromium is found in rocks, plants, soil, and in many foods, especially yeast products and dietary supplements. Chromium-molybdenum alloys are found in implants and prostheses.

The most common forms are chromium(III) and chromium(VI).

Function:

Chromium can be absorbed through the respiratory and gastrointestinal tracts. In blood it is mainly bound to albumin and transferrin. Pathological chromium levels have been found in malignant tissues.

Chromium(III)

In 2014, the European Food Safety Authority removed chromium(III) from the list of essential minerals. The agency concluded that chromium supplementation has no beneficial impact on human health. Current available data indicates that it is extremely unlikely to suffer from a chromium deficiency. In the USA, the previously recommended intake level has been significantly reduced.

Chromium(VI)

Within the European Union, the use of hexavalent chromium in electronic devices has been largely banned since 2004. Since May 2015, leather products that come into contact with skin are no longer allowed to be placed on the market if the content of chromium (VI) compounds exceeds 3 mg/kg. The use of cement or cement mixtures, containing more than 2 mg of soluble chromium(VI) per kg, is prohibited.

Toxizität von Chrom(III) und Cr(VI)

Chromium(III) is considered nontoxic. In contrast, Cr(VI) compounds are toxic.

Lung cancer is considered an occupational disease, provided the employee has been exposed to chromium at the workplace for years. "Chromate lung cancer" can develop even years after exposure has stopped.

Laboratory:

According to the US Agency for Toxic Substances and Disease Registry (ATSDR), chromium can be detected in hair, urine and blood. If long-term exposure is suspected, HMA would be the treatment of choice. Blood and urine tests are useful if the exposure is acute and momentary.

Hair: Of around 25,000 chromium hair values, around 5% showed elevated chromium levels.

Urine: Of the non-chelated baseline urine samples, only about 1% exceeded the upper limit.



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Water: The upper limit, which the German Drinking Water Ordinance and the WHO (World Health Organization) have set for chromium, is 50 μ g/l (= 0.05 mg/l). Of 579 water samples that came from different regions of Germany, none of the measured values exceeded this limit.

More information on Chromium and other metals can be found here: https://microtraceminerals.com/en/the-toxicity-of-metals

Rare Earth Elements

The addition of the newest spectrometer allows us to reliably detect a number of rare earth elements. Indium, iridium and lanthanum are now included in our analytical spectrum. These elements are also used medicinally. Lanthanum, for instance, is used therapeutically as a phosphate binder.

Medical Workshops and Conferences

International Conferences & Workshops 2024

At the moment we do not have any workshops planned or scheduled.

If you are interested in workshops on environmental issues, chelation, laboratory testing or metal toxicology, check our website:

https://microtraceminerals.com/en/workshops-and-seminars

Webinars

At the moment we do not have any webinars planned or scheduled.

For registration and further information, please visit: https://www.edudip.com/academy/e.blaurock-busch



We wish you a wonderful time.

Happy Easter!

And all the best

Your

E. Blaurock-Busch and Team