Micro Trace Minerals Laboratory
40+ years of clinical & environmental laboratory diagnostics

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MTM Newsletter **N° 31 - May 2022**

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Laboratory News

Did you know?

…. that the typical cardiac infarct symptoms for females differ from that of the male?

…. that 96% of adults know the male heart attack symptoms, but only 45% know the typical female symptoms.

- Typical male symptoms are tightness in the chest, pain in the arm or shortness of breath
- Typical female symptoms are nausea, back pain, or vomiting.

…. that a large-scale study called Trial to Assess Chelation Therapy 2 (TACT2) is now in progress. Its purpose is to repeat the first TACT study—but only in patients with diabetes who have had a heart attack—to see if the apparent benefit can be confirmed. TACT2 is supported by NCCIH and other NIH agencies. We keep you informed.

…. that our analytical process allows us to observe trends in analytical data. Over the years, we have evaluated and published data showing how specific chelating agents affect the binding and excretion of certain metals. Generally, we have confirmed data provided by environmental agencies and poison control center. We have also noted that

1. Urine collection times as recommended by varies organisations vary considerably, causing confusion among chelation therapists.
2. The half-life of a chelating agent is considered the ideal urine collection time, resulting in optimal binding and excretion. If used repeatedly, urine data of following provocation urines provide most comparable results. Variation in urine collection time affect the metal concentration in urine.
   Example: EDTA has a half-life of 45 minutes. The urine collection would be 45min plus application time i.e., if 1gr of EDTA is infused in 1hr, the urine collection time is 1hr 45min. This is the time when metal binding and excretion is optimal.
   If urine is collected at 1hr instead of 1hr45, binding and excretion of metals will be less.
   A comparison between data sets will lead to misinterpretation of results.
3. The application of chelating agents affect metal binding and excretion, hence affect the metal concentration in urine.
   Example: DMPS has a half-life of 45 min. If injected within 10min, the total urine collection time is 55 min. If infused within 15 min, the total urine collection time is one hour. A shorter urine

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collection time is not recommended (see above); a longer collection time will be affected by consuming metal-rich drinks, food or medication.

4. When oral chelating agents such as DMSA or DMPS are used, urine collection time is 3-4hrs after ingestion on an empty stomach. Consuming metal-rich drinks, food or medication will affect the metal concentration of urine and faeces.
5. When chelating agents are combined, metal binding and concentration greatly depend on which chelator is applied first and how. Considerable changes in metal binding and excretion are noted. **Example:** EDTA and DMPS are applied one after another. If EDTA is applied first, copper and mercury will not be bound as effectively as if DMPS were applied first.
6. We are statistically evaluating the function and chelating effect of natural chelating substances. Our next newsletter will provide information.

- **Chromium in Whole Blood**

The National Center for Biotechnology Information (NCBI) recommends the upper reference range of 2.5 µg/l for chromium in whole blood. Our statistical evaluation confirms this value as relevant, hence we are applying the reference value of 2.5 µg/l for chromium in whole blood.

- **Laboratory prices**

We have not had a price increase since 2016, but due to the present global situation we can no longer avoid it. As of August 01, 2022, we increase our prices by 10% (even though our costs have risen more). We do hope for your understanding. Our analytical quality and services will remain as good as ever.

- **New books, German language only**

Dr. med. dent. Johanna Graf published this book on biological dentistry.

For more information: https://www.thalia.de/shop/home/artikeldetails/A1062791321

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And this is the latest book from Dr. Eleonore Blaurock-Busch.

For more information: https://microtrace.de/buecher-eblaurock-busch/lehrbuch-naehrstofftherapie

Medical Workshops and Conferences

- **International Conferences & Workshops 2022**

09/17/2022 10:00 AM - 5:00 PM (UTC +1)	**Metal intoxication vs Metal burden. Using (synthetic and natural) chelation agents wisely** Vienna, Austria (German)
10/08/2022 10:00 AM - 5:00 PM (UTC +1)	**Metal intoxication vs Metal burden. Using (synthetic and natural) chelation agents wisely** Nuremberg, Germany (German)

We are in the planning phase of our next workshop, which will be held on a Saturday in Vienna & in Nuremberg. During this daytime seminar, we will present lectures about the information provided above and more.

Cost: € 150.00, food and workshop manual included.

The workshop is held in German.

If you are interested in participating, let us know ASAP.

Online Registration:
https://microtraceminerals.com/workshops-and-seminars/workshop-registration

If you are interested in workshops on environmental issues, chelation, laboratory testing or metal

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toxicology, check our website:
https://microtraceminerals.com/workshops-and-seminars

- **Webinars**

Also let us know if you prefer an interactive online workshop via Edudip or Zoom.

Cost: € 50.00 Workshop manual included (PDF or paper).

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

Thank you for your attention. Let us know if you have questions.

And all the best

Your

E. Blaurock-Busch and Team