

35+ years of clinical & environmental laboratory diagnostics Röhrenstraße 20 91217 Hersbruck, Germany

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Laboratory News

General information about chelating substances

- Which chelating agent do I use for a provocation test? This question is often asked and over the past year, we have investigated and compared data of the most commonly used chelators, have evaluated the binding ability and capacity of each, and the results will be published in an English peer reviewed journal within the next few months. In summary, DMPS administered intravenously binds well with most metals. Injection time is 1ml/min, and the urine collection time is between about 1 to max 2hrs. Side effects are negligible, provided protocol is followed. For the evaluation of provocation test results, an understanding of the binding ability of DMPS with the specific metals should be helpful. In our workshops, we discuss these issues. Check our seminar calendar for details.
- Another topic is the effectiveness of a given chelator for the detoxification treatment of a specific metal. If, for instance, the provocation test shows elevated lead and cadmium levels, EDTA would be the chelator of choice. Elevated arsenic and mercury levels are best treated with DMPS (oral or i.v.) or oral DMSA. The appropriate chelator selection becomes more difficult for multiple metal exposures i.e. if Cd and Hg are elevated. Then we need to decide which of the metals needs immediate attention and treat accordingly.
- Our book, **Toxic Metals and Antidotes: The Chelation Therapy Handbook** provides statistical information that help with the selection of the most appropriate chelator that is available in your country. The book is available in print:

http://www.microtraceminerals.com/en/books-by-eblaurock-busch/chelation-handbook and as eBook:

http://www.microtraceminerals.com/en/books-by-eblaurock-busch/e-book-chelation



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Consultations

If you have questions, you may contact us via e-mail <u>service@microtraceminerals.com</u> or <u>ebb@microtraceminerals.com</u>. For the evaluation of laboratory test results, please include the laboratory test number, the date the test was performed plus the patient name. This allows us to respond reasonably fast. On Monday afternoon between 14:00 and 18:00 (2-6PM), Dr. Blaurock-Busch is available to take your call.

Laboratory visits

If you are interested in visiting our laboratory, on May 24, 2014 we will have an open house. We will have a guided tour through the laboratory and answer analytical questions. Since such tours potentially interrupt analytical processes, alternative dates are not available, sorry. Registration is mandatory.

Laboratory comparisons

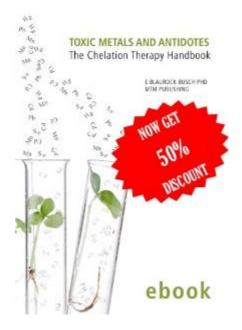
People often ask us which laboratory is best. We recommend that you check laboratory surveys and inter laboratory test results, and decide for yourself. Some skeptics split samples and send them to different laboratories. The question arises as to which test results are 'right'. We need to point out that minor deviations are within the technical measurement uncertainty, but even if great deviations are seen between laboratory results, it is impossible to say which test is more accurate. An analytical statement can only be made if a certified solution is provided as a blind test as is done through inter laboratory surveys.

Pricing

- If we receive a pre and post urine sample from the same patient in the same shipment, we provide a 10% discount from the total sum.
- If you send a blood sample for metal analysis, vitamin D and/or B12 testing, we also provide a 10% discount from the total sum. Metal testing can be performed in whole blood, serum, or plasma, vit. D or B12 is tested in serum. For more information, check http://www.microtraceminerals.com/en/diagnostic-humans

Chelation Therapy Handbook (Get now 50% discount)

Order your copy now and receive a 50% discount. Use coupon code **GK95C**: <u>https://www.smashwords.com/books/view/156817</u>





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Medical Workshops and Conferences

International Conferences & Workshops 2014		
03/01/2014	Nutrient and Toxic Metals: diagnosis and treatment Sofia, Bulgaria (English)	Dr. R. Toshkov
03/15/2014	Physicians Workshop Nuremberg, Germany (German)	Dr. T. Fischer
03/29/2014	Natural Health Professional Workshop Nuremberg, Germany (German)	
05/01/2014 - 05/03/2014	Chelation Conference Sao Paulo, Brazil (English / Portuguese)	Prof. Dr. Efrain Olszewer
Details under: http://www.microtraceminerals.com/en/workshops		

Studies and Analyses

• Comparing the metal burden of cancer patients and healthy relatives living in the same household.

This study evaluates how people living in the same household are affected by long term metal exposure. In cooperation with the Technical University, Punjab, we selected 50 cancer patients and 50 healthy people, and the results indicate that both groups are affected, although the cancer patients showed a considerably higher metal burden than the healthy group. The results are highly interesting. The study, Comparing the Metal Concentration in the Hair of Cancer Patients and Healthy People Living in the Malwa Region of Punjab, India, is scheduled to be published in an international cancer journal early 2014.

Comparing the metal binding efficacy of DMSA, DMPS and EDTA

A comparison of the efficacy of the chelating agents DMPS, DMSA and EDTA is scheduled to be published in a British medical journal early 2014. The study shows that the DMPS provocation (or challenge) test is an ideal diagnostic measure to determine low level, long term metal exposure.

Chronic metal burden in the blood and cerebral fluid of children living in Mexico City

In cooperation with Prof. Lilian Calderón of the University Montana, USA, we evaluated the heavy metal burden in blood and cerebral spinal fluid of children living in Mexico City, one of the most polluted cities of the world. Unfortunately, we identified a significant metal burden. The work is in preparation.

Meta Study concerning Vitamin D Supplementation (Lancet Oct11, 2013)

The results showed that vitamin D supplements did not improve bone mineral density, with the exception of a small but significant increase at the femoral neck, the upper part of the thigh bone. However, the investigators said the increase likely wouldn't aid in preventing fractures. "Most healthy adults do not need vitamin D supplements," lead author Ian Reid, MD, said in a statement. In an accompanying editorial, Clifford Rosen, MD, of the Maine Medical Research Institute in Scarborough, said Reid and his colleagues' analysis "is consistent with our understanding of vitamin D: supplementation to prevent osteoporosis in healthy adults is not warranted." The exception, he added, is people with severe vitamin D deficiency, insufficient calcium levels, or both.

This indicates that proper diagnostic measures are important to determine an individual's vitamin D status.



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Medical information and actual News

UN Convention to sign mercury treaty

Delegates from some 140 countries and territories on Thursday signed a UN treaty to control mercury pollution after Tokyo pledged \$2 billion to help poorer nation's combat pollution. It is unfortunate that there was no representative from India at the Minamata Convention held at Kumamoto in Japan on October 2 despite approving the draft treaty in January this year. The government's inexplicable decision to skip such a historic convention has lost the country an opportunity to take global leadership in phasing out mercury. Interestingly, India is reluctant to sign.

http://newindianexpress.com/opinion/Indias-reluctance-to-sign-mercury-treatyunjustified/2013/11/10/article1881734.ece

Mercury and Thyroid Disorders

A National Health and Nutrition Examination Survey (NHANES 2007-2008) assessed that mercury exposure places women at an increased risk for autoimmune disorders. Mercury exposure causes the metal to accumulate in the thyroid gland, leading to cellular autoimmunity. http://www.ncbi.nlm.nih.gov/pubmed/22280926

Note: DMSA or DMPS chelation effectively binds mercury, detoxifying soft tissue such as the thyroid before fatty tissue (CNS) are affected. The provocation or challenge test should be repeated after a 3 months treatment schedule.

Estrogen dominance, progesterone deficiency and Hashimoto

Prof. Schulte-Uebbing of Munich, Germany reports that in his practice many Hashimoto patients show low progesterone levels. These patients also show a higher risk for abortion. Of 20 randomly selected patients with low progesterone and an estrogen dominance, nine had been diagnosed with M. Hashimoto.

Modification of neurobehavioral effects of mercury by a genetic polymorphism of coproporphyrinogen oxidase in children

Mercury (Hg) is neurotoxic, and children may be particularly susceptible to this effect. A current major challenge is the identification of children who may be uniquely susceptible to Hg toxicity because of genetic disposition. Five hundred seven children, 8-12years of age at baseline, participated in a clinical trial to evaluate the neurobehavioral effects of Hg from dental amalgam tooth fillings in children. Findings demonstrated a genetic susceptibility to the adverse neurobehavioral effects of Hg exposure in children. http://www.ncbi.nlm.nih.gov/pubmed/22765978

A reminder: GSTM1 in population

Overall, about 50% of the European population has a GSTM1 deletion, resulting in a reduced ability to detoxify. These are the people who are particularly sensitive to environmental toxins and are more susceptible to develop environmental health problems. For more information about the detoxifying pathway, read:

http://www.microtraceminerals.com/en/diagnostic-humans/detoxification-enzymes

Your Involvement

Are you working on environmental projects our readers are interested in? Or have you noticed a trend as Prof. Schulte-Uebbing has? Let us know and we include it in our future newsletter.

Your

E.Blaurock-Busch and Team