



InterClinical
Laboratories

eNews

PRACTITIONER ONLY NEWSLETTER

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Nutritional, Herbal and Natural Medicines Practitioner Education
Hair Tissue Mineral Analysis Pathology



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Welcome to our first eNews for 2012! We hope you all had a fabulous (and relaxing) break over the festive season.

It is going to be a very busy yet productive year! We have a new schedule of InterClinical Seminars, we are conducting more research and we are developing new learning platforms - all designed to help you better understand and utilise Hair Tissue Mineral Analysis in your clinical practice.

We are immensely proud of our natural health products and testing services. More practitioners than ever are contacting us for technical support, and we welcome any queries about your patient's report. We have qualified Naturopaths ready to help you.

Keep an eye on these updates, or your post box, to hear about our upcoming events. If there are other practitioners in your clinic who would like to receive these eNews updates, you can click 'forward email' link at the bottom.

Best wishes for a successful and healthy 2012!

Warm regards, InterClinical Laboratories.



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Practitioner Clinical Updates

Magnesium Deficiency and Hydrochloric Acid Inhibitors

Proton pump inhibitors (PPI's) are a group of drugs that inhibit gastric acid production. They are commonly used prescription medications whose trade names include Nexium, Prevacid, Zegerid, Protonix and are also available as overthecounter products (OTC) including Prilosec OTC, Prevacid 24 HR and Zegerid OTC.

Over the last several years, low serum magnesium levels have been in found in patients who were longterm users of PPI's. Patients were experiencing a number of symptoms, such as muscle cramps, tetany, cardiac arrhythmia, vertigo, convulsions and seizures. There have also been reports of an increase in hip fractures in patients using PPI's over long periods. Studies of these patients show low serum magnesium as well as low serum calcium, which responded to magnesium therapy and discontinuation of the PPI.

Kuipers, MT, et al. Hypomagnesaemia due to the use of proton pump inhibitors - a review. J.O.M. 67, 5, 2009. Wright, MJ, et al. Proton pumpinhibiting drugs, calcium homeostasis, and bone health. Nutr.Rev. 66,2, 2008. Cundy, T., et al. Severe hypomagnesaemia in longterm users of protonpump inhibitors. Clin.Endocrinol. 692, 2008.

Comment: Many medications can impact nutritional status. Unfortunately, the use of these prescribed and OTC PPI's are widespread. Magnesium is such an important mineral that an induced deficiency can have far reaching consequence. Not only are the symptoms noted above associated with magnesium deficiency, but death could also occur from an induced magnesium deficiency due to the adverse effect of magnesium deficit on the cardiovascular system and the myocardium itself. Magnesium deficiency can increase the potency and toxicity of commonly used drugs such as digitalis. Uses of these PPI's are supposed to be limited to no more than three 14-day periods in one year. Yet most cases are reported to have been taking PPI's for a year or more and were also found to be magnesium deficient after hospitalization. The FDA (United States) states that healthcare professionals should consider obtaining serum magnesium levels prior to initiation of prescription PPI treatment in patients on these drugs for long periods of time and should also consider obtaining magnesium levels periodically in these patients during therapy. As a sidenote, it is estimated that over 60 percent of the U.S. population does not meet the US RDA for magnesium. Therefore, HTMA can be a useful tool for assessing magnesium status as well as to monitor longterm effects of medications on patient mineral status.

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Do you know everything you could
about iron?

Iron is a mineral that is widely available in foods, it can be found in meat, wholemeal products, potatoes and vegetables. The human body absorbs iron in animal products faster than iron in plant products. However, if animal sources of iron are consumed at the same time as plant sources, the absorption from those plant sources greatly increases. Iron is an essential part of haemoglobin; the red colouring agent of the blood that transports oxygen through our bodies.



An excess of iron in the body may lead to aggressive behaviour, migraines, high blood pressure, joint pain and cirrhosis. Absorption of iron can be increased by alcohol.

A more common problem is iron deficiency, which leads to anaemia. Other common deficiency signs and symptoms are shortened attention span, pica, dysphagia and susceptibility to infections. Dairy products can reduce iron absorption as can tea consumption. As vitamin D improves calcium absorption it is important that both are taken away from iron so as to not antagonise iron absorption.

An acidic environment in the stomach is essential for proper iron utilisation, otherwise intestinal absorption is compromised. Minerals such as sodium and potassium may improve iron absorption in the body as will vitamin C and B group vitamins. Toxic metals such as mercury, cadmium, lead and aluminium will compete with iron absorption so it is essential to ensure that these metals are reduced or non-existent for effective iron metabolism.

Need more information? Need help interpreting your patient's hair tissue mineral analysis report? Do you require further information on any of our nutritional, herbal and natural medicines? If so, please don't hesitate in contacting us. We have qualified practitioners ready to take your call. You can call us anytime Monday to Friday, 9am-5pm AEDT.

Let us help you to build your practice with better clinical outcomes.



InterClinical Laboratories

Servicing Practitioners and Their Needs

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