



eNews

Nutritional, Herbal and Natural Medicines | Practitioner Education

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Hair Tissue Mineral Analysis Pathology

Issue 40

Children's Growth Rates – an Elemental Perspective



Plant a flower in nutrient rich soil and it will bloom in its most vibrant form. The same rule applies for nutrition and the blossoming of healthy, vitalised children. As you know, trace element deficiencies affect numerous biological functions including physical growth, psycho-motor development and immunity. Scalp hair remains isolated from an individual's metabolic activities while indicating both the concentration of trace elements in the



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body as well as the nutritional condition over a time period, unlike a blood sample which can show variability throughout the day. It is due to the unique properties of scalp hair that this month's featured study chose Hair Tissue Mineral Analysis to examine trace elements in childhood growth delay. Scroll down for a more detailed report.

The mineral of the month is: Iron. Iron is essential for healthy metabolic activity and integral for normal growth, cellular functioning, and synthesis of certain hormones and connective tissue. Dietary iron requirements are dependent on age, gender and the broader health context of the individual, for example, infants of low birth weight or with iron deficient mothers are at higher risk of being iron deficient due to the high iron requirements during this time of rapid growth. If you suspect your patient is iron deficient, you can increase their levels as well as their savings with this month's Iron Plus special, buy 5 and get 1 free!

The Estimated Average Requirement (EAR) and Recommended Dietary Intake (RDI) for Iron from the Australian National Health and Medical Research Council for children and adolescents is:

Age	EAR	RDI
All		
1-3 yr	4 mg/day	9 mg/day
4-8 yr	4 mg/day	10 mg/day
Boys		
9-13 yr	6 mg/day	8 mg/day
14-18 yr	8 mg/day	11 mg/day
Girls		
9-13 yr	6 mg/day	8 mg/day
14-18 yr	8 mg/day	15 mg/day

Homeopath's, get your diaries out – The Australian Homoeopathic Association in Tasmania are hosting their 9th Australian Homoeopathic Medicine Conference in Hobart on the 24–26th of October! This year's keynote speaker is Dr Joe Kellerstein, whose self-proclaimed 'mission' is to re-introduce our community of homeopaths to the principles and practice of original Hahnemannian medicine. The event is sure to alight your enthusiasm as you share knowledge and passion with some of the best in the industry. Not to be missed!

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Melbourne-based practitioners, take note! – ACNEM is hosting a specialised course 'Tired or Wired – Thyroid & Adrenal Conditions' during their November 20–23 training. Book a seat to refresh/refurbish your knowledge on the inter-workings of these two systems to slow down or speed up your patients as required! More details below.

Last but not least, congratulations to the Rabbitoh's for their epic performance in this year's grand finals. In celebration of the momentous event, InterClinical Laboratories is offering a special on Reparen 60's– our specialty bone, tissue and muscle maintenance and repair support complex containing ionic calcium phosphate. Glory, glory to South Sydney!

Thanks for reading, we hope you're all enjoying the spring sunshine and accompanying influx of natural vitamin D!

Yours in good health,

The Staff at InterClinical Laboratories

Clinical Update

Hair analysis of minerals and children's growth rates



A study from 2013 compared the results of a quantitative elemental analysis in a group of 48 children. The group was split into two groups, 27 that were diagnosed with growth delay, and 21 controls. Both blood and hair was tested for calcium, magnesium, zinc, copper and iron. The results were analysed to explore the hypothesis that metals such as copper, zinc, iron, calcium and magnesium deficiencies affected the growth rates of children.

The study found that whole blood levels of iron and zinc were significantly lower in children with growth delay. The hair levels of iron, zinc, calcium and magnesium were also significantly lower in children with growth delay, compared to controls.

It was also noted that other factors that have had an effect on children with growth issues were socioeconomic status, dietary habits, uneducated parents and a diet mainly consisting of carbohydrates.

Ozmen, H., Akarsu, S., Polat, F. and Cukurovali, A., The Levels of Calcium and Magnesium, and of Selected Trace Elements, in Whole Blood and Scalp Hair of Children with Growth Retardation, Iran Journal of Pediatrics, April 2013; Vol 23 (No 2), pp 125-130.

Comments:

It is well known that both iron and zinc are important for growth, and especially important for children. It is not surprising that the results of both the hair and whole blood tests showed that these minerals were low in children, especially those with growth delay.

The hair analysis results in this study also showed that the levels of Ca & Mg are low in children with growth delay. From a hair analysis perspective, the low levels of the macro minerals Ca and Mg is not unexpected as these minerals are also required during stages of growth.

Hair analysis results can differ from blood results as blood is constantly trying to maintain homeostasis at the expense of storage levels. Hair analysis is a reliable, non-invasive test for children, as well as adults, to check the body's stored levels of minerals.

Australian Homoeopathic Medicine Conference 2014

Grass Roots Homoeopathy: Back to Basics



The Professional Members of the Australian Homoeopathic Association in Tasmania are proud to host the **9th Australian Homoeopathic Medicine Conference** at the **RACV/RACT Hobart Apartment Hotel**, Hobart, Australia, from **24 – 26 October 2014**. The conference theme is 'Grass Roots Homeopathy – Back to Basics'.

Grass Roots Homoeopathy is not just about 'Classical' Homoeopathy. It's about going back to our basic tools as Homoeopaths and making sure we're as good as we can be. It's about remembering the important skills that we may have forgotten along the way, and it's about honoring both the mistakes and triumphs that we and others have had that have caused us to learn and grow as people, and as a profession

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 build your practice with better clinical outcomes.



InterClinical Laboratories

Servicing Practitioners and Their Needs

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