

QUARTERLY NEWS LETTER



CYTO•MATRIX®

Improving health and wellness...naturally

Fall 2014

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UPCOMING EVENTS

NOVEMBER 6

Educational Program at CCNM

“Clinical Issues in Women and Children’s Health”

Speakers: **Dr. Elias Markou**,
Dr. Michelle Cali

NOVEMBER 21-23

OAND 2014 Convention & Trade Show - Official Gold Sponsors!

Come by booths # 110, 112, 114 for free samples and show specials.



Dr. Elias Markou, ND Medical Director

As Medical Director, Dr. Markou brings his experience and expertise in nutrition and vitamin therapies. He has certifications in intravenous therapy, biopuncture injection therapy and functional medicine. He has many roles within the naturopathic community including chair of the OAND.

[Read Dr. Markou’s Medical Address >](#)

Dr. Michelle Cali, ND National Scientific Advisor

Completing her honours Bachelor of Science, then earning her credentials as a Naturopathic Doctor from CCNM, Dr. Cali plays a pivotal role in scientific advising and communications.



Bio-Ferra™ liquid iron supplement by Michelle Cali, ND

Bio-Ferra™ is Cyto-Matrix’s innovative liquid iron supplement. Similar to the body’s own ferritin molecule, this polysaccharide-iron complex provides optimal delivery of iron to the body while significantly reducing negative side effects and safety concerns commonly associated with iron supplements. [Read more >](#)



Bio-Ferra™ NEW Liquid Iron Supplement

This advanced liquid formulation is pleasant tasting well tolerated and easily incorporated into daily routine.

Each teaspoon (5 mls) contains:
Iron (polysaccharide complex)20 mg

CHANGES TO CURRENT PRODUCTS



Multi-Strain 11™
Format sizes are now 60 and 120 capsules/bottle (100 capsules/bottle discontinued)

Garlic Active Principles™
Now available in 45 and 90 capsules/bottle size (previously only 45 size was available)

NEW ASSOCIATE



We are pleased to announce the addition of **Dr. Andrew Krause** to the Cyto-Matrix team! Andrew, a graduate of CCNM, is the Ontario Regional Representative.



Cyto-Matrix Medical Director Address

October 2014-10-17

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Doctor Success, Patient Success

Hello everyone, my name is Dr. Elias Markou, I am a practicing naturopathic doctor and the new Medical Director for Cyto-Matrix. I have been in the natural medicine industry for almost 15 years treating patients and working with natural health products of all kinds. I have seen many trends in natural health come and go, what I like best is that our Cyto-Matrix line is formulated by NDs for NDs. I am here with a very specific mandate from Cyto-Matrix and that is to deliver to you cutting-edge information on our research based products and help you develop advanced treatment protocols. We hold our products and our treatment programs to the highest standard, which in the health industry are proven methods of getting patients better. We want doctors to be successful by treating patients with success. I would like to welcome every health care practitioner, the NDs, the MDs, the DCs and others who are reading our newsletter and invite you to stay tuned to our future newsletters focusing on a series of engaging and educational topics that will help you take the entire Cyto-Matrix product line to a new level.

Stay tuned!



Dr. Elias Markou, ND
Medical Director, Cyto-Matrix

Bio-Ferra™ liquid iron supplement

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by Michelle Cali, ND



Bio-Ferra™ is Cyto-Matrix's innovative liquid iron supplement. Similar to the body's own ferritin molecule, this polysaccharide-iron complex provides optimal delivery of iron to the body while significantly reducing negative side effects and safety concerns commonly associated with iron supplements. This advanced liquid formulation is pleasant-tasting, well tolerated and easily incorporated into daily routine. Bio-Ferra™ can rapidly replete iron deficiencies occurring in infancy up to senior adults.

Clinical Profile - Iron Deficiency Anemia in Infants

One of the most common concerns from parents with young children is nutrition. While concerned from day one, the most common time to seek professional help for guidance on food introduction is around 6 months. One of the most emphasized nutrients at this time is iron.

Due to the rapid growth occurring in the first 24 months of life, the need for iron is critical. Children under 2 years of age are at the highest risk for developing iron deficiency anemia¹. Recent Canadian statistics are lacking, but select population based studies suggest iron deficiency can range from 12-64%². While in utero, the baby builds iron stores from the mother, but this can potentially be depleted by 6 months of age (or much sooner if baby is pre-term). Although we know that exclusively breast fed infants are less likely to be depleted by 6 months², one should still consider testing between 9-18 months of age to be sure. Close attention should be paid to children with any of the following risk factors: preterm, high cow's milk intake, low meat intake, generally poor diet (picky eaters), delayed introduction of solids, gastrointestinal diseases or lead exposure.

Much literature has highlighted the negative impact of iron deficiency anemia on childhood development, particularly brain development³. Long term effects are unknown. So, what do we look for in our paediatric patients? Although many symptoms are common to those we see in adults - fatigue, pallor, breathlessness - the childhood presentation also includes: behavioural issues, recurrent infections, loss of appetite, increased sweating, odd cravings (pica) and poor development^{2,4}.

In effort to prevent iron deficiency anemia in infancy, current paediatric guidelines suggest early introduction (around 6 months) of iron-rich foods such as meats or fortified baby foods (such as cereals)⁵. However, as we see in practice, these guidelines are not without additional concerns. Infant cereals often contain additives that we do not recommend and the source of iron is commonly a salt that is poorly absorbed resulting in stomach pains and most notably dark, hard stool and resultant constipation. We also know at this age the digestive tract is immature and stomach acid is lacking making meats difficult to break down especially as a first food. Symptoms of indigestion may indicate issues with absorption or, simply, be a barrier to consumption.

Although we are aware of healthy and appropriate plant-based iron sources, these sources alone will not sufficiently replete iron stores in a child that is deficient based on blood evaluation (usually serum ferritin along with hemoglobin levels). Supplementation is therefore considered.

Supplementation Recommendation

The Canadian Paediatric Surveillance Association suggests an oral dose of 6mg/kg/day of elemental iron for approximately 4 months when further assessment should be performed. The polysaccharide iron complex has had a long history of safety and efficacy in young children. Cyto-Matrix's NEW Bio-Ferra™ liquid formulation makes dosing to children easy and the mild apple flavour promotes high compliance from this population.

Inquire about a free sample today!

References:

1. Yip R. *The changing characteristics of childhood iron nutritional status in the United States*. In: Filer LJ Jr, ed. Dietary iron: birth to two years. New York, NY: Raven Press 1989:37- 61.
2. Hartfield, D. (2010). *Iron deficiency is a public health problem in Canadian infants and children*. Paediatrics & child health, 15(6), 347.
3. Grantham-McGregor S. Ani C. A review of studies on the effect of iron deficiency on cognitive development in children. J Nutr 2001;131:649S-68S.
4. Abdullah, K., Zlotkin, S., Parkin, P., & Grenier, D. (2011). *Iron-deficiency anemia in children*. Ottawa: Canadian Pediatric Surveillance Program, Canadian Pediatric Society. Retrieved October 10, 2014 from <http://www.cpsp.cps.ca/uploads/publications/RA-iron-deficiency-anemia.pdf>
5. "Nutrition for healthy term infants: Recommendations from Birth to 6 months." Health Canada. Retrieved October 10, 2014 from <http://www.hc-sc.gc.ca/fn-an/nutrition/infant-nourisson/recom/index-eng.php>