Iron deficiency and neurological consequences for children

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Iron deficiency is the most common micronutrient deficiency globally. The deficiency of iron most obviously impairs effective hematopoiesis, resulting in anemia, an indicator of severe iron deficiency. However, because of the importance of iron as a cofactor in biochemical reactions at the cellular level, deficiency of iron impacts virtually every organ system, and in particular the central nervous system. Studies have found iron deficiency to be a contributing factor to many conditions including developmental delay, stroke, breathe holding spells, pseudotumor cerebri, swallowing dysfunction, and restless leg syndrome. The basic science and clinical research supporting the relationship between iron deficiency and these neurological sequelae will be explored. Iron deficiency is preventable; building awareness is important to assist in preventing these serious complications of what is often considered to be a benign nutritional problem. Clinicians attending this seminar will be able to apply this clinical information to their practice, and as well, this session will foster advocacy for prevention and treatment of iron deficiency and the neurological sequelae in our children.

Biography

Dawn S Hartfield has completed her Medical School in 1994 and obtained FRCPC in Pediatrics in 1998 from the University of Saskatchewan. She then completed a Master’s in Public Health Sciences (Clinical Epidemiology) in June 2008 at the University of Alberta. Her clinical research includes exploring the association between iron deficiency and neurological sequelae in children. She has published more than 20 papers in reputed journals on this and other topics. She has extensive leadership roles locally and nationally in the area of patient safety. She is the Medical Director of Quality, Edmonton Zone, Alberta Health Services, and Associate Professor of Department of Pediatrics, University of Alberta.

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