Translating the science of omega-3 fatty acids into action for children’s health

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Background – Scientific understanding of the essential roles of long chain omega-3 fatty acids is growing rapidly. Data on dietary intakes and food contents is increasingly available and health authorities around the world are starting to make official recommendations on optimal intakes of long chain omega-3 fatty acids.

Objective – [i] To assess current evidence on the health benefits of omega-3s for children over 2 years and their dietary intakes, [ii] to develop recommendations for optimal intakes and [iii] to communicate these to key audiences.

Design – A group of researchers expert on relevant aspects of long chain omega-3s drafted papers, based on current evidence, and then met together to discuss the evidence and reach a consensus on recommendations targeting parents, health professionals, government and researchers.

Outcomes – Current evidence indicates children cannot adequately convert $\alpha$-linolenic acid (ALA) to long chain omega-3s. Deficiencies are associated with symptoms and features of ADHD and related developmental disorders affecting more than 10% of children. A daily intake of 500mg EPA and DHA should be the target for children 14 years and over with this level adjusted for the smaller body weight of younger children. Parents and health professionals require information on accessible sources of long chain omega-3s and addressing barriers to consumption. Nutrition policy needs to take account of the key roles of long chain omega-3 fatty acids in children’s health and development. National databases of red blood cell EPA and DHA in children should be established, using the Omega 3 Index as a guide to healthy levels (1).

Conclusions – Children in New Zealand and Australia are at risk of less than optimal health and development based on their intake of long chain omega-3 fatty acids. The evidence supports a range of actions by parents, health professionals, policy makers and researchers.

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