Clinic focus

DHA is ‘brain food’ for infants

The most rapid brain growth in humans occurs in the first year of life. Around two-thirds of a human brain is made up of fat, so it is vital that infants get sufficient fats of the right sort and quantity in their diets when they are growing. The fatty acids that make up fats in the human brain are mainly found in the myelin that surrounds and transmits messages between brain cells. Both Omega 3 and Omega 6 fatty acids are found in the brain.

Specifically, it is important that infants get the fatty acid Omega-3 Docosahexaenoic Acid (DHA) from their diets, as this vital component is a building block for the development of brain and retina. DHA also supports cognitive and neurological development in early life.

DHA is found in human breastmilk, and according to the World Health Organization, infants that are breastfed have significantly better alertness and cognitive skills, attributable to the presence in their diets of this fatty acid. Research from the International Formula Council in 2008 has shown that “DHA is physiologically important in prenatal and postnatal life during the period of rapid brain and eye development and throughout life as well.”

Footnote: Omega 3-enriched commercial baby food is now available in South Africa from South African-grown produce to improve overall access to these essential fatty acids.

Road-to-Health Booklet

Modification factors in improving infant survival rates

The main identifiable factors that can help South Africa reach the Millennium Development goal of lowering child mortality (0-5 years) by 75% were identified by Dr Neil McKerrow, Chief Specialist and Head of Paediatrics, University of Kwazulu-Natal, based in Pietermaritzburg, during a series of lectures for nursing sisters sponsored by Purity Baby Foods.

At the Primary Health Care Clinic level, the major factors are delayed referral for growth faltering or malnutrition and lack of action to identify and treat childhood illnesses promptly.

The Road to Health Booklet for all South African children is an effort to develop a patient-held record of the child’s wellbeing – it seeks to encourage caregivers to seek help early and to provide health care workers with a tool to monitor growth and development.

Paed-Update looked for some useful electronic tools to help the South African clinic sister with self-training and the training of junior colleagues to use the Road-to-Health Booklet.

The most useful training resource is the Clinical Skills Building for Child Health Manual (downloadable at sun025.sun.ac.za) OR you can ask us to forward the pdf to you (julia@clinicscardive.com). This manual was developed by the South-to-South Partnership; a collaboration between the Departments of Paediatrics of the Universities of Stellenbosch and Cape Town and various American funders, including USAID.

There is a very useful session on Growth Monitoring and Assessment, including interpreting growth charts and growth faltering. Other modules deal with family-centred care, developmental approaches to primary care, immunization, Vitamin A supplementation and deworming, TB screening and identifying children at risk of HIV.

Interestingly, it incorporates the whole Road-to-Health booklet, which parents could print for their child (or you could print and supply if your clinic has difficulty obtaining booklets).
Obesity – focus on the early years

Overweight within families occurs mainly because of eating patterns within families and is not genetically determined.

Clinic sisters have an opportunity to detect overweight and obesity early using the Growth Charts of the new Road-to-Health booklet. The booklet defines overweight if a child’s weight to height/length is above the 2-z-score line, whereas above 3 is obese.

Importantly, obese children under 5 years of age may be malnourished with vitamin and mineral deficiencies in their diet and need clinical help. For the clinic sister to intervene is not easy – some pointers are to encourage the caregiver to ensure outside play and increase the child’s opportunities for physical activity. Probably, the major culprit is portion size and variety of foods in the child’s diet.

A recent study in South Africa, 1 of physical fitness in primary school children aged six to 13 years, showed the need for encouraging fitness in school children, and proposed the re-introduction of sport, particularly in schools in which African children predominate.

Prof Salome Kruger of the North West University said South African children developed well up to 6 months if breastfed, but that the nutritional problems of both malnutrition and obesity occurs as soon as children start eating solid foods.

Reference:

Effective childhood obesity strategies

- Support parents by encouraging them to eat together around a table and away from the TV
- Increase opportunities for physical activity and movement
- Encourage parents not to prolong bottle feeding and introduce a cup as early as possible. A bottle should not be used as a pacifier or as a ‘food-on-the-move’ approach
- Encourage crèches and local pre-primary schools to provide healthier and more nutritional foods
- Support parents who are overweight by explaining the need to set an example and that their food choices set the scene for their child’s choice.