INTRODUCING SOLIDS

Whilst breast milk or infant formula remains a major source of nutrition, and the primary source of milk, throughout the second 6 months of life, other foods and beverages are required for nutritional and developmental reasons. There is still debate surrounding the ideal time to introduce solids, however, it is generally agreed that solids should be introduced no earlier than 17 weeks (4 months) and no later than 26 weeks (6 months) in accordance with the individual infant's signs of readiness (3,4).

Each baby is an individual with their own particular timing for readiness to eating solids. Complementary foods, such as infant cereals should never be added to bottles and solids and liquids other than breast milk or infant formula should not be commenced until baby is ready for them. The baby's gastro-intestinal tract and kidneys need to be mature enough to process complementary foods and the baby needs to have lost the extrusion reflex (which causes infants to reject food placed on the tip of the tongue) and to have developed the ability to chew.

Beyond 6 months however, breast milk is no longer adequate to meet baby's nutritional needs for energy, protein and other nutrients. By then the infant is ready to commence the transition from milk feeds to family foods. Adequate fats, protein, iron and zinc, provided by good quality complementary foods, are especially essential during the second 6 months of life, when energy requirements are high and growth is rapid.

IRON

Iron rich foods are essential from 6 months of age as baby's stores of iron are by then depleted. For the breastfed baby, more than 90% of iron requirements need to be provided by solids during the second 6 months of life. For the formula fed baby, iron fortified infant formulas are available. Iron fortified infant cereals are recommended and the absorption of the iron from these cereals will be enhanced if a vitamin C source, such as fruit or vegetable, accompanies the meal. Foods that are naturally high in bio-available iron, especially beef and lamb, are also naturally high in zinc, another important mineral along with iron for this rapid growth stage of life.

COW'S MILK

Cow's milk is not recommended as a drink until after 12 months of age. Cow's milk is unsuitable for a number of reasons including the type and amount of protein, the amount of carbohydrate, the type of fat, as well as the amount and ability of the infant to absorb the vitamins and minerals present. Full fat cow's milk may be used in the cooking of foods such as puddings, however reduced fat cow's milk is not recommended at all as it is too low in energy for this age.

PREVENTING ALLERGIES

Recent research shows that delaying the introduction of solid foods until after 6 months may in fact increase the incidence of allergy to foods rather than decrease it, as was previously recommended (7). To reduce the incidence of food allergies or intolerances it may be preferable for baby to commence solids between 4 and 6 months as per the infant's readiness. If possible, breastfeeding throughout the period of introducing new foods to baby may help to prevent the development of food allergies. It has not been shown that the avoidance of allergenic foods in the mother's diet prevents allergies in the infant. Eggs, peanuts, tree nuts, cow's milk, wheat, fish and seafood are potentially allergenic foods, but also are rich sources of nutrition for both mother and infant. There is insufficient evidence at this point that delaying or avoiding potentially allergenic foods will reduce or prevent food allergies even in those infants with siblings who experience food allergy (7).

When baby is ready for solids, commence with very small amounts (eg a teaspoonful) and increase the quantity of the new food gradually. Only give one new food at a time and wait 2 to 3 days before commencing the next new food, to ascertain that there are no food reactions. Once it is established that a new food is tolerated this food can be continued as part of the infant's diet. Infants who already have eczema are more prone to food allergies; and eczema in infancy may be due to food sensitivities in the diet of the infant themselves, or through their mother's milk (7). Soy milk and goat's milk are not recommended for allergy prevention; rather infants may be prescribed a hypo-allergenic milk (7).

If your child exhibits any signs of a food reaction you should seek medical advice and avoid that food until consultation with a medical practitioner with expertise in food allergy.

GLUTEN

Gluten is a protein that is found in wheat, rye, barley, triticale and oats. Coeliac disease is an autoimmune disease in response to the consumption of gluten. Research shows that the risk of coeliac disease may be reduced if small quantities of gluten are gradually introduced while the infant continues to be breastfed (6). In genetically predisposed infants, the introduction of gluten between 4 and 7 months, may reduce the risk of developing active Coeliac disease, as well as Type I Diabetes; as these 2 autoimmune disease states may occur together (6).

VEGETARIAN DIETS

If an infant is given a vegetarian diet it is important that sufficient high energy and high protein foods are given. Sufficient milk (approximately 500mL per day) and full fat dairy products as well as legumes and pulses are recommended. Vegan diets are discouraged in infancy, particularly due to the real risk of vitamin B12 deficiency which adversely affects brain and nerve development (4).

SALT AND SUGAR

Added salt is definitely not recommended for baby's foods, including the home preparation of meals and snacks as well as processed foods, as their tiny kidneys cannot cope with the processing of this sodium. Higher sodium intake even in the early years is associated with higher blood pressure in later life (5). The infant can also become accustomed to salty foods, which may affect future taste preferences and lead to health problems.

Sugar is implicated in the development of dental caries. While infants naturally prefer sweet tasting foods and liquids it is important to start good dental hygiene practices early in life, even before the first tooth erupts.

Whilst older children instinctively prefer high energy foods with sweet and salty tastes; and reject new foods, particularly bitter foods (eg some vegetables) these predispositions may be modified during infancy when baby is receptive to the introduction of a wide variety of foods and tastes. Make the most of this opportunity!!

Parents and carers of infants play the crucial role of establishing good dietary habits that will impact on the health and development of the child, both in the short and long term. This is also a great time for the rest of the household to ensure that they are practicing healthy eating habits for the benefit of everyone.

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