



INFORMATION FOR HEALTH PROFESSIONALS

INTRODUCING SOLIDS

Australian Dietary Guidelines for Children and Adolescents and Infant Feeding Guidelines for Health Workers recommend that infants be exclusively breast fed or formula fed to around 6 months of age. Somewhere around 6 months, but not before 4 months, depending on growth and development, an infant will be ready for solid foods.

These guidelines are currently under review as recent scientific reports suggest that delaying the introduction of solids till 6 months may increase the risk of allergy. They suggest that solids should be introduced from around 4 to 6 months. The revised Australian Dietary Guidelines for Children and Adolescents and Infant Feeding Guidelines for Health Workers are expected to be released in 2010.

Why are solids introduced around 6 months of age?

- Energy (kilojoule) needs are no longer met by breast milk or infant formula alone, so the infant is hungry. As every infant is different, the need for solid foods has to be assessed individually and based on developmental readiness
- Stores of iron and zinc are falling and need replenishing
- Extrusion reflex disappears and the infant is able to take food from a spoon, bite as well as suck
- Digestive system has matured – enzymes for digesting starch and fat have increased, the mucosal barrier has matured as has kidney function
- Neuromuscular co-ordination is significantly developed – jaw and lip control, greater head and neck control, infant can reach out for objects, can sit without support
- A growing environmental awareness increases desire to explore new tastes and textures

Problems with introducing solids too early - before 4 months

- Increased diarrhoeal and allergic disease due to intestinal immaturity which may lead to malnutrition.
- Decreased breast milk production as solid food displaces breast milk
- Poor nutrient digestion and absorption
- Coughing, gagging and resultant aspiration from force feeding an infant who is unable to convey satiety
- Choking

Problems with introducing solids too late - after 6 months

- Insufficient energy to support optimal growth, development and immunity due to inadequate intake of energy and protein
- Increased micronutrient deficiencies such as iron and zinc
- Difficulty in accepting solid foods, particularly textured/lumpy foods
- Problems with speech and chewing
- Missed developmental milestones associated with feeding

Solid foods should be nutritionally adequate, hygienically prepared, culturally appropriate and gradually introduced with the appropriate texture. Texture should progress from smooth, to small soft lumps, to a firm but soft chunkier texture. Solid foods are important not only for nutrition but also for jaw development and speech.

Exclusive breast feeding past 6 months

Studies have shown that some infants can be exclusively breast fed past 6 months providing that the volume of mother's breast milk is adequate and growth continues. However maintaining adequate iron is a problem and supplements may be required. Exclusively breast fed or formula fed infants need to be monitored for growth, development and health and have iron tests to exclude iron deficiency.

Taste influences food acceptance and preferences. Infants are born with a preference for sweet foods. They also have a natural tendency to be cautious of new foods and may reject them initially. Infants may need repeated exposure to a food for it to be accepted so parents should offer the initially rejected food on at least 8 to 10 occasions.

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A mother's diet during pregnancy and breast feeding influences food acceptance by her infant. Breast fed infants experience a greater range of food flavours via breast milk which provides them with a more positive attitude to trying new foods and accepting them more readily and in greater quantities during weaning.

WHO Review on Exclusive Breast Feeding

The WHO has produced a review of the published scientific literature on the optimal duration of breast feeding. The conclusions from the review were:-

"The Expert Consultation concludes that exclusive breast feeding to six months confers several benefits on the infant and the mother. However, exclusive breast feeding to six months can lead to iron deficiency in susceptible infant. In addition, the available data are insufficient to exclude several other potential risks with exclusive breast feeding for six months including growth faltering and other micronutrient deficiencies, in some infants. In all circumstances, these risks must be weighed against the benefits provided by exclusive breast feeding, especially the reduction in morbidity and mortality"

The Expert Committee recommends in practice exclusive breast feeding for six months with the introduction of solids and continued breast feeding thereafter. As these recommendations apply to populations there will be differences at the individual level. It recognises that some mothers will be unable to, or choose not to follow the recommendations and need to be supported so that their infant's nutrition is not compromised.

Food Standards Australia New Zealand (FSANZ), Food Standards Code, Standard 2.9.2 Foods for Infants, permits the sale of infant foods – jars, cans and cereals - to infants from 4 months of age. All infant foods must be labelled with the appropriate age.

Over the last 5 years FSANZ has been reviewing the minimum age labelling requirements in Standard 2.9.2, with the intention of bringing them in line with the 2003 Dietary Guidelines for Children and Adolescents and Infant Feeding Guidelines which recommend introducing solids at *around six months*. However, it has decided to put on hold any changes to the minimum age on labels pending the outcome and recommendations in the revised Dietary Guidelines and Infant Feeding Guidelines.

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