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Infant and toddler feeding

By Heidi du Preez

Heidi du Preez is a Professional Natural Scientist, who obtained her masters degree in Food Science. She is currently specialising in Nutritional Medicine. Heidi consults to both the food and health industry. She started to specialise in Natural Health while living in the UK for 3 years. Heidi uses a holistic, naturopathic approach, incorporating diet, supplementation, detoxification and spiritual well-being into her treatment regimen. Her focus is on the prevention and cure of chronic, metabolic and degenerative diseases. Heidi serves on the Council of The South African Association for Nutritional Therapy and she is also the author of the health recipe book *Naturally Nutritious*.

(website: www.naturalnutrition.co.za)

Infant feeding starts with you, the mother. During pregnancy, your diet and lifestyle determines how well developed and nourished your baby will be. A mother's nutritional status at the time of conception, and in the first weeks to follow, is the single most important determinant of a baby's growth in those critical early stages. (See the article by Marianne Littlejohn about nutrition and supplementation during pregnancy in The South African Journal of Natural Medicine, Issue 21, 2005, p. 62.)

If you want a truly healthy baby, your diet needs to be very good. At the same time, toxic substances such as synthetic chemicals could have critical consequences for the development and ultimate health of your baby. These substances accumulate over the years in fatty tissues and are passed on to the next generation across the placenta and via breast milk. It is your responsibility as parents to make sure that you follow an optimum diet and extensive detoxification programme before you even conceive of the idea of conception!

There are no rigid rules in feeding your baby – it's no rocket science. Use your maternal instinct and common sense and follow your child's natural instinct. There are many more malnourished than underfed children in affluent homes. Take the stress out of mealtimes and remember that a loving environment is the best emotional 'nourishment' that you can give to your child.

From 0 to 6 months

Breastfeeding is the best. It provides your baby with all the nutrients she needs for optimal growth in her early stages. Breast milk is the most nutritionally complete and easily digested food for your baby. It contains at least 400 essential nutrients, hormones, antibodies and other co-factors that your baby needs for optimal growth and development, and to help her fight off a range of illnesses. Breastfeeding exclusively for the first 6 months of your baby's life has been shown to improve her overall health in infancy and can even reduce the risk of her developing certain conditions in adulthood. Therefore, depending on your baby's weight, no solids should be introduced during the first 6 months of life. The intestine of an infant during the first 6 months is very porous. This means that foreign proteins in allergy producing foods are easily absorbed from the intestine into the blood. This could allow the early process of allergy to begin.

The incidence of allergies is increasing rapidly. Sensitisation is the process whereby the susceptible allergy-prone baby comes into contact for the first time with substances called allergens. Most of these potentially sensitising allergens make contact with the baby during pregnancy, or the first year after birth when the infant is being introduced to a wide variety of foods, environmental pollutants, pollens and mould spores for the first time. Prevention of allergy is possible by avoiding all possible contact with these potentially harmful allergens in the infant during the first year. Potential allergy-producing food is therefore only introduced after the first year.

Formula milk

If there are very good reasons why breastfeeding is not possible, then use formula milk. Probably the easiest way to pick out the best formula milk is to compare the zinc content – the higher the better. The milk should also contain manganese, chromium and selenium, although many don't. It's also ideal to supplement your formula-fed baby's diet with essential fats commonly known as omega-3 and omega-6.

For the first 6 months, give her a quarter of a teaspoon of high-quality cod liver oil or fish oil, then give half a teaspoon from 6 months to a year. This can either be added to the bottle or rubbed into the tummy or inside thigh, as it will be absorbed directly into her bloodstream via the skin.

The healthy bacteria present in breast milk is lacking in formula milk, and this can lead to digestive upsets (diarrhoea or constipation), colic, eczema, nappy rash and even asthma. Use an infant probiotic containing *Bifidobacterium infantis* to prevent this. Add the contents of one capsule or quarter of a teaspoon of the probiotic once a day to a warmed bottle of formula milk. Don't add the probiotic before heating as the process will kill the beneficial bacteria. If your baby had a caesarean birth, giving her an infant probiotic during the first month will also be beneficial. Babies born naturally pick up the beneficial bacteria through the birth canal from their mother. Probiotics will also help reduce the chances of her developing food allergies and will boost immunity.

From 6 to 9 months

During this stage milk is still the main food source providing most of the nutrients. However, you will slowly start to wean your baby onto solids. Solids are usually introduced between the first 6 to 8 months, or after the first few teeth have come out.

At the start of weaning, give your baby food that is very easily digested. It is best to start with cooked, puréed vegetables. Slightly steam or cook the vegetables, then purée with a little boiled filtered water. Initially offer solids between milk feeds, when your baby is a little hungry, but not ravenous. Also, the optimal digestive time for first meals is between 10h00 and 14h00. Start with small amounts, one teaspoon per meal, and gradually increase the amount.

Only introduce one new food per week to determine any adverse reactions, thus initially only make single purées. When well tolerated, mixed combinations of vegetables can be given. After 8 to 9 months, you can start adding grains (cereals) to the diet. First try them puréed on their own, before mixing with fruits or vegetables. Introducing grains too soon can lead to constipation, blocked noses and itchy skin and increase the tendency towards food intolerances.

No processed food containing preservatives, colourants or flavourants should be given to your baby. Don't add sugar, salt or fat (for example butter) to your baby's food. Packaged meals should be the exception rather than the rule. They are not as nutritious as freshly home-prepared meals and might contain added chemicals, for example preservatives and artificial sweeteners. When you are away from home, rather take a ripe avocado and banana with you and mash as needed.

Good first food choices include: sweet potato, butternut, gem squash, carrot, spinach, broccoli, baby marrow, ripe banana, papaya, avocado, apple, pear, peach, apricot, kiwi and mango; whole grains such as brown rice, millet, sorghum, quinoa and amaranth. It is better to use the whole grain and then purée, than to use refined flours to make porridge. Don't use boxed cereals.

To make life easier, spoon the puréed food into an ice tray with medium-sized ice cubes and freeze. This enables you to defrost one or two cubes at a time, just enough to make up one meal. Do not use a microwave oven to heat up food, rather reheat in a small pot on the stove. Add a little filtered water to prevent burning. Never use aluminium cookware or containers to heat food. If a fruit or vegetable can be given raw, then leave it raw, for example, bananas, avocados, very ripe pears or papaya. Fruit can simply be peeled and then puréed.

From 9 to 12 months

Start to introduce the coarser textures of mashed, minced or grated food and more variety. The sooner your baby becomes used to textured food, the better. Coarser food helps with speech development and if you keep your baby on puréed food for too long, you might have difficulty introducing a varied diet at a later stage. Finger foods, for example a piece of steamed carrot or sliced apple, will also bring relief with teething. However, the food should not be too coarse, since babies do not yet have enough teeth to break the food down properly, which could result in poor digestion.

At this stage you can start to add protein to the diet slowly. Good examples are free-range eggs and chicken, white deep-water fish, organic meat or venison, beans and pulses (e.g. chickpeas) and a little live natural yoghurt. Be cautious of egg and dairy allergies. Introduce a wider variety of vegetables, for example cabbage, green beans, peas, cauliflower and beetroot. Whole grains such as buckwheat, maize, oats, barley and rye can start to form part of the feeding plan. Wheat is one of the most common allergens and should ideally be avoided for as long as possible in the diet.

From 12 to 24 months

It is ideal to continue breastfeeding for as long as possible, even while your baby is enjoying a diet

of solid foods. The immunological properties of breast milk continue to provide both nutrition and protection from illness for as long as your baby continues to drink.

It is advisable to supplement your breast feeds with alternative milk to take some burden off you. Goat's milk is less allergenic than cow's milk because it is more easily digested. Various researchers and experts stress the potential dangers of soy for the developing human body (see further reading at end). During the first year milk is very important – babies can thrive on milk alone. In the second year of life 400 - 500 ml of milk every 24 hours is enough. Other food and forms of protein should also form part of their diet.

Although it is important that your baby gets enough protein, meat and dairy should not be the main source. Also include beans, lentils, chickpeas, quinoa and seed vegetables (e.g. green beans) in the diet. Seeds and nuts contain a fair amount of protein. Good examples of animal protein are organic meat, ostrich mince, turkey, free-range chicken and eggs, cottage cheese and fish high in essential oils.

I breastfed my son until he was 18 months, after which he 'craved' meat (therefore protein). Children have a natural instinct for what is good and essential for them. Although it's important to balance their meals with fruit, vegetables and whole grains along with protein, do not become too desperate when your child has certain cravings or picks out all the meat and cheese from the rest of the food. If your toddler is only interested in one particular food, build on that as the main ingredient or dish and serve others with it. Your toddler should get at least six portions of multi-coloured fruits and vegetables per day. Whole grains are important, but should not be the staple food. Every single meal might not be balanced, but it is important that the overall diet is well balanced. Fruit and vegetables that can be introduced are tomatoes, strawberries, oranges, mixed berries, guavas, pitted fresh dates, garlic, onion and potatoes. Nightshade vegetables and acidic fruit should not be given in the first 12 months. Nuts and seeds are high in essential fatty acids and minerals, especially zinc, which is very important to your toddler. Grind the seeds and sprinkle over breakfast and spread nut butters on oat, corn or rice cakes. Good examples are hazelnuts, brazil nuts, cashew nuts and almonds; sunflower, pumpkin, sesame and flaxseeds.

Other ideas

- Ice-lollies made with puréed fruit and for variety add yoghurt or rooibos tea
- Smoothies – purée fruit and add mixed seeds and/or yoghurt
- Use carob to flavour natural live yoghurt.

When weaning onto solids, it's important that your baby still drinks enough liquid (between 800 to 1 000 ml per day). However, drinking too much liquid, especially milk, will curb their appetite for nutritious solids. Filtered water should be the main thirst quencher. Alternatively, also give organic rooibos and honey bush tea. You can even add some vitamin C powder and raw honey with propolis to the tea to boost the immune system. Freshly squeezed fruit or vegetable juice, for example carrot and apple, is a much better option than boxed (processed) fruit juice. If given, always dilute fruit juice with filtered water (1:3).

General feeding tips

- If you have to cool down very hot food quickly for your crying, hungry baby, add frozen peas.
- If the food is too watery after reheating, add oat bran to thicken it slightly.
- Your baby will dislike the texture of food rather than the taste. While she may dislike the stringy bottom end of an asparagus, she might find delight in the softer tip cut into small pieces.
- Don't peel all the fruit and vegetables when your baby has reached a year. Rather wash thoroughly and leave the peel on, where possible. Ideally use organic fruit and vegetables.
- Always give fruit separately from other food and offer sweet and acidic fruit at different times too, to avoid skin rashes. It's good to give fruit in the morning and then vegetables from noon.
- The most common allergens in children are wheat, dairy and eggs. Excessive amounts of refined sugar can also lead to health problems.
- Cow's milk should not be introduced before the age of 12 months. Overall, limit dairy in the diet and only use full cream milk, not skim or low fat milk. Sesame seeds provide more calcium than milk.
- A baby or toddler will know how much food he or she wants. It will differ from child to child. The quality is more important than the quantity.
- Children manipulate with food and it's up to you to set the boundaries. They need to learn to eat what is presented to them. However, never force them to eat or to finish all the food on the plate. They might be ill, less hungry, teething or tired. It's important to teach your child moderation and to 'listen' to her body.
- Don't fill their tummies with junk food or instant noodles because they refuse healthier options. Only present healthy food to them and if they do not eat, simply keep the food for the next meal –

they'll eat when they are hungry. Remember, you are in control, not them! Toddlers often use food or eating as a battleground, but don't use food as a threat, punishment or treat.

- Toddlers like to 'graze' – therefore present them with three small main meals and healthy snack options. You can also breastfeed in between meals. On average a child will take 20 minutes to complete a meal. Have patience! You should have at least one meal a day at a table as a family, but if your toddler becomes restless, allow him to play or run around. The rest of the family must set the example of togetherness.
- Avoid processed food and cool drinks, which are laden with preservatives, colourants and flavourants. These could be the cause of hyperactivity, allergies and food intolerances. Read the labels. Also avoid food containing hydrogenated fats such as margarine and vegetable shortenings.
- Don't drown food in sauces. Your child should learn to appreciate the unique taste of natural wholefood. Dipping carrots in chocolate will defeat the object!
- Stay away from processed meat, which contains phosphates, nitrites (carcinogenic), preservatives and high levels of salt and sugars. That Vienna sausage covered in tomato sauce is far from the ideal meal!
- Do not give a heavy meal at night. To be sufficiently digested, the last meal should be at least 2 hours before bedtime.
- It's important to keep meals simple for toddlers. However you can make the meals appealing by, for example, threading fruit or vegetable pieces onto a cocktail or kebab stick. Be innovative.
- Although her sense of taste is not yet fully developed, your toddler will enjoy tasty food. Flavour the avocado with a little herbal salt and use fresh herbs and mild spices – avoid MSG (monosodium glutamate).
- Involve your child in helping to choose and prepare the food, like squeezing out fresh orange juice. She'll develop a better appreciation of food and it's good for her co-ordination and fine motor control.
- Your attitude about feeding your child is very important. You should not decide whether your child is going to like or dislike a certain food. They change their minds from meal to meal. They may show a dislike for a certain food today, but will happily eat the same food the following day. Lead by example, children are imitators!

Supplements

A varied and nutritious diet is the key foundation to good health. However the reality is that even the best diets can fail to provide all the nutrients we need. Children, in particular, can be picky eaters. There's also the logistical challenge of providing a day's meals perfectly balanced in every nutrient. During your baby's first 6 months, only supplement with essential fatty acids if you are not breastfeeding. Probiotics are also important, especially when antibiotics are used. Although there are vitamin drops available for infants, it is advisable to start supplementing your baby's diet only between the ages of 9 to 12 months. Supplements will not make up for a poor diet! Ideally give wholefood or 'food state' supplements e.g. barley or wheat grass. It's best to give the supplement with breakfast, since some might have a stimulatory effect.

Toxicity

Limit the exposure to toxic substances. Educate yourself on the pros and cons of vaccinations. Most vaccines are preserved with mercury. Asthma, liver disorders, depression, mental retardation in children, autism and dermatitis are some of the conditions that have been linked to mercury poisoning. Good nutrition should be the key to combating illness.

Enjoy your healthy child!

Further reading

1. www.soyonline-service.co.nz
2. www.campaignfortruth.com
3. www.mercola.com
4. Ashton G. Milk – more than you bargained for? *SA Journal of Natural Medicine* 2005; **18**: 18-19.
5. Ashton G, Schmidt A. The soya debate – decide for yourself. *SA Journal of Natural Medicine* 2004; **14**: 54-58.