

Food and active play in the first year of life



Nutrition

The first year of life is exciting and eventful for parents and babies, as dramatic changes in growth and eating patterns occur. Moving from breast or formula feeding alone to a diet including solid foods is important for a child's growth and development.

Baby's growth in the first 12 months

Babies grow quickly in the first year of life, so they need plenty of energy and nutrients. Growth is not always steady and even, but can happen in spurts, which means that appetite and hunger can be unpredictable. The amount of food eaten by infants and their interest in food may change from day to day - this is normal and shouldn't cause any concerns if your baby is growing well, and is generally happy and healthy. If you are concerned at any stage ask your GP or maternal and child health nurse for advice.

When does baby need solid foods?

Breast milk or infant formula is important for babies until at least 12 months of age. Most babies are ready to learn to eat at around six months of age. At this age, baby's iron stores are low and food is needed to promote healthy growth and development.

Babies are all different; some are ready to have solids earlier than others. Watch your baby for the following signs as a guide.

How can I tell when baby is ready for solids?

At the same time that baby needs more nutrition, you may see signs they are ready to start solids such as:

- can sit with support and has good head control
- watching others eat, and leaning forwards when food is around
- opening mouth when food is offered
- reaching out to grab food and spoons

You may see some of these signs from an early age, but for most babies breastmilk or infant formula is all they need until around six months.

If baby is not yet ready when food is offered, they may:

- push their tongue out
- close their mouth tightly and turn their head away
- cry
- push the spoon away

If this happens at your first attempts to feed baby, stop, relax and try again in a few days.

Most babies spit food out when first given solids as it takes time and patience for baby to learn to eat. Stop offering food if your baby is upset, and try again another day.

Try to learn your baby's signs of when they are hungry or full, disinterested, or tired. Offer food at times when you and your baby are happy and relaxed. If your baby has special needs, discuss the best timing for solids with your health care professional.

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What can happen if solids are started too early or too late?

Some parents want to try solids early, thinking this may help baby grow, sleep or settle better. Giving solids too early (especially before four months) may lead to:

- less breastmilk produced
- increased infections
- a greater chance of developing food allergies
- poor growth if the food replaces breast milk or formula
- loose bowel actions or diarrhoea if baby cannot digest the food

Offer hungry babies more breastmilk or formula feeds until they are ready for solids.

Starting solids too late may lead to:

- poor growth due to low energy intake
- nutrition deficiencies (especially iron)
- greater risk of food allergies
- feeding problems, particularly if lumpy textured food is not started before around 8 months of age

What is the best way to introduce food?

Offer food on a small infant-sized spoon – don't add food to a feeding bottle or squeeze it directly into baby's mouth.

- choose a time that suits both you and your baby when you can both be calm and relaxed
- make sure baby is sitting comfortably and is not too hungry or too full, or distressed. For example offer one teaspoon of first foods between milk feeds
- the first few weeks are more about learning to eat and having fun than nutrition, as your baby tries new tastes and textures
- be patient and prepared; babies make a mess as they learn to eat
- start with one or two foods at a time so your baby can experience the taste of each new food and learn about new food routines. Introduce one new food at a time to encourage learning about flavours and textures; for example each day or so
- babies may refuse new foods when first offered. It may take several times before a new food is accepted
- stay with baby when they are eating. Let them sit with the family at mealtimes to watch and learn
- baby may only take a spoonful at first, but this will increase with time and practice
- increase the number of meals offered each day once baby eats 2-3 tablespoons at a time

- learn together about your baby's eating. Respond to their cues; increase the amount and type of foods as your baby shows interest. And don't keep trying to feed your baby if they are full, tired or irritable

What foods should I introduce first?

Recommended first foods for baby include:

- infant cereals (with added iron), vegetables, fruit, fish, meat, chicken, cooked tofu and legumes
- also offer other cereals, egg, bread/toast, pasta, rice, nut pastes, toast fingers and full fat dairy foods such as cheese, yoghurt and cow's milk in cereal
- try to introduce single foods rather than a mixture to help your baby learn about each new flavour and texture
- continue breastfeeding or infant formula while foods are introduced through the first year of life
- first foods can be mashed, smooth or in pieces depending on your preference

First foods are low cost and can be prepared easily at home. Commercial baby foods can be useful but do not teach your baby about tastes of individual foods. These products are also more expensive.

When do I change the texture of food?

- if first solids are finely mashed and smooth, quickly increase textures to include coarsely mashed and pieces of food to encourage chewing (even if teeth have not come through), and acceptance of new foods
- encourage finger foods such as pieces of cooked vegetables and crusts at about seven months to encourage chewing and self-feeding
- give baby a small spoon to self-feed, even while you continue to give most food. Expect a mess as baby learns these important skills
- encourage drinking water from a cup from about six months of age. Ideally bottles should be stopped from around 12 months
- by 12 months, encourage a wide variety of healthy foods. Chopped up family meals and finger foods assist with physical development and encourage children to learn to eat independently
- eating meals together with family members encourages children to develop healthy eating habits into the future

What about food allergy?

These recommendations are the same for babies with a family history of food allergy. Some of the previous recommendations to avoid foods like egg, peanut butter, wheat or fish no longer apply. For infants that have food allergy, seek advice from your health care provider.

When can I use cow's milk?

Small amounts of full fat cow's milk on cereal, yoghurt and custard can be added into your baby's diet after six months. Cow's milk should not be your baby's main drink until after one year of age. Cow's milk is a poor source of iron and is never a substitute for breast milk or formula in babies under 12 months. After 12 months, around 2 cups of cow's milk or dairy products are recommended.

Reduced fat milks are not recommended in the first two years of life.

What to avoid?

- it is not necessary to add salt, sugar or other additives to your baby's food
- processed foods with high levels of fat, sugar and/or salt (eg cakes, biscuits, chips, fried foods) are not recommended for infants
- avoid small hard foods such as nuts and uncooked vegetables, due to the risk of choking
- fruit juice, cordial, soft drinks, flavoured water, unpasteurised milks, soy milk, goat milk, rice/oat milks, caffeinated drinks, tea, coffee and herbal drinks are all not recommended for infants
- avoid raw egg and honey due to risk of bacteria
- avoid sharing spoons or other utensils to protect baby's new teeth from bacteria coming from your mouth

Active play

- parents are the best 'toy' for their baby. Babies respond best to faces (especially their parents), bold patterns and strong colours
- rhythm and music are important; they help to develop listening skills, language and coordination, and are a good way to encourage playful movements
- indoor or outdoor settings can be used for play, as long as your baby is supervised and safe. Playing games with your baby helps their body and brain to develop

'Tummy time'

From an early age, put your baby on their tummy for a few minutes each day to help their muscles develop. This can be any time you carry, position or play with babies while they are on their stomach. By one year of age, baby will have learnt about body movements and developed strength, body awareness and the physical skills needed for rolling, grasping, sitting, crawling and standing. For this reason babies need plenty of opportunities to play on their tummy during waking hours. You can get down on the floor with your baby, or place toys or objects around your baby that encourage grasping, leg kicking and head lifting. 'Tummy time' is safe and beneficial when babies are awake and supervised but never put your baby on their tummy to sleep. Always put your baby on their back to sleep, from birth. Safe sleeping habits can decrease the risk of SIDS and sleeping accidents.

Screens

Watching television or using screens such as computers, iPads or phones are not recommended for babies in the first two years of life. These do not have any health or educational benefit, and can reduce baby's time spent playing actively.

Important tips about first foods

- start foods at around six months – watch for signs your baby is ready as a guide
- try to introduce single foods rather than a mixture to help your baby learn about each new flavour and texture
- continue breastfeeding or infant formula while foods are introduced through the first year of life
- first foods can be mashed, smooth or in pieces depending on your preference. Increase food textures and variety of foods offered
- it is not necessary to add fat, salt, or sugar to your baby's foods
- there is no need to delay or avoid foods like egg, peanut paste, wheat, cow's milk and fish to prevent food allergy or eczema. Even in babies with brothers or sisters with allergies
- learn to recognise when your baby is interested in eating and when they are full
- be patient, foods may be spat out at first when learning to eat new textures
- encourage self-feeding when your baby shows interest
- stay with your child while eating to encourage social interaction and learning about eating; and to avoid choking accidents
- mealtimes should be social, fun, relaxed and happy
- be a positive role model – children learn to eat by watching other people
- encourage a wide variety of foods such as fruits, vegetables, cereal, meat, fish, chicken, egg, tofu, lentils, pasta, rice and bread. Offer full-cream cow's milk as a drink after 12 months of age
- seek advice from your GP or Maternal and child health nurse if worried about your infant's growth, appetite or development

Important tips about active play

- Spend time playing with your baby every day
- Encourage regular 'tummy time' from a very early age
- Provide daily play opportunities through a wide variety of interactions with parents and carers, and toys or play objects suitable for your child's age
- Avoid television or other screen devices for children under two

Nutrition

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