NHS

Healthy feeding
Healthy weight

Hello, this booklet has been written for you following discussions with local parents. It contains information they said would help support them with their decisions about feeding their babies. Parenting is tough with lots of outside influences, pressures and advice and it can be hard to have the confidence that what you are doing is best for your baby. Whether you choose to breast, bottle or mixed feed, becoming overweight is your baby's biggest health risk although, importantly, breastfeeding can help prevent later weight problems and is definitely healthiest. All parents want their baby to grow up healthy and happy. We hope reading this booklet, even before your baby is born, will provide more tips and facts about feeding so that you can give your baby the best start in life.

The following topics are covered

- Bonding, attachment and responsive feeding.
- How do I know when my baby is hungry?
- How much should I feed my breast or bottle fed baby?
- Healthy growth and weight gain for all babies.
- Tips to prevent your baby becoming overweight
- Feeding your baby when out & about
- Starting solid foods
- Tips for toddlers and older children
- Going back to work.

The link below will lead you to more very useful information

- www.unicef.org.uk/babyfriendly/baby-friendly-resources/leaflets-and-posters/
- www.firststepsnutrition.org/

Bonding, attachment and responsive feeding

Attachment is the two-way bond that develops between you and your baby as you communicate with each other by touch as well as talking. Strong attachment helps your baby's brain to grow, particularly the part of the brain that is important for communicating and forming relationships with others. Your baby feels safe, secure and loved and so learns to love others.

Feeding is a really important time for developing this bond whether you choose to breast or bottle feed. It isn't just about giving your baby energy to grow into a healthy child and adult. Responsive feeding describes how you recognise and respond to your baby's hunger signals or 'cues'. Hold your baby close to you, make eye contact and talk in a loving way. Learn to understand when your baby is no longer hungry and trust your baby's feeling of fullness. Sometimes your baby will only want to feed for a few minutes, sometimes for much longer, in the same way we sometimes just want a drink and a quick snack and at other times a three course dinner!

Is my baby hungry? How often should I feed my baby?

Look for early feeding cues. They may start to wriggle when they wake up, find something to suck especially their hands. Crying is a late sign and you may need to soothe your baby before trying to feed. Remember crying does not always mean your baby is hungry. They may want a cuddle or need their nappy changing. They may have drunk too much and feel uncomfortable or are feeling unwell.

There are a few differences between responsive breast and bottle feeding:

Responsive breastfeeding

- A baby will not breastfeed if they do not want to, so it is fine to offer the breast whenever you or your baby wish, including when your baby seems distressed. Breastfed babies are in control of their feeding and cannot be overfed or 'spoiled' by frequent feeding. A sit down and a cuddle, even if they do not take much milk, will help your baby develop trust and security.
- On the other hand parents often worry that they do not know how much milk a breastfed baby is taking. Part of this is learning to trust your body and to trust your baby to know what they need. You should expect support from your midwife and health visitor to learn how to know your baby is feeding well by knowing, for example, how many wet & dirty nappies to expect.

Responsive bottle feeding

- When a bottle is put into your baby's mouth, milk comes out of the teat with little or no effort from the baby. As the milk touches the back of the tongue, it triggers the swallow reflex and your baby has to swallow the milk to avoid choking. It is easy to interpret this as a signal that your baby is definitely hungry. For this reason it is very easy to over-feed a baby from a bottle whether it contains formula or expressed breastmilk. This puts your baby at risk of gaining too much weight.
- So it is important to recognise when your baby is getting full. This is easier to do by "pacing". This means letting your baby pause every few sucks to see if they want to stop feeding, taking the bottle out of your baby's mouth and then only starting again if they draw the teat into their mouth themselves. Never force the teat into your baby's mouth or keep trying to feed if your baby turns their head away or pushes the teat out with their tongue. If the bottle is still half full so be it.
- To help attachment keep the number of people who bottle feed your baby to a minimum – ideally just you and your partner or one other close family member.

How much should I feed my baby in the first few days?

- Your baby's stomach is very small in the first few days and they will only want small amounts of milk at each feed.
- Breast fed babies control the amount of milk they **take** from the breast. The health professional looking after you will be able to help guide you to recognise that your baby is taking enough milk.
- Babies being bottle fed are **given** the milk so are at risk of being over fed. Remember they have a small stomach and your baby will probably want to have small amounts but more often than when they are older.
- Bringing up small amounts of milk is normal and is usually a sign that your baby has had enough milk for that feed. Speak to your health professional for advice if you are unsure.

Pace the feed

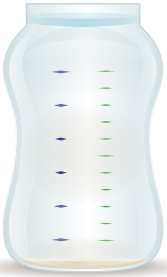
- A breast fed baby will usually be able to control how much milk they want and will stop taking milk when they are full.
- A bottle fed baby is not always able to do this and you will need to control the amount of feed you give your baby. Use the pacing technique mentioned above to help you judge this.

Overfeeding bottle fed babies

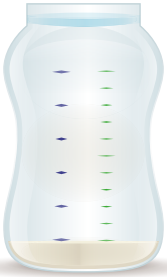
- Overfeeding your baby can make them be sick and put on too much weight.
- Feeding your baby large amounts does not mean they will sleep for longer between feeds. In fact, it can make them more uncomfortable and less able to settle.
- Overfeeding your baby in these early weeks can increase their risk of being overweight as a child and adult.

Size and volume of a newborn's stomach

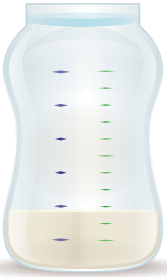
Did you know? This picture shows the approximate size of your baby's stomach and how much milk it can hold at each feed.

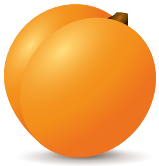


Day one
Size of a cherry
5-7ml/0.2oz

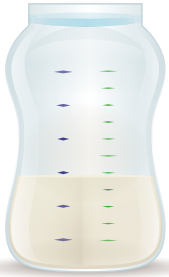


Day three
Size of a walnut
22-27ml/0.75-1oz





One week
Size of an apricot
45-60ml/1.5-2oz



One month
Size of a large egg
80-150ml/2.5-5oz

Responsive feeding of expressed and formula milk

- Hold your baby close to you, look into their eyes to help them feel safe and loved.
- Hold your baby fairly upright, with their head supported in a comfortable, neutral position.
- Rub the teat gently against your baby's lips to encourage them to open their mouth wide and draw the teat into their mouth. Do not force the teat into your baby's mouth.
- Hold the bottle level, in line with the ground (horizontal), and then tilt the bottle upwards enough to ensure your baby is taking in milk and not air through the teat.
- Babies feed in bursts of sucking, swallowing and short rests. As your baby is in a fairly upright position, when they pause for a rest the milk will stop flowing allowing them to decide when they are ready to start sucking again.
- During the feed you will see bubbles in the bottle. If you can't see any bubbles, break the suction between your baby's tongue and the teat by moving the teat slightly to the side of their mouth. You should then see bubbles rushing back up into the remaining milk.
- Interrupting the feed from time to time gives your baby a chance to register how full they are and allows them to control what they want. It also gives them the chance to bring up any wind.
- Try to keep the number of people who feed your baby to as few as possible. If another close family member gives an occasional feed, make sure they use the same technique as you so that your baby does not feel frightened or confused.
- Your baby should always be held and never left unattended while feeding from a bottle.
- Do not try to make your baby finish the bottle if it is clear they have had enough.
- Do not use a fast flow teat as babies can find it difficult to control their breathing if they are forced to swallow large volumes of milk quickly.

TOP TIP when bottle feeding

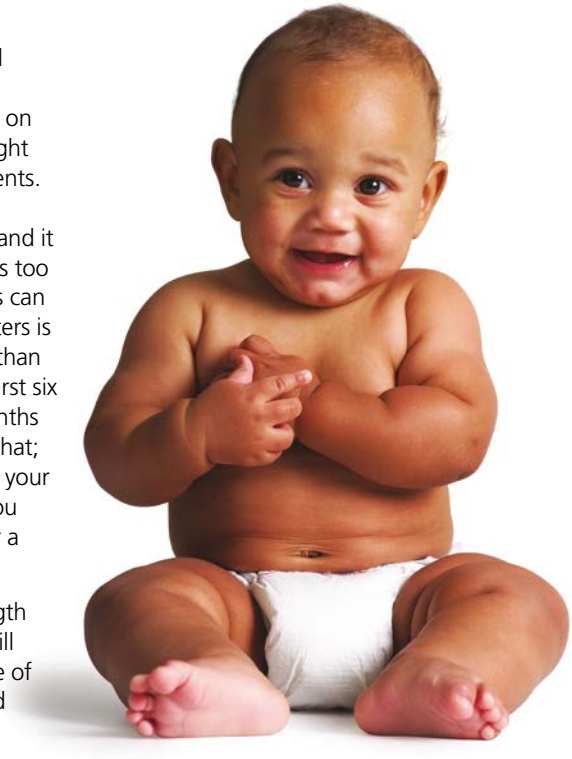
Hold your baby in an upright position and keep the bottle more horizontal rather than facing downwards. Stop the feed regularly to give your baby a rest.

Healthy growth and weight gain

Children and adults are all shapes and sizes, most of which are healthy. In this section we want to explain the growth charts and help you understand what you can do to help your baby grow up healthy and happy.

In your Personal Child Health Record (PCHR) you will find growth charts. Do read the information pages that come with them. The charts describe the growth patterns of thousands of normal, healthy, breastfed babies and toddlers from around the world and older children from the UK. Healthy bottle fed babies should follow the same growth patterns as breastfed babies. The lines are called 'centiles' and they simply describe how your baby's weight, length and head circumference compares with other children of the same age and sex. For example – if your baby's weight is on the 25th centile this means that if you weighed 100 babies of the same age and sex and ranked them from light to heavy, 75 babies would be heavier than yours and 24 lighter. We expect a baby to gain weight along one of these centiles or in their own channel between two of the centile lines. Which centile is healthy for your baby depends on where they started out – their birth weight - and factors they inherit from their parents. There is no 'best' centile. There will be variation above and below their centile and it is wise not to weigh and measure babies too often because these natural fluctuations can cause unnecessary concern – what matters is the pattern over time. Usually no more than monthly weights are necessary for the first six months, every two months from six months to a year and every three months after that; unless there are particular concerns and your health care professional requests that you have your baby weighed more often for a period of time.

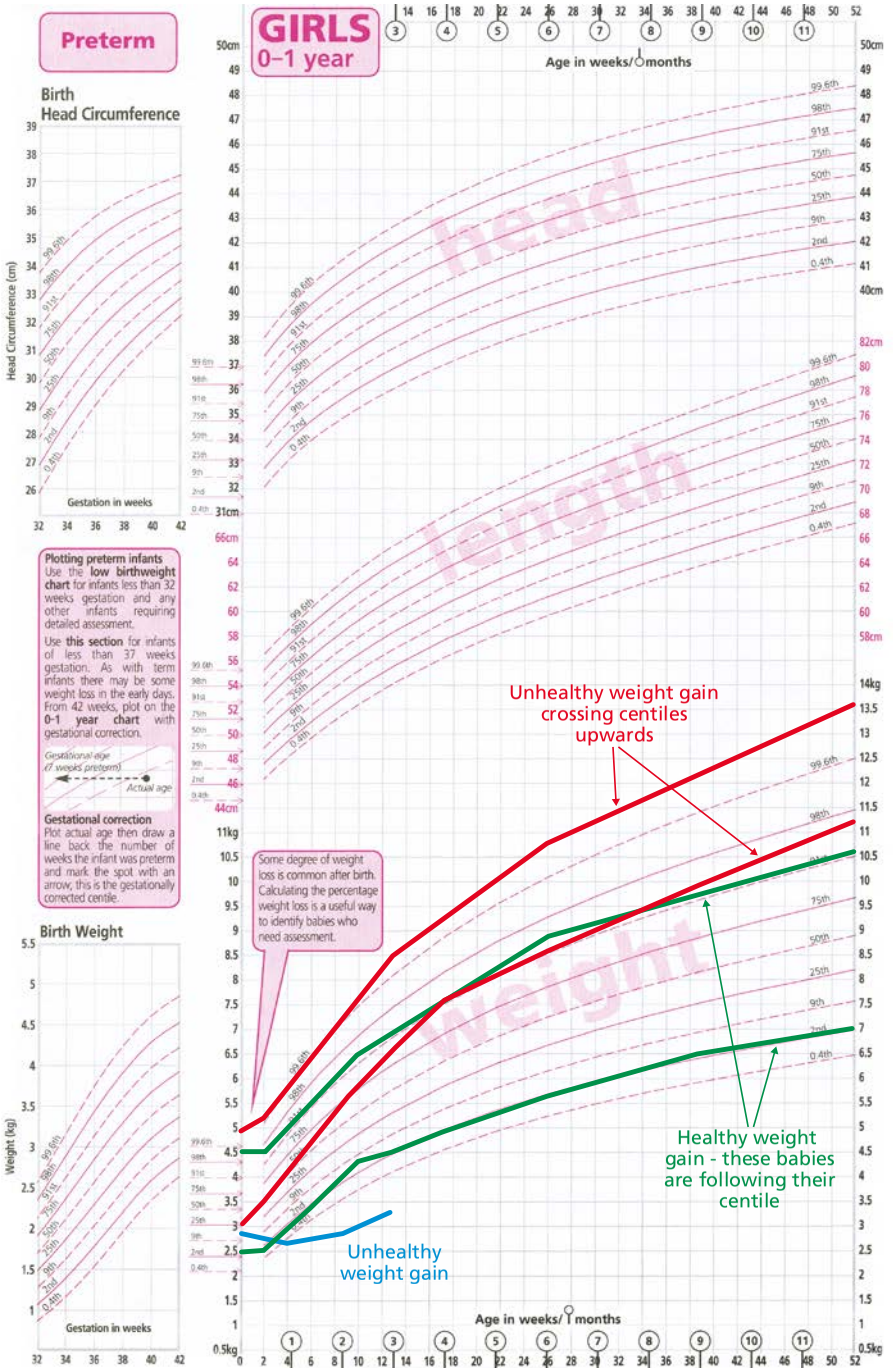
Generally speaking a healthy baby's length and weight will be 'in proportion' i.e. will have their length and weight within one of the major centile lines of each other and certainly no more than two.



Weight problems

Weight is fantastic for assessing the health of a baby. Crossing centiles up and down may be a cause for concern. Historically most emphasis has been on monitoring babies who appear to be gaining weight too slowly – and your midwife and health visitor will watch out for this. It is likely to become apparent quite early on and the most common cause is difficulties with feeding. It is normal – and healthy - for a baby to lose some weight in the first few days of life and only if this exceeds 10% will your midwife be concerned. There is some evidence that this early weight loss helps 'set' appetite and feeding patterns for the rest of the child's life. These days poor weight gain is pretty rare and for this generation we are much more worried about babies who cross the centiles upwards across the chart because this is very unlikely to be healthy. The illustration shows several typical patterns of weight gain - healthy and unhealthy.

Growth chart



Overweight and Obesity

This is never an easy topic to broach but it is, without doubt, the most worrying risk to the future health and happiness of your baby. The research evidence is absolutely clear:

- Eating and activity habits and food preferences start to develop early in life - in the first few days and weeks
- Overweight and obesity impair normal childhood development
- Overweight babies and toddlers are at least five times more likely to be overweight at the age of 12 than those who were a healthy weight in infancy.
- Child obesity tracks into adulthood – at least 70% of obese children, even those as young as 5 years, will go on to become obese adults.
- Obese children are at greater risk of serious long-term health problems, including heart problems, Type 2 diabetes and various cancers. We are now seeing conditions that were previously unheard of in children and teenagers such as Type 2 diabetes, early signs of fatty liver disease (the commonest cause of irreversible liver disease) and clogging of the arteries.
- The emotional consequences of obesity in childhood can be severe and long-lasting, including bullying, low self-esteem and social exclusion.

Rather than trying to manage children and teenagers who already have weight problems we want to help you prevent your baby becoming one of the 25% (1 in 4) who are overweight or obese when they start school in contrast to the less than 1% (1 in 100) who are underweight. Obesity prevention is one of the key targets of the Healthy Child Programme.

Do's and don'ts to help prevent your baby becoming overweight or obese

Do

- Breastfeed
- Remember responsive feeding
- Understand your baby's feeding cues
- Only give your baby milk to drink
- Understand the growth charts
- Let us help with your efforts to prevent your baby becoming overweight

Don't

- Give your baby more milk if they drain their bottle. When you finish your dinner it doesn't mean you want another one!
- Give your baby plenty of milk during the day hoping that they will sleep through the night sooner – they won't
- Start solids before six months
- Reward with sweets and treats
- Forget activity – this is a really important factor and the earlier you can get your baby active the better. However it is very difficult to control weight simply by increasing activity.
- Feel guilty if your baby becomes overweight – we know that the earlier it is spotted the better the chances of success in helping your baby return to a healthy weight
- Think we think this is easy! Being a parent is rarely straightforward but you are responsible for what your child is allowed to eat and drink – by you or other carers.

Myths about weight

'Obesity is inherited'

No it isn't. The obesity 'epidemic' has developed over the past 20 years but our genes haven't changed in that short time – they take generations to alter. Instead our lifestyles have altered and eating behaviour tends to run in families. Try to make your family healthier – it's worth it!

'Breastfed babies cannot become overweight'

Yes they can. It is much rarer but happens. The longer you breastfeed the lower the risk. Breastfeeding is only partly protective and the choices you make about starting solids, the portion sizes, the foods you offer and swapping to bottle feeding will all have an impact.

'My baby is always hungry'

No, they aren't. Many families describe this and are tempted to either give up breastfeeding, try milks for hungrier babies (which are unnecessary) or introduce solids too early. Remember that babies cry for all sorts of reasons and it is important to recognise the difference between hunger cues and a baby who is crying about something else. Provided your baby is growing and gaining weight along their centiles they do not need any extra calories.

'My baby will slim down when they start exercising'

This is unlikely. Feeding habits start to develop in the first days and weeks of life. Not only are babies who are overweight at a year of age highly likely to be overweight when they start school, but they also have higher blood pressure. Yes – health differences even at a year!

'A big baby is a healthy baby'

Only if designed to be. We come in all shapes and sizes. It does not matter where your baby is on the growth charts provided they are not crossing the centiles up or down and their weight is within one major centile of their length. There is no 'best' centile. Encouraging your baby to cross the centiles upwards is rarely healthy even for a baby born small.

'We are a big-boned family'

Body Mass Index (BMI) allows for this. BMI is a simple index of weight-for-height that is commonly used in classifying overweight and obesity. Most of you will know that a healthy BMI for adults is somewhere between 19-25, a range which allows for some people having a larger frame or being 'big-boned' – this is not a reason for having a higher than healthy BMI. In growing children, the healthy range varies with age and there are BMI charts for children over two. Your health visitor can show you these.

Safe bottle feeding

- Always wash your hands before preparing any feed, expressed breast milk or formula
- Always follow the manufacturer's instructions for your chosen sterilising method
- Make up one bottle of formula feed at a time as per Department of Health Guidelines
- Do not add extra scoops of formula to a bottle

For more advice and information see

- www.unicef.org.uk/babyfriendly/baby-friendly-resources/leaflets-and-posters/
- www.firststepsnutrition.org/

Feeding your baby when out and about

Breastfeeding

This is the easiest way to feed your baby when out and about. You do not need to take any equipment with you, just yourself. Breast milk is the correct temperature, amount and no preparation required.

How do I re-heat my expressed breast milk?

From the fridge

- Your expressed breast milk can be used straight from the fridge.
- Warm your milk gently by placing the container in some warm water.
- Try not to overheat your milk.

From the freezer

- Try to defrost your breast milk in the fridge and use it within 12 hours of removing from the freezer.
- If you need to use your breast milk quickly, and it is still frozen, place the container under cool, then warm, running water.
- Use your defrosted milk immediately.

We do not recommend using a microwave to warm any of your baby's milk or food. Microwave cooking causes hot spots which can burn your baby's mouth.

Did You Know?

To support breastfeeding mothers to feel more confident to feed their baby in public, Breastfeeding Welcome Schemes are being introduced in many towns and cities. Private and public sector buildings are welcoming mothers to breastfeed their baby.

Remember you are protected by law to breastfeed in public.

Formula Milk

Premade formula

This is the easiest way to feed your baby formula when out and about.

- Take an empty sterilised bottle with you and transfer the pre made formula.
- Pre made formula cartons/bottles can be stored in a cool bag with an ice pack and used within four hours once opened.
- To warm the milk, place the bottle in a container of warm water. Always test the milk on the inside of your wrist to make sure it is not too hot for your baby.

Powdered Formula

- The best way is to take a good quality vacuum flask of boiling water with you.
- A full flask of 17.5oz (525mls) of boiling water should stay at over 70°C for three hours. There is evidence that smaller amounts of water might not stay at the required 70°C and therefore not kill any bacteria in the powder.
- Add the correct amount of water to the pre sterilised bottle and add the correct amount of powdered formula.
- Cool the feed before giving it to your baby.

Formula Preparation Machines

At present there is no published research and insufficient evidence that these machines are safe in preparing infant formula. The Department of Health recommend that powdered infant formula is made up with freshly boiled water and left for no more than 30 minutes so that it remains at a temperature of at least 70 degrees.

Starting solid foods

Babies just need breastmilk or an appropriate first infant formula for around the first six months of life. From six months they are likely to start showing the signs of readiness for the introduction of solids alongside breast milk or formula.

Sometimes families think that a baby who is waking in the night when they have previously slept through, wanting extra milk feeds or chewing their fists is ready for solids. These are just normal behaviours when a baby grows and develops, not signs of hunger.

Even if your baby is bigger than other babies of a similar age, it doesn't mean they will need to start solids any earlier than six months.

If you think your baby is ready for solid foods before six months, or before all three illustrated signs appear, it is a good idea to talk to your health visitor or health care professional first.

Your baby is ready if they can:

Stay in a sitting position and hold their head steady

&

Co-ordinate their eyes, hands and mouth so that they can look at the food, pick it up and put it in their mouth all by themselves

&

Swallow food. Babies who are not ready will push their food back out, so they get more round their face than they do in their mouths!

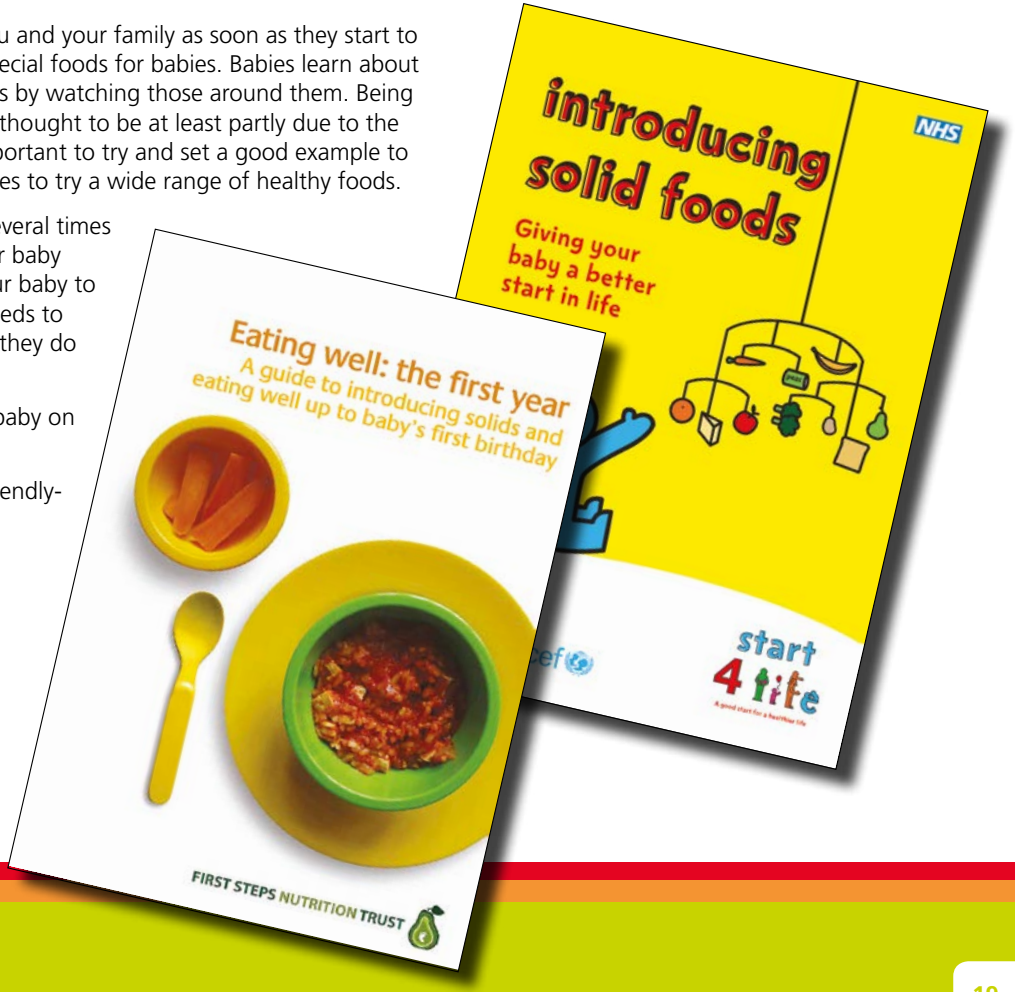
It's rare for these signs to appear together before six months.

Babies need to be included in meals with you and your family as soon as they start to eat solid foods. There is no need to make special foods for babies. Babies learn about enjoying food & how to behave at mealtimes by watching those around them. Being overweight often runs in families and this is thought to be at least partly due to the eating behaviours they see at home. It is important to try and set a good example to your baby by giving them lots of opportunities to try a wide range of healthy foods.

Sometimes babies need to try a new food several times before they accept it, so do not worry if your baby spits out foods to start with. Never force your baby to eat – just as with milk feeding, your baby needs to understand when they have had enough so they do not put on too much weight.

For further information about starting your baby on solid foods see:

- www.unicef.org.uk/babyfriendly/baby-friendly-resources/leaflets-and-posters/
- www.firststepsnutrition.org/



Tips for Toddlers and Older Children

Preventing and managing weight problems isn't just about diet - it is also about behaviour around eating. Children - especially toddlers - need clear boundaries. Don't let all those good eating habits disappear as your baby gets older. These are some tips for enjoying food and preventing problems:

- Make mealtimes a family and social event. Sit together at a table and turn off the TV. This also encourages slower eating which in turn reduces the volume we eat. We all tend to eat more when distracted by a screen.
- As they begin to finger feed and use a spoon let your baby feed themself – they are pretty good at regulating what they need whereas we tend to keep encouraging more. At mealtimes allow older children to serve themselves.
- Set boundaries about eating - children often demand food or insist they are hungry when you know they have had enough to eat. They are often bored and/or thirsty.
- Don't let your older children get into the habit of helping themselves to food from the cupboards or fridge between meals - again this is often a sign of boredom and the calories soon add up. Make sure they always ask and if you think they have had enough to eat or there is a meal coming up, do not allow it.
- Remember that being hungry is normal as a mealtime approaches - otherwise we would have no appetite. Children need to learn to wait.
- Do not worry if your toddler refuses something to eat – adults create fussy children because we tend to over interpret likes and dislikes. In fact, children cannot make real choices much before they reach 4 to 5 years. Offer them what you expect them to eat with obvious allowances. If they choose not to eat it do not be tempted to offer something else – they will eat when they are hungry.
- Try to avoid drinks laden with sugar - this includes pure fruit juice. These are also not good for teeth! Tooth decay is totally preventable.
- Try not to reward with food and do not let others either. If grandparents want to offer treats suggest sticker books, reading books or an outing instead.

Did You Know?

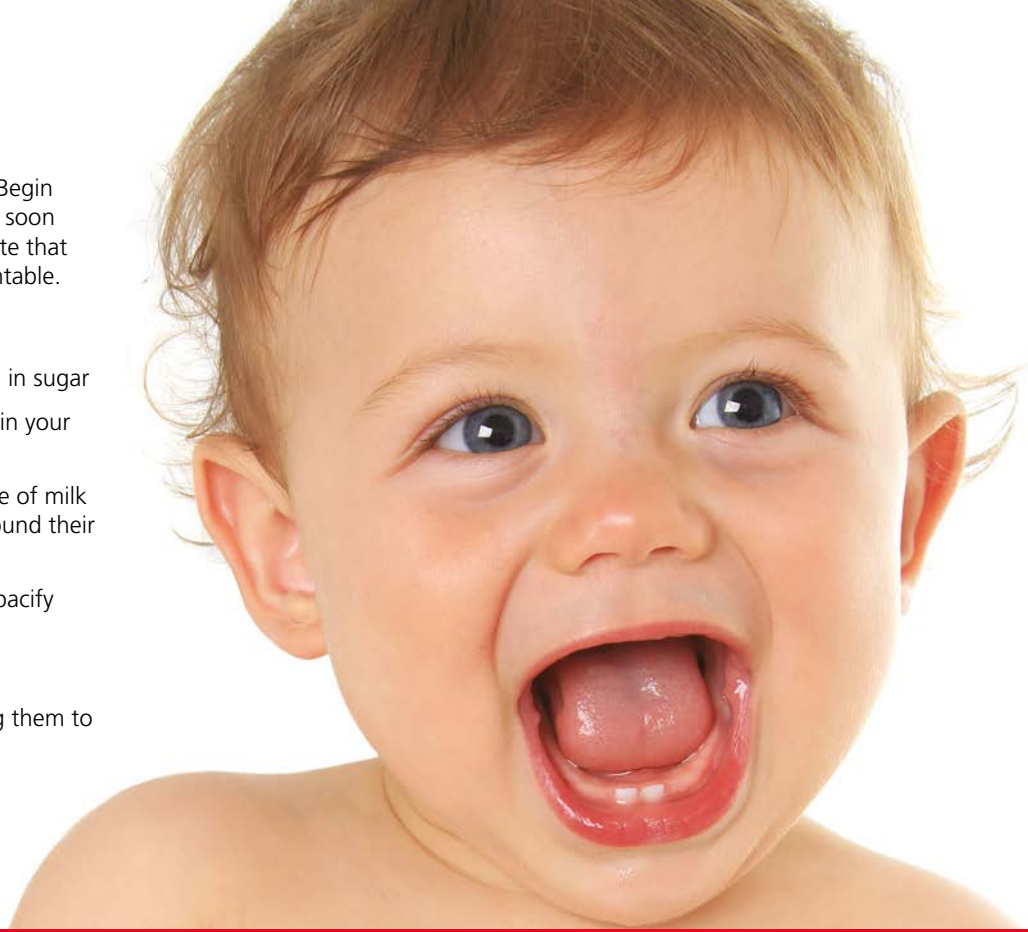
Healthy eating habits begin to develop in the first few days and weeks of life – this is the time to start preventing your baby becoming overweight

Dental health

A poor diet can also affect your baby's teeth. Begin to brush baby's teeth twice a day every day as soon as they appear. Use a small smear of toothpaste that contains fluoride. Tooth decay is totally preventable.

Tips for healthy teeth

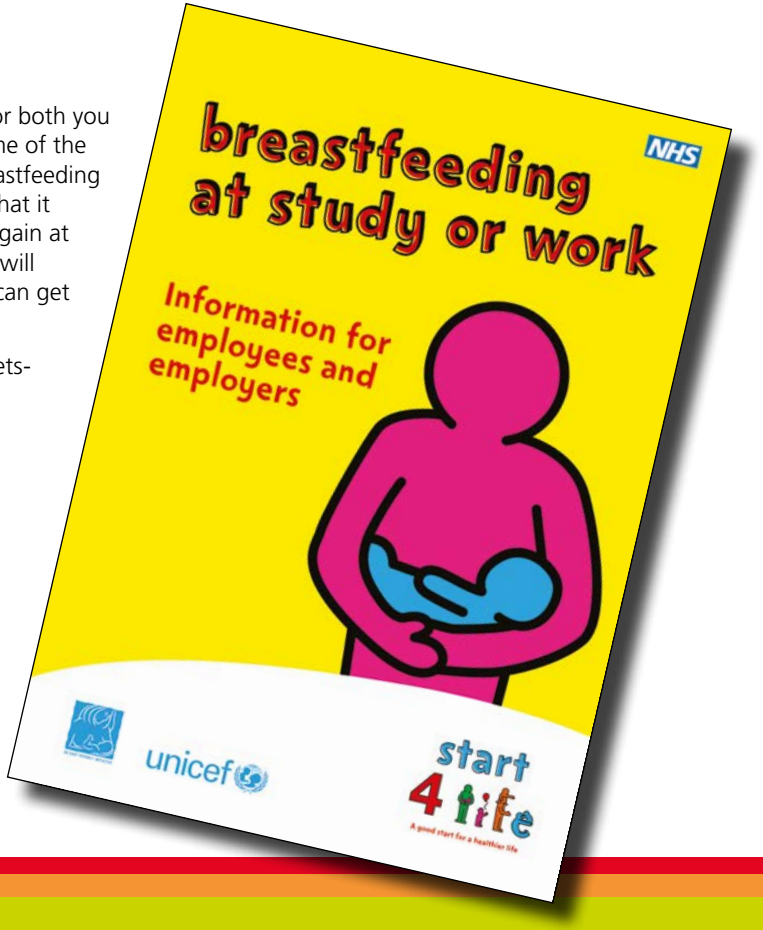
- Don't offer your baby foods or drinks high in sugar
- Don't offer anything except milk or water in your baby's bottle
- Don't let your baby or toddler take a bottle of milk to bed and fall asleep with milk pooling round their teeth
- Don't dip dummies in anything sweet, or pacify children with sweet foods
- Do introduce a cup from six months
- To get your baby used to it, do start taking them to the dentist as soon as their teeth appear



Returning to work

When the time comes for you to return to work, it is beneficial for both you and your baby if you are able to carry on breastfeeding, even some of the time. Your will both continue to get the health benefits from breastfeeding as well as being able to continue to enjoy that special closeness that it brings – it is a lovely way to be reunited when you are together again at the end of your working day. It is worth thinking about how you will manage this several weeks before you go back to work and you can get help with this from your health visitor or from the following:

- www.unicef.org.uk/babyfriendly/baby-friendly-resources/leaflets-and-posters/



Made in collaboration with

Portsmouth & South East Hampshire Maternity Services Liaison Committee

NHS Portsmouth Hospitals NHS Trust

NHS Solent NHS Trust

Made on behalf of

NHS West Hampshire Clinical Commissioning Group

NHS South Eastern Hampshire Clinical Commissioning Group

NHS Fareham and Gosport Clinical Commissioning Group

NHS North Hampshire Clinical Commissioning Group

NHS North East Hampshire and Farnham Clinical Commissioning Group

NHS Southampton City Clinical Commissioning Group

NHS Portsmouth Clinical Commissioning Group

© Copyright reserved South Eastern Hampshire Clinical Commissioning Group

March 2017. Designed by NHS Creative – CS40649