



## 0-6 MONTHS

Every baby is different but one thing that is consistent is that breastfed babies need feeding more frequently than bottle-fed ones. That is because breastmilk is easily digested and empties from the stomach more quickly than formula.

### BREASTFED BABIES

Newborns should be given 8-12 feeds daily for the first few weeks of life. It is important that these babies do not go for more than 4 hours without feeding – even if it means waking them up.

#### AT 1-3 MONTHS

Babies will feed 7-9 times in 24 hours.

#### AT 3 MONTHS

Feeding will reduce to 6-8 times in 24 hours.

#### AT 6 MONTHS

Babies will feed around 6 times a day.

Introducing solids at about 6 months helps to satisfy baby's additional nutritional needs.

### BOTTLE-FED BABIES

Just like breastfed babies, bottle-fed newborns should be fed on demand. Baby knows best but a typical schedule may be:

#### NEWBORN

Every 2-3 hours.

#### AT 2 MONTHS

Every 3-4 hours.

#### AT 4-6 MONTHS

Every 4-5 hours.

The above are examples only. Every baby will behave differently.

Orange Dairy recognises that breastmilk provides balanced nutrition and protection, making it the best food for babies. But when families and healthcare providers decide that it is not possible to breastfeed, infant formula plays an important role in providing essential nutrients and is the only breastmilk substitute recognised by the World Health Organization.

## MONTHLY DEVELOPMENT

### ONE MONTH

By the end of the first month, babies should be able to move their head up while lying on their tummy, recognise their mother's voice, search for and suck from breast or bottle, grip small objects and follow objects with their eyes.

### TWO MONTHS

Babies should be awake for longer, be more alert, able to sit with their back supported on parent's lap, briefly hold a rattle or toy and look at people who are talking.

### THREE MONTHS

Babies have good control of their head when seated, can rest on their forearms while lying on their tummy, are able to chuckle and smile, able to make eye contact and show excitement by waving arms and legs.

### FOUR MONTHS

Babies can roll their body from front to back, clutch at objects, laugh out loud, listen to people who are talking and recognise their mother.

### FIVE MONTHS

Babies are now able to move objects from one hand to the other, make a wider variety of sounds, grasp a dangling object and show interest in all sorts of different objects.

### SIX MONTHS

By the end of this month, babies may be making babbling sounds like 'Baba', showing preference for a particular person, recognising familiar faces, trying to hold their bottle while drinking and looking to the floor when they drop a toy.

## BREASTFEEDING

### MEETING CHANGING NEEDS

During each feed, mothers first produce 'foremilk', which is watery, rich in lactose (sugar) and is designed to satisfy baby's thirst. During the feed, milk flow slowly decreases, and 'foremilk' is replaced with 'hindmilk', which is rich in fat and satisfies baby's hunger.

But this wonder food does not just contain carbohydrates, proteins, fats and water to keep baby hydrated. There is also a long list of ingredients, the levels of which fluctuate over time depending on baby's age and needs. **They include:**

- ✔ Millions of live cells, such as immune-boosting white blood cells and stem cells to help organs develop and heal.
- ✔ Over 1000 proteins that help activate baby's immune system and protect neurons in the brain.
- ✔ More than 20 different amino acids. Some, called nucleotides, increase at night and may induce sleep.
- ✔ 200 complex sugars called oligosaccharides that act as prebiotics, feeding 'good bacteria' in baby's gut. They also prevent infections entering the bloodstream and lower the risk of brain inflammation.
- ✔ Over 40 enzymes that speed up chemical reactions in the body, such as aiding baby's digestive and immune systems and helping absorption of iron.
- ✔ Growth factors that support development of intestines, blood vessels, nervous system and the glands that secrete hormones.
- ✔ Lots of hormones; chemicals that send messages between tissues and organs, helping to regulate baby's appetite, sleep patterns and even the mother-baby bond.
- ✔ Vitamins and minerals that help support healthy growth and organ function, as well as helping build baby's teeth and bones.
- ✔ Several long-chain fatty acids which play a major part in building baby's nervous system as well as aiding healthy brain and eye development.
- ✔ 1,400 micro RNAs which are thought to regulate gene expression, help prevent or halt disease development and support baby's immune system.

Although this is a long list, it is only some of the ingredients in breast milk – and scientists are still discovering more.

## BREASTFEEDING continued...

### MATERNAL HEALTH

Mothers who are breastfeeding do not need to eat special foods, but it is a good idea to eat a healthy diet. **That might include:**

- ✓ At least 5 portions of a variety of fruit and vegetables a day, including fresh, frozen tinned and dried fruit and vegetables, and no more than one 150ml glass of 100% unsweetened juice.
- ✓ Starchy feeds such as wholemeal bread, pasta, rice and potatoes.
- ✓ Plenty of fibre from wholemeal bread and pasta, breakfast cereals, rice, pulses such as beans and lentils, and fruit and vegetables. After having a baby, some women have bowel problems and constipation, and fibre helps with both of these.
- ✓ Protein such as lean meat and chicken, fish, eggs, nuts, seeds, soya foods and pulses. No more than 2 portions of fish a week is recommended, including 1 portion of oily fish.
- ✓ Dairy foods such as milk, cheese and yoghurt as these contain calcium and are a good source of protein.
- ✓ Non-dairy sources of calcium suitable for vegans include tofu, brown bread, pulses and dried fruit.
- ✓ Drinking plenty of fluids – water and skimmed or semi-skimmed milk are good choices.

Mothers should be aware that small amounts of what they eat or drink can pass to baby through breast milk. If they think what they are eating or drinking may be affecting baby and making them unsettled, mothers should talk to a healthcare professional. **Some other things to be aware of include:**

- ✓ All adults should consider whether they need to take a daily supplement of 10mcg of vitamin D per day. From late March to September, the majority of people over 5 years of age will probably get enough vitamin D from sunlight while they are outdoors. All other vitamins and minerals that are needed should be available from a healthy diet
- ✓ Although two portions of fish are recommended per week, no-one should eat more than one portion per week of shark, swordfish or marlin. One portion is around 140g
- ✓ Smoking involves harmful chemicals that can be passed into breastmilk. Because nicotine reduces the prolactin that is responsible for mother's milk production, it may affect the quantity as well as the quality of breastmilk
- ✓ Caffeine is a stimulant and can reach babies through breastmilk, making them restless. Breastfeeding mothers should restrict their caffeine intake to 200mg a day. Caffeine is present in tea, coffee, chocolate, some soft drinks and energy drinks and also in some cold/flu remedies
- ✓ Mothers who are breastfeeding should consult their doctor or pharmacist before taking any medicine. This includes prescription, over-the-counter, complimentary or alternative medicines
- ✓ Peanuts and foods containing peanuts like peanut butter, can be eaten as part of a balanced diet – assuming no history of peanut allergy. There is no evidence that eating peanuts while breastfeeding affects baby's chances of developing peanut allergy

## INFANT FORMULA

Isilac recognises The World Health Organization's recommendation as the optimum method for the healthy growth and development of babies. However, if milk supply decreases or stops, or if mothers have a health condition that prevents breastfeeding, formula milk is recommended.

### HOW MUCH TO FEED

Every baby is different. How much and how often they feed will depend on their individual needs. As they grow, the amount of formula they take at each feed will increase and the frequency of feeds will decrease, but amounts will also vary from day to day. It is best to follow baby's lead and they should never be forced to finish a bottle. If they fall asleep, they've had enough. If they are still interested in the bottle when it is empty, they're probably still hungry.

A wide variety of formula milks are available so it is important that babies are getting the right formula for their age – babies from 0-6 months should be given a 'starter' or 'first' formula. All infant formula brands provide guidelines of how much to feed, depending on age and it is important that they are followed. The recommended amounts of Isilac 1 are shown below. Please note these are for guidance only and do not apply to premature or low-weight babies.

AGE OF BABY	PREVIOUSLY BOILED WATER (ML)	LEVELLED SCOOPS	FEEDS PER DAY
0-1 Week	60	2	7
1-2 Weeks	90	3	6
2-4 Weeks	120	4	5
1-2 Months	120	4	5
2-4 Months	150	5	5
4-6 Months	180	6	4

## INFANT FORMULA *continued...*

### **BOTTLE FEEDING**

Bottle feeding is a chance to get close to baby. Babies feel more secure if most feeds are given by a parent or caregiver. It is important to be sitting comfortably with baby close, and to look into their eyes and talk to them while feeding. Baby should be held in an upright position for bottle feeds, with their head supported so they can breathe and swallow comfortably. The bottle teat should be brushed against baby's lips, allowing them to draw in the teat when they open their mouth. Babies need to be given plenty of time to feed and should never be left alone with a propped-up bottle due to the possibility of choking on the milk.

The teat should be placed gently in baby's mouth with the bottle in a horizontal position (just slightly tipped). This should allow the milk to flow freely and help prevent baby taking in air. If the teat goes flat during feeding, it is necessary to pull gently on the corner of baby's mouth to release the suction. If the teat gets blocked, it should be replaced with another sterile teat.

All babies are different, and they know how much milk they need. Some want to feed more often than others. It is important to follow baby's lead and feed when they are hungry and not to worry if they do not finish the bottle. Any unused milk should be thrown away once baby has finished feeding. The feed should only be made up when needed – one feed at a time.

If babies swallow air while bottle feeding, they may feel uncomfortable and cry. They will need to be burped. Some babies need burping during their feed, some after. If baby seems uncomfortable while feeding, a burping break may be appropriate. If they seem fine while feeding, burp them when they have finished. Baby may bring up some milk while burping so it is a good idea to have a 'burp cloth' or muslin square handy. This is normal and nothing to worry about. **There are several ways to burp baby:**

### **OVER THE SHOULDER**

With baby's chin resting on your shoulder, support baby's head and shoulder area with one hand, and gently rub and pat baby's back. It may help to walk around as this is being done.

### **SITTING ON THE LAP**

Sit baby on your lap, facing away from you. Place the palm of your hand flat against baby's chest and support their chin and jaw (don't put any pressure on the throat area). Lean baby forwards slightly and with your free hand, gently rub or pat baby's back.

### **LYING ACROSS THE LAP**

Lie baby across your lap face down. Supporting their chin (don't put pressure on the throat area), use your free hand to gently rub or pat baby's back.

## INFANT FORMULA *continued...*

### FORMULA FEEDING AWAY FROM HOME

To feed baby away from home, parents should take the following with them:

- ✔ A measured amount of formula powder in a small, dry and clean container.
- ✔ A vacuum flask of hot water that has been boiled.
- ✔ An empty sterilised feeding bottle with cap and retaining ring in place. The vacuum flask does not need to be sterilised, but should be clean, and only used for baby. The boiling water should kill any bacteria present in the flask. If the flask is full and sealed, the water will stay above 70°C for several hours.

A fresh feed should only be made when baby needs it. The water must still be hot when used in order to kill any bacteria in the formula powder.

The bottle (with the lid on) should be cooled under cold running water before it is fed to baby.

Alternatively, a carton of ready-to-feed liquid formula could be used when away from home.

### TRANSPORTING A MADE-UP FEED

If it is not possible to follow the advice above or if it is necessary to transport a feed (for example to a nursery), the feed should be prepared at home and cooled under a running tap or a bowl of cold water, and cooled for at least one hour in the back of the fridge.

It should be taken out of the fridge just before leaving, carried in a cool bag with an ice pack and used within 4 hours. If there is no ice pack or access to a fridge, the made up infant formula must be used within 2 hours.

#### **If made-up formula is stored:**

- ✔ In a fridge – use within 24 hours.
- ✔ In a cool bag with an ice pack – use within 4 hours.
- ✔ At room temperature - use within two hours.

## FEEDING ISSUES

In the first few months of life, feeding issues are very common in babies, although the reason for them is often unclear. Over half of babies will experience functional gastrointestinal disorders (FGIDS) in their first 6 months, but thankfully, most will resolve as baby matures.

### REFLUX

Reflux is very common and is sometimes also called 'regurgitation', 'possetting' or 'spitting up'. It usually starts before a baby is 8 weeks old and disappears before they are one year old. It most often happens because baby's food pipe (oesophagus) is not fully developed so milk can come back up easily. **Symptoms of reflux in babies include:**

- ✓ Bringing up milk or being sick during or shortly after feeding.
- ✓ Coughing or hiccupping when feeding.
- ✓ Being unsettled during feeding.
- ✓ Swallowing or gulping after burping or feeding.
- ✓ Crying and not settling.
- ✓ Not gaining weight as they're not keeping enough food down.

Sometimes babies may have signs of reflux but will not bring up milk or be sick. This is called silent reflux.

There are a number of things that parents can do to help ease reflux. They include holding baby upright during feeds and for as long as possible afterwards, burping baby regularly during feeds, giving formula-fed babies smaller feeds more often and making sure baby sleeps on their back – never on their side or front.

However, mothers do not need to change their diet if breastfeeding and the head of baby's cot or Moses basket should not be raised. Parents should consult their doctor if things are not improving after trying the above, if baby gets reflux for the first time after they are 6 months old, is older than 1 year and still has reflux, or is not gaining or is losing weight. **An urgent doctor's appointment is needed if baby:**

- ✓ Has vomit that is green or yellow or has blood in it.
- ✓ Is projectile vomiting (being sick with more force than usual).
- ✓ Has blood in their pee.
- ✓ Has a swollen or tender tummy.
- ✓ Has a very high temperature or they feel hot or shivery.
- ✓ Keeps being sick and cannot keep fluid down.
- ✓ Has diarrhoea that lasts more than a week or has signs of dehydration.
- ✓ Will not stop crying and is very distressed.
- ✓ Is refusing to feed.



## FEEDING ISSUES continued...

### COLIC

Colic is when a baby cries a lot but there is no obvious cause. It is a common problem that usually resolves by 3 or 4 months but can be upsetting for both baby and parents in the meantime. All babies cry but a baby may have colic if they cry more than 3 hours a day, 3 days a week for at least one week – but are otherwise healthy. They may cry more often in the afternoon and evening. **It may also be colic if while they are crying:**

- ✔ It is hard to soothe or settle baby.
- ✔ They clench their fists.
- ✔ They go red in the face.
- ✔ They bring their knees up to their tummy or arch their back.
- ✔ Their tummy rumbles or they are windy.

Most babies with colic do not need to see a doctor. A health visitor will usually suggest things that may help, like holding or cuddling baby when they are crying a lot, holding baby upright during feeding to stop them swallowing air, burping baby after feeds and gently rocking baby over the shoulder. Other things that may help include rocking baby in their Moses basket, pushing them in their pram, giving them a warm bath or having gentle background noise (like TV or radio) to distract them. Parents should feed baby as usual. **Parents know better than anyone else what their child is usually like and should consult their doctor if:**

- ✔ They are worried about baby's crying.
- ✔ Baby has colic and nothing seems to be working.
- ✔ Parents are finding it hard to cope.
- ✔ Baby is not growing or putting on weight as expected.
- ✔ Baby still has symptoms of colic after 4 months of age.

If baby's cry does not sound like their usual cry or if it is weak or high-pitched, parents and baby should go immediately to A&E.

## **FEEDING ISSUES** continued...

### **LACTOSE INTOLERANCE**

Although it is relatively uncommon, some babies are lactose intolerant. The condition occurs in babies who find it hard to digest the natural sugar (lactose) that is found in breastmilk and infant formula. The usual cause is the temporary insufficiency of an enzyme called lactase. This is found in baby's gut and helps to digest lactose.

Symptoms include diarrhoea, more wind than usual, tummy pain/discomfort/bloating and stomach gurgling. Lack of weight gain may also occur, but this is unusual. The symptoms sometimes overlap with those of cow's milk protein allergy and it may be necessary to consult a GP to get a diagnosis.

Lactose intolerance is often temporary, but a lactose-free diet will be needed until the situation is resolved. For breastfeeding mothers, it is not necessary to adopt a lactose-free diet. Research has shown that this does not change the amount of lactose in breastmilk. After consulting with a healthcare professional, it may be helpful to give baby lactase enzyme drops. For babies who are formula-fed, a lactose-free formula milk like Isilac LF may be the answer.

If baby has started solids, foods containing lactose like cow's milk, yoghurt and cheese should be avoided. However, it is important to re-introduce these foods into baby's diet once symptoms have improved as they contain calcium, which is important in building strong bones and teeth. Most babies with lactose intolerance will be able to tolerate a certain amount of lactose.

## THE ISILAC RANGE

### Optimal growth, Development & Protection.

Research has shown that there are differences in the way the constituents in infant formulas are absorbed, which may have a bearing on growth and development. Isilac milks are advanced formulas that have been developed to mimic breastmilk as closely as possible and to meet the needs of infants from birth onwards.

#### Products in the Isilac range benefit from:

- ✓ The highest standards of manufacturing procedures and quality (GMP, HACCP).
- ✓ Optimal digestion and metabolism.
- ✓ Optimal GI tolerability.
- ✓ Optimal growth and healthy weight gain.
- ✓ Optimal psychomotor, visual and mental development.
- ✓ Optimal bone mineralisation and strength of bone.
- ✓ Protection from micronutrient deficiency e.g. IDD, IDA, etc.
- ✓ Optimal immune response and protection with key ingredients HMO and GOS & Nucleotides.

400g



**ISILAC 1**

Infant formula for babies 0-6 months providing high protein for optimal growth.

400g



**ISILAC 2**

Follow-on formula for babies 6-12 months, designed to encourage the growth of beneficial bacteria while meeting the needs of a growing baby for increased calories, calcium, iron and protein.

400g



**ISILAC 3**

Growing-up milk for infants from 1 year, providing balanced calories and nutrients.

70ml



**ISILAC RTF**

Starter formula for babies 0-6 months is also available as a ready-to-feed preparation.

