Supporting Breastfeeding and use of Infant Formula



Breastfeeding – benefits to the infant

The World Health Organization (WHO) and the Australian Infant Feeding Guidelines recommend that infants be exclusively breastfed for around the first six months of life. They also recommend breastfeeding continue until 12 months of age or beyond, for as long as the mother and infant desire.

⚠ Every infant is different, and feeding should always take into account how each individual is growing and developing. It is important to acknowledge that some babies cannot be breastfed for a variety of reasons, and in these cases infant formula is a safe alternative (see page 3).

Breastfeeding and the transition to early childhood education and care

When starting care, there are additional barriers to continuing breastfeeding. Returning to paid work is one of the most commonly cited reasons that mothers stop breastfeeding earlier than they had planned. The anticipation of going back to work, or actually returning, has a significant impact on a mother's breastfeeding experience. This is due to barriers such as: short maternity leave, inflexible working hours, no paid breaks for expressing milk, no suitable place at work to express and store milk, and a lack of accessible childcare. These factors can cause reductions in breast milk supply, creating more challenges with maintaining breastfeeding.

Because of these barriers, some mothers feel that breastfeeding will have to stop when they go back to work. However, with the right support from the ECEC service, this does not have to be the case.

What services can do to support breastfeeding

For an ECEC service, supporting breastfeeding means making it easy for families who have chosen to breastfeed. Every family makes their own feeding choices. Language and attitudes in ECEC should support whatever choice a family has made, without pressure.

Practical strategies to support breastfeeding families in ECEC include:

- Be a 'breastfeeding welcome' service – clearly communicate that breastfeeding is welcome. The idea around this communication is to make it clear that the mother does not need to stop breastfeeding when their infant starts ECEC. This can be done through signs/posters/stickers that breastfeeding is welcome, or through open direct communication with families.
- If the facilities are available, provide a welcoming, private space. A comfortable, private area where a mother can breastfeed or express milk when she visits the service sends a clear message that breastfeeding is welcome. This does not need to be a dedicated room – a comfortable chair, a sign, and some privacy, are enough for many mothers.

Types of specialist support for breastfeeding

ECEC educators are not breastfeeding counsellors and should not offer clinical breastfeeding advice. For mothers requiring breastfeeding support, or who have reached the end of their breastfeeding journey and want advice, this could include:

Australian Breastfeeding Association

www.breastfeeding.asn.au

For mothers who need clinical assessment or hands-on support:

- **Australian Breastfeeding Association Breastfeeding Counsellor –** Volunteers able to provide support and offer strategies to resolve breastfeeding challenges
- **Lactation consultant –** Work in hospitals, child health services, or private practices, able to provide complex medical care, hold an International Board Certified Lactation Consultant (IBCLC) qualification
- **Maternal and child health nurse –** Registered Nurses and Midwives, provide help with child feeding, behaviour and bonding
- **General practitioner –** Can provide general support or refer to other services/professionals

Expressing and storing breast milk

Expressing breast milk

Expressing breast milk requires significant time, effort, and planning from mothers and families. The process needs careful timing, sterilised equipment, clean and safe storage and preparation areas, and consideration whilst transporting to ECEC.

Storage and preparation of expressed breast milk

Expressed breast milk is a food, and like any food it is prone to bacterial growth or contamination if not stored correctly.

Receiving and storage

When storing expressed breast milk, it is important to follow these steps:

- Wash hands with soap and water before and after handling bottles or containers containing expressed breast milk.
- Check that expressed breast milk arrives labelled, and in a sealed container.
- Ensure expressed breast milk is correctly labelled with the child's first name, surname and date of expression.
- Store expressed breast milk immediately in the refrigerator below 5°C.
- Store expressed breast milk in a non-spill tray on the bottom shelf of the refrigerator to ensure it doesn't spill onto any other food in the fridge.
- Expressed breast milk can be stored by families in food grade, BPA-free glass or plastic containers, including sealable plastic bags.
- Gloves are not required when handling expressed breast milk, as long as hands are clean, dry, and the skin is not broken.

The length of time expressed breast milk can be stored varies depending on whether it is fresh, refrigerated or frozen and thawed. Table 1 below (from the *Australian Infant Feeding Guidelines*) outlines the recommended lengths of time for storing expressed breast milk.

Special consideration: For infants who are premature or unwell, more stringent storage requirements may apply. For infants with complex health needs, seek guidance from a GP or maternal and child health nurse before following routine storage guidance.

Transporting expressed breast milk to the service

When families bring in expressed breast milk to an ECEC service, it must be transported correctly to reduce the risk of bacterial growth in the milk. Expressed breast milk should be transported to the service in labelled, sterile bottles or containers that have been placed into an insulated container, such as an Esky. The insulated container should be filled with enough freezer bricks to keep the expressed breast milk cold until it is dropped off at the service.

Once at the service, the bottles of expressed breast milk should be checked and re-labelled if necessary and placed immediately into the service's refrigerator.

If frozen expressed breast milk partially thaws during transport, it should be used within 24 hours and must not be refrozen.

Any bottles of expressed breast milk that have not been fed from by the end of the day should be returned to the family or discarded.

TABLE 1: *Length of time expressed breast milk can be stored (excerpt from NHMRC Infant Feeding Guidelines, p58)*

Breast milk status	Storage at room temperature (26°C or lower)	Storage in refrigerator (5°C or lower)	Storage in freezer
Freshly expressed into sterile container	6–8 hours If refrigeration is available store milk there	No more than 72 hours Store at back, where it is coldest	2 weeks in freezer compartment inside refrigerator (–15°C) 3 months in freezer section of refrigerator with separate door (–18°C) 6–12 months in deep freeze (–20°C)*
Previously frozen (thawed)	4 hours or less – that is, the next feeding	24 hours	Do not refreeze
Thawed outside refrigerator in warm water	For completion of feeding	4 hours or until next feeding	Do not refreeze
Infant has begun feeding	Only for completion of feeding Discard after feed	Discard	Discard

* Chest or upright manual defrost deep freezer that is opened infrequently and maintains ideal temperature

Thawing, preparing and warming expressed breast milk

Thawing frozen expressed breast milk

- Frozen expressed breast milk can be thawed slowly overnight in the refrigerator or thawed quickly by placing the sealed bottle or bag in a bowl of warm water. As the water cools, add a little more warm water and keep moving the container until the milk is fully liquid.
- Do not leave frozen expressed breast milk to thaw at room temperature.
- Once thawed in the refrigerator, expressed breast milk can be stored for up to 24 hours in the fridge or used at room temperature within 4 hours. It must not be refrozen.

Warming expressed breast milk

- To avoid the growth of bacteria, bottles of expressed breast milk must only be heated once and never be re-cooled and then reheated.
- Warming expressed breast milk in a container of warm water for 15 minutes or less is the preferred method of heating. Before feeding to an infant, check the temperature of the milk by dropping some onto your wrist and making sure it is about body temperature or slightly cooler. Warming milk in the microwave is not recommended as the risk of scalding the infant is too high due to the uneven heating of the milk.

After the feed

- Discard any warmed expressed breast milk that has not been used at the end of a feed. Expressed breast milk must not be frozen or heated more than once.

Infant formula – preparing infant formula

Types of formula

Infant formula

Infant formulas available in Australia are regulated by the Australia New Zealand Food Standards Code. Infant formula can provide the nutrients an infant requires from 0-12 months of age, and are a safe alternative to breast milk. Some formulas, such as extensively hydrolysed formulas are used under medical supervision for infants who cannot digest regular cow's milk-based formula.

Follow-on formula

Follow-on formulas are designed for babies 6 months and older. However, infant formula is still appropriate from 6 months of age, and there is no evidence that follow-on formula has advantages over infant formula at this age.

Toddler milks

After 12 months of age, toddlers should be getting all of their nutrition from solid food, with full-fat cow's milk offered as a drink alongside water and breast milk if the mother chooses to continue.

Toddler milks are not recommended under international guidance on infant and young child feeding, and they are not part of Australia's dietary guidance for young children.

Some infants are prescribed limited amounts of toddler milk to fill nutritional gaps by health care professionals. For example, if the child is a selective eater, or to boost nutritional intake after a period of illness.

Preparing infant formula

In most ECEC services, families bring infant formula from home, either as powder to be mixed at the service or as ready-to-feed liquid. Whichever is used, the same food safety rules apply. An infant formula that is not prepared, stored, and warmed correctly puts an infant at serious risk of bacterial infection or scalding.

Incorrect preparation is a real risk. The most common mistakes are not washing hands, not sterilising bottles and teats properly, using a microwave to warm infant formula, and not discarding infant formula that has been standing at room temperature for too long. All of these can make an infant seriously unwell.

Before starting

Before preparing a bottle of infant formula:

- Wash hands thoroughly with soap and water
- Make sure the work surface is clean
- Use only clean, sterilised bottles, teats, caps and equipment.
- Ensure the formula tin is labelled with the date it was opened (the tin should be discarded one month after opening)
- Label the bottle with the child's first and last name and the date it was prepared

Correct preparation of infant formula

Infant formula can be correctly, and safely, prepared for infants by following the advice in Table 2 below.

TABLE 2: *Preparation of infant formula (excerpt from NHMRC Infant Feeding Guidelines, 2012)*

- Always wash hands before preparing infant formula and ensure that infant formula is prepared in a clean area
- Wash bottles, teats, caps and knives – careful attention to washing is essential – and sterilise by boiling for 5 minutes or using an approved sterilising agent
- Boil fresh water and allow it to cool until lukewarm – to cool to a safe temperature, allow the water to sit for at least 30 minutes (in places with clean water supply which meets Australian standards, hot water urns such as hydroboils are safe to use for formula reconstitution, provided the supply of very hot water has not been depleted)
- Ideally prepare only one bottle of infant formula at a time, just before feeding
- Always read the instructions to check the correct amount of water and powder as shown on the feeding table on the back of the pack – this may vary between different infant formula brands
- Add water to the bottle first, then powder
- Pour the correct amount of previously boiled (now cooled) water into a sterilised bottle
- Always measure the amount of powder using the measuring scoop provided in the product tin, as scoop sizes vary between different infant formula brands
- Fill the measuring scoop with formula powder and level off using the levelling device provided or the back (e.g. flat edge) of a sterilised knife – the measuring scoop should be lightly tapped to remove any air bubbles
- Take care to add the correct number of measuring scoops to the water in the bottle – do not add half scoops or more scoops than stated in the instructions
- Keep the measuring scoop in the product tin when not in use – do not wash the scoop as this can introduce moisture into the tin if not dried adequately
- Place the teat and cap on the bottle and shake it until the powder dissolves
- Test the temperature of the liquid with a few drops on the inside of your wrist – it should feel just warm, but cool is better than too hot
- Feed infant – any infant formula left at the end of the feed must be discarded
- A feed should take no longer than 1 hour – any infant formula that has been at room temperature for longer than 1 hour should be discarded
- Infant formula that has been at room temperature for less than 1 hour may be stored in a refrigerator for up to 24 hours (in a sterile container)
- Discard any refrigerated feed that has not been used within 24 hours
- When a tin of infant formula is finished, throw away the measuring scoop with the tin, to ensure that the correct measuring scoop is used next time

Preparing infant formula in advance

Some services prefer infant formula to be provided in its original, unopened packaging and prepared on-site. Check with your service about their requirements.

- Prepare one bottle of infant formula at a time whenever possible. If it is necessary to pre-prepare infant formula, follow the steps below to ensure it is kept food safe.
- Pre-prepared infant formula must be refrigerated at 5°C
- Pre-prepared infant formula must be used within 24 hours
- Warm pre-prepared infant formula in a container of warm water for a maximum of 15 mins
  - Microwaving infant formula is not recommended as the heating is uneven and there is a risk that the infant could be scalded
- Do not rewarm infant formula that has already been warmed once
- Discard any pre-prepared infant formula after a feed – it cannot be stored

Families may bring prepared infant formula from home. If they do, it must have been refrigerated before transport and kept cold in transit. Apply the same receiving and storage rules as for expressed breast milk – page 2 for transporting guidance and Table 3 below.

Transporting infant formula to the service

Preparing infant formula at the service is preferred, rather than families bringing in pre-prepared infant formula. This is because there is an increased risk of bacterial growth in the infant formula if it has not been stored properly on the journey from home to the service. If it is necessary to transport pre-prepared infant formula, Table 3 applies:

TABLE 3: *Transporting infant formula feeds (excerpt from NHMRC Infant Feeding Guidelines, 2012)*

- Prepare the feed and put in the refrigerator
- Ensure feed is cold before transporting
- Do not remove feed from the refrigerator until immediately before transporting
- Transport feed in a cool bag with ice packs
- Use feeds transported in a cool bag within 2 hours, as cool bags do not always keep foods adequately chilled
- Re-warm at the destination (for no more than 15 minutes)
- If the destination is reached within 2 hours, feeds transported in a cool bag can be placed in a refrigerator and held for up to 24 hours from the time of preparation

Families can also bring sterilised bottles of cooled boiled water and separate infant formula powder to mix at the service. Single-serve sachets of infant formula powder are another option. Always check the manufacturer's instructions.

Sterilising bottles and equipment

Bottles, teats and lids must be sterilised before every use. Wash all equipment thoroughly in hot soapy water first, then sterilise using one of the three methods below.

Boiling

Boiling is a safe and reliable method of sterilising infant bottles and feeding equipment. Follow the steps outlined in Table 4 to ensure optimal results.

TABLE 4: *Sterilisation by boiling (excerpt from NHMRC Infant Feeding Guidelines, 2012)*

• Wash bottles, teats and caps in hot soapy water with a bottle/ teat brush before sterilisation
• Place utensils, including bottles, teats and caps in a large saucepan on the back burner of the stove
• Cover utensils with water, making sure to eliminate all air bubbles from the bottle
• Bring water to the boil and boil for 5 minutes. Turn off – do not allow it to boil dry
• Allow the equipment to cool in the saucepan until it is hand hot and then remove it – be very careful if children are present
• Store equipment that is not being used straight away in a clean container in the fridge
• Boil all equipment within 24 hours of use

Chemical sterilisation

Chemical sterilants are an effective alternative to boiling. See Table 5 below for guidance.

TABLE 5: *Sterilisation using chemicals (excerpt from NHMRC Infant Feeding Guidelines, 2012)*

• Follow the manufacturer's instructions carefully when making up the solution to ensure the correct dilution
• Discard the solution after 24 hours, thoroughly scrub the container and equipment in warm water with detergent and make up a new solution
• Make sure all equipment is made of plastic or glass: metal corrodes when left in chemical sterilant
• Completely submerge everything, making sure there are no air bubbles, and leave it in the solution for at least the recommended time – equipment can be left in the solution until it is needed
• Allow the equipment to drain, do not rinse off the sterilising liquid or there will be a risk of re-contamination
• Store the sterilising concentrate and solution well out of the reach of children

Steam sterilisation

Electric steam sterilisers heat equipment using steam in order to kill bacteria that could contaminate feeds. Clean the equipment first before using the electric steriliser and operate using the instructions provided by the manufacturer. The unit turns itself off automatically when complete. Microwave steam sterilisers work on the same principle – follow the manufacturer's instructions.

Providing infant formula

Formula requirements during ECEC care hours

The amount of infant formula a baby needs depends on their age, size, how fast they are growing and what else they are eating. Babies commonly have 6–8 feeds every 24 hours, but there's no set amount of food or number of feeds each baby should have. Different babies drink different amounts of infant formula or breastmilk. Some might have feeds close together and others further apart. Some babies have predictable feeding patterns, whereas other babies change their feeding times each day.

Although infant formula tins are required to provide a guide about amounts of infant formula to make up and how often to offer a bottle, each baby should be fed according to their needs and hunger cues. It is normal for babies to leave some formula in a bottle at the end of a feed, and for them to drink more some days and less on others.

As a baby eats more and more solid food, the total amount of bottle feeds they take in a day will decrease.

The amount of breastmilk or infant formula will also decrease as a baby starts to drink from a cup instead of a bottle. It is important to focus on hunger and 'had enough' cues throughout the day.

Using a feeding cup – for both infant formula or breast milk

- For infants over 6 months of age, a feeding cup may be used rather than a bottle for expressed breast milk or infant formula.
- A cup can be a useful option when a baby refuses a bottle or is transitioning away from one. Some breastfed infants who will not accept a bottle may accept a cup more readily.
- In areas where sanitation and clean water are a problem, cup feeding is a safer option compared to bottle feeding
- Feeding cups containing breast milk or formula should be sterilised up to the age of 12 months.

Responsive feeding practices for expressed breast milk and infant formula

The aim of every bottle feed, whether the bottle contains expressed breast milk or infant formula, is to create a comfortable, safe experience for the infant and the adult using responsive feeding. Responsive feeding means responding to an infant's cues rather than aiming to finish a set amount. This includes the infant actively guiding the pace and amount of each feed.

Strategies to adopt



Contact (including eye contact) is important.

Hold, cuddle and talk to the infant while feeding – ensuring to respond to hunger and 'had enough' cues.



As much as possible, provide a calm bottle feeding environment.

For example, reduce noise, clutter, etc.



Signs that all is well include plenty of wet nappies (6 or more across a whole day), consistent (not excessive) weight gain and growth, and a thriving active infant.



Be conscious of whether the teat flow is right for the child.

If feeding looks uncomfortable, the infant is gulping rapidly, pulling away, or there is a lot of milk running from the corners of the mouth, consider whether the teat is right for the infant.



For both breastfed and formula-fed infants – it is important to feed according to hunger and 'had enough' cues.

Examples of hunger cues include mouthing, searching, rooting, flexing arms and legs, and sucking fingers and fists.

Examples of 'had enough' cues include turning away their head, closing their mouth, or becoming distracted.

Things to avoid



Never leave an infant to feed on their own (e.g., with the bottle propped up).

This may cause spluttering or choking as milk may flow too quickly.



Do not rush the feed, the infant should be given the opportunity to pause if desired before continuing.



Never put an infant to sleep drinking from a bottle – this increases risk of choking, ear infection and dental caries.

Monitoring an infant's progress

Families are the experts on their own infant. What happens at the service, how the infant is fed, how long the feed took, and how they settled afterwards, is valuable information for the family.

A healthy infant is generally alert and responsive when awake, with bright eyes and firm skin with good elasticity. Changes in alertness, unusual unsettledness, or signs that an infant is not their usual self are worth a discussion between educators and families – either at the end of the day or sooner if there are concerns.

Behaviour

After a feed, most infants are content and settled. However, many infants have a period each day, often in the late afternoon or evening, when they want to feed more frequently and will not settle easily. This is a normal feeding pattern, not a sign that the infant is hungry or that something went wrong during the day.

Families often arrive at pickup during this unsettled period. If an infant is more unsettled than usual at the end of the day, it can be reassuring to know if this is a common pattern.

Feeding patterns

Feeding patterns involve how often a baby feeds, how much they consume at each feed, and how quickly they feed. Every infant has their own feeding pattern, and it changes as they grow. Feeding patterns are not a great indicator of whether a baby is feeding well. What matters is that the baby is content after feeds, is gaining weight consistently, and is showing hunger and 'had enough' cues that are being responded to.

Bowel actions

What an infant's stool (poo) looks like depends on what they are fed, and it changes as they get older.

Breastfed infants

A breastfed infants poos are typically loose, runny, and mustard-yellow, sometimes with small white specks that look like milk curds. They may also occasionally be green or orange.This is completely normal. Runny poos in a breastfed infant are not diarrhoea and do not mean anything is wrong; they are simply what a breastfed infant's poo looks like.

Frequent and runny stools can be viewed as a positive sign that the infant is getting enough milk, not a cause for concern. How often a breastfed infant poos also varies a lot. Some infants poo after nearly every feed; others may go several days without one. For an infant receiving only breast milk, going several days without a poo is not usually a cause for concern, as long as the infant is otherwise well.

Many breastfed infants' strain, grunt, or go red in the face before passing a motion. This can look uncomfortable, but it is a normal response; it does not mean the infant is constipated. Constipation is about whether the poo is hard and dry, not about how much effort an infant makes to pass it. Infants who are exclusively breastfed are rarely constipated. Hard, dry stools are more likely when formula or solid foods are introduced.

Formula-fed infants

Formula-fed infants generally poo less often than breastfed infants, and their poos tend to be firmer and more formed. Constipation, where poos are hard and dry, is more common in formula-fed infants.

This information has been sourced from the Best Practice Guide for Early Childhood Education and Care Food Environment.
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