

SESLHD GUIDELINE COVER SHEET



NAME OF DOCUMENT	Preparation, Storage and Safe Use of Infant Formula
TYPE OF DOCUMENT	Guideline
DOCUMENT NUMBER	SESLHDGL/085
DATE OF PUBLICATION	December 2024
RISK RATING	Medium
LEVEL OF EVIDENCE	National Safety and Quality Health Service Standards: Standard 1 – Clinical Governance Standard 2 – Partnering with Consumers Standard 5 – Comprehensive Care
REVIEW DATE	December 2027
FORMER REFERENCE(S)	SESLHGL/085 – Preparation and Safe Use of Infant Formula
EXECUTIVE SPONSOR or EXECUTIVE CLINICAL SPONSOR	Clinical Stream Director, Women’s and Children
AUTHOR	SESLHD Lactation Group
POSITION RESPONSIBLE FOR DOCUMENT	Alison Brown CMC WCCS Alison.Brown3@health.nsw.gov.au
FUNCTIONAL GROUP(S)	Women’s and Babies Health
KEY TERMS	Infant formula; bottle feeding, ready to feed formula
SUMMARY	This guideline outlines the safe use and preparation of infant formula to ensure facilities provide consistent evidence-based education and support.

THIS DOCUMENT IS A GUIDE FOR BEST PRACTICE
This Guideline is intellectual property of South Eastern Sydney Local Health District.
Guideline content cannot be duplicated.

Feedback about this document can be sent to SESLHD-Policy@health.gov.au

Preparation, Storage and Safe Use of Infant Formula

Section 1 - Background	3
Section 2 - Principles	4
Section 3 - Definitions.....	5
Section 4 - Responsibilities	6
Section 5 - Education Notes	7
Section 6 - Documentation	11
Section 7 - References	11
Section 8 - Version and Approval History.....	12
Section 9 - Appendices.....	13
Appendix 1 - Infant Formula Options.....	13
Appendix 2 - Infant Formula Feeding Information for Parents and Caregivers.....	14

Section 1 - Background

All families are to be supported in their chosen method of infant feeding. Staff have a responsibility to promote and support breastfeeding, but if a mother makes an informed decision not to breastfeed, needs to give infant formula on medical advice or if she chooses to mix feed, this should be respected and support from staff should be provided.

To ensure best practice and optimal parental education, this guideline has been developed to meet the needs of hospital and community staff when teaching and supporting our families who are using infant formula. This guideline is based on the current National Health and Medical Research Council Infant feeding Guidelines and the Australian College of Midwives, Baby Friendly Health Initiative Handbook.

Midwives, nurses and Aboriginal health workers will offer education and support to all women, including Aboriginal and Torres Strait Islander women choosing to use infant formula. Midwives and nurses will consult with an interpreter from the interpreter service to educate and support all women from a non-English speaking background choosing to use infant formula.

Section 2 - Principles

EXCLUSIONS

This guideline does not cover the preparation and formulation of specialised inpatient infant formulas or human milk fortifiers for use during inpatient stays.

Staff are to refer to manufacturer's instructions and local guidelines.

- Staff must understand their responsibilities under the World Health Organisation (WHO) International Code for the use of breastmilk substitutes and its subsequent relevant World Health Assembly (WHA) Resolutions and the Australia New Zealand Food Standards Code
- Advice should be given that if a baby is not breastfed, the source of milk feeds is to be infant formula until 12 months of age. Advice should also include the costs of formula feeding, and the hazards of improper formula preparation and storage
- All infant formulas available in Australia are regulated by the Australia New Zealand Food Standards Code and contain adequate nutrients for infants. However, research indicates formula products are unable to duplicate the variety of nutrient and active factors present in human milk or the changing nature of human milk in response to the infant's immune system
- Instruction is only given to parents who need it; there is no group instruction; it is done privately away from breastfeeding mothers. If the mother's condition prevents this instruction, it can be given to another family member instead
- Incorrect choice, preparation, cleaning of feeding equipment or administration of formula feed can lead to infections, scalding, over-concentration, under-concentration, and choking
- Safe formula feeding depends on safe water supply, sufficient income to meet costs, effective refrigeration, clean surroundings and satisfactory arrangements for preparing formula consistent with Australian Dietary Guidelines
- Hospital staff are to demonstrate and/or supervise the parent/carer with preparation and feeding of the bottle
- Document in maternal or neonatal clinical pathway, or if infant is in Special Care Nursery or the Paediatric Ward, on the care plan and/or in the clinical notes
- If formula is required as a supplementary feed for a breastfed infant, staff can teach the parent to use alternative feeding methods such as spoons, cups, finger feeding or a supply line at the breast
- Breastmilk and formula are not to be mixed in the same container
- Parents can be encouraged to bring in and use their own sterilised bottles and teats or the hospital may provide them during their stay
- Provide parents with SESLHD fact sheet or Formula Feeding Information for Parents (Appendix 2). The family can also be encouraged to access the following website for additional information: [The Australian Parenting Website](#)
- Professional interpreters are available if families need help understanding or speaking in English. Interpreter services are free and confidential. Staff are to assist families in obtaining an interpreter if required

Section 3 - Definitions

Infant formula means a breast-milk substitute specially manufactured designed and marketed for feeding to babies and infants under 12 months of age. It is, usually prepared for bottle-feeding or cup-feeding from powder (mixed with water) or liquid (with or without additional water).

Ready to drink formula is a premixed liquid **formula that is packaged aseptically**.

Pre-term formula means an infant formula product specifically formulated to satisfy needs of infants born prematurely or of low birth weight.

Follow-on formula means an infant formula product that,

- is represented as either a breastmilk substitute or replacement for infant formula
- is suitable to constitute the principle liquid source of nourishment in a progressively diverse diet for infants from the age of 6 months

Section 4 - Responsibilities

Nursing and Midwifery Staff are responsible for:

- Safe preparation, storage and handling of infant formula in order to minimise illness and death in infants due to infections associated with infant formula
- Completing appropriate orientation and educational packages on supporting parents with their chosen method of infant feeding in line with the Baby Friendly Health Initiative developed by Australian College of Midwives.

Service Line Managers are responsible for:

- Ensuring that staff are familiar with SESLHD policies and procedures and guidelines and are aware of the requirement to adhere to these
- Undertaking periodic review of governance and compliance.

Medical Staff are responsible for:

- Ensuring that advice around Infant formula is evidenced based and according to this guideline.

ABORIGINAL HEALTH IMPACT STATEMENT DOCUMENTATION

- Considerations for culturally safe and appropriate care provision have been made in the ongoing reviews of this policy.
- When clinical risks are identified for an Aboriginal or Torres Strait Islander woman or their families, they may require additional supports. This may include family, Aboriginal health professionals such as Aboriginal liaison officers, health workers or other culturally specific services.

CULTURAL SUPPORT

- For a Culturally and Linguistically Diverse CALD woman, notify the nominated cross-cultural health worker during Monday to Friday business hours.
- If the woman is from a non-English speaking background, call the interpreter service: [NSW Health Policy Directive PD2017 044 - Interpreters Standard Procedures for Working with Health Care Interpreters.](#)

Section 5 - Education Notes

5.1 Choice of Formula

- Cow's milk-based formula is suitable for the first 12 months of life. This is recommended over formulas made from soybeans, goat's milk or modified lactose formula unless the infant cannot take cow's milk-based products for specific medical, cultural or religious reasons, in which case special formulas may be used under medical supervision (see Appendix 1)
- Babies under 6 months require Newborn formula or Stage One formula. There is no evidence that babies over 6 months require Stage Two formula – they can remain on Newborn formula
- After 12 months of life, full cream cow's milk is then recommended. There is no evidence that Follow on Toddler formulas are required
- There is no evidence to recommend more expensive infant formulas
- Ready to feed formula products are available in aseptically packed bottles for hospital. Changing the type of formula because of minor rashes, irritability or neonate/carer distress is usually of no benefit
- All modern formula contains reduced protein and electrolyte levels and have added iron and vitamins (A, B group, C, D, E and K) and other nutrients.

5.2 Ready-to-feed Formula

- "Ready-to-feed" formula is the preferred option while baby is in hospital
- Whilst in hospital the family may be given 'ready to feed' formula for their baby. If the family use 'ready-to-feed' during their hospital stay they are to receive a 'mock' formula preparation demonstration and supervised practice with their chosen can of appropriate infant formula prior to discharge and this is to be documented
- Check formula type, date/time opened and expiry date before use
- If not using a single use bottle, ensure the bottle is labelled and stored appropriately for subsequent feeds
- All formula given in NICU and SCN are to be co-signed
- All other wards, check formula type, date/time opened and expiry date before use and label formula bottle as per local process (see Appendix 3)
- When babies are receiving ready-to-feed formula, the branded labelled bottle is not to be taken to the bedside, it is to be decanted into a labelled alternative feeding device prior to use.

5.3 Safe Preparation and Storage of Formula

- Demonstrate and then supervise the mother/carer until competent. This is to be performed by appropriately trained staff
- Check correct formula and sterile water with two midwives or one nurse/midwife and the woman/carer
- Always wash hands before preparing formula and ensure that formula is prepared in a clean area
- Cooled boiled water should be used for making formula until 12 months of age
- If the family choose to use their own powdered formula, they will be given a bottle of water specifically designated for use in the preparation of their own formula. Once the bottle is

opened it is then labelled as per local process, and depending on local practice, the water can be kept at the bedside for use in preparation of formula for 24 hours then discarded

- To prepare a bottle at home, empty and refill kettle with fresh water, bring to boil and allow it to cool until lukewarm
- Best practice is to prepare only one bottle of formula at a time, just before feeding
- Always follow the instructions on the back of the can to check the correct amount of water and powder as shown on the feeding table – this may vary between different formulas
- Firstly, pour the correct amount of previously boiled (now cooled) water into a sterilised bottle checking at eye level
- Always measure the amount of powder using the scoop provided in the can, as scoop sizes vary between different formulas
- Fill the measuring scoop with formula powder, the scoop should be lightly tapped to remove any air bubbles and levelled off using the device provided or the back of a sterilised knife
- Take care to add the correct number of scoops to the water in the bottle – do not add half scoops or more scoops than stated in the instructions. Full scoops should always be used to ensure accuracy
- Keep the scoop in the can 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
- Whilst in hospital if a bottle needs to be warmed, a bottle warmer is to be used as per Manufacturer's instructions
- Do not use a microwave to heat formula due to the uneven distribution of heat
- To warm infant formula without a bottle warmer, stand the formula bottle in a container of warm water (no hotter than 37° Celsius) for a few minutes (no longer than ten minutes). Test the temperature of the formula with a few drops on the inside of the wrist – it should feel just warm, but cool is better than too hot
- Feed infant within one hour of preparing the formula, any formula left at the end of the feed must be discarded by one hour. The feed should never be reheated
- Educate family that it is recommended to prepare one feed at a time. If preparing in advance, the feed must be refrigerated below 5° C and used within 24 hours
- Before making up baby formula, check the expiry date on the formula tin. After one month, throw away opened tin and scoop. This ensures the correct scoop is used next time.

5.4 Washing and Sterilising, Bottles, Teats and Caps

- To instruct parents on washing once they are discharged:
 - After each use the bottle and teat are to be rinsed in cool running water and then submerged and washed in warm soapy water
 - A bottle brush is to be used to wash the bottle and the teat
 - Warm soapy water is to be pushed through the teat hole
 - Rinse all parts under warm running water followed by cool running water, and then sterilise
- Instruct parent on their chosen method of sterilisation. Chemical and microwave sterilisation are not as effective as boiling
 - Equipment can be boiled in a large, covered saucepan for 5 minutes (eliminate all air bubbles from the bottle)

- Equipment can be placed within a microwave or steam sterilizer and sterilised as per manufacturer's directions
- Equipment can place into an approved chemical sterilising agent, as per manufacturer's directions. A good shake will rid items of excess solution
- Sterilised bottles with caps, seals and teats on, that are not being used straight away, can be stored in a clean container in the back of the fridge. Resterilise equipment every 24 hours.

5.5 Choosing Bottles and Teats

- There is no evidence to support the benefits, or higher prices, of particular teats or bottles for problems such as an unsettled infant or colic
- Milk should drip slowly and steadily from teat without pouring out in a stream, when bottle turned upside down
- For infants over 6 months, parents can choose to wean onto a cup rather than a bottle
- Encourage cessation of bottle by 12 months
- Feeding cups used for formula should continue to be sterilised up to 12 months

5.6 Good Bottle Feeding Practices

- Holding, cuddling and talking to the infant while feeding, and responding to infant cues is extremely important
- When holding the infant during bottle feeding, try alternating sides at different feeds
- Touch the teat gently on the infant's lips, particularly the bottom lip, to encourage a wide-open mouth. Do not push the teat into the mouth
- Do not prop the bottle in any way or leave an infant to feed on their own – milk may flow too quickly and cause the infant to splutter or choke. This can also increase the risk of ear infections and dental caries, and may impact their social and emotional development
- Offer a chance to burp infant half way through as well as at the end of the feed. It is normal that the infant may bring up a little milk during or after a feed
- Most babies feed at least every 3 to 4 hours and less often as they get older. At one month old an infant may have up to 8 feeds per day and a six month old infant may take around 5 feeds per day. Use the table on the infant formula can as an amount guide, though do not force-feed infant to finish these volumes if they are refusing, remember – they are only a guide
- Regular monitoring of infant's progress is important. The infant is getting enough formula if there are regular wet nappies (5 or more disposable per day) and they are growing well. Formula-fed infants can have firmer and fewer stools and constipation can occur. Hard, dry stools may indicate incorrect preparation of formula

5.7 Requirements for Fully Formula Fed Infants

- It is important for parents to be aware that there are many individual variations of amounts consumed over 24 hours so the information on the back of the can and above table is a guide only

Days 1- 4	Commence at 30ml/kg/day and increase over the next few days Increase the feed volumes for preterm and unwell babies as directed by paediatric/neonatology team
Day 5 to 3 months	150ml/kg/day Some infants, especially those who were preterm, will require up to 180-200ml/kg/day
3 to 6 months	120ml/kg/day
6 to 12 months	100ml/kg/day Some infants may reduce to 90ml/kg/day Infants of this age also take family foods
Taken from Eat for Health, Dept. of Health and Aging 2012	

5.8 Combined Breast and Formula Feeding

- If infant formula is required as a supplementary feed for a breastfed infant, offer available expressed breast milk first, followed by formula. Encourage use of an alternative feeding method other than a bottle for breastfed babies (see local guidelines for alternative feeding methods)
- Breastfed infants are able to control the flow of milk as they feed from the breast and may find the bottle quite stressful if the flow is too fast. If a bottle is used, pacing the feed will be required. Let the infant rest every few minutes to make it more like a breastfeed. Further information can be found in [Caregivers guide to the breastfed baby - Australian Breastfeeding Association 2018](#).
- Offer the bottle close to the breast and switch sides during the feed. The infant may settle more readily if the feed ends on the breast and not the bottle
- Breast milk and formula are not to be mixed together in the same container, unless there is a documented feeding plan from the Paediatrician or Dietitian.

5.9 Suppression for Women Who Choose Not to Breastfeed

- Discuss strategies to manage suppression that are relevant and acceptable to the woman depending upon her circumstances
- Refer to local policies on suppression of breastmilk and provide her with the SESLHD fact sheet – “Weaning or Suppressing Lactation”

Section 6 - Documentation

- Integrated clinical notes / electronic medical records / K2
- Neonatal or maternal pathway

Section 7 - References

1. [Australian Breastfeeding Association, 2018. Caregivers guide to the breastfed baby](#)
2. [Australian Society of Clinical Immunology and Allergy \(ASCIA\) Infant Feeding Guidelines, 2016, 'Infant feeding and allergy prevention', ASCIA, Balgowlah NSW Australia](#)
3. [Appleton, J, Laws, R, Russell, C. G, Fowler, C, Campbell, K. J, & Denney-Wilson, E. 2018, 'Infant formula feeding practices and the role of advice and support: an exploratory qualitative study', *Paediatrics*, vol. 18, no. 1, 12](#)
4. [Australian College of Midwives. 2020, Baby Friendly Health Initiative Australia. BFHI Handbook for Maternity Facilities, Australia](#)
5. [Australian Government Federal Register of Legislation, Food Standards Australia New Zealand Standards 2.9.1. Infant Formula Products 2023](#)
6. [Australian Government National Health and Medical Research Council Department of Health and Ageing. Eat for Health., NHMRC Commonwealth of Australia 2012](#)
7. [Food Standards Australia New Zealand / Infant formula products 2024](#)
8. [Moore, E.R, Bergman, N, Anderson, G.C & Medley, N. 2016, 'Early skin-to-skin contact for mothers and their healthy newborn infants \(Review\)', *Cochrane Database of Systematic Reviews*, no.11.](#)
9. [National Health Service UK, Types of formula milk, 2016, NHS, London UK](#)
10. [NSW Health Policy Directive PD2022_028 - Aboriginal Cultural Training - Respecting the Difference](#)
11. [NSW Health Policy Directive PD2017_044 - Interpreters Standard Procedures for Working with Health Care Interpreter](#)
12. [Queensland Health Signs of Hunger 2024](#)
13. [Raising.children.net.au, Infant formula and bottle feeding, 2018, Royal Children's Hospital, Parkville, VIC](#)
14. [Royal College of Midwives, 2018. Position Statement on Infant feeding, RCM, London](#)
15. [Smith, L.J. 2002. Coaches notebook, Games and strategies for lactation education. Jones and Bartlett learning](#)
16. [Walker, M. 2015, 'Formula Supplementation of Breastfed Infants. Helpful or Hazardous?' *Infant, Child and Adolescent Nutrition*, vol. 7, no. 4, pp.198-207](#)
17. [World Health Organization, 2018, Marketing of Breastmilk Substitutes: National implementation of the international code status report 2018, World Health Organization, Geneva, Switzerland](#)

Section 8 - Version and Approval History

Date	Version no:	Author and approval
June 2020	Draft	Initial draft approved by Executive Sponsor.
June 2020	Draft	Draft for Comment
August 2021	Draft	SESLHD Lactation Group: Katy Hunt, CMC Lactation RHW, Kirstin Lock, CMC Lactation SGH, Faith Robertson, CMC Lactation, Michelle Culshaw, CMC Lactation TSH, Patty Everitt, CMC Lactation NCC RHW, Nora Crotty, CNE Child & Family Health, SES PaCH Community Nursing, Jennifer Parker CNC, SES PaCH Child & Family Nursing Services; Pauline Sullivan STG WCHCH Early Childhood; Catharine Dias, CNE SCN TSH, & Alison Brown CMC Women's & Children's Clinical Stream (WCCS). Second Draft for Comment period.
September 2021	Draft	Approved by Helen McCarthy. To be tabled at Clinical and Quality Council for approval.
November 2021	1	Approved at Clinical and Quality Council meeting.
16 December 2024	1.1	Minor review by SESLHD Lactation Group. Sequential order of washing bottles, lids and teats. Aboriginal Health Impact Statement and Cultural Support paragraph added. References updated and minor language changes.

Section 9 - Appendices

Appendix 1 - Infant Formula Options

Adapted from [Australian Government National Health and Medical Research Council Department of Health and Ageing. Eat for Health., NHMRC Commonwealth of Australia 2012](#)

Name	Modification	Manufacturer Claim	Evidence
HA/Hypo Allergenic – Hydrolysed - partially	Cow's milk based. Proteins only partially processed and broken down	Infants with family history of atopy	Nil evidence indicating prevention of allergic disease
Hydrolysed – extensively Whey formulas (1 st choice) Elemental formulas (amino acid based formulas) (Both on prescription only)	Made from cow's milk protein, the protein is mostly broken down (hydrolysed)	May modify the development of allergic disease	Under medical supervision. For well-defined clinical indications such as multiple food protein intolerance (CMPI, colitis) and other conditions where an elemental diet is indicated (intractable malabsorption, EoE anaphylaxis etc)
Lactose free	Cow's milk based. Lactose eliminated	Infants with lactose intolerance	Not recommended as choice nutrition for infants Primary lactose intolerance rare Short term use for transient lactose intolerance - gastroenteritis under medical supervision
Goats milk formula	Goats milk based	Infants at risk of atopy and cow's milk allergy	Nil evidence indicating efficacy, safety and role in prevention or treatment of allergic disease
Soy- based	Made from soy beans. No animal products or lactose Higher amounts of aluminium and phytoestrogens	Infants at risk of atopy and cow's milk allergy Cultural or religious reasons	Not effective in prevention of development of atopy and can worsen atopic illness. RACP recommends not using soy based infant formula for preterm infants, infants under 6 months and children with thyroid disease due to possible interaction with thyroxine replacement therapy Used under medical supervision for galactosaemia
Probiotics and Prebiotics	Bifidus factors	Promotion/ growth of good bacteria Prevention of atopic disease	Insufficient evidence to recommend use
AR/Thickened (anti-regurgitation)		To decrease reflux	Insufficient evidence to recommend use

Appendix 2 - Infant Formula Feeding Information for Parents and Caregivers

FORMULA FEEDING INFORMATION FOR PARENTS AND CAREGIVERS

The World Health Organisation recommends babies are breastfed, but if they are not it is important to give your baby an infant formula if they are under 12 months old. We recognise some families choose not to or are unable to breastfeed and your decision will be respected and supported.

Infant formula and choosing which formula to use

Most infant formula is made from modified cow's milk and has added vitamins, minerals and fats that your baby requires.

Infant formula is the only safe alternative to breastmilk for the first 12 months of your baby's life. Babies under 12 months of age should not have:

- Cow's milk or unmodified cow's milk. The protein level in these milks is too high and babies are unable to digest them easily or completely. They are also low in vitamins and iron and a health risk to a baby's immature kidneys
- Skim, evaporated, powdered or sweetened condensed milk
- Dairy alternatives such as soy, rice or coconut milk

All infant formula sold in Australia meets strict Australian Standards and Guidelines and is safe to use.

Most cow's milk- based infant formulas are of similar quality and nutritional value. A more expensive brand or the brand that is used by the hospital does not mean it is better for your baby.

Some formulas have ingredients added to make them more like breastmilk. This does not, however, guarantee the added ingredients will work the same way as breastmilk in your baby's body.

Infant formula can be bought in powder form or ready to drink. Both are safe to use however ready to drink is more expensive.

SPECIAL INFANT FORMULAS

For infants under 12months the National Health and Medical Research Council recommends cow's milk-based formula over formulas made from soy beans, goats milk or modified lactose formulas. These special formulas may, however, be used with babies with nutritional or medically diagnosed problems on the advice of a paediatrician.

Soy Based Formula

- Made from soya beans and modified in a similar process to cow's milk-based formula
- Used under medical supervision for galactosaemia
- Not recommended for pre-term babies and infants under 6 months of age
- Not recommended for infants with thyroid disease due to possible interaction with thyroxine replacement medication
- There are risks and concerns about the high levels of phytoestrogens in the formula, (hormones that occur naturally in plants), as they can have negative effects on a baby's developing immune and reproductive function
- No clear evidence this type of formula prevents or reduces risks of allergies

Goat's Milk Formula

- Nil evidence indicating safety and role in prevention or treatment of allergic disease
- Not recommended for feeding infants under 12 months of age

Hydrolysed Formula

- This formula is cow's milk based with the difference being the proteins are processed and broken down into smaller particles
- Modest evidence of benefits when used on infants at high risks of cow's milk allergies or cow's milk protein intolerance. For use under medical supervision

Partially Hydrolysed/HA/Hypoallergenic Formula

- This formula is cow's milk based with the proteins only partially processed and broken down
- Manufacturers suggest this can prevent food allergies or allergic diseases in babies, however no scientific evidence supports this

Amino Acid Based (Elemental) Formula

- This formula is developed from man-made nutrients including individual amino acids
- Used for infants with medical conditions such as malabsorption, colitis and multiple food protein allergies and only under medical supervision

Lactose Free Formula

- This is a cow's milk based formula with lactose removed
- Not recommended as choice nutrition for infants

- Lactose intolerance is extremely rare in infants
- Can be used short-term for 2-3 weeks for temporary lactose intolerance associated with infections such as gastroenteritis and see your doctor for advice

Other Formulas and Special Additives

- Long chain polyunsaturated fatty acids, beta-carotene, antioxidants, pre and/or probiotics have been added to cow's milk based formula to make it like to breastmilk
- No clear evidence these additives can be readily absorbed by baby when added to formula
- There is a vast range of formulas available claiming they assist with infant challenges, like constipation, reflux, night-time sleep; there is no clear evidence to support their use.
- These formulas are more expensive

Ready to Drink Formulas

- Liquid ready to drink infant formula may be used in hospital
- Can be poured into sterilised bottle and warmed just before feeding
- Opened tetra packs must be poured into sterilised bottles, stored in the back of the fridge and used within 24 hours
- Any unfinished ready to drink formula must be discarded after feed

Homemade Formula

- Using bone broth and other ingredients is not advised as suitable alternative to breastmilk or cow's milk based formulas. They do not provide adequate nutrition to baby.
- Homemade formulas contain ingredients that are not safe for an infant and can be dangerous

Follow on Formula

- There is no clear evidence on benefits or advantages of a follow on formula
- Recommendations from the National Health and Medical Research are to use starter or first formula from birth to 12 months

Choosing Bottles and Teats

- Standard clear plastic or glass bottles are best to use
- Novelty shaped bottles are more difficult to clean
- If using plastic bottles, ensure the bottles are bisphenol (BPA) free

- Shape of bottle should fit comfortably in your hand
- There are a variety of shapes and sizes. Silicone teats are recommended over rubber teats due to the chemical content of rubber
- Flow rate is tested by holding bottle of room temperature formula upside down. The formula should drip slowly and steadily, without pouring out in a stream
- If the teat allows the baby to complete the feed within 20-30 minutes the flow rate is suitable
- There is no evidence to support orthodontic or winged teats

CLEANING AND STERILISING BOTTLES, TEATS AND FEEDING UTENSILS

- An infant's immune system is not strong to fight infections
- Cleaning and sterilising all infant feeding equipment is necessary until the infant is 12 months of age
- Thorough cleaning of all bottles and teats are required prior to sterilising
- All bottle feeding equipment must be cleaned and sterilised after every feed

Cleaning

- Have a clean area for formula preparation and equipment cleaning
- Wash hands
- Rinse all bottles and teats first in cold running water as this prevents the proteins in formula from sticking to the plastic.
- Wash bottles, teats, dummies and utensils in hot soapy water
- Clean carefully around the screw top of bottles with a bottle brush that is only used for baby feeding equipment
- Rinse all bottles, teats and utensils well in cool running water



[Raising Children Website 2024](#)

Sterilising by Boiling or Steam Sterilisers

Boiling

- Preferred method. Most consistent and reliable results
- Use large saucepan with lid
- Submerge cleaned bottles, teats, dummies and other feeding utensils under water and cover with lid
- Bring water to boil and boil another 5 minutes
- Allow saucepan to cool, then wash your hands before you remove all items
- Place caps and teats on the bottle
- Place capped bottles at the back of the fridge
- These bottles can be stored for 24 hours then they need to be re washed and sterilised



These photos belong to The Sutherland Hospital Maternity Service 2020.

Steam Sterilisers – Electronic or Microwave

- With steam sterilisers it is Important to follow the manufacturer's directions on use
- Place all infant feeding equipment into unit provided
- Add water as per manufacturer's direction
- If unit is electronic, turn switch on
- If using microwave steam unit, place equipment in unit provided then place in microwave and heat for recommended time
- Do not place metal in microwave
- When process completed, wash hands and remove feeding equipment

Preparation of Formula Feeds

- It is important to follow instructions on the can for the correct amount of water per scoop
- Too many scoops can cause unhealthy weight gain and can stress a baby's kidneys
- Too few scoops can cause insufficient weight gain and electrolyte imbalance
- Do not use microwave to heat formula bottle as this can burn baby's mouth



[Raising Children Website 2024](#)

Steps to reduce risks of infection in baby

- It is recommended that a formula feed is made up one at a time when baby is ready to feed
- Always wash hands before preparing the feed
- Ensure a clean preparation area and that all infant feeding equipment has been cleaned and sterilised
- Boil fresh cold tap water
- Allow to cool until lukewarm. If using automatic kettle wait until kettle switches off and allow to cool for 30 minutes.
- Do not re boil the water as this concentrates mineral salts in the water
- While in hospital you may be given a bottle of water to use designated for formula preparation, but once home, cooled boiled water is then used
- Pour correct amount of water into the bottle first then the scoop/s of formula powder
- Always use the measuring scoop provided with the can. Amount of formula varies with different cans of formula
- Discard scoop when can is finished
- Add correct number of scoops of formula powder to water by:
 - Filling the scoop and tapping lightly to remove air bubbles. Do not press down on scoop as this will over concentrate the amount of powder

- Level each scoop with levelling device provided or the back of a sterilised knife
- If using sachets of formula, ensure to use entire sachet to recommended amount of water
- Replace teat and cap on bottle. Shake bottle until powder dissolves
- Before feeding baby, check formula is the correct temperature by shaking a few drops onto the inside of wrist. The formula should feel warm not hot
- All formula left at room temperature for more than 1 hour has to be discarded
- **If preparing feeds in advance**, prepared sterilised bottles of boiled water can be refrigerated and used as needed. First warm the bottle or use cooled boiled water in a container then add the formula powder
- Prepared feeds must be stored in the back of the fridge below 5 degrees Celsius and used within 24 hours

Transporting formula feeds

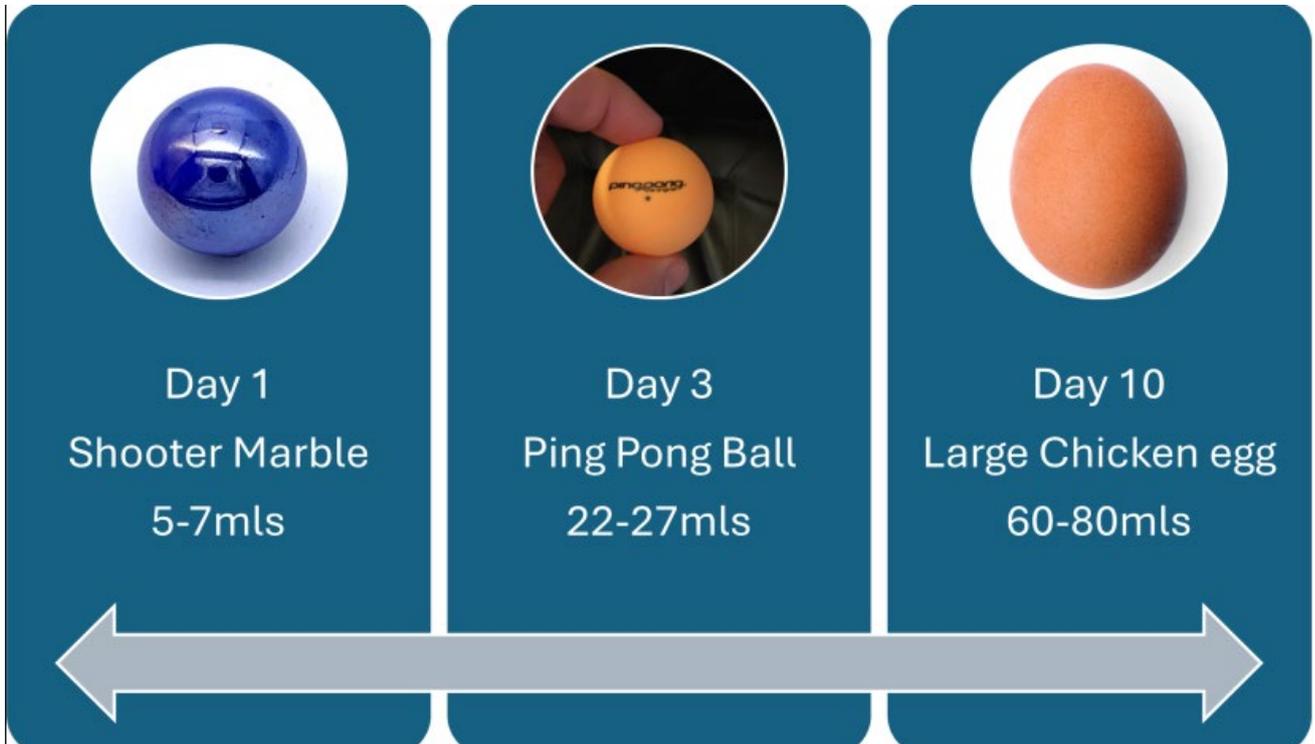
- Prepare feed and place in the refrigerator
- Ensure feed is cold before transporting
- Do not remove the feed from the refrigerator until immediately before transporting
- Transport the feed in a cool bag with ice packs
- Use feeds transported in a cool bag within 2 hours
- Re warm feed at the destination
- If destination is reached within 2 hours, feed transported can be refrigerated and used within 24 hours from time of preparation

HOW MUCH FORMULA TO FEED

- It is normal for baby to only need small amounts per feed in the first few days.
- Babies commonly will have 8-10 feeds a day
- The volume will gradually increase
- A baby is feeding well and getting enough formula if there are at least 5 heavy wet nappies per day, stools are regular, not hard or dry, and baby is gaining weight
- It is important to respond to baby's natural feeding cues and feed baby to need

- It is important to be aware that information on formula packages recommending certain amounts for various ages is a guide only. Below is a guide to the amounts to offer baby and may not necessarily suit every baby

Stomach capacity of a baby



Adapted from L, J. Smith, Coach’s notebook: games and strategies for lactation education 2001.

Approximate Formula Requirements

Days 1 to 4	Commence at 30ml/kg/day. Increase over next few days
Day 5 to 3 months	150 ml/kg/day Preterm will require 180-200ml/kg/day
3 to 6 months	120ml/kg/day
6 to 12 months	100ml/kg/day Some infants may reduce to 90mg/kg/day Infants this age also take solid foods



Baby feeding cues (signs) Term

Early cues

"I'm hungry"



Stirring



Mouth opening



Turning head
Seeking/rooting

Mid cues

"I'm really hungry"



Stretching



Increasing
physical movement



Hand to mouth

Late cues

"Calm me, then feed me"



Crying



Agitated body
movements



Colour turning red

Tips to calm a crying baby

- Cuddling
- Skin-to-skin on your chest
- Talking
- Stroking

For more information refer to the Queensland Health booklet - *Child Health Information: Your guide to the first twelve months*
Visit the Queensland Health breastfeeding website: <https://www.qld.gov.au/health/children/babies/breastfeeding>



CPW / 840
Partnering with Consumers National Standard 2 (2.4)
Consumers and/or carers provided feedback on this publication.
Version 6.1 Effective February 2024. Review February 2027



To view the terms of this license, visit the [Creative Commons website](#).
View the [Copyright Statement and Frequently Asked Questions \(FAQ\)](#)

© State of Queensland (Queensland Health) 2010 Clinical Multimedia_240018

Metro North
Health



Queensland
Government

Source: [Queensland Health, Royal Brisbane and Women's Hospital](#)

Good Bottle Feeding Practices

- Make feeding a comfortable experience
- It is important to hold baby close, upright and well supported for every feed
- Have eye contact with baby as feeding is good time for social interaction and will help make baby feel safe and loved
- Hold, cuddle and talk to infant and respond to baby's feeding cues
- **It is important not to prop baby or leave baby unattended to feed or sleep with a bottle.** This can cause choking, ear infections, stomach infections and later tooth decay. This may also impact their social and emotional development
- Check temperature of the baby formula is warm by testing a few drops of milk onto the inside of the wrist. If it is too hot it should be left to cool
- Gently touch the teat to the baby's lips. **Do not force the teat in**
- Baby will open mouth wide with tongue down, so then place the teat into his/her mouth.
- When baby is sucking well, bubbles will be seen in the bottle as baby feeds
- **Pace the feed** according to baby's needs and remove teat at frequent intervals to enable baby to have a rest and decide if baby is full or wants more
- Avoid over feeding baby
- Giving more formula will not enable baby to sleep longer
- Using fast flow teats can make it difficult for baby to control their breathing if they are forced to swallow large amounts of milk quickly
- If baby is becoming distressed during the feed, sit baby up and check if baby needs to burp. Also check if the teat flow is too fast then continue with feed if baby needs more

If feeding is too fast there is a risk of:

- The baby not sensing when they are full and may overfeed and become distressed
- Choking or vomiting

If feeding always takes longer than 40 minutes:

- There may be a problem with the teat or formula was incorrectly made
- Baby is unwell or has a sucking problem
- If you have concerns about your baby's feeding, have your baby assessed by a Midwife or nurse while in hospital. Once you have left hospital you can seek help from your local Child and Family Health Nurse or your GP

DUMMIES / PACIFIERS

- Use of dummies/pacifiers are a personal choice
- It may be protective against SIDS when used at night for formula fed babies as formula fed babies may sleep more deeply
- There is no evidence to indicate any style e.g. orthodontic is effective in shaping mouth or teeth
- Dummies/pacifiers must be cleaned and disinfected daily for the first 6 months
- Do not clean dummies/pacifiers which may have dropped on the ground by putting in your mouth. This will increase risks of infection for baby. You will also introduce germs from within your mouth to the baby
- Wash dummies/pacifiers under clean water, cleanse with a detergent and rinse with clean warm water if it has fallen on the ground

Risks of regular dummies/pacifier use:

- Infection e.g. stomach, ear, mouth
- Impact on shape of palate and front teeth
- Possible impact on speech

Safe use of dummies/pacifiers.

- Look for a one-piece model with a soft nipple. Dummies made in two pieces can break apart and become choking hazards
- Look for a firm plastic shield with air holes. Check the shield is more than 3 cm across so your baby can't put the whole thing in her mouth
- If your baby is younger than six months old, choose a dummy that can go into the dishwasher or be boiled
- Do not use ribbons or cords to attach dummies to baby's clothes- this is a choking risk
- Do not dip into honey
- or sweetened liquid as this can cause severe illness and later tooth decay

Weaning and Suppression of Lactation

- It is normal for your breasts to fill with milk by the 3rd or 4th day after baby is born
- To minimise discomfort:
 - Avoid unnecessary breast stimulation
 - Express breast only for comfort

- Wear a firm supportive bra or top
- Apply cool cloths or cool gel packs as needed
- Drink and eat as normal
- Allow breasts to leak freely
- May use pain relief as prescribed

Medication used to Wean

- Medication can be prescribed by the doctor to suppress breastmilk production
- This is **not usually a first option** as there are **side effects** which include:
 - Dizziness; nausea; headaches; lowering of blood pressure and interaction with some medication

Gradual weaning

- If decision to suppress lactation/wean after commencing breastfeeding, it is advised to do so gradually
- Do this by:
 - Reducing number of breastfeeds given to baby each day
 - Replace each reduced breastfeed with a formula feed
 - When your breasts are comfortable between reduced breastfeeds then reduce another breastfeed and replace it with a formula feed
 - If you were expressing feeds, allow more time between expressing. E.g. if you were expressing every 3 hours, stretch the time to 4 hours. When your breasts have adjusted and is comfortable allow 5 hours between expressing times and so on
 - When you are only breastfeeding or expressing once or twice a day, then only express or breastfeed for comfort until no longer needed
- All mothers are unique. Weaning can take a few weeks. For further guidance please seek advice from a health professional e.g. The Australian Breastfeeding Association, Local Child and Family Health, G.P.

FOR MORE INFORMATION ON FORMULA FEEDING

- Refer to your Child and Family Health Nurse.
 - [SESLHD Child and Family Health Services](#)
 - [Raising Children Website](#)