Queensland Clinical Guidelines
Translating evidence into best clinical practice

Establishing breastfeeding
Cultural acknowledgement

We acknowledge the Traditional Custodians of the land on which we work and pay our respect to the Aboriginal and Torres Strait Islander Elders past, present and emerging.

Disclaimer

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The guideline is not a substitute for clinical judgement, knowledge and expertise, or medical advice. Variation from the guideline, taking into account individual circumstances, may be appropriate.

This guideline does not address all elements of standard practice and accepts that individual clinicians are responsible for:

- Providing care within the context of locally available resources, expertise, and scope of practice
- Supporting consumer rights and informed decision making, including the right to decline intervention or ongoing management
- Advising consumers of their choices in an environment that is culturally appropriate and which enables comfortable and confidential discussion. This includes the use of interpreter services where necessary
- Ensuring informed consent is obtained prior to delivering care
- Meeting all legislative requirements and professional standards
- Applying standard precautions, and additional precautions as necessary, when delivering care
- Documenting all care in accordance with mandatory and local requirements

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Queensland Clinical Guideline: Establishing breastfeeding

Flowchart: Management of the healthy term baby in the first 24–48 hours

- Individualise the care of each woman and baby according to clinical circumstances
- Applies to healthy term babies without risk factors for, or clinical signs of hypoglycaemia

Baby has not fed
- By 2 hours post birth or
- For 6 to 8 hours since last feed in first 24 hours of life (once only) or
- For 5 hours since last feed if more than 24 hours old

Review baby
- History
- Health records
- Output
- Clinical assessment including NEWT (temperature, heart rate, respiration and colour)

Review maternal history
- Medical, surgical, pregnancy and breastfeeding
- Substance use
- Intrapartum record (mode of birth, Apgars)
- Postpartum assessment (clinical pathway, feeding)

Assess baby

Concerns identified?

No

Implement waking strategies with woman

Waking strategies
- Initiate skin to skin contact
- Temporarily remove wraps
- Change nappy
- Gently massage arms, legs, back
- Observe for feeding cues

Yes

Attempt breastfeed

Breastfeed successful?

No

Give EBM

EBM unavailable?
- Discuss options with mother, midwife and MO/NNP
- Develop feeding plan

Yes

Baby took EBM?

No

Best practice
- Provide EBM prior to any infant formula

EBM: expressed breast milk; BGL: blood glucose level; MO: medical officer; NEWT: neonatal early warning tool; NNP: neonatal nurse practitioner

Ongoing care
- Assess breastfeeding
- Initiate waking strategies as required
- Monitor output/feeding patterns
- Support mother to express as required
- Refer as clinically indicated
- Document progress

Review and consider
- MO or NNP review
- Monitoring BGL
- Support for expressing
- Giving EBM
- Continuing waking strategies
- Developing/documenting a feeding plan
- Seeking expert advice (e.g. from lactation consultant)
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<td>BFHI</td>
<td>Baby Friendly Health Initiative</td>
</tr>
<tr>
<td>CI</td>
<td>Confidence interval</td>
</tr>
<tr>
<td>CS</td>
<td>Caesarean section</td>
</tr>
<tr>
<td>EBM</td>
<td>Expressed breast milk</td>
</tr>
<tr>
<td>GP</td>
<td>General practitioner</td>
</tr>
<tr>
<td>IBCLC</td>
<td>International board certified lactation consultant</td>
</tr>
<tr>
<td>MER</td>
<td>Milk ejection reflex</td>
</tr>
<tr>
<td>NSQHS</td>
<td>National Safety and Quality Health Service</td>
</tr>
<tr>
<td>OR</td>
<td>Odds ratio</td>
</tr>
<tr>
<td>RR</td>
<td>Relative risk</td>
</tr>
<tr>
<td>SIDS</td>
<td>Sudden infant death syndrome</td>
</tr>
<tr>
<td>SSC</td>
<td>Skin to skin contact</td>
</tr>
<tr>
<td>SUDI</td>
<td>Sudden and unexpected death in infancy</td>
</tr>
<tr>
<td>The Code</td>
<td>International code of marketing of breast-milk substitutes</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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Definitions

<table>
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<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Complementary feeding</td>
<td>Solid or semisolid foods provided to an infant in addition to breastfeeding when breast milk alone is no longer sufficient to meet nutritional needs.¹</td>
</tr>
<tr>
<td>Exclusive breastfeeding</td>
<td>Feeding only breast milk (at the breast or own mothers’ expressed breast milk), no food or water except vitamins, minerals and medications.¹</td>
</tr>
<tr>
<td>Partial breastfeeding</td>
<td>Refers to a situation where the baby is receiving some breastfeeds but is also being given other food or food-based fluids, such as formula milk or weaning foods. Sometimes referred to as mixed feeding.</td>
</tr>
<tr>
<td>Rooming-in</td>
<td>The woman and baby remain together 24 hours a day.</td>
</tr>
<tr>
<td>Skin to skin contact (SSC)</td>
<td>Immediate skin to skin contact (SSC) is the placing of the naked baby prone on the woman’s bare chest at birth.² SSC begins ideally at birth and involves placing the naked baby prone on the woman’s bare chest. There should be nothing between them (except a nappy on the baby, if preferred). A warm blanket or towel placed over both of them will ensure that the baby does not lose heat and that the woman’s privacy is maintained.</td>
</tr>
<tr>
<td>SIDS</td>
<td>Sudden infant death syndrome (SIDS) is the sudden and unexpected death of an infant under one year of age with an onset of the fatal episode apparently occurring during sleep, that remains unexplained after a thorough investigation, including performance of a complete autopsy and review of the circumstances of death and the clinical history.³</td>
</tr>
<tr>
<td>SUDI</td>
<td>A classification used to describe the sudden death of an infant, usually during sleep, with no immediately obvious cause at time of death. Includes deaths later attributed (after investigation) to sudden infant death syndrome (SIDS), fatal sleep accidents and deaths that remain undetermined.⁴</td>
</tr>
<tr>
<td>Supplementary feeding</td>
<td>Additional fluids provided to a breastfed infant before 6 months (recommended duration of exclusive breastfeeding). These fluids may include donor human milk, infant formula or other breast milk substitutes.¹</td>
</tr>
</tbody>
</table>
1 Introduction

Breastfeeding is the normal way of providing babies with the nutrients required for growth and development. Numerous studies have demonstrated the health, environmental and economic importance of breastfeeding for the woman, baby and society in both developed and developing countries.

Emerging evidence suggests breastfeeding has a positive impact on mother-baby relationships. Oxytocin released during breastfeeding promotes maternal feelings and behaviours. The interdependence between the breastfeeding woman and baby, regular close interaction and skin to skin contact (SSC) encourage mutual responsiveness and emotional attachment.

Exclusive breastfeeding until around six months of age, and continued breastfeeding with the addition of complementary foods until at least 12 months of age is recommended. The time required to establish breastfeeding is variable and influenced by the individual circumstances of both the woman and baby. The scope of this document includes pregnancy until the end of the first week postpartum for the healthy woman and the healthy term baby.

In Queensland in 2019, 95% of all babies discharged from hospital received at least some breast milk, with 70% exclusively breast milk fed at discharge. While the majority of women in Australia initiate breastfeeding prior to discharge, only 15% of babies are exclusively breastfed to around five months. Only around 25% of women continue to breastfeed for 12 months.

1.1 The importance of breastfeeding

<table>
<thead>
<tr>
<th>Health outcome associated with breastfeeding</th>
<th>No. studies</th>
<th>Pooled effect</th>
<th>95% CI</th>
<th>Interpretation: odds (OR) / risk (RR) of outcome is:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance in intelligence tests¹³</td>
<td>17</td>
<td>3.44 points</td>
<td>2.30–4.58</td>
<td>increased</td>
</tr>
<tr>
<td>Overweight/obesity in later life¹⁴</td>
<td>113</td>
<td>OR: 0.74</td>
<td>0.70–0.78</td>
<td>reduced</td>
</tr>
<tr>
<td>Type 2 diabetes¹⁴</td>
<td>11</td>
<td>OR: 0.65</td>
<td>0.49–0.86</td>
<td>reduced</td>
</tr>
<tr>
<td>Malocclusion¹⁵</td>
<td>18</td>
<td>OR: 0.34</td>
<td>0.24–0.48</td>
<td>reduced</td>
</tr>
<tr>
<td>Dental caries</td>
<td>7</td>
<td>OR: 0.50</td>
<td>0.25–0.99</td>
<td>increased reduced</td>
</tr>
<tr>
<td>Acute otitis media (until 2 years)¹⁷</td>
<td>5</td>
<td>OR: 1.99</td>
<td>1.36–2.96</td>
<td>reduced</td>
</tr>
<tr>
<td>Childhood leukaemia¹⁸</td>
<td>18</td>
<td>OR: 0.81</td>
<td>0.73–0.89</td>
<td>reduced</td>
</tr>
<tr>
<td>SIDS¹⁹</td>
<td>8</td>
<td>OR: 0.27</td>
<td>0.24–0.31</td>
<td>reduced</td>
</tr>
<tr>
<td>Severe respiratory infections⁷</td>
<td>16</td>
<td>RR: 0.68</td>
<td>0.60–0.77</td>
<td>reduced</td>
</tr>
<tr>
<td>Mortality due to infectious diseases⁷</td>
<td>9</td>
<td>OR: 0.48</td>
<td>0.38–0.60</td>
<td>reduced</td>
</tr>
<tr>
<td>Protection against diarrhoea morbidity/hospital admission⁷</td>
<td>15</td>
<td>RR: 0.69</td>
<td>0.58–0.82</td>
<td>reduced</td>
</tr>
<tr>
<td>Breast cancer²⁰</td>
<td>98</td>
<td>OR: 0.78</td>
<td>0.74–0.82</td>
<td>reduced</td>
</tr>
<tr>
<td>Ovarian cancer²⁰</td>
<td>41</td>
<td>OR: 0.70</td>
<td>0.64–0.77</td>
<td>reduced</td>
</tr>
<tr>
<td>Type 2 diabetes²¹</td>
<td>6</td>
<td>RR: 0.68</td>
<td>0.57–0.82</td>
<td>reduced</td>
</tr>
<tr>
<td>BMI in postmenopausal women²²</td>
<td>1</td>
<td>0.22 kg/m²</td>
<td>0.21–0.22</td>
<td>reduced</td>
</tr>
</tbody>
</table>

Odds ratio (OR) approximates risk ratio (RR) when the outcome is rare (less than 10%). OR increasingly overestimates RR as outcomes exceed 10%
## 1.2 Clinical standards

### Table 2. Clinical standards

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
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</table>
| **Baby Friendly Health Initiative (BFHI)** | • A joint initiative of the WHO and United Nations Children’s Fund (UNICEF)  
• In Australia, BFHI is administered by the Australian College of Midwives
• The BFHI Ten Steps to Successful Breastfeeding and the WHO International Code of Marketing of Breastmilk Substitutes (the Code) provide a framework for clinical care aimed at protecting, promoting and supporting breastfeeding  
• BFHI is shown to have a positive effect on breastfeeding initiation, continuation and exclusivity rates globally  
  o The more steps practised, the higher the duration and exclusivity of breastfeeding  
• Encourage vigilance to identify framework breaches (e.g. infant formula visible in patient areas)  
• Restrict infant formula company representative access to facility and staff  
• Scrutinise institutional research to identify potential implications for breastfeeding |
| **Principles of care**       | • Promote parental responsiveness, empowerment and informed decision making  
• Respect a woman’s feeding decision and offer support to reach infant feeding goal  
  o Partial breastfeeding may be considered a successful breastfeeding outcome for the woman who chooses this option  
• If the woman has delayed contact with their baby (due to maternal or newborn reasons), offer additional breastfeeding support  
• Develop locally agreed protocols and systems of care that support:  
  o BFHI Ten steps to successful breastfeeding  
  o The Code  
  o Acceptable medical reasons for use of breast milk substitutes  
• Include breastfeeding in antenatal and parent education information  
• Adhere to and monitor compliance with the National Safety and Quality Health Service (NSQHS) standard regarding patient identification to ensure  
  o The correct baby is given to the correct woman  
  o The correct breast milk is given to the correct baby  
  o The correct infant is receiving a breast milk substitute, when required  
• Develop local processes and systems that protect, promote and support breastfeeding |
| **Priority populations**     | • Populations that have the highest risk of not meeting optimal breastfeeding recommendations in comparison with the general population include  
  o Aboriginal and/or Torres Strait Islander people  
  o Culturally and linguistically diverse (including migrants, refugees and asylum seekers)  
  o Low socio-economic background or low education level  
  o Women aged under 25 years  
  o Daily smokers  
  o Women experiencing obesity  
  o Caesarean birth or obstetric or birth complications  
• Offer additional and tailored breastfeeding support |
| **Staff training**           | • Support health care providers to access ongoing breastfeeding education and training  
• Refer to Queensland Clinical Guideline: **Standard care**  
• If woman declines recommended care, refer to Queensland Health Partnering with the woman who declines recommended maternity care guideline |
| **Standard care**            | • Refer to Queensland Clinical Guideline: **Standard care**  
• If woman declines recommended care, refer to Queensland Health Partnering with the woman who declines recommended maternity care guideline |
# Supportive care

## 2.1 Antenatal care

### Table 3. Antenatal care

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
</table>
| **Breastfeeding information** | - Share breastfeeding information at each antenatal visit\[^{34,35}\]  
  - Offer anticipatory guidance about the first breastfeed (e.g. SSC, early feeding behaviours, how long it may take for baby to feed)  
  - Refer to Table 5. Skin to skin contact and Table 6. Baby feeding patterns  
- Offer anticipatory guidance for managing minor concerns\[^{6}\]  
- Offer information about breastfeeding support in the community including breastfeeding helplines, child health services and private International board certified lactation consultants (IBCLCs)  
- Recommend a maternal iodine supplement of 150 micrograms oral daily\[^{6,36}\]  
  - If woman has pre-existing thyroid condition, seek advice from general practitioner (GP) before taking supplement  
- Discuss birthing practices that support successful breastfeeding\[^{27}\]  
  - Presence of support person  
  - Drinking and eating light foods during labour  
  - Mobilising and birthing position of choice  
  - Impact of intrapartum interventions\[^{37}\] (e.g. medications) |
| **History** | - Ask about previous breastfeeding experience and duration  
  - Identify risk factors for breastfeeding challenges/concerns\[^{37}\]  
  - High risk groups (e.g. diabetes\[^{36}\], thyroid disorders\[^{39}\], obesity\[^{40}\], Aboriginal and/or Torres Strait Islander women\[^{6}\], adolescent/young women\[^{26}\], history of abuse, substance use\[^{41,42}\])  
  - Breast and nipple variations, surgery or injury (e.g. breast hypoplasia, biopsy, augmentation, reduction, nipple inversion, nipple piercing)\[^{35}\] as disclosed by the woman in response to prompts  
  - Current medications  
  - Use of tobacco, alcohol or other substances  
  - Infectious diseases requiring additional precautions, or where breastfeeding may be contraindicated  
  - Family history of inborn errors of metabolism  
  - If history identifies risk factors, consider breast examination (not routinely recommended\[^{43}\]) as it provides an opportunity to:  
    - Observe for appropriate breast development, surgical scars and nipple shape  
    - Reassure the woman when breasts and nipples are normal, and highlight expected breast changes  
    - Triage for additional support following birth\[^{35}\] |
| **Referral** | - Partner with the woman to develop and document a breastfeeding plan  
- Offer referral to an IBCLC or expert breastfeeding support service if:  
  - Previous concerns with breastfeeding experienced  
  - Risk factors for breastfeeding challenges identified\[^{37}\]  
  - Woman request |
| **Antenatal preparation** | - There is no evidence to support routine nipple preparation during pregnancy\[^{45}\]  
  - If woman has gestational diabetes mellitus or diabetes in pregnancy, offer information about antenatal expression of breastmilk\[^{44}\]  
    - Refer to Queensland Clinical Guideline: Gestational diabetes mellitus\[^{45}\]  
    - Clinical considerations apply before recommending antenatal expression of breastmilk  
  - There is insufficient evidence about the efficacy and safety of antenatal expressing of colostrum for the general population of pregnant women\[^{45}\] |
| **Not breastfeeding** | - When a woman makes an informed decision not to breastfeed:  
  - Respect their decision  
  - Advise that information on safe and appropriate use of infant formula will be provided |
### 2.2 Communication

Table 4. Communication

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Considerations</th>
</tr>
</thead>
</table>
| Context         | • Deciding how to feed baby is a major decision influenced by many different events and experiences\(^{47}\)  
                  • A guiding approach is more effective than a directional approach in supporting behaviours that may optimise breastfeeding success \(^{47}\)  
                  • Pregnant women and new mothers\(^{34}\):  
                    o Have increased sensitivity to non-verbal communication approaches  
                    o May be less receptive to large volumes of information  
                    o May benefit from peer support networks\(^{48}\)                                                                                           |
| Sharing information | • Provide an opportunity to share information\(^{47}\)  
                        • Explore what is already known, and offer relevant information and alternatives to support informed decisions\(^{28}\)  
                        • Use active listening  
                        • Keep non-verbal communication supportive (facial expressions, gestures, body language)  
                        • Offer information in ways that support different learning styles:  
                          o Verbal  
                          o Demonstration and supervised practice (kinaesthetic)  
                          o Videos  
                          o Printed fact sheets that are free from commercial influence, in culturally and linguistically accessible formats |
| Communication tips\(^{49}\) | • Do  
                         o Use language that is supportive, reassuring, affirming, encouraging and includes positive reinforcement (e.g. “you are doing a great job”)  
                         o Provide open and honest support  
                         o Promote women’s autonomy and facilitate choice  
                           ▪ Offer support in a way that suggestions can be accepted or rejected  
                           ▪ For example, “there are no hard and fast rules” and “you could try this or you could try that”  
                         o Normalise breastfeeding challenges and reassure women that challenges are common and can be experienced by anyone  
                         o Reassure women that breastfeeding can be challenging in the early days, but that breastfeeding generally gets easier with the development of skills and confidence  
                         o Provide advice that is tailored to the woman and baby  
                         • Don’t  
                           o Be prescriptive or authoritative  
                           o Provide mechanistic advice or rote responses  
                           o Minimise women’s feelings or challenges  
                           o Undermine a woman’s belief in their own capacity to breastfeed  
                           o Induce any feelings of shame or guilt  
                           o Attribute fault of blame on baby or woman for breastfeeding difficulties |
| Recommendation   | • Support a woman’s feeding decision  
                        o Include partner/support persons where appropriate and desired by the woman  
                        • Provide information about accessing breastfeeding education, and peer support networks  
                        • Partner with women to help them achieve their feeding goals for their baby  
                        • Document the feeding decision in the maternal and neonatal health record  
                        • Maintain awareness of cultural differences and respect cultural diversity  
                        • Refer to Queensland Clinical Guideline: Standard care\(^{32}\) |
### 2.3 Skin to skin contact

Table 5. Skin to skin contact

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
</table>
| **Benefits for baby** | • Healthy, term babies display innate behaviours immediately following birth when placed in SSC with woman \(^2\)  
• Encourages breast seeking behaviour \(^{50}\)  
• Less crying \(^2\)  
• Socially interactive behaviour with woman \(^2,^{50}\)  
• Physiological stability (temperature, blood glucose level and heart rate) \(^2\)  
• Increased pain threshold and decreased cortisol levels \(^{50}\)  
• Earlier initiation of first breastfeed \(^{51-53}\)  
• More effective breastfeeding \(^2,^{52}\)  
• Overall longer duration of breastfeeding \(^2\)  
• Encourages more frequent breastfeeding \(^1\) |
| **Benefits for woman** | • Release of oxytocin which causes \(^{50}\):  
  o Reduced blood loss  
  o Increase in skin temperature of the breast  
  o Reduced anxiety and increased social interaction  
• Reduced breastfeeding concerns \(^2\)  
• Positive effects on breastfeeding duration \(^{54}\)  
• Helps to overcome common breastfeeding concerns when used beyond the immediate postpartum period \(^6\)  
• Lower maternal stress levels \(^2\)  
• Shorter third stage and reduced bleeding \(^2\) |
| **Operative birth** | • Initiation and duration of SSC in the operating theatre after elective caesarean section (CS) is associated with continued breastfeeding at 48 hours \(^{55}\)  
  If regional anaesthesia, offer SSC in operating theatre and transfer the woman and baby to recovery in SSC; otherwise offer SSC within 10 minutes of arriving in recovery area \(^{23,56}\)  
  If general anaesthesia, offer SSC within 10 minutes of the woman being able to respond to their baby \(^{23}\)  
  Offer SSC following instrumental births in both birth suite and operating theatre environments |
| **Clinical surveillance** | • If there are concerns about the health and wellbeing of the woman or baby during SSC, tailor supervision requirements as required  
  • Follow local protocols for the assessment of risk factors and supervision requirements during SSC  
  • Routine neonatal observations are indicated during SSC  
    o Follow local protocol (e.g. Neonatal early warning tool)  
  • Refer to Appendix B: Supervision during skin to skin contact |
| **Recommendation** | • Facilitate SSC regardless of type of birth and intended method of feeding  
  • Initiate local systems and processes that enable and support SSC after birth regardless of birth mode and feeding method  
  • Offer and encourage SSC for a minimum of one hour, or longer if first breastfeeding has not been initiated  
  • Where possible, do not interrupt SSC until the first breastfeed is finished  
  • Delay procedures for the baby until after the first breastfeed such as \(^{23}\):  
    o ‘head to toe’ checks,  
    o weighing,  
    o bathing and  
    o administration of vitamin K  
  • If the woman is unavailable but baby is well, SSC with another person (commonly the partner) is an appropriate alternative \(^{23}\)  
  • Document duration of SSC, baby’s condition during SSC or reason why SSC was not implemented |
2.4 Feeding according to need

Table 6. Baby feeding patterns

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
</table>
| **Behaviour states** | Six defined baby behavioural states have been recognised\(^{57}\):  
  o Sleep states:  
    ▪ Deep sleep, light sleep, drowsy  
    ▪ Awake states:  
      ▪ Quiet alert, active alert, crying  
  o Understanding behavioural states can assist interpretation of baby’s behaviour and facilitate an appropriate response\(^{58}\)  
  o Quiet alert state is the ideal time to initiate SSC and breastfeeding\(^{58,59}\)  
  o Offering a breastfeed during light sleep/drowsy state is an effective strategy for babies who have a quick transition from deep sleep to active alert or crying\(^{59}\) |
| **Feeding cues** | Feeding in response to cues increases breastfeeding initiation, continuation and exclusivity\(^{60}\)  
  o Encourage unrestricted breastfeeding in response to baby’s early/mid feeding cues\(^{23}\)  
  o Assist the woman to identify cues for feeding and comfort, offer her calming strategies and reassurance\(^{23,61}\)  
  o Encourage response to baby’s cues to determine if one or both breasts are required at an individual feed\(^{62}\)  
  o Breastfeeding can be used to comfort and calm baby, as well as to alleviate hunger\(^{47}\)  
  o Advise woman not to interrupt breastfeeding (if breastfeeding is comfortable) until baby indicates satiety by:  
    o Releasing nipple without further rooting behaviour  
    o Discontinuing nutritive suck/swallow patterns  
    o Falling asleep\(^{63}\) |
| **Feeding patterns** | Typically, babies have a two hour alert period after birth\(^{1}\)  
  o Ideal time for woman to initiate breastfeeding\(^{1,58}\)  
  o A sleepy period may follow  
    o Increased SSC can encourage more frequent feeding if necessary  
    o This period is often followed by variable sleep-wake cycles, with an additional one or two wakeful periods in the next 10 hours  
    o Commonly babies feed frequently (but not necessarily at regular intervals) in the second 24 hours of life as milk flow increases  
  o Babies establish a pattern of breastfeeding 8–12 times over a 24 hour period during the first week\(^{60}\)  
  o Breastfeeding frequency will vary according to baby’s needs and the rate of milk transfer\(^{6}\)  
  o Babies are settled after most breastfeeding, although many have periods each day when they will not settle and continue to cue for feeding and/or comfort  
    o Timing the feed is discouraged  
    o Observe for signs of nutritive sucking  
  o Length of each feed is highly variable; during the early days/weeks and can take up to an hour  
  o Timing the feed is discouraged  
  o Observes for signs of nutritive sucking |
2.5 Rooming-in

Table 7. Rooming-in

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Considerations</th>
</tr>
</thead>
</table>
| Rooming-in   | • Limited evidence exists about the effect of woman-baby separation versus rooming-in and breastfeeding duration\(^{64,65}\)  
• Keep woman and baby together whenever possible to facilitate\(^{30,37}\):  
  o Opportunities for bonding and attachment  
  o Recognition and timely response to early/mid feeding cues  
  o Familiarisation with baby's behaviour prior to discharge  
• Rooming-in does not compromise woman's amount or quality of sleep\(^{1,37}\)  
  o Evaluate maternal extreme fatigue for safety of woman and baby\(^1\)  
  o Closeness to a responsive parent reduces the risk of SIDS\(^{66,67}\)  
  o Perform baby examinations and routine tests in the woman's room\(^{37}\)  
  o If not possible, encourage the woman to be present                                                                                                                                                                                                                          |
| Recommendation | • Facilitate rooming-in wherever possible  
• Advise the woman (and family) about recommendations for safe sleeping as outlined in the Queensland Government safe sleeping guidelines\(^{68}\)  
• On discharge recommend baby sleep in the same room as parents or caregiver for the first six to twelve months of life\(^{69}\)                                                                                           |

3 Breastfeeding assessment

Table 8. Assessment

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
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</table>
| Context      | • Provides an opportunity to partner with the woman to:  
  o Determine learning needs  
  o Provide anticipatory guidance  
  o Identify effective breastfeeding  
  o Identify breastfeeding concerns  
  o Facilitate early intervention                                                                                                                                                                                                                                                                                   |
| Preparation  | • Review health record and baby feeding chart  
• Discuss specific health concerns with the woman as they relate to breastfeeding (e.g. birth experience, comfort, tiredness, healing)  
• Ask the woman about their breastfeeding experience (e.g. expectations, frequency and length of feeds, baby’s output)  
• Assess breast and nipple comfort (e.g. breast fullness, nipple tenderness)  
• Encourage the woman find a comfortable breastfeeding position                                                                                                                                                                                                                                                     |
| Recommendation | • Offer help with breastfeeding within the first two hours of birth\(^{23,30}\)  
• If first breastfeed is successful and pleasant, it is a key marker for continued breastfeeding\(^9\)  
  o If women feel awkward and incompetent in the first two days, they are more likely to cease breastfeeding early\(^9\)  
  o Ensure maternal pain is recognised and managed appropriately if required  
• Offer help with the next breast feed, within approximately six hours of birth or earlier  
• Use a ‘hands off’ approach where possible and appropriate\(^{23}\)  
• Assess breastfeeding effectiveness at least once per shift (every 8 hours) and as indicated after birth until discharge\(^{30,37}\)  
• Breastfeeding assessment tools can provide objective evidence regarding effectiveness of a particular breastfeed\(^{70}\)                                                                                                                                             |
### 3.1 Positioning and attachment

**Table 9. Positioning and attachment**

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
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</table>
| **Positioning**   | • When the baby is held chest to chest with the woman, primitive neonatal reflexes support self attachment or attachment with minimal assistance\(^7\)  
                  • Woman adopts a position of comfort\(^7\) and uses her arm to provide positional stability for her baby\(^7\)  
                  • If sitting, encourage the woman to recline with back supported to reduce shoulder tension and enable her body to support baby\(^7\)  
                  • Baby is held close to the woman’s body with head, neck, and back aligned to provide stability and easy access to the breast\(^7\)  
                  o Align the baby’s face with the breast, and avoid grasping the baby by the anatomical structures of the head, neck and mid shoulders\(^7\)  
                  ▪ Restriction of the cranio-cervical spine can interfere with the stabilising function of the nuchal ligament, and limit the baby’s innate feeding reflexes and capacity to locate the nipple and breast |
| **Attachment**    | • Breastfeeding is an innate and instinctual behaviour for babies, however they often need help to find the breast\(^7\)  
                  • Signs of good attachment:  
                  o Baby takes a good amount of the breast including the nipple and much of the areola into the mouth\(^7\)  
                  o Deep jaw movements are observed\(^7\)  
                  o Cheeks are not sucked in and there is a good seal applied to the breast by the baby\(^7\)  
                  o Woman is comfortable\(^7\)  
                  ▪ It is common for women to feel some initial nipple discomfort in the early weeks that settles as milk begins to flow  
                  o Baby looks comfortable, relaxed and is not wriggling, tense, frowning or grimacing  
                  o Milk transfer is evident  
                  ▪ Refer to Table 10. Milk transfer and production  
                  o After feeding, nipples may appear slightly elongated but not flattened, white or ridged\(^6\)  
                  • Encourage woman to bring baby to breast rather than moving the breast to the baby\(^7\)  |
| If attachment not effective | • Advise woman to insert their finger into the corner of the baby’s mouth to break the seal and facilitate detachment\(^7\)  
                              • Use positioning principles to enable baby to reattach  |

---

\(^6\) Refer to online version, destroy printed copies after use
## 3.2 Milk transfer and production

Table 10. Milk transfer and production

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
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</thead>
</table>
| **Milk transfer** | • Milk ejection reflex (MER) influences amount of milk baby consumes regardless of the length of the breastfeed\(^78\)  
  o MER may take two to three minutes to occur in the first few days after birth\(^35\)  
  • Multiple milk ejections are common during a breastfeed however the woman may not sense it or may only sense the initial MER  
  • Woman may sense or notice MER by\(^78\):  
  o Becoming thirsty  
  o Breast sensations (e.g. pins and needles, pressure, milk leakage)  
  o Uterine contractions ‘afterbirth pains’ in the immediate postpartum period  
  • A noticeable change in baby’s sucking/swallowing pattern is the most consistent sign of milk transfer (although may be difficult to detect initially)  
  o When baby begins swallowing—slow, deep, one suck per second (nutritive) sucking with few pauses  
  o Frequency of suck-swallow patterns will depend on the rate of milk flow\(^6\)  
  o Swallowing can be seen/heard—normally subtle  
  o With a new milk ejection, swallowing may become slightly louder and more frequent  
  o As feed progresses, pausing occurs more frequently and lasts longer  
  • Once breasts begin to fill, softening of breast/s is evident after a feed  
  • If concerns identified regarding inadequate milk transfer, refer for further assessment and support (e.g. IBCLC) |
| **Milk production** | • Birth to 72 hours: baby takes increasing amounts of colostrum  
  o Refer to Appendix C: Input/output checklist  
  • Days two to four (46 to 96 hours) after birth: milk production increases\(^35\)  
  • Often experienced by a feeling of breast fullness between 40 and 72 hours after birth although not always sensed by the woman\(^35\)  
  • The first week of breastfeeding is important for establishing an adequate milk supply\(^79\)  
  o Volume increases rapidly during first week to between 400 and 850 mL per day\(^79,80\)  
  o Milk production on day 6 is significantly associated with milk production at week 6  
  o The milk storage capacity of breasts varies significantly between women\(^6\)  
  o The milk storage capacity of a woman’s breasts can vary significantly between the left and right breast |
3.3 Breastfeeding effectiveness

The adequacy of breastfeeding can be assessed by observing baby’s behaviour, feeding patterns and output and by monitoring baby’s weight and overall growth using growth reference charts.6

Table 11. Monitoring effectiveness

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
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<tbody>
<tr>
<td>Behaviour</td>
<td>• Maternal and clinician knowledge of what is normal in relation to baby behaviour and feeding patterns will assist monitoring of breastfeeding effectiveness</td>
</tr>
<tr>
<td></td>
<td>• Refer to Section 2.5 Feeding according to need</td>
</tr>
</tbody>
</table>
| Output                  | • Changes in stooling is the most reliable sign of milk intake81  
|                         | • A relationship exists between stool frequency, transition to yellow colour; and adequate breast milk intake81  
|                         | • Expect:  
|                         | o Change in stool from meconium to transitional during first 24–48 hours after birth8  
|                         | o Yellow stools by day 3–46  
|                         | o At least three to four stools per day by day 5–7  
|                         | • Urine output/frequency of wet nappies82  
|                         | o Failure to pass urine in the first 24 hours of life is cause for concern  
|                         | o Increases to three or more wet nappies by third day after birth  
|                         | • Refer to Appendix C: Input/output checklist                                                                                                 |
| Weight                  | • Breastfed, term babies commonly lose 7–8% of birth weight by day three83  
|                         | • Maximum normal weight loss is 10% at day five  
|                         | • Most babies regain birth weight by day 10  
|                         | • Identify babies outside of these parameters and target for support and early follow-up  
|                         | o Refer to Queensland Clinical Guideline: Routine newborn assessment73  
|                         | • Large volumes of intravenous (IV) fluids before birth may artificially elevate birthweight and increase the baby’s urine output and weight loss83-85  
|                         | o This may impact expected patterns of weight loss and regain during the early days of life83  
|                         | • Refer to Appendix C: Input/output checklist                                                                                                 |
| Indications for investigation/medical review | • Abnormal stooling patterns and urine output  
|                         | • Concerns about general appearance and/or observations (e.g. skin colour, state of alertness, activity, muscle tone, temperature)  
|                         | o Refer to Queensland Clinical Guideline: Routine newborn assessment  
|                         | • Newborn hypoglycaemia related to ineffective feeding  
|                         | o Refer to Queensland Clinical Guideline: Newborn hypoglycaemia  
|                         | • Physiological jaundice—frequently exacerbated by inadequate milk intake  
|                         | o Refer to Queensland Clinical Guideline: Neonatal jaundice  
|                         | • Unsettled behaviour (e.g. frequent crying after feeds), followed by lethargy  
|                         | • Signs of dehydration include:  
|                         | o No urine in more than eight hours after the first 24 hours, urates after 96 hours, scant concentrated urine, prolonged duration of meconium stools, dry skin and mucous membranes with poor turgor, weak cry, lethargy, depressed fontanelles (late and ominous sign)  
|                         | • Any other problems that raise concern
4 Supplementary feeding

Supplementary feeding may be indicated because of concerns with the health and wellbeing of either the woman or baby, or both.

4.1 Decision making and supplementary feeding

Table 12. Decision making

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
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</thead>
</table>
| Prevention | • The following factors aid in preventing the need for supplementation\(^1\):  
  o Antenatal education and in-hospital support  
  o Women and health care providers being aware of the risks of unnecessary supplementation  
  o SSC  
  o Staff equipped to assist with breastfeeding  
  o Rooming-in  
  o If woman-baby separation or suboptimal milk supply, encouragement and instruction with expressing breast milk  
• Address early indicators of potential need for supplementation\(^1\):  
  o Formally assess breastfeeding position, latch and milk transfer prior to provision of supplementary feeding  
• Common clinical scenarios where evaluation and management of breastfeeding is necessary, but supplementation is not necessarily indicated include\(^1\):  
  o Baby who is fussy at night or constantly feeding for several hours  
  o Tired or sleeping woman  
  o Sleepy baby |
| Potential indications | • Potential neonatal indications\(^1\):  
  o Hypoglycaemia unresponsive to appropriate frequent breastfeeding and use of glucose gel  
  ▪ Refer to Queensland Clinical Guideline: Hypoglycaemia—newborn  
  o Signs and symptoms indicating inadequate milk intake including:  
  ▪ Clinical or laboratory evidence of dehydration  
  ▪ Weight loss of greater than or 8–10% at day 5 (120 hours) or later  
  ▪ Delayed bowel movements  
  o Hyperbilirubinaemia  
  ▪ Refer to Queensland Clinical Guideline: Neonatal jaundice\(^86\)  
• Potential maternal indications\(^1\):  
  o Delayed secretory activation  
  o Primary glandular insufficiency  
  o Breast pathology or previous breast surgery resulting in inadequate milk production  
  o Separation from baby  
  o Substances not compatible with breastfeeding  
  ▪ Refer to Queensland Clinical Guidelines: Perinatal substance use: maternal and neonatal\(^87,88\)  
  o Intolerable pain during feeding not relieved by appropriate interventions |
| Determining requirement for supplementation | • Determine requirement for supplementation on a case by case basis  
• Inform parents of potential risks and benefits of supplementation, and respect their decision regarding supplementation |
## 4.2 Supplementary feeding

Table 13. Supplementary feeding

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
</table>
| **Choice of supplement**¹     | • Expressed breast milk (EBM) from baby’s mother is first choice  
  o Refer to Table 14. Expressing breastmilk  
  • Pasteurised donor human milk is preferable to other supplements where safe and available  
  o Access criteria may apply  
  • Appropriate standard newborn infant formula  
  • Supplementation with glucose water is not recommended  
  o Does not provide sufficient nutrition  
  o Does not reduce serum bilirubin  
  o May cause hyponatraemia |
| **Goals of supplementation**¹ | • Feed the baby whilst optimising maternal milk supply, and determining cause of low milk supply, inadequate milk transfer or poor feeding  
  • Perform supplementation in a way that preserves breastfeeding  
  o Limit volume of supplement to requirements for newborn physiology  
  o Stimulate the breast with hand expression or pumping (refer to 4.3 Expressing breastmilk)  
  o Continue to provide opportunity for baby to practise feeding at the breast |
| **Volume**¹                   | • When appropriate, assess breastfeeding prior to initiating supplemental feedings  
  • Give sufficient volume to maintain hydration and nutrition  
  • In the first two days after birth, offer no more than 10–15mL per feed to a healthy term baby |
| **Method of feeding**¹        | • An optimal supplementary feeding method has not been identified²³  
  o May vary from one infant to another  
  o No method is without potential risk and benefit  
  • There is little evidence about the safety or efficacy of most alternative feeding methods and their effect on breastfeeding (i.e. cup feeding, dropper, syringe or spoon, finger feeding, supplemental feeder, bottles and teats)  
  • When selecting an alternative feeding method, consider:  
  o Maternal preference  
  o Cost and availability  
  o Ease of use and cleaning  
  o Whether adequate milk volume can be fed in 20–30 minutes  
  o Whether short or long-term use is anticipated |
| **Recommendation**            | • Prevent need for supplementation wherever possible  
  • Follow local protocols about use and care of equipment  
  • Support women with preferred supplementation feeding method  
  • Develop/follow local education and training requirements to ensure clinician competency  
  • Develop and follow local protocols for administration and documentation of supplement  
  o Refer to Queensland Clinical Guideline: Standard care²² |
### 4.3 Expressing breastmilk

Table 14. Expressing breastmilk

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
</tr>
</thead>
</table>
| **Instruction**               | - Offer all women instruction and information on how to hand express\(^{61}\)
|                               |   - Reassure and advise that expressing may yield little colostrum at first
|                               |     - Refer to Appendix C: Input/output checklist
|                               |   - Demonstration is ideally with a cloth or knitted breast model and a ‘hands off’ approach
|                               |   - Hand expressing is useful to:
|                               |     - Express on to nipple to encourage feeding cues
|                               |     - Soften the breast if overfull (uncomfortable)
|                               |     - Provide supplement if breastfeeding ineffective
|                               |   - Frequency and duration will depend on individual clinical reason for expressing
|                               |     - Refer to Appendix D: Recommendations for common breastfeeding concerns                                                                                                                                  |
| **Methods of expressing**     | - Hand: most efficient method of obtaining colostrum
|                               | - Pump: follow local procedures on use and care of equipment                                                                                                                                                  |
| **Labelling and storage of EBM** | - To minimise errors related to EBM, develop local protocols for:
|                               |     - Labelling EBM (full name, date of birth and hospital record number, date and time breast milk expressed)
|                               |     - Checking and signing for EBM by two staff members prior to administration
|                               |     - Recommend breast milk storage as outlined in *Child Health Information: Your guide to the first 12 months*\(^{89}\)
|                               | - Refer to Queensland Clinical Guideline: *Standard care*\(^{32}\)                                                                                                                                              |
4.4 Alternative feeding choices

Table 15. Alternative feeding choices

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
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</thead>
</table>
| Reversing decision to breastfeed | • To support the woman who considers stopping breastfeeding\(^6\):  
  o Explore reasons  
  o Inform of difficulties associated with re-establishing breastfeeding if decision is changed at a later date  
  o Offer additional support including referral to IBCLC  
  o Respect decision  

| Infant formula              | • Routine use in healthy breastfed babies is not recommended\(^6\)  
  • Follow local protocols when supplementation with infant formula is indicated/desired (e.g. maternal consent form, access to infant formula preparation areas, one-to-one education)                                                                                                                                                                                                                     |
| Milk banks                  | • Donor milk banks collect, screen, pasteurise and distribute breast milk to babies whose mothers are unable to supply enough breast milk  
  • Eligibility criteria for donating and accessing donor milk apply                                                                                                                                                                                                                                                                                                                                                     |
| Sharing breastmilk          | • Discuss the risks and benefits of peer breast milk sharing networks with the woman and family on a case by case basis\(^90,91\)                                                                                                                                                                                                                                                                                                                                               |

5 Dummy (pacifier) use

Table 16. Dummy (pacifier) use

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
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</thead>
</table>
| Context             | • Use before four weeks of age is associated with reduced duration of breastfeeding and may contribute to breastfeeding difficulty\(^6\)  
  • Probable association between dummies during sleep and a decrease in the risk of SIDS\(^92\)  
  • Effective in reducing procedural pain when used alone or in conjunction with other non-pharmacological interventions\(^93\)                                                                                                                                                                                                                                                                                                         |
| Recommendation      | • Inform parents of the possible advantages and disadvantages associated with dummy use with emphasis on effect on sucking  
  • Recommend  
    o Delaying dummy introduction until breastfeeding is established, usually after the first 4 to 6 weeks\(^6,94,95\)  
    o Once breastfeeding is established, a dummy may be offered when placing baby on back to sleep\(^6,30\)  

Refer to online version, destroy printed copies after use
6  Common concerns
Most concerns are temporary and can be managed without discontinuing breastfeeding. Individualise care according to needs and preferences.

Table 17. Initial care for all women with breastfeeding concerns

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
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</table>
| Initial care for women with concerns | • Review clinical history  
• Assess a breastfeeding  
• Apply supportive care practices, including SSC (refer to Section 2 Supportive care)  
• Develop a plan in collaboration with the woman  
• Feed the baby according to need  
  o Refer to Section 4 Supplementary feeding  
  o Refer to Appendix C: Input/output checklist  
• Encourage initiation and maintenance of milk supply  
• If baby is unable to initiate breastfeeding or is separated from the mother, support the woman to express her breasts  
  o As soon as possible after birth, but at least within two hours of birth  
  o At least eight times in 24 hours |
| Specific concerns               | • Refer to an appropriately qualified health professional (e.g. IBCLC, medical officer, neonatal nurse practitioner) as required  
• Refer to Appendix D: Recommendations for common breastfeeding concerns |

7  Continued breastfeeding

Table 18. Referral and follow-up

<table>
<thead>
<tr>
<th>Aspect</th>
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| Suggested breastfeeding discharge criteria | • In addition to usual readiness for discharge criteria for both the woman and baby, the woman can independently:  
  o Position baby at breast without significant pain  
  o Identify when baby is swallowing milk  
  o Identify normal feeding patterns (8–12 times a day with some babies needing to breastfeed more frequently)  
  o Identify age-appropriate elimination patterns (at least six urinations per day and 3–4 yellow stools per day by the end of the first week)  
  o Hand express breast milk  
  o Identify indications for accessing a healthcare professional  
  o Access breastfeeding advice, support and information |
| Concerns                        | • Identify potential/existing breastfeeding concerns or knowledge deficits prior to discharge from service  
  o Develop specific care plans/recommendations with the woman  
  o Identify local opportunities for access to ongoing breastfeeding support (e.g. IBCLC, child health nurse, community support groups) |
| Routine follow-up               | • Recommend all routine follow-up assessments including follow-up with a GP  
  o Refer to Queensland Clinical Guideline: Routine newborn assessment  
• Recommend a formal breastfeeding evaluation as part of a postpartum check with a qualified health care professional including:  
  o Baby weight check  
  o Assessment of neonatal jaundice  
  o Review of age appropriate elimination  
• Offer scheduled and ongoing home visits  
• Offer information about Child Health Services, community breastfeeding organisations and peer support services |
## 7.1 Health promotion

Table 19. Ongoing advice and information

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Considerations</th>
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<tbody>
<tr>
<td><strong>Support</strong></td>
<td>• Fathers/partners, other family members and friends play an important role in supporting the breastfeeding woman⁶¹,⁹⁷:</td>
</tr>
<tr>
<td></td>
<td>o Offer support and education to partners on the importance of breastfeeding and include them in breastfeeding education classes, pregnancy and postpartum care</td>
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<tr>
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<td>o Peer support counsellors and professionals have a positive impact on breastfeeding outcomes⁴⁸</td>
</tr>
<tr>
<td></td>
<td>o Face-to-face support is more likely to be effective⁴⁸</td>
</tr>
<tr>
<td><strong>Breastfeeding advice and information</strong></td>
<td>• Offer and support access to breastfeeding education/resources⁶¹</td>
</tr>
<tr>
<td></td>
<td>• Discuss and offer information about:</td>
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<tr>
<td></td>
<td>o Breastfeeding away from home</td>
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<tr>
<td></td>
<td>o Maximising breastmilk if infant formula has been introduced</td>
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<tr>
<td></td>
<td>o Continuing to breastfeed upon return to work</td>
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<tr>
<td></td>
<td>o Contraception</td>
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<td></td>
<td>o Normal changes over time</td>
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<tr>
<td></td>
<td>o Appropriate nutrition for babies</td>
</tr>
<tr>
<td></td>
<td>o Smoking, alcohol and other substance use⁶</td>
</tr>
<tr>
<td></td>
<td>▪ Refer to Queensland Clinical Guidelines: <em>Perinatal substance use: maternal and neonatal</em>⁶⁷,⁸⁸</td>
</tr>
<tr>
<td></td>
<td>• Encourage review of baby by a health care professional at five to seven days of age</td>
</tr>
<tr>
<td></td>
<td>o Refer to Queensland Clinical Guideline: <em>Routine newborn assessment</em>⁷³</td>
</tr>
<tr>
<td><strong>Nutrition and physical activity</strong></td>
<td>• Provide advice about nutrition as per the Australian dietary guidelines⁵⁸</td>
</tr>
<tr>
<td></td>
<td>• Recommend a maternal iodine supplement of 150 micrograms oral daily⁶,³⁶</td>
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<tr>
<td></td>
<td>o Supplementation is usually required as it is difficult to achieve through diet alone</td>
</tr>
<tr>
<td></td>
<td>o If woman has pre-existing thyroid condition, advise to seek GP advice before taking supplement</td>
</tr>
<tr>
<td></td>
<td>• Encourage physical activity as per Australian Government recommendations and guidelines⁹⁹</td>
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<tr>
<td></td>
<td>• Exercise does not negatively affect breastfeeding</td>
</tr>
</tbody>
</table>
8 Breastfeeding cautions

In Australia, there are very few indications for completely avoiding breastfeeding. Individualise care and seek expert advice as required.

Table 20. Breastfeeding cautions

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Consideration</th>
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</thead>
</table>
| Breastfeeding not recommended             | • Specialised formula required for:  
  o Galactosaemia\(^6,27,61\)  
  ▪ Galactose-free formula required  
  o Maple syrup urine disease\(^27,61\)  
  ▪ Formula free of leucine, isoleucine and valine required  
  o Phenylketonuria (PKU)\(^6,61\)  
  ▪ Phenylalanine-free formula required  
  ▪ Some breastfeeding may be possible with careful monitoring  
  • Human immunodeficiency virus (HIV) positive mother\(^6,27,61\) |
| Temporary avoidance or supplementation required | • Examples include, but are not limited to:  
  o Severe maternal illness when woman is unable to care for baby (e.g. sepsis)\(^6\)  
  o If hepatitis C positive and nipples are bleeding\(^100\)  
  o If herpes simplex virus type 1 (HSV-1) on the breast\(^6,61\), avoid breastfeeding until all active lesions have resolved\(^6\)  
  o Recently acquired syphilis  
  ▪ Mother-baby contact and breastfeeding can begin after 24 hours of therapy, provided there are no lesions around the breasts or nipples\(^6\)  
  • Refer to Section 4: Supplementary feeding |
| Maternal medication and substance use      | • Individualise care:  
  o Refer to a breast milk pharmacopeia for recommendations about specific medications (e.g. LactMed\(^101\), Hale’s Medication and Mothers’ Milk\(^102\))  
  o Temporary or permanent cessation of breastfeeding may be advised during treatment with some medications such as chemotherapy\(^61\)  
  o Refer to Queensland Clinical Guidelines: Perinatal substance use: neonatal and maternal\(^87,88\) |
| Recommendation                             | • Whenever an interruption to breastfeeding is being considered, weigh the benefits of breastfeeding against the risks and discuss with the woman and family\(^27\)  
  • When a woman decides to continue breastfeeding in situations where a degree of risk is identified, refer for specialist advice and management  
  • Where temporary avoidance of breastfeeding is indicated, support the woman to express breast milk to maintain lactation |
References


Appendix A: Principles of the Baby Friendly Health Initiative

BFHI 10 steps to successful breastfeeding

<table>
<thead>
<tr>
<th>Critical management procedures</th>
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<tbody>
<tr>
<td><strong>Step 1a</strong></td>
<td>• Have a written infant feeding policy that is routinely communicated to staff and parents</td>
</tr>
<tr>
<td><strong>Step 1b</strong></td>
<td>• Comply fully with the <em>International Code of marketing of breast-milk substitutes</em> and relevant World Health Assembly resolutions</td>
</tr>
<tr>
<td><strong>Step 1c</strong></td>
<td>• Establish ongoing monitoring and data-management systems</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td>• Ensure that staff have sufficient knowledge, competence and skills to support breastfeeding</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key clinical practices</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 3</strong></td>
<td>• Discuss the importance and management of breastfeeding with pregnant women and their families</td>
</tr>
<tr>
<td><strong>Step 4</strong></td>
<td>• Facilitate immediate and uninterrupted skin-to-skin contact and support mothers to recognise when their babies are ready to breastfeed, offering help if needed</td>
</tr>
<tr>
<td><strong>Step 5</strong></td>
<td>• Support mothers to initiate and maintain breastfeeding and manage common difficulties</td>
</tr>
<tr>
<td><strong>Step 6</strong></td>
<td>• Do not provide breastfed newborns any food or fluids other than breast milk, unless medically indicated</td>
</tr>
<tr>
<td><strong>Step 7</strong></td>
<td>• Enable mothers and their infants to remain together and practise rooming-in 24 hours a day</td>
</tr>
<tr>
<td><strong>Step 8</strong></td>
<td>• Support mothers to recognise and respond to their infants’ cues for feeding</td>
</tr>
<tr>
<td><strong>Step 9</strong></td>
<td>• Counsel mothers on the use and risks of feeding bottles, teats and pacifiers</td>
</tr>
<tr>
<td><strong>Step 10</strong></td>
<td>• Coordinate discharge so that parents and their infants have timely access to ongoing support and care</td>
</tr>
</tbody>
</table>


Summary of WHO International Code of Marketing of Breastmilk Substitutes and subsequent World Health Assembly resolutions

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advertising</strong></td>
<td>• No advertising or promotion of breastmilk substitutes, including infant formula and complementary foods and beverages as well as bottles, teats</td>
</tr>
<tr>
<td><strong>Samples</strong></td>
<td>• No free samples to mothers, their families or health care workers</td>
</tr>
<tr>
<td><strong>Health care facilities</strong></td>
<td>• No promotion of products to the public&lt;br&gt;• No company nurses to have access to and/or advise women&lt;br&gt;• No gifts or personal samples to health workers (e.g. diaries, pens, food or meals)&lt;br&gt;• No free or low-cost supplies to be given</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>• No words or pictures idealising artificial feeding, including pictures of infants on the labels of products&lt;br&gt;• Information to health workers should be scientific and factual</td>
</tr>
<tr>
<td><strong>Labels</strong></td>
<td>• All information on artificial infant feeding, including labels, should explain benefits of breastfeeding, and costs and hazards associated with formula</td>
</tr>
<tr>
<td><strong>Products</strong></td>
<td>• Unsuitable products, such as sweetened condensed milk, should not be promoted for babies. All products should be of high quality and take account of the climatic and storage conditions of the country in which they are to be used</td>
</tr>
</tbody>
</table>

## Appendix B: Supervision during skin to skin contact

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Considerations</th>
</tr>
</thead>
</table>
| **Recommendation**                      | • Vigilance is a fundamental part of care in the first few hours after birth  
• Where they exist, follow local protocols for supervision during skin to skin contact  
• Assess the circumstances of each woman and baby individually  
• Indirect supervision by health professionals requires frequent visual observations of the baby  
• Direct supervision of skin to skin contact by a partner or relative may be appropriate at the discretion of the health care provider  
• Perform observations throughout the period of skin to skin contact and interrupt skin to skin contact if the health of either the woman or the baby gives rise to concern  
• Position woman and baby to ensure baby:  
  o Has face visible  
  o Cannot fall on to the floor  
  o Cannot become trapped in bedding or by the woman’s body  
  o Has head supported so airway does not become obstructed  
• Discourage the woman from holding baby when receiving analgesia which causes drowsiness or alters state of awareness  
• Consider safety if pain not well controlled as the woman is unlikely to be able to hold baby comfortably or safely  

| Risk factors during skin to skin contact | • If risk factors are identified, provide documented direct supervision during skin to skin contact  
• A non-exhaustive list of factors which may raise safety issues for unsupervised skin to skin contact include:  
  o Intrapartum  
    ▪ Extended labour  
    ▪ Maternal fatigue  
    ▪ Emergency caesarean section  
    ▪ Assisted birth  
  o Pain  
  o Medications  
    ▪ Narcotics administered in last five hours  
    ▪ Sedation administered in last four hours  
  o Current substance use  
  o Alcohol intoxication  
  o Underlying health conditions for woman and/or baby  
    ▪ Obesity  
    ▪ Mental health concerns  
  o Any other identified risk |
## Appendix C: Input/output checklist

<table>
<thead>
<tr>
<th>Age (hours)</th>
<th>Breast milk intake</th>
<th>Number of breastfeed</th>
<th>Number of wet nappies</th>
<th>Stooling</th>
<th>Stool colour</th>
<th>Stool consistency</th>
<th>Baby weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–24</td>
<td>0–5 mL colostrum at first feed 2–10 mL (average of 7 mL) per feed 7–123 mL of colostrum total in first 24 hours</td>
<td>First 8 hours: 1 or more Second 8 hours: 2 or more Third 8 hours: 2 or more</td>
<td>1 or more</td>
<td>1–2</td>
<td>black</td>
<td>tarry/sticky</td>
<td>Loses 7% average 10% maximum</td>
</tr>
<tr>
<td>24–48</td>
<td>5–15 mL per feed Increasing volumes</td>
<td>8–12</td>
<td>2 or more</td>
<td>1–2</td>
<td>1–2</td>
<td>greenish/black then brownish 'transitional'</td>
<td>softening</td>
</tr>
<tr>
<td>48–72</td>
<td>15–30 mL per feed Increasing volumes</td>
<td>8–12</td>
<td>3 or more</td>
<td>3–4</td>
<td>greenish/yellow</td>
<td>soft</td>
<td></td>
</tr>
<tr>
<td>72–96</td>
<td>30–60 mL per feed 395–800 mL per day</td>
<td>8–12</td>
<td>4 or more</td>
<td>4 large or 10 small</td>
<td>yellow/seedy</td>
<td>soft/liquid</td>
<td></td>
</tr>
<tr>
<td>End of first week</td>
<td>395–800 mL per day Increasing volumes 440–1220 mL per day by one month</td>
<td>8–12</td>
<td>6 or more</td>
<td>4 large or 10 small</td>
<td>yellow/seedy</td>
<td>soft/liquid</td>
<td>Weight loss plateaus then starts to regain weight</td>
</tr>
</tbody>
</table>

- Between 4–6 days of age, babies start to regain weight and by two weeks will have returned to birth weight
- Most babies have returned to birth weight by 10 days of age
- Average weekly weight gain of 150 to 200 grams to three months of age
- Babies usually double their birth weight by six months of age, and triple their birth weight by 12 months of age
- Weight gain or loss is only one aspect of wellbeing—assess every woman and baby on an individual basis
- Urates may be present before secretory activation when milk flow increases—urates not expected after 96 hours of age
- Number of bowel motions of breastfed babies tends to decrease between six weeks and three months of age

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Appendix D: Recommendations for common breastfeeding concerns

- Consider specific recommendations listed below in addition to the universal recommendations and supportive care strategies outlined in the guideline
- Refer to appropriately qualified health professional (e.g. IBCLC, medical officer, child health nurse) if concerns persist and/or interventions require monitoring after discharge from the service

<table>
<thead>
<tr>
<th>Concern</th>
<th>Signs/Consideration</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleepy baby not exhibiting feeding cues</td>
<td>• Prolonged periods of not feeding require investigation</td>
<td>• Reassure woman this is usually temporary</td>
</tr>
<tr>
<td></td>
<td>• Exclude causes such as effects of maternal analgesia during labour and birth, effects of the birth process and illness</td>
<td>• Refer to Flowchart: Management of the healthy term baby in the first 24–48 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Refer to Queensland Clinical Guideline: Neonatal jaundice</td>
</tr>
<tr>
<td>Alert baby who is exhibiting feeding cues but unable to attach</td>
<td>• Reason may not be apparent</td>
<td>• Only persist with offering breast whilst baby is calm</td>
</tr>
<tr>
<td></td>
<td>• Can be distressing for both the woman and her baby as baby may back arch, cry when approaching the breast and push away</td>
<td>• Skin to skin contact may help baby self-regulate to a calm state</td>
</tr>
<tr>
<td></td>
<td>• Woman related reasons include:</td>
<td>• Holding/pushing head or forcing to breast is counterproductive, distressing and associated with persistent arching by baby (arching reflex)</td>
</tr>
<tr>
<td></td>
<td>o Inverted or flat nipples, areola engorgement/oedema</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o When nipple is flat or inverted, or areola engorged, it obliterates nipple, and makes grasping nipple/areola difficult or impossible for baby</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Reverse pressure softening (RPS) uses gentle positive pressure to soften areola and surrounding tissue by temporarily moving swelling slightly backward and upward into the breast</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Baby related reasons include:</td>
<td>• Expert lactation support and advice on attachment and breastfeeding technique may be beneficial and sufficient</td>
</tr>
<tr>
<td></td>
<td>o Birth trauma</td>
<td>• Suspected tongue-tie requires:</td>
</tr>
<tr>
<td></td>
<td>o Ankyloglossia (tongue-tie)</td>
<td>o Prompt assessment to determine whether interfering with feeding</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o If affecting breastfeeding, referral for thorough functional assessment of suspected ankyloglossia by an experienced health professional</td>
</tr>
<tr>
<td>Delay in secretory activation or poor milk transfer</td>
<td>• Common cause of poor milk transfer is sub-optimal attachment</td>
<td>• Refer to relevant sections within the guideline</td>
</tr>
<tr>
<td></td>
<td>• Possible causes of delay in secretory activation include:</td>
<td>• Delay in secretory activation in first 72 hours warrants investigation</td>
</tr>
<tr>
<td></td>
<td>o Postpartum haemorrhage, diabetes, obesity</td>
<td>• Review history and birth events for possible cause</td>
</tr>
<tr>
<td></td>
<td>• Possible causes of low milk production at stage of initiation include breast surgery, hypoplastic breasts, chronic disease or medical conditions</td>
<td>• A baby with suspected dehydration requires medical assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Triage for early post discharge surveillance</td>
</tr>
</tbody>
</table>
### Concern | Signs/Consideration | Recommendations
--- | --- | ---
**Nipple pain and trauma** | • Nipple discomfort in the first few days is common
• Commonly cited reason for ceasing breastfeeding
• Sub-optimal positioning is the most common cause
• Other causes include tongue-tie, flat or retracted nipples, poor skin health (e.g. eczema, bacterial, thrush, herpes), nipple vasospasm
• Regardless of treatment used, most women report a reduction in nipple pain to mild levels approximately 7–10 days after birth
• Sore nipples occurring beyond the first weeks of breastfeeding may be caused by:
  o Infections such as staphylococcus aureus and candida
  o Vasospasm | • Reassure if nipples tender but no sign of compression after a feed
• Review and optimise positioning and attachment
• Soften areola sufficiently to enable baby to grasp adequately
• Review nipple care
  o Avoid soaps and synthetic bras
  o Change breast pads frequently
  o Expose breasts to air briefly after breastfeeding
  o Allow expressed breast milk to dry on the nipple after breastfeeding
• Limited evidence exists about the effectiveness of treatment for nipple pain resulting from nipple trauma
• Refer if pain/trauma persists beyond first week or infection suspected
• Educate regarding importance of handwashing and good hygiene when touching or handling nipples

**Breast engorgement** | • Engorgement: swelling and distension of the breasts resulting from secretory activation (lactogenesis II)
• Presents as bilateral breast pain, firmness and swelling
• Onset most commonly between days 3 and 5 postpartum but may be as late as 9–10 days postpartum
• More frequent breastfeeding (or expressing, if baby is not feeding at the breast) in first 48 hours is associated with less engorgement | • Provide guidance regarding possibility of engorgement prior to discharge
• Promote physiological breastfeeding (feeding in response to baby’s cues)
• Focus treatment on alleviating inflammation and discomfort through use of cool packs and anti-inflammatory medication
  o If there are no individual contraindications, paracetamol and ibuprofen are safe options most breastfeeding women in appropriate doses
• Reverse pressure softening of the areola, and manual pump or hand expression to move small volumes of milk may aid attachment and facilitate physiological milk transfer

**Mastitis spectrum** | • Encompasses a spectrum and progression of conditions resulting from breast inflammation:
  - Clinical presentation varies according to severity and progression of inflammation
    o Symptoms range from localised inflammation (redness, swelling and tenderness) to systemic signs and symptoms (fevers, chills and tachycardia)
  - May or may not progress to bacterial infection
    o Common organisms include Staphylococcus and Streptococcus
  - Many mastitis symptoms resolve with physiological breastfeeding, conservative care and support | • Maintain physiological breastfeeding (feeding in response to baby’s cues) or physiological pumping if baby is not feeding at the breast
• Advise mother to
  o Avoid increased expressing or use of breast pump
  o Avoid nipple shield use where possible
  o Wear appropriately fitting supportive bra
  o Avoid deep massage of the breast
• Focus treatment on alleviating inflammation and discomfort through use of cool packs and anti-inflammatory medication
  o If there are no individual contraindications, paracetamol and ibuprofen are safe options most breastfeeding women in appropriate doses
• If symptoms not improving within 12–24 hours or if acutely ill, seek expert advice


Refer to online version, destroy printed copies after use
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**Working Party Clinical Leads**

Dr Sonja Morgan, General Practitioner and IBCLC, Growlife Medical
Ms Kristina Palmer-Field, Clinical Nurse/Midwife Consultant, IBCLC, Royal Brisbane and Women’s Hospital
Ms Loretta Anderson, Breastfeeding coordinator and IBCLC, Mater Mothers’ Hospital

**QCG Program Officer**

Ms Cara Cox, Clinical Nurse Consultant and Program Officer

**Peer Review Panel**

Ms Kath Angus, Consumer Representative, Australian Breastfeeding Association
Dr Kirsty Devine, Neonatologist, Townsville University Hospital
Dr Christopher Edwards, Paediatrician, Bundaberg Hospital
Mrs Samantha Foster, Midwife and IBCLC, Growlife Medical
Ms Karen Hose, Neonatal Nurse Practitioner, Royal Brisbane and Women’s Hospital
Dr Melissa Lai, Neonatologist, Royal Brisbane and Women’s Hospital
Ms Moina Mitchell, Child Health Nurse and IBCLC, Mater Mothers’ Hospital
Ms Alecia Staines, Consumer Representative, Maternity Consumer Network
Ms Rhonda Taylor, Clinical Midwife Consultant, Townsville University Hospital
Dr Karen Whitfield, Pharmacist, Royal Brisbane and Women’s Hospital

**Queensland Clinical Guidelines Team**

Professor Rebecca Kimble, Director
Ms Jacinta Lee, Manager
Ms Stephanie Sutherns, Clinical Nurse Consultant
Ms Cara Cox, Clinical Nurse Consultant
Ms Emily Holmes, Clinical Nurse Consultant
Ms Janene Rattray, Clinical Nurse Consultant
Steering Committee

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