

Protocol #10

Ineffective Suck



Protocol #10: Ineffective Suck

An ineffective suck is usually related to two general problem areas: attachment (position and latch) or a sucking problem.

Observation and Assessment

Assess the mother for:

- Little or no pulling sensation on the mother's breast when the baby sucks despite effective positioning and latching.
- Pain throughout the entire breastfeeding despite effective positioning and latching (*Protocol #2: Positioning and Latching, Protocol #15: Candidiasis (Thrush)*).
- Persistent sore nipples and/or frequent plugged ducts despite effective positioning and latching (*Protocol #4: Sore Nipples, Protocol #6: Plugged Ducts*).
- Mastitis despite effective positioning and latching (*Protocol #7: Mastitis*).
- Unrelieved engorgement lasting more than 48 hours, followed by a rapid reduction of the mother's breast milk supply.

Assess the baby for:

- Quick and shallow sucks with excessive pauses, not changing to slow and deep sucks, demonstrating mostly non-nutritive sucking (*Protocol #3: Signs of Effective Breastfeeding*).
- Few or no swallowing sounds, i.e., swallowing should sound like a quietly exhaled "kaa, kaa, kaa".
- Clicking or smacking sounds when sucking.
- Dimpling of the cheeks when sucking.
- Fluttering of the chin or chin not pressed into the mother's breast.
- Eyes that remain closed during the entire breastfeeding.
- Sleepiness at the mother's breast, fussiness, frequent and/or long breastfeedings without signs of effective breast milk transfer.
- Inadequate output and/or weight gain (*Protocol #3: Signs of Effective Breastfeeding*).

- Visually assess the infant's sucking and mouth movements. It may be helpful to adjust the baby's position in order to stimulate the baby to open his mouth and optimize visualization of the baby's mouth.

Possible Contributing Factors or Causes

An ineffective suck may have one or more underlying causes that may be mother and/or baby related.

Assess the mother for:

- Ineffective positioning and latching techniques (*Protocol #2: Positioning and Latching*).
- Decreased breast milk supply (*Protocol #12: Insufficient Breast Milk Supply*).
- Overabundant breast milk supply (*Protocol #13: Overabundant Breast Milk Supply/Forceful Letdown or Breast Milk Ejection Reflex*).
- Delayed letdown or breast milk ejection reflex.
- Forceful letdown reflex (*Protocol #13: Overabundant Breast Milk Supply/Forceful Letdown or Breast Milk Ejection Reflex*).
- Engorgement (*Protocol #5: Engorgement*).

Assess the baby for:

- Overheating due to being overdressed or the room temperature being set too high.
- Birth interventions, trauma, stress and medications, e.g., caesarean section, bruising from forceps or vacuum delivery, anesthesia, intravenous therapy, lengthy labour.
- Sleepiness possibly related to jaundice.
- Medical conditions, e.g., jaundice, dehydration, hypoglycemia, sepsis, candidiasis, genetic anomalies.
- Neurological conditions affecting muscle tone, e.g., hypertonia, hypotonia, developmental immaturity in

preterm and/or almost term birth.

- Abnormal nasal, oral, or facial structure, e.g., narrowing or blockage of the nasal airway (choanal atresia), cleft lip/palate or other alterations in palatal structure, receding chin.
- Abnormal tongue, e.g., ankyloglossia, large or short tongue, tongue curling up to the roof of the mouth, tongue sucking/thrusting, decreased tongue peristalsis (*Protocol #9: Breast Refusal or Difficulty Achieving and Maintaining a Latch*).
- An abnormal tongue may not be able to extend past the lower gumline and cup the areola during breastfeeding. This can be assessed by slightly pulling back on the baby's lower lip when the baby is at the mother's breast. There may also be dimpling of the cheeks or clicking/smacking sounds when the baby sucks.
- Preference for sucking on an artificial nipple, e.g., nipple confusion or imprinting (*Protocol #1: The Initiation of Breastfeeding*).

Suggestions

The Baby-Friendly Initiative recommends that wherever possible, breastfeeding support is offered “hands-off” (BFI Appendix 5.1, BCC, 2011). As the goal is for mothers to be able to latch their babies independently, it is important for practitioners to request permission to touch the mother or baby and to take a hands-off approach as much as is possible. Hands-on is only used after asking permission and when additional help is necessary (BCC, 2011).

1. Assess for possible cause(s) of the ineffective suck (see the previous section on *Possible Contributing Factors or Causes*). The baby will need to be assessed by a primary health care provider for any medical condition, e.g., jaundice, dehydration, hypertonia/hypotonia, cleft lip/palate, ankyloglossia.
2. Provide the mother with suggestions to help the baby suck effectively.

Foundational (Non-Invasive) Suggestions

Before breastfeeding, encourage the mother to:

- Breastfeed early and frequently whenever the baby is showing early feeding cues (e.g., rapid eye movements under the eyelids as the baby begins to wake, sucking/licking, hands to mouth, increased body movements and making small sounds).

- Breastfeed when the baby is calm, before the baby gets too hungry and cries. A ravenous baby may latch more vigorously and initiate a more active letdown reflex and/or lead to sore nipples.
- Clothe the baby in a diaper only when breastfeeding to promote skin-to-skin contact.
- Support the baby's back in a vertical chest-to-chest position, with the nose approaching the mother's nipple to facilitate the normal neonatal reflexes and self-attachment behaviours.
- Lightly brush the baby's lips with her nipple to encourage the baby's mouth to open wide and to help bring out the baby's tongue over the lower gumline when latching.
- Try expressing some breast milk and dripping expressed breast milk onto the mother's breast to encourage the baby's mouth to open wide.

During breastfeeding, encourage the mother to:

- Check that the baby is effectively positioned and latched (*Protocol #2: Positioning and Latching*).
- Breastfeed in a calm and quiet environment.
- Avoid overheating the baby, e.g., overdressing the baby or setting the room temperature too high.
- Clothe the baby only in a diaper when breastfeeding to promote skin-to-skin contact.
- Use techniques to help wake a sleepy baby, e.g. gently massage the baby's back and feet, gently sit the baby up, talk to the baby, change the baby's diaper.
- Use breast compressions to help increase sucking and swallowing (*Protocol #5: Engorgement*).
- Try alternate breast massage – alternating massage at the base of the breast with the baby's bursts of sucking (Bowles et al., 1988).

If the baby is still sucking ineffectively, encourage the mother to:

- Express each breast on a regular basis if breastfeeding is stopped for any length of time. Generally this should be at least 8 times a day, with a minimum of 1 expression overnight, to mimic the normal infant feeding pattern. The mother may need to express more often if her breasts become uncomfortable or full (*Protocol #19: Expressing and Storing Breast Milk*).
- Feed the baby with expressed breast milk using

an alternative feeding method, e.g., spoon, cup, syringe, finger feeding, or lactation aid on the mother's breast (*Protocol #18: Alternative Feeding Methods*).

- Using a lactation aid on the mother's breast is recommended if the baby is able to latch and make a seal, because the baby is feeding on the mother's breast while receiving the expressed breast milk. This technique also provides stimulation to the mother's breasts. If expressed breast milk is not available, an appropriate supplement should be offered (*Protocol #17: Indications for Supplementation or Cessation of Breastfeeding*). A referral to a breastfeeding expert or breastfeeding clinic is recommended for further assessment as soon as possible.
- Understand the possible benefits and risks associated with the use of nipple shields if she inquires about using them for managing an ineffective suck. Offer further assessment and refer for further support as needed (see notes in *General Principles*).

If the baby is still not sucking effectively after trying the foundational suggestions above, further assessment is recommended.

- If it is assessed that the baby has more significant sucking difficulties or may need suck evaluation and therapy, refer the mother to a primary care provider, a breastfeeding expert with specific training in oral-motor evaluation and therapy or, breastfeeding clinic for further assessment. A parent may be taught to use interventions such as mouth and tongue exercises if she or he is assessed to have the capacity to use them appropriately. Strategies may be initiated depending on the parent's level of comfort with the interventions but only by practitioners who have specific training in oral-motor evaluation and therapy, e.g., a speech pathologist, occupational therapist and/or paediatrician. (see also *General Principles*).
- Support the parent to make an informed decision, understanding the possible benefits and risks of the proposed intervention.

Support the mother in understanding that:

- These interventions have the potential to be invasive and may overwhelm a baby, or lead to further resistance unless the baby's cues are respected.

- These suggestions follow a sequence of increasing degrees of intervention and invasiveness.

Minimal Level Intervention Suggestions

- Wash the hands and ensure that the nails are clean and trimmed.
- A parent who has been taught by an oral-motor expert may place a clean index finger in the baby's mouth to pacify him or to initiate rhythmic sucking.
- Use a supplemental feeding device either at the mother's breast or finger feeding to help ensure that the baby is getting adequate calories and fluid intake (*Protocol #18: Alternative Feeding Methods*).

Moderate Level Intervention Suggestions

- Wash the hands and ensure that the nails are clean and trimmed.
- A practitioner specifically trained in oral-motor evaluation places a gloved index finger in the baby's mouth to assess the oral cavity and the suck, after obtaining parental permission.
- Use a supplemental feeding device to offer adequate calories and fluid intake (*Protocol #18: Alternative Feeding Methods*).
- Place finger pad-side up into the baby's mouth. Slight pressure is placed on the middle of the tongue while pulling the finger out slowly to encourage the baby to suck it back in.
(Adapted from Lauwers, 2011)

Higher Level Intervention Suggestions

- Wash the hands and ensure that the nails are clean and trimmed.
- Expert practitioners may recommend mouth and tongue exercises to promote effective sucking. These can be enjoyable for both parent and baby.
- Support the family to follow instructions taught by an oral-motor expert.
- A practitioner who specifically initiates the use of these interventions is responsible for assessing effectiveness and risks. The practitioner is also responsible for the ongoing management and evaluation of that intervention (see *General Principles* for information regarding possible tongue exercises).

General Principles

Optimize breastfeeding by following the principles of early and frequent feeding, breastfeeding when the baby is calm and showing early feeding cues, and ensuring effective positioning and latching techniques, including baby-led latching and skin-to-skin contact. Following these principals will help to minimize the degree of any intervention, and support the baby's own sense of control and inherent capacity to self-attach and suckle. This can often prevent or resolve an ineffective suck situation.

A baby with an ineffective suck does not demonstrate an effective sucking pattern, i.e., no “deep and slow” sucks. Effective sucking technique is defined as the infant having:

- a wide-open mouth,
- with the tongue over the gums, and
- transfer of breast milk from the mother's breast by slow, deep sucks (Righard & Alade, 1992) (*Protocol #3: Signs of Effective Breastfeeding*).

The baby may suck well initially, then suck less effectively as the breast milk volume decreases during the breastfeeding.

Ineffective positioning and latching practices may contribute to an ineffective suck, and therefore these should always be assessed first (*Protocol #2: Positioning and Latching*).

An ineffective suck is usually related to two general problem areas: attachment (position and latch) or a sucking problem.

The effectiveness of the suck will determine the amount and composition of breast milk that the baby will receive. The less effective the suck, the less breast milk will be removed and the less high-fat breast milk the baby will receive during the breastfeeding.

An ineffective sucking pattern may be transitory due to labour medications/anesthesia or a medical condition that may temporarily cause the baby to be sleepy or have a decreased neurological function.

Birth Interventions and Ineffective Suck – The events experienced during the birth process can impact the breastfeeding process. The normal mechanical forces of labour on the cranial nerves and facial muscles can affect the baby's comfort and ability to achieve a latch, as well as his ability to

suck, swallow, and transfer breast milk, a situation that may be further complicated by forceps, vacuum, and surgical interventions (Smith, 2010 & 2007). Long labours can be stressful and tiring for both mother and baby, and may be associated with interventions such as intravenous (IV) hydration, analgesia, epidurals, and instrumental deliveries. IV fluids may be associated with breast or areolar edema, which can make it difficult for a baby to latch, although research has yet to establish the degree of association (Smith, 2010). Pain is stressful and can interfere with the mother's comfort as well as breast milk production (see *How the Breast Works*). Although research has not yet established a direct link between specific medications used for intrapartum pain management and breastfeeding initiation, practitioners continue to question whether medication may affect the baby's capacity to suck effectively. In addition, it is important to consider the impact of the birth process on the mother's breastfeeding self-efficacy.

Nipple Shields – If the mother inquires about using a nipple shield to manage breast refusal or difficulty achieving a latch, it is important to first explore with her any contributing factors related to ineffective suck, as well as her breastfeeding self-efficacy. It is also important to inquire about her previous breastfeeding history, current breastfeeding management and attempts to manage an ineffective suck and then offer suggestions to optimize basic breastfeeding management (see earlier discussion regarding management of ineffective suck).

A nipple shield is an artificial nipple and areola shaped like a floppy sun hat, and made of a synthetic material like silicone. Some women may have success placing one of the newer ultra-thin silicone nipple shields over the breast to facilitate latching and sucking. This has the potential to stimulate the baby's hard palate and thereby elicit the sucking reflex. It may be a familiar stimulus to coax a baby to the mother's breast who has already imprinted preferentially on the supernormal stimulus of an artificial nipple (Wilson-Clay et al., 2008).

Historically, there has been mixed evidence reported about nipple shields. Use of the older rubber or latex shields was associated with concerns of inadequate intake of breast milk that resulted in slow weight gain or failure to thrive (Woolridge, 1980). Recent evidence has demonstrated weight gain to be similar over 2 months in babies fed with shields as for babies fed

without shields (Chertok, 2009).

Although nipple shields should not be the first strategy recommended to manage an ineffective suck, short-term use of the newer ultra-thin silicone shields has been positively associated with preserving the breastfeeding relationship while the dyad learns to breastfeed (Meier, 2000; Wilson-Clay, 1996). Although a recent review of the literature reported that the current evidence does not yet demonstrate safe practices for the use of nipple shields (McKechnie et al., 2010), expert practitioners continue to report the use of nipple shields as a possible strategy to bring a baby to the mother's breast who might otherwise refuse her breast. Causes for refusal may include flat or inverted nipples, an ineffective suck, prematurity, neuromuscular issues and/or imprinting (*Protocol #4: Sore Nipples; Protocol #9: Breast Refusal or Difficulty Achieving or Maintaining a Latch*). Nipple shields may provide temporary relief for a mother who is stressed or overwhelmed and prevent introduction of bottle feeding if she is supported appropriately by a lactation expert (Lauwers et al., 2011). Some mothers may wish to use nipple shields for longer periods; these situations should be periodically reassessed. Lawrence advises against the use of a makeshift shield; nor should shields be altered for use.

To apply a nipple shield, it is important to use the correct fit and size. If the teat is too long for the baby's mouth it can cause gagging, but if it is too small it may not stimulate active sucking (Mohrbacher, 2010). The teat opening needs to be large enough to accommodate the mother's nipple comfortably; if it is too small it can slow the flow of breast milk, which is counterproductive. Lauwers recommends starting with the smallest shield that accommodates both the baby's mouth and the mother's nipple. Wilson-Clay advises matching the shield size to the baby's mouth, selecting the shortest available teat with the smallest base diameter (2008).

Clinicians and mothers may try varying methods to directly apply the shield. In one, the mother holds the rim of the shield between her thumb and fingers. Stretching the shield at the junction of the "nipple" and "areola" of the shield, she places the stretched shield over her nipple and releases the tension. As it releases and the shield returns to its normal shape, it draws the mother's nipple into the nipple cavity of the shield before the baby begins to suck. Some mothers may turn the top half of the shield inside out before

placing it over the nipple. It is important to follow the manufacturer's instructions related to care and cleaning of the nipple shield. (For further information see *Wilson-Clay, 2008, Lauwers, 2011, and Genna et al., 2008*).

Nipple shields should not be the first strategy recommended to manage an ineffective suck, and they should only be initiated by a health care provider who has the breastfeeding expertise to thoroughly assess the potential effectiveness and risks of use for that breastfeeding dyad. The practitioner is also responsible for establishing a plan with the mother for the ongoing management and evaluation of the intervention. Practitioners who do not have the capacity, i.e., lactation expertise or time, to continue to support the dyad appropriately should refer the mother to a lactation expert or breastfeeding clinic. The baby's weight gain and the mother's breast milk supply need to be monitored closely. There must be a comprehensive plan that includes periodic reassessment of breastfeeding and the infant's intake of breast milk, plus a plan for re-establishment of feeding at the breast.

Imprinting – The concept of imprinting or "stamping" is sometimes used to explain the observation of nipple preference. Imprinting is drawn from other sciences such as biology and psychology, where it has been applied to explain attachment behaviours and brain pathway development. In humans, imprinting is oral/tactile (Lawrence, 2011) and Gale Mobbs (1989) has identified the mouth as the most significant factor for imprinting in humans. When babies are exposed to artificial nipples or fingers early they can become accustomed to the feeling of that particular object (bottle nipple, pacifier, finger) in their mouths and have difficulty accepting another object in its place (Righard, 1997), such as a mother's nipple.

For information about the normal suck cycle, see *Protocol #3: Signs of Effective Breastfeeding*.

A specially trained oral-motor practitioner can teach parents exercises that may help some babies with establishing an effective suck, including:

- Tongue massage (*see Genna et al., 2008*)
- Pushing the tongue down and out (*see Mohrbacher, 2010*)
- Walking back on the tongue (*see Mohrbacher, 2010*)

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