

REVIEW ARTICLE

TROUBLESHOOTING COMMON BREASTFEEDING DIFFICULTIES

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Abstract:

The majority of women who initiate breastfeeding at birth do not meet long term exclusive breastfeeding recommendations. This early weaning is often the result of breastfeeding difficulties and misinformation. Access to lactation professionals is limited for many patients and family physicians can help bridge this care gap.

INTRODUCTION

The majority of women (84.1%) in the United States initiate breastfeeding at birth, yet only 25.6% breastfeed exclusively to six months are in line with recommendations from the World Health Organization (WHO) and the Centers for Disease Control (CDC).¹⁻³ Self-reported data from 1323 women who participated in an infant feeding study revealed some common reasons for very early cessation of breastfeeding including concerns that breastmilk alone isn't satisfying the infant (53.7%), infant trouble with sucking and latching (49.7%), insufficient milk supply (51.7%), and maternal (23%) or health professional (19.8%) concerns over low infant weight gain.⁴ Women additionally reported stopping due to maternal illness or need for medication.⁴ The Affordable Care Act of 2012 mandated private health insurance coverage of lactation support services and breast pumps.⁵ While this did lead to increase in breastfeeding duration by 10% (0.57 months; $p = .007$), insurance covered lactation services are still limited by many plans to hospital support only, prenatal breastfeeding education classes, or care only when complications arise.^{6,7} Patients with Medicaid may not have any coverage of lactation services and access varies state to state.⁸ Some insurance plans do not cover visits to outpatient lactation consultants at all simply because they do not credential them as service providers.⁷ This demonstrates the need for better education of physicians in their support and care of breastfeeding women to help them achieve breastfeeding success. Osteopathic family physicians are uniquely poised to provide full spectrum care, including osteopathic

manipulation when indicated, for breastfeeding dyads and improve breastfeeding rates. This article will address common breastfeeding problems and their basic management.

LATCHING ISSUES

Infants with trouble latching and sucking should be evaluated by an osteopathic physician comfortable with cranial osteopathic manipulation given the prevalence of somatic dysfunction in these infants.⁹ Breastfeeding should be observed to assess maternal comfort and infant latch.¹⁰ An optimal latch is deep and asymmetric with areolar tissue, not just the nipple, in the infant's mouth.¹¹ The infant should be carefully examined for tongue tie, other structural issues, and somatic dysfunction.¹² In a randomized controlled trial of 97 mother-infant dyads, osteopathic manipulation combined with lactation consultation demonstrated significant improvement ($p=0.001$) in LATCH score¹³, which assesses infant response at the breast, maternal comfort, and need for assistance while feeding.¹⁴ Vismara *et al*¹⁵ reported a significant reduction in the days from birth to attaining oral feeding in premature infants who receive osteopathic manipulation. All breastfeeding dyads with feeding difficulties would benefit from evaluation by a skilled lactation consultant who can assist with troubleshooting these difficulties.¹⁶ There is an ongoing clinical trial further investigating the effect of osteopathic manipulation on infant latch.¹⁷

ENGORGEMENT

Early postpartum engorgement can be treated with ice packs, non-steroidal anti-inflammatories (NSAIDs), and cabbage leaves applied to the breasts after feeding.¹⁸ During lactogenesis II, the stage following delivery through postpartum day 9, the blood flow to the breast increases in order to bring the nutrients necessary to enrich breastmilk.¹⁹ Early engorgement is usually a result of tissue

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FIGURE 1:

Various reverse pressure softening techniques



Engorgement after the immediate postpartum period is usually either the result of hyperlactation or missed or delayed feeds.^{18,19} Care must be taken not to skip or delay emptying of the breast to the point of engorgement as this triggers feedback inhibitor of lactation (FIL) and will downregulate the milk supply.¹⁹ In the case of hyperlactation FIL downregulation may help normalize supply.¹⁹

NIPPLE CRACKING

Early nipple cracking and damage is almost always due to poor latch and must be assessed by a skilled physician or lactation consultant.²⁵ A study of 1243 mother-infant dyads reported 32% of women developed cracked nipples within the first month after delivery.²⁶ This damage can be treated with mupirocin, irradiated topical wound honey, hydrogel breast pads, silver nursing cups, and perhaps the temporary use of a nipple shield while strategies for improved latch are taught.¹⁸ Nipple shields should not be routinely used without medical indication as they do not facilitate proper deep latching.¹⁸

FLAT OR INVERTED NIPPLES

Flat or inverted nipples can be drawn out with a self-rolling technique (Figure 2), a nipple everting device, using an electric breast pump for 1–2 minutes prior to feeding, and commercial nipple shells.¹⁸ Inverted or flat nipples may resolve a few months into the breastfeeding journey as they are repeatedly drawn out during feedings.¹⁸ Side-lying nursing might be a beneficial position for these patients.

FIGURE 2:

Nipple rolling technique



PERCEIVED LOW MILK SUPPLY

Maternal concerns about insufficient milk supply should be delineated as true or perceived low supply. The latter can often be combated with education about normal newborn behaviors, milk

supply, and feeding patterns. Average milk supply is 24–30 oz in a 24-hour period or approximately 1–1.25 oz per hour from both breasts combined from one to six months postpartum.²⁷ Using a 24-hour weight as the baseline weight, as opposed to birth weight, can be useful when monitoring for infant weight loss in the neonatal period.²⁸ This combats the artificial inflation of infant weight due to induced fluid retention during labor from maternal intravenous fluid and exogenous oxytocin. The NEWT calculator²⁹ can also be used to track neonatal weight trends. For the first 4 months of life, adequate daily weight gain should be calculated using the minimum of 30 g per day as a guide.³⁰ At home, families can monitor wet diapers for adequate intake. Although not an exact science, a weighted transfer can be performed in the office. This is performed by weighing the infant, allowing them to breastfeed until satisfied, and then reweighing the infant without changing clothing or diapers. The weight gained is an estimate of the volume of breastmilk transferred by the infant. It is important to remember that infant volume intake varies greatly throughout the day, so one weighted transfer should not be used to diagnose insufficient intake.³¹

TRUE LOW MILK SUPPLY

The most common cause of low milk supply is insufficient number of breastfeeding sessions that may be a result of scheduling feeds, unnecessary supplementation, convenience bottles overnight by an alternate caregiver to encourage maternal sleep, or infant sleep training.^{11,18,32} Most women need to empty their breasts 8–12 times per day to maintain full supply.³³ True low milk supply based on medical conditions can be caused by placenta retention, Sheehan's syndrome, hypothyroidism, prior breast or chest surgery, maternal illness, and increased insulin associated with polycystic ovarian syndrome, obesity, and diabetes.¹⁸ Less than 5% of women have breast hypoplasia as a result of insufficient glandular tissue proliferation during puberty or pregnancy.³⁴ These women may display wide-spaced breasts and deny a of history breast growth during pregnancy. While women with breast hypoplasia can still breastfeed, they may fail to produce a full milk supply despite intervention due to insufficient glandular tissue.³⁴

There are some prescription and non-prescription galactagogues that can aid in increasing milk supply when indicated.^{35,36} Fenugreek, shatavari, torbangun, fennel, milk thistle, chasteberry and goat's rue are commonly cited herbal galactagogues; however, they lack clear evidence and their use is largely anecdotal.^{35,36} Metoclopramide has low quality evidence for use, but given the risk of extrapyramidal side effects it is typically only used for one to two weeks and tapered. Domperidone, a dopamine agonist, is commonly used world-wide to stimulate breastmilk production, but it is not FDA approved and therefore is unavailable in the United States.³⁵

Osteopathic physicians should evaluate patients with low milk supply for somatic dysfunction, keeping in mind the tenet that structure and function are interrelated. Consider evaluating T2–T6 and the corresponding ribs as this represents the main innervation to the breast and nipple.^{37,38} The internal thoracic artery delivers the primary blood supply to the breast and it travels just inferior to the clavicle and between the pectoralis major and minor

muscles prior to descending into the breast, so dysfunctions of these structures could be evaluated as well.^{38,39} There is an ongoing study investigating the use of osteopathic manipulation on milk production in women with low supply.⁴⁰

OVERACTIVE LETDOWN

Some women experience very fast letdown of milk which will result in volumes too large for an immature infant to handle. Laid-back or physiologic nursing is a good position for this situation.¹⁸ The mother may need to pump for 1–2 minutes prior to direct feeding or hand express a small volume to make the rush of milk more manageable for the infant.¹⁸ This should not be done routinely, but only as necessary in the case of overactive letdown so as not to induce hyperlactation. As infants grow beyond the newborn period, fast letdown often becomes less of an issue as their feeding skills improve. Overactive letdown may be seen alone or in conjunction with hyperlactation.

HYPERLACTATION

It is common for women to experience breast fullness during the first month of lactation after which the milk supply generally self-regulates to match the infant's needs.⁴¹ This loss of feeling of fullness around 1 month often unnecessarily triggers concern for insufficient supply. Hyperlactation is a condition in which a woman persistently produces more milk than the infant consumes. The underlying causes are usually divided into three categories: self-induced, iatrogenic and idiopathic. Some women believe that they must undertake a rigorous pumping schedule in the early postpartum period or consume galactagogues in order to 'bring the milk in' or are perhaps erroneously instructed to do so by a healthcare professional. The result is often self-induced or iatrogenic oversupply. These cases can be addressed by discontinuing the causal practice.⁴¹ For women with idiopathic hyperlactation many will respond to block feeding which is best undertaken with close supervision by a knowledgeable physician.⁴¹ Block feeding is commonly done by directly feeding from a single breast for 3 hours at a time, alternating breasts for each cycle during the day and then ad lib feeding from both breasts from 6 pm onward overnight.^{41,42} If this technique is successful there is typically improvement within 24–48 hours.⁴¹ This practice must be monitored carefully given the risks of complications such as mastitis and over suppression of lactation resulting in too little breastmilk volume.⁴¹

CLOGGED MILK DUCTS

Clogged milk ducts can occur at any point during breastfeeding and may present as sharp nipple pain with feeding and a palpable area of firmness in the breast. There is little rigorous evidence for their treatment. Common recommendations in the breastfeeding community are hot compresses or nipple soaks in warm water and gentle massage or vibration during the feed to the area of firmness. Oral lecithin, a fat emulsifier is also commonly recommended to treat and prevent plugged ducts, however again there is insufficient evidence for this practice.^{43,44} Directly feeding the infant with the breast in a downward dangling position and

the infant chin oriented towards the area of restriction is also anecdotally recommended to assist in unclogging but this benefit remains unstudied. The nipple should be examined for a bleb blocking a nipple pore that can be easily unroofed in the office with the edge of an 18-gauge needle.²⁵ Recurrent blebs can be treated with a short course of low-potency topical steroids.²⁵ Plugged milked ducts or other causes of milk stasis may precipitate mastitis.⁴⁵

MASTITIS

Dicloxacillin remains the treatment of choice for mastitis for symptoms that fail conservative management of NSAIDs and efficient milk removal for 24 hours.⁴⁵ Milk culture should be performed if there is no clinical response to antibiotics in two days, if the infection is recurrent, or hospital acquired.⁴⁵ Jackson and Loveless⁴⁶ report success with OMT in recurrent mastitis in a case report. They have undertaken a clinical trial investigating the use of OMT in recurrent mastitis. If mastitis progresses to abscess, serial percutaneous needle aspiration or placement of a small surgical drain to gravity is preferred over traditional incision and drainage to prevent cutaneous milk fistula.⁴⁵ A lactating breast should never be packed with gauze as this would simply result in milk-soaked gauze, delayed healing, and fistula. The underlying cause of both clogged milk ducts and mastitis is often inadequate emptying of the breast or hyperlactation.⁴⁵ By screening for these issues with a careful history and addressing them with appropriate management, recurrence can be prevented.⁴⁵

PERSISTENT PAIN WITH BREASTFEEDING

While women may experience temporary soreness of the nipples in the first few weeks of breastfeeding, persistent pain should be investigated. The causes of pain are numerous and best delineated with a very detailed history. The Academy of Breastfeeding Medicine protocol #26 clearly outlines common causes and key history features that aid in diagnosis. Reported common causes include: infant ankyloglossia (tongue-tie), breast pump trauma, eczema, psoriasis, superficial bacterial infection, bacterial dysbiosis, candidiasis, herpes simplex and zoster, vasospasm, allodynia, recurrent plugged ducts, and hyperlactation. Pain in the first few weeks should trigger an evaluation of the infants' latch.⁴⁷

CONCLUSION

The Cost of Not Breastfeeding tool⁴⁸ estimates the total combined cost across health systems, mortality, and cognitive losses in the United States due to inadequate breastfeeding at \$114,968,113,478. Globally, improved breastfeeding rates would result in 98,243 fewer women dying of breast cancer, ovarian cancers, and type 2 diabetes; 595,375 fewer annual childhood deaths from diarrhea or pneumonia; and 975,000 fewer cases of childhood obesity every year.⁴⁹ Given the lack of access to lactation professionals and the number of women who discontinue breastfeeding due to difficulty, family physicians need to be able to troubleshoot common breastfeeding issues and support their breastfeeding patients (Table 1). The Academy of Breastfeeding Medicine has 34 published protocols encompassing best practices

in lactation and a broad range of topics for easy reference.⁵⁰ Most importantly, as with any organ system that is not functioning as expected, all breastfeeding issues should be evaluated, and the patient referred to appropriate consultants if the physician is unable to provide the needed care. Overall, there is very little research surrounding difficulties encountered during lactation. Well-designed studies to grow the evidence-base for interventions would be beneficial.

TABLE 1:

Summary: troubleshooting common breastfeeding problems

PROBLEM	TREATMENT
Latch	<ul style="list-style-type: none"> • Osteopathic evaluation and treatment • Skilled latch assessment
Early post-partum engorgement	<ul style="list-style-type: none"> • Reduce edema: ice, cabbage leaves, NSAIDs, therapeutic self-breast massage • Reverse-pressure softening to assist latch (Figure 1) • Osteopathic techniques for edema: pedal pump, thoracic pump, effleurage
Late engorgement (1 month and beyond)	<ul style="list-style-type: none"> • Ensure no delay or skipped breast emptings • Address hyperlactation
Early nipple cracking/damage	<ul style="list-style-type: none"> • Address latch • Irradiated wound care honey • Mupirocin • Hydrogel breast pads • Silver nursing cups • Temporary use of nipple shield
Flat or inverted nipple	<ul style="list-style-type: none"> • Electric breast pump 1–2 mins prior to feeding • Finger rolling technique (Figure 2) • Nipple evertor • Nipple shells
Perceived low milk supply	<ul style="list-style-type: none"> • Educate normal average milk volumes: 24–30oz in 24 hours or 1–1.25oz/hr both breasts combined • Educate normal infant behavior
True low milk supply	<ul style="list-style-type: none"> • Ensure sufficient number of breast emptings (most women need 8–12 per 24 hrs) • Ensure no scheduled feeds, unnecessary supplementation, or convenience bottles • Identify medical cause: placenta retention, Sheehan's syndrome, hypothyroidism, prior breast or chest surgery, maternal illness, and increased insulin associated with polycystic ovarian syndrome, obesity, and diabetes • Consider herbal galactagogue or metoclopramide taper • Osteopathic evaluation and treatment for structure that could be related to breast function, T2-6 & corresponding ribs may be key
Overactive let-down	<ul style="list-style-type: none"> • Laid-back nursing • Electric/hand/silicone pump to remove approximately 0.5 oz only if needed
Hyperlactation	<ul style="list-style-type: none"> • Self-induced/iatrogenic: eliminate causal practice • Idiopathic: block feeding for 24–48 hours with close medical supervision
Clogged ducts	<ul style="list-style-type: none"> • Ensure adequate emptying • Address underlying hyperlactation if present • Examine for nipple bleb • Hot compress • Epsom salt nipple soaks • Massage/vibration during feeds • Dangle feeds • Sunflower lecithin • Topical steroids for recurrent bleb
Mastitis	<ul style="list-style-type: none"> • Conservative treatment for 24 hours: NSAIDs and efficient milk removal • Dicloxacillin • Milk-culture if no response to antibiotics in 48 hrs, recurrence or hospital acquired infection
Persistent pain	<ul style="list-style-type: none"> • See Academy of Breastfeeding Medicine Protocol #2646

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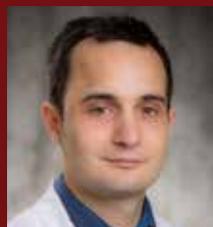
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