



**Department of Rehabilitation Services  
Physical Therapy**

**Standard of Care: Physical Therapy Treatment of Blocked Milk Ducts**

**ICD 10 Codes:** O92.70 Unspecified disorders of lactation  
O92.79 Other disorders of lactation

**Case Type / Diagnosis:**

Breastfeeding is considered the normal standard for providing infants essential nutrients, per the World Health Organization, the American Academy of Pediatrics, and the Academy of Breastfeeding Medicine. Given its protective effects, these organizations recommend exclusive breastfeeding for six months. When a breastfeeding infant is latched correctly to the breast and sucking, a vacuum effect is created that promotes draining of the milk and stimulation of further milk production and ejection, allowing for successful lactation.<sup>1</sup> However, many women will experience issues that hinder breastfeeding. Given the composition of breast tissue, with milk ducts often laying under one another, ducts can become easily compressed.<sup>1</sup> If compression of the duct is prolonged, stasis of milk can occur leading to blocked ducts.<sup>2</sup>

When milk is not effectively removed from the breast, milk stasis occurs leading to a blocked or “clogged” duct. This is characterized by a tender lump in the breast, erythema, or even hard, painful swelling that includes a significant portion of the breast. A bleb, or a small white bump on the nipple, may form also creating a further reduction or cessation of milk flow. It is estimated that 2/3 of breastfeeding women experience blocked milk ducts.<sup>3</sup> Risk factors for blocked ducts include the following: improper baby latch or positioning, ineffective suckling, sore or damaged nipples, stress, fatigue, breast engorgement, finger compression of the areola with breast feeding, bruising, pressure from a tight-fitting bra, shirt, or purse strap, milk overproduction, hurried, infrequent or missed feeds, changes in feeding schedule, addition of solid food to the baby’s diet, trauma to the breast, and an ill-fitting breast shield with pumping.<sup>1,4</sup>

Treatment of a blocked duct includes frequent feeding to promote breast drainage, heat, rest, gentle massage toward the nipple, compression of the involved area during feeding, positioning of the baby with the tongue and chin pointing toward the blockage to provide maximal clearing, expressing or pumping milk after breast feeding to fully empty the breasts, use of cold after feeding to help decrease swelling and pain, and avoidance of restrictive clothing or pressure on the breast. Ultrasound has been shown to be of benefit in the treatment of blocked

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milk ducts as well.<sup>1</sup>

Nutriceuticals, such as lecithin, are often prescribed to women with blocked ducts as it is believed that the milk secretions that remain in the breast from blocked ducts have a very high fatty composition with a higher rate of absorption. Lecithin is a phospholipid emulsifier and can be used to emulsify milk secretions to promote breast emptying. The typical dosage is 1200 mg/day 3-4 times per day.<sup>3</sup>

Typically, a blocked duct will improve within 24-48 hours, treated or untreated. However, if the ducts do not clear on their own, the stasis of the milk can progress to mastitis and eventually abscess formation. Blocked ducts have been identified as the most significant predictor of mastitis in the first three months post-partum.<sup>1</sup>

Pelvic Health Physical Therapists are in a unique role to help women achieve success with breastfeeding by treating blocked milk ducts with our skill set as physical therapists. A comprehensive treatment plan has been developed, along with the help of lactation consultants, to address blocked milk ducts to help reduce progression to mastitis. Ultrasound treatments have been recommended in the assistance of clearing blocked ducts, on the premise that the heat and micromassage open the ducts and increase circulation to assist movement of milk, even though the efficacy and mode in which the ultrasound may work to clear the blocked ducts has not been studied.<sup>1</sup>

### **Indications for Treatment:**

- Decreased unilateral lactation production
- Localized breast pain or erythema in lactation
- Breast pain and swelling during lactation
- Mastitis

### **Contraindications / Precautions for Treatment:**

- Acute mastitis not treated with antibiotics for at least 24 hours
- Pacemaker presence
- Vascular disease or ischemic tissue presence
- Known cancer in region
- Breast implants (precaution)
- Healing fracture site

### **Evaluation:**

**Medical History:** Review the Rehabilitation Department's medical history questionnaire and medical records in Epic.

**History of Present Illness:** Interview the patient to review history and relevant information such as: post-partum course, including birth history, NICU stay, tongue-tie of baby, previous breastfeeding experience, previous clogs, mastitis, feeding history (i.e.:

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exclusively breast, pump, both, supplemental feeding with formula, any chronic conditions, or other relevant past-medical history)

**Social History:** Review patient's home, work, recreational and social situation. Specifically ask about support at home with the baby and post-partum depression (with the Edinburg Post-Partum Scale)

**Medications:** Review any medications with the patient. Specific medications that may be seen with someone with a blocked duct include: Lecithin, Mothers Milk tea, Fenugreek, brewers' yeast, antibiotics (if mastitis), nystatin or other antifungals (if thrush)

### **Examination**

This section is intended to capture the most commonly used assessment tools for this case type/diagnosis. It is not intended to be either inclusive or exclusive of assessment tools.

**Pain:** As measured on Visual Analog Scale/Verbal Rating Scale/Numerical Rating Scale, activities that increase and decrease symptoms, location of symptoms, specifically in the breast, nipple, areola and/or shoulder pain

**Palpation:** Comparison of involved and uninvolved breast or breast regions to assess soft tissue and compare. There may be pain with palpation to the area of blockage or engorgement.

**Sensation:** Ensure sensation over the breasts, especially with the consideration of use of thermal agents such as hydrocollator and ultrasound. If found to be lacking in sensation, do not use thermal agents.

**Posture/Alignment:** Primary focus on feeding positions for the patient and child.

**Functional Outcomes:** No standardized outcome measures exist for this population in rehab. The few studies that have assessed this population typically use a VAS to assess for reduction in breast pain, self-confidence in managing breast feeding independently, and patient's ability to successfully express milk from previous site of blocked duct.<sup>1</sup>

### **Differential Diagnosis** (if applicable):

- Engorgement: Uncomfortable breast swelling with increased milk secretion, usually experienced a few days post-partum. Mastitis: A bacterial infection of a part or all the breast, associated with hard, swollen, red and painful area in the breast with flu-like symptoms of aching, chills and fever. In addition to clearing the clog, the patient is given antibiotics as well.<sup>1</sup>

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- Abscess: A pocket of pus formed in an infected area because of delayed or inadequate treatment of mastitis. Surgical drainage is usually required.<sup>1</sup>
- Blocked duct versus breast cancer: A blocked duct typically arises suddenly and is almost always painful. Cancer does not arise suddenly and is usually not painful. Inflammatory carcinoma can appear quickly over a few hours but is very rare. A lump that does not disappear or is not getting smaller after a few weeks, has indistinct borders, or is non-movable, should be evaluated by a physician.<sup>1</sup>

## **Assessment:**

Establish Diagnosis and Need for Skilled Services

### **Problem List**

1. Pain
2. Blocked duct
3. Reduced milk expression in region of blockage
4. Decreased function of lactation compared to baseline
5. Decreased knowledge of self-care techniques
6. Poor posture and body mechanics during breastfeeding and/or pumping

**Prognosis:** There has been little research in the physical therapy treatment of blocked milk ducts. The few studies that do exist find that comprehensive physical therapy intervention is effective in clearing blocked milk ducts that have not responded to self-clearing methods. Significant reduction in patients' report of pain and difficulty with breast feeding were found, in addition to improved patients' confidence in ability to manage breastfeeding independently.<sup>1</sup>

**Goals** (Measurable parameters and specific timelines to be included on eval form)

Goals of interventions are individualized for each patient's current health status.

Potential goal categories are as follows:

1. Decrease pain
2. Decrease blockage of duct
3. Restore ability to express milk from the affected breast to baseline
4. Improve posture and body mechanics regarding breastfeeding and/or pumping
5. Independence with home program for self-management of blocked milk duct

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## Treatment Planning / Interventions

### **Interventions most commonly used for this case type/diagnosis.**

This section is intended to capture the most commonly used interventions for this case type/diagnosis. It is not intended to be either inclusive or exclusive of appropriate interventions.

A multimodal treatment protocol utilizing heat, ultrasound (US), specific manual techniques, and patient education is recommended in the treatment of blocked milk ducts. The heat from hydrocollator pack and the thermal effects of US provide recommended heat to dilate the ducts. This is then followed by the mechanical effect of US helping to break the clog up into smaller pieces that can then be removed via manual milking massage followed by breast feeding or pumping. Pain thresholds may elevate with ultrasound to allow the patient to tolerate effective manual drainage of the involved area afterwards. These manual techniques facilitate the further clearing of the clog towards the nipple. The patient is then educated and given the knowledge and skills necessary to independently clear blockages in the future.<sup>1</sup>

Once a patient is referred to therapy, every effort is made to schedule the patient within 24 -48 hours of the referral to address the problem as quickly as possible to minimize the risk of progression to mastitis. The patient will then be evaluated and examined by the therapist to assess the involved areas. Once the site(s) of the blockage(s) is/are found, treatment to the affected area will begin with ultrasound.

Ultrasound with Aquasonic ultrasound transmission gel is applied to the affected breast area all the way to the area of the nipple. The unit is set for continuous at 1 MHz frequency with an intensity of 2.0W/cm<sup>2</sup> for 8 minutes. The patient is instructed to inform the therapist if anything greater than a mild sensation of warmth is felt. Please refer to Ultrasound Protocol for further details regarding ultrasound usage.

Following ultrasound treatment, the gel is removed and manual therapy to the region is applied. Of note, The Centers for Disease Control and Prevention states that universal precautions do not apply to breast milk but that gloves can be worn by healthcare workers where exposure to breast milk might be frequent. A towel should be applied under the breast to absorb any milk that is excreted. The specific manual therapy consists of manual expression by creating a gentle rolling motion with the thumb and fingers distal to the clog at the nipple and areola. The therapist then works the tissue incrementally working more peripherally in the involved area, but then following the strokes always back toward the nipple. This is similar to lymphatic drainage massage, where the therapist clears the pathway before the congestion in order to make a path for the congestion to be removed. Once the blockage appears to be cleared, the therapist then manually expresses milk starting at the nipple, working peripherally back to where the clog was to promote flushing of the blockage. Patients are taught a self-massage technique to promote independence in self-care.

Patients are then encouraged to breastfeed or pump to completely drain the breast of milk. If breastfeeding, ideally the baby would be positioned with the baby's tongue

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and jaw positioned toward or over the area of blockage during feeding to maximize effective drainage to the area. Dangle feeding can help to accomplish such alignment. <sup>1</sup>

**Frequency & Duration:** Evaluation and possibly 1-2 follow ups as needed. Most patients will only need the evaluation to clear the clog and be independent with self-care. More challenging clogs may require an additional 1-2 treatment visits.

**Patient / family education:**

1. Instruction in self-treatment for clogs including massage and heat
2. Instruction in correct posturing for breastfeeding/pumping
3. Instruction in symptoms that warrant referral back to the physician or lactation consultant
4. Instruction in the signs and symptoms of mastitis
5. Instruction in pain control

**Recommendations and referrals to other providers:**

Refer to physician or lactation consultant for a patient situation such as:

- The patient does not demonstrate any improvement after 2-3 visits of PT
- If there is a recurrent clog in a specific location
- If the clog feels very firm with defined edges
- If there are any signs of infection
- If the treating therapist has any concerns regarding the patient's symptoms, it is always recommended that the patient be referred to their referring physician for assessment

**Re-evaluation**

Typically, patients are discharged after 1-2 sessions. However, if the patient requires care for more than 30 days, then the standard time frame of 30 days is appropriate

Other Possible Triggers- A significant change in signs and symptoms

**Discharge Planning**

**Commonly expected outcomes at discharge:**

1. Resolved blockage of clogged milk duct
2. Improved milk clearance from involved breast
3. Independence with self-treatment for clogs including massage and heat
4. Independence with correct posturing for breastfeeding/pumping

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5. Independence in pain control
6. Independence in signs and symptoms of mastitis
7. Independence with understanding symptoms that would warrant referral back to the physician or lactation consultant

**Patient's discharge instructions:** Continue with individualized home program indefinitely while breastfeeding/pumping to help minimize future clogs

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## REFERENCES

1. Cooper BB, Kowalsky D. Physical therapy intervention for treatment of blocked milk duct in lactating women. *J Women's Health Phys Ther*; 39(3) 2015:115-126.
2. Ramsay D, Kent J, Hartmann R, Hartmann P. Anatomy of the lactating human breast redefined with ultrasound imaging. *J Anat*. 2005;206:525-534.
3. Lavigne V, Gleberzon BJ. Ultrasound as a treatment of mammary blocked duct among 25 postpartum lactating women: a retrospective case series. *J Chiro Med*; 11:170-178.
4. Infant and Young Child Feeding: Model Chapter for Textbooks for Medical Students and Allied Health Professionals. Geneva: World Health Organization; 2009. SESSION 7, Management of breast conditions and other breastfeeding difficulties. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK148955/>