During pregnancy, the breasts undergo changes as they prepare to produce milk. In the first several days after the baby is born, the breasts undergo more dramatic changes as milk comes in. There is a continuum of symptoms which may present, ranging from what is considered “normal” to what is considered a problem requiring medical treatment.

### Management of Engorgement and Mastitis

**Key Points**
- If you have breast symptoms as noted above, follow written instructions for management (below).
- Call for lactation assistance if breast symptoms are not better in 12-24 hours.
- Call your obstetrician if there is no improvement after a few hours of following instructions.
- Call your obstetrician for antibiotics if fever and/or body aches develop, with or without breast symptoms.

1. **Wash hands, supplies and the pump regularly and thoroughly with soap and hot water to prevent the introduction of bacteria.**
2. **Rest, fluids and nutrition are essential.**
3. **Avoid constricting clothing or straps on the breast tissue.**
4. **Massage the breasts after feedings** for the first 4 days postpartum, as this might help prevent engorgement.
5. **Assess nipples for trauma, blisters and blebs.**
6. **Be sure the latch is correct.**
   - If the latch is difficult due to firmness of the breast, soften the breast by pumping or hand expressing before latchting.
7. **If baby won’t latch, pump and feed the milk to baby.**
8. **Your milk is fine for baby to drink even with mastitis.**
9. **Attempt to unblock the problem area.**
   - The lumped area should decrease in size after milk removal. **Pump or hand express after nursing to promote milk drainage.**
   - **Use a lubricant to massage the blockage toward the nipple. Point the baby’s nose or chin toward the blockage.**
10. **Apply heat (a shower or a hot pack) to the breast before feedings to help the milk flow.**
11. **Apply cold packs or clean cabbage leaves after milk removal to reduce pain and swelling.**
12. **Remove milk frequently and completely. Don’t restrict feedings.** Nurse every 2-3 hours and with hunger cues.
13. **Listen for swallowing sounds.**
14. **Empty one breast at each feeding and alternate which breast is offered first.** If mastitis develops, start feedings on the affected breast.
15. **Address milk oversupply issues.**
16. **Pain control may help milk let down.**

**Physiologic (normal)**
- This is fullness you feel as milk “comes in” sometime between day 2-5.
- More than 2/3 of women feel some tenderness on day 5, but some as late as day 9 or 10.

**Pathological (problematic)**
- Usually both breasts feel swollen, hard, tight, shiny and painful all over. Usually no redness. Slight fever may occur.

**Non-infective (inflammation)**
- Plugged duct/milk stasis
  - Redness, pain, and heat in an isolated area of the breast. This area is engorged or “blocked” by a plugged duct with milk stasis (accumulation).
  - Infection is not necessarily present.

**Infective (bacteria)**
- Higher fever, chills, headache and body aches occur, usually after one breast develops a wedge-shaped area that is red, warm, swollen and painful.
- The majority of cases occur in the first 6 weeks, but mastitis can occur at any time during lactation.

**A hard, red, tender area persists in a well-defined area of the breast despite appropriate management.**
- Fever, aching and other symptoms may have resolved. This occurs in about 3% of women with mastitis.

**Engorgement, Plugged Ducts, Mastitis and the Risk of Decreased Milk Supply**

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Sometimes it is difficult to realize if symptoms are “normal” or whether they have elevated to the next level of seriousness. This handout will help you recognize when things are abnormal, prevent and manage problems, and guide you to call for help.

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**The Lincoln Pediatric Group  402-489-3834  lincolnpeds group.com**
# For Your Information

- Engorgement rarely lasts more than 24 hours.
- As the baby breastfeeds, milk production should regulate on the basis of "supply and demand."

- Engorgement may be temporarily uncomfortable for mothers, but if managed promptly and effectively, it is actually associated with a decreased likelihood of early weaning.
- Failure to resolve serious engorgement may result in a low milk supply.

## What causes engorgement and mastitis?

The mechanism of engorgement and mastitis is not clearly understood. For unknown reasons, tissue swells and vessels dilate in the breasts, creating pressure around the milk ducts. This can obstruct the flow of milk through the ducts. The milk cells and ducts distend due to back pressure, causing more pressure within the breasts. If milk doesn’t flow and get removed regularly, the milk cells decrease their production and the full milk supply may not be maximally established. Also, trapped milk can harden and plug the milk ducts.

Engorgement and plugged ducts can evolve into mastitis and an abscess if not managed promptly.

## Who is most at risk for engorgement and mastitis?

This is unclear, but some circumstances are suspected to play a role.

1. **First time mothers:**
   - Milk "comes in" later in these mothers, but studies have not been done to see if they are more prone to engorgement.

2. **C-section delivery:**
   - This is suspected to increase the risk, but not proven. According to research, peak engorgement occurs 24–48 hours later after c-sections. It is also known that mothers start breastfeeding later and milk comes in later after c-sections.

3. **Previous breast surgery:**
   - It is not uncommon for these women to experience engorgement.

4. **Length of labor, premature delivery, anesthetic options, or IV fluids:**
   - It is unclear if these things increase the risk of engorgement.

Research is attempting to sort this all out. It IS clear that preventing and managing engorgement can prevent mastitis.

## What if it doesn’t get better?

The clinical response to the management described on the other side of this handout is typically rapid and dramatic. If not, a reevaluation is necessary to rule out resistant bacteria, abscess formation or an underlying mass.

**Breastmilk culture and sensitivity** testing should be done for any of the following situations:

- if symptoms fail to resolve within 2 days of appropriate management (including antibiotics)
- if mastitis recurs
- if mastitis is hospital-acquired
- when the patient is allergic to usual antibiotics
- in severe or unusual cases

**Abscess Formation:**

Delaying management of engorgement and mastitis, or abruptly stopping removing milk may exacerbate the mastitis and result in an increased risk of abscess formation. A diagnostic **breast ultrasound** can show a **fluid collection** which can be drained by **needle aspiration**. The milk is sent for culture to identify the bacteria causing the infection and drainage can help the issue resolve.

**Candida yeast infection:**

Diagnosis is difficult, as the nipples and breasts may look normal on examination. Symptoms may include redness and puffiness/inflammation of the nipple, flakiness/dryness of the area, red dots, burning nipple pain or radiating breast pain. Information about this is still evolving. Milk culture may not be reliable.

## Herbal Remedies:

At the present time herbal remedies for breast engorgement and oversupply have been described, but scientific investigation regarding their effectiveness is not available. You may consider the following:

- Increase intake of vitamin C.
- For recurring mastitis, consider taking lecithin – 2400mg 3-4x/day.

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