

Mastitis is an inflammation of the breast that can lead to infection. The word “mastitis” is derived from the Greek word “mastos” meaning “breasts”, while the suffix “-itis” denotes “inflammation”. Mastitis can occur at any time but is most common in breastfeeding women, particularly in the second and sixth week postpartum. Mastitis tends to emerge in the first three months after giving birth but can occur up to two years later. The condition can leave you feeling rundown and exhausted, making it difficult to care for your baby. In rare cases, non-lactating women develop mastitis.

There are two types of mastitis. Non-infectious mastitis, which usually occurs when milk remains within the breast tissue (called milk stasis) because it has not been properly drained, due to a blocked milk duct or feeding problem. The second type, infectious mastitis is caused by a bacterial infection. Although painful and potentially upsetting for breastfeeding moms, mastitis is relatively easy to treat. Prompt medical treatment is essential to avoid recurrence and complications.

Symptoms

The most common symptoms of mastitis include:

- Redness or reddish streaks
- Breast pain or sensitivity
- Heat and swelling
- A hard area on your breast
- A burning sensation in the breast that persists or is present during breastfeeding
- Nipple discharge, which is usually white but may be streaked with blood

Other symptoms may include:

- Feelings of stress or anxiety
- Chills
- Elevated body temperature
- Shivering
- General aches and pains
- Feelings of malaise

Cause

Mastitis can be caused by several factors, including:

- Poor attachment to the breast
- Nipple damage
- Long breaks between feeds or infrequent breastfeeding
- Breasts that are too full
- Blocked milk ducts
- Weaning too soon
- Pressure from an overly tight bra or baby carrier
- A baby who is having latching difficulties (for example, due to tongue tie)
- Being overtired or rundown

During lactation, anything that prevents milk from being properly expressed tends to result in milk stasis, which often leads to blocked milk ducts. In general, bacteria do not thrive in fresh human milk. However, if the milk ducts are blocked and the milk stagnates, there is a greater chance of bacterial infection. It is believed that bacteria exist on the surface of the breast skin. If the skin becomes cracked or broken, bacteria can enter the milk ducts. It has also been suggested that bacteria from the baby's mouth can enter the mother's breast during breastfeeding.

The breast tissue can also become inflamed due to the presence of cytokines in the breast milk. Cytokines are special proteins that the immune system uses and are passed on to your baby, to help them resist infection. If breast milk is not properly drained, the mother's immune system

may mistakenly attack these cytokines as if they were viruses or bacteria. This process, results in inflammation of the breast tissue to stop the spread of a supposed infection.

Although less common, non-lactating women can develop infectious mastitis. Regular smoking in the late 20's and early 30's is thought to contribute to the development of the condition. It is believed that smoking damages the milk ducts making them more prone to infection.

Nipple piercing can also increase the risk of developing mastitis.

Risk factors

- Breast-feeding during the first few weeks after childbirth (postpartum)
- Broken skin or cracked nipple
- Using only one position to breast-feed, may result in your breast not being fully drained
- Wearing a tight-fitting bra or clothing, may restrict the flow of milk
- Overtiredness or fatigue
- Previous bouts of mastitis while breastfeeding

Diagnosis

Mastitis is fairly easy to diagnose on the basis of symptoms and a physical examination. If the condition is unresponsive to treatment or the symptoms are severe, your doctor may take a small sample of breast milk for testing. Tests are able to detect the presence of a bacterial infection and the type of bacteria responsible for the condition. Bacteria identification helps your doctor select the most appropriate treatment.

If your doctor suspects a feeding problem, you may be asked to demonstrate how you breastfeed. Although breastfeeding is natural, it is not necessarily instinctive, requiring time, effort and adjustment for both mother and baby. You may need to experiment with feeding positions to find the most comfortable option. Stimulating the rooting reflex and establishing correct latching techniques take patience and practice.

Treatment

It is recommended and safe to continue breastfeeding or expressing milk from the affected breast if you have mastitis. Although frequent nursing or pumping may be painful, it is essential to keep the milk flowing and avoid clogging.

This is not the time to wean. It is crucial to keep your breasts as empty as possible. Your baby's sucking is the best way to do this. You may be worried about feeding your baby from the affected breast but this is what you need to do, and it poses them no harm whatsoever.

There are a number of ways to help the breast empty or drain more easily:

- Make sure your baby is attached well and that you are feeling comfortable. Breathe deeply and evenly. Make a special effort to relax as this will help your milk flow.
- Check that your let-down reflex is working as your baby begins to suck and that they are receiving sufficient milk. When your let-down happens, you will experience tingling in your breasts, a sudden feeling of fullness or milk leaking from your other breast. You will also notice changes in your baby's sucking pattern, such as more frequent gulping or swallowing.
- Hand express or use a breast pump if necessary, before, after and between feeds. If you have mastitis, your milk may taste salty and although not harmful, your baby may refuse to suck. A good place to hand express is under a warm shower.
- Gently massage the sore breast while your baby feeds. You can also massage the affected area towards the nipple while in the bath or shower. Gentle pressure behind the lumpy area may help move the blockage.
- Change feeding positions to help shift the blockage. For example, feeding while lying on your left side may help clear a blockage on the right side of either breast. If the blockage is under the nipple, raise the breast with your hand while feeding. Another option is to feed "on all fours" while kneeling over your baby.
- Ensure that you are well hydrated by drinking water frequently throughout the day.
- Enlist the support of family and friends so that you are able to rest or sleep as much as possible. Resting allows your body to recover between feeds.
- Place a cold pack (such as frozen vegetables placed in a cloth) on the affected area, twenty minutes on, twenty minutes off, to reduce the inflammation and relieve pain.
- Use warmth sparingly, preferably 10 minutes before a feed, to help trigger your let-down. This may help clear the blockage and soothe pain. Sources of heat include a warm shower, immersing your breasts in warm water in a bath or basin, water bottles or microwavable heat packs, or a hand towel wrung out in hot water.
- Consult your doctor immediately if you develop a fever, feel unwell or are unable to clear the blockage within 12 hours. Infectious mastitis may require antibiotic treatment. Take your

medication as directed and finish the course. Antibiotics make mother and baby more susceptible to thrush. If you or your baby develops any side effects, contact your doctor straight away.

- Over-the-counter painkillers, such as paracetamol or ibuprofen may be necessary or prescribed to reduce pain and fever.
- Severe and recurrent mastitis or delayed treatment may result in the development of a breast abscess (a collection of pus). An abscess needs to be drained under local anaesthetic. Healing takes 5-7 days. With your doctor's approval, you can continue feeding, while covering the affected area with light gauze dressing. If you are advised to stop feeding from this breast during the healing process, ensure that you pump or express milk regularly.

Prevention

- Breastfeeding exposes the skin around the nipples to excess milk. Moisture together with vigorous sucking makes this sensitive area prone to damage. There are a number of preventative measures you can take to minimize your chances of developing mastitis.
- Gently dab your nipples clean after each feed.
- Breastfeed frequently. Newborns generally feed 8-12 times in a 24-hour period.
- Breastfeed your baby as often as your baby wants to feed.
- Don't miss or put off breastfeeds.
- If your breasts become too full, wake your baby for a feed.
- If your baby doesn't want to nurse, you may need to express some milk for comfort.
- Seek help to ensure that your baby is latching and feeding well at your breast. It is important to get advice on how to position baby on your breast. A baby who is properly latched will not need to suck hard to feed well. Taking baby off your nipple is also important to prevent irritation. This can be done by gently pushing down on your baby's chin, to break the airtight seal between her mouth and the nipple.
- Offer both breasts at each feed. If your baby only feeds from one breast, alternate by offering the other breast first at the next feed.
- If you need to start a feed on the right breast, place your feeding cushion to your right, as a reminder. Alternatively use a wristwatch or elastic band.
- If your breasts still feel full after feeds, express a small amount of milk until you feel comfortable.
- Avoid excess pressure on your breasts from clothing or from your fingers when feeding. Make sure your bra is very loose or take it off.
- Avoid mixed feeds, including formula or other fluids, unless advised by your health care provider.
- If your nipples are cracked, swollen or sore seek treatment immediately, as they are prone to infection.

Complications

Delayed treatment of mastitis can lead to the development of a breast abscess, resulting in excruciating, throbbing pain, swelling, heat and tenderness in the affected area, and high fevers. Treatment generally includes antibiotics and drainage of the abscess under local anesthesia. You may need to halt breastfeeding from the affected breast temporarily. However, it is recommended that you continue to empty the breast with a pump until healing has occurred and nursing can resume.

- https://www.thewomens.org.au/health-information/breastfeeding/breastfeeding-problems/mastitis/
- http://www.medicalnewstoday.com/articles/163876.php
- http://www.parentdish.co.uk/baby/mastitis-causes-and-cures/
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