Mastitis is due to an infection (almost always due to bacteria rather than other types of germs) that usually occurs in breastfeeding mothers. However it can occur in any woman, even if she is not breastfeeding and can even occur in newborn babies of either sex. Nobody knows exactly why some women get mastitis and others do not. Bacteria may enter the breast through a crack or sore in the nipple but women without sore nipples also get mastitis and most women with cracks or sores do not.

Mastitis is different from a blocked duct because a blocked duct is not thought to be an infection and thus does not need to be treated with antibiotics. With a blocked duct, a mother has a painful, swollen, firm mass in the breast. The skin overlying the blocked duct is often red, but less intensely red than the redness of mastitis. Unlike mastitis, a blocked duct is *not usually* associated with fever, though it can be. Mastitis is usually more painful than a blocked duct, but both can be quite painful. Thus seeing the difference between a "mild" mastitis and a "severe" blocked duct may not be easy. It is also possible that a blocked duct goes on to become mastitis, so things become even more complicated.
However, without a lump in the breast, there is no mastitis or blocked duct for that matter. In France, physicians recognize something they call lymphangite when the mother has a painful, hot redness of the skin of the breast, associated with fever, but there is no painful lump in the breast. Apparently, most do not believe this lymphangite requires treatment with antibiotics. I have seen a few cases that fit this description and yes, in fact, the problem goes away without the mother taking antibiotics. But then, often a full-blown mastitis also goes away without the mother taking antibiotics.

As with almost all breastfeeding problems, a poor latch, and thus, poor emptying of the breast sets the mother up for blocked ducts and mastitis.

Blocked ducts

Blocked ducts will almost always resolve without special treatment within 24 to 48 hours after starting. During the time the block is present, the baby may be fussy when breastfeeding on that side because the milk flow will be slower than usual. This is probably due to pressure from the lump collapsing other ducts. A blocked duct can be made to resolve more quickly if you:

1. **Continue breastfeeding on that side and draining the breast better**. This can be done by:

- **Getting the best latch possible** (see the information sheet *When Latching* as well as the video clips on how to latch a baby on at the website nbci.ca).

- **Using compression to keep the milk flowing** (see the information sheet *Breast Compression* as the video clips on how to latch a baby on at the website nbci.ca). Get your hand around the blocked duct and compress it as the baby is breastfeeding if it is not too painful to do so.

- **Feeds the baby in such a position that the baby's chin "points" to the blocked duct.** Thus, if the blocked duct is in the bottom outside area of the breast (7 o'clock), then feeding the baby in the football position may be helpful.

- **Apply heat to the affected area**. You can do this with a heating pad or hot water bottle, but be careful not to burn your skin by using too much heat for too long a period of time.

- **Try to rest**. Of course, with a new baby it is not always easy to rest. Try going to bed. Take your baby with you into bed and breastfeed him there.

A bleb or blister

Sometimes, but not always by any means, a blocked duct is associated with a bleb or blister on the end of the nipple. A flat patch of white on the nipple is not a bleb or blister. If there is no painful lump in the breast, it is confusing to call a bleb or blister on the nipple a blocked duct. A bleb or blister is, usually, painful and is one cause of nipple pain that comes on later than the first few days. Some mothers get blisters in the first few days due to a poor latch. Nobody knows why a mother would suddenly get a bleb or blister out of the blue several weeks after the baby is born.

A blister is often present without the mother having a blocked duct.

If the blister is quite painful (it usually is), it is helpful to open it, as this should give you some relief from the pain. You can open it yourself, but do this one time only. However, if you need to repeat the process, or if you cannot bring yourself to do it yourself, it is best to go to see your doctor or come to our clinic.

- Flame a sewing needle or pin, **let it cool off,** and puncture the blister.
- Do not dig around; just pop the top or side of the blister.
- Try squeezing just behind the blister; you might be able to squeeze out some toothpaste-like material through the now opened blister. If you have a blocked duct at the same time as the blister, this might result in the duct unblocking. Putting the baby to the breast may also result in the baby unblocking the duct.

Once you have punctured the bleb or blister, start applying the "all purpose nipple ointment" after each feed for a week or so. The reason for this is to prevent infection and also to decrease the risk of the bleb or blister returning. See the information sheet *All Purpose Nipple Ointment (APNO)*. You need a prescription for the ointment

Ultrasound for blocked ducts

Most blocked ducts will be gone within about 48 hours. If your blocked duct has not gone by 48 hours or so, therapeutic ultrasound often works. Most local physiotherapy or sports medicine clinics can do this for you. However, very few are aware of this use of ultrasound to treat blocked ducts. An ultrasound therapist with experience in this technique has more successful results.

Some mothers have used the flat end of an electric toothbrush to give themselves “ultrasound” treatment. And apparently have had good results.

If two treatments on two consecutive days have not helped resolve the blocked duct, there is no point in getting more treatments. Your blocked duct should be re-evaluated by your doctor or at our clinic. Usually, however, one treatment is all that is necessary. Ultrasound may also prevent recurrent blocked ducts that occur always in the same part of the breast.

The dose of ultrasound is **2 watts/cm² continuous for five minutes to the affected area, once daily for up to two treatments** .

Lecithin is a food supplement that seems to help some mothers prevent blocked ducts. It may do this by decreasing the viscosity (stickiness) of the milk by increasing the percentage of polyunsaturated fatty acids in the milk. It is safe to take, relatively inexpensive, and seems to work in at least some mothers. The dose is 1200 mg four times a day.

Mastitis

If you start getting symptoms of mastitis (painful lump in the breast, redness and pain of the breast, fever), try to get some rest. Go to bed and take the baby with you so you can continue breastfeeding while remaining in bed. Rest is good to help fight off infection.

Continue breastfeeding on the affected side. It should go without saying that you should continue on the other breast as well . Of course, if you are in so much pain that you cannot put the baby to the affected breast, continue on the other side and as soon as your breast is less painful put the baby to the breast with the mastitis. Sometimes expressing your milk may be less painful, but not always, so if you can, continue breastfeeding on the affected side. Mothers and babies share all their germs.

Heat helps fight off infection. It also may help with draining of the breast. Use a hot water bottle or heating pad but be careful not to burn the skin.

Fever helps fight off infection. Adults usually feel terrible when they have a fever and you may want to bring down the fever for this reason. But you don't need to bring down the fever just because it's there. Fever does not cause the milk to go bad!

Potatoes (adapted from Bridget Lynch, RM, Community Midwives of Toronto). Within the first 24 hours of your symptoms beginning, you may find that applying slices of raw potato to the breast will reduce the pain, swelling, and redness of mastitis.

- Cut 6 to 8 washed raw potatoes lengthwise into thin slices.
- Place in a large bowl of water at room temperature and leave for 15 to 20 minutes.
- Apply the wet potato slices to the affected area of the breast and leave for 15 to 20 minutes.
- Remove and discard after 15 to 20 minutes and apply new slices from the bowl.
- Repeat this process two more times so that you have applied potato slices 3 times in an hour.
- Take a break for 20 or 30 minutes and then repeat the procedure.

Mastitis and Antibiotics

Generally, it is better to avoid antibiotics if possible since mastitis may improve all on its own and antibiotics may result in your getting a Candida (yeast, thrush) infection of the nipples and/or breast. Our approach is as follows:

If you have had symptoms consistent with mastitis for **less than 24 hours**, we would give you a prescription for an antibiotic, but suggest you wait before starting to take the medication.

- • If, over the next 8 to 12 hours, *your symptoms are worsening* (more pain, more spreading of the redness or enlarging of the painful lump), start the antibiotics.

- • If over the next 24 hours, *your symptoms are not worse* but not better, start the antibiotics.
- • If over the next 24 hours, *your symptoms are lessening*, then they will almost always continue to lessen and disappear without your needing to take the antibiotics. In this case, the symptoms will continue to lessening and will have disappeared over the next 2 to 7 days. Fever is often gone by 24 hours, the pain within 24 to 72 hours and the breast lump disappears over the next 5 to 7 days. Occasionally the lump takes longer than 7 days to disappear completely, but as long as it's getting small, this is a good thing.

If you have had symptoms consistent with mastitis for **more 24 hours** and the symptoms have not improved, you should start the antibiotics straight away.

If you are going to take an antibiotic, you need to take the right one. Amoxicillin, plain penicillin and some other antibiotics used frequently for mastitis do not kill the bacterium that almost always causes mastitis (*Staphylococcus aureus*). Some antibiotics which kill *Staphylococcus aureus* include: cephalexin (our usual choice), cloxacillin, dicloxacillin, flucloxacillin, amoxicillin combined with clavulinic acid, clindamycin and ciprofloxacin. Antibiotics that can be used for community acquired methicillin-resistant
Staphylococcus aureus
(CA-MRSA): cotrimoxazole and tetracycline.

All these antibiotics can be used when mothers are breastfeeding and do not require her to interrupt breastfeeding .

You should not interrupt breastfeeding if you are infected with MRSA! Indeed, breastfeeding decreases the risk of the baby getting infection .

Medication for pain/fever (ibuprofen, acetaminophen, and others) can be helpful to get you through this. The amount that gets into the milk, as with almost all medications, is tiny. Acetaminophen is probably less useful than those drugs (e.g. ibuprofen) that have an anti-inflammatory affect.

Breast Abscess

The treatment of choice now for breast abscess is no longer surgery. We have had much better results with ultrasound to locate the abscess and a catheter inserted into the abscess to drain it. Mothers going through this procedure do not stop breastfeeding even on the affected side, and complete healing occurs often within a week. This procedure is done by an intervention radiologist, not a surgeon. Ask your doctor to check out this study: Dieter Ulitzsch, MD, Margareta K. G. Nyman,MD, Richard A. Carlson, MD. Breast Abscess in Lactating Women: US-guided Treatment.
Radiology
2004; 232:904–909

For small abscesses, aspiration with a needle and syringe plus antibiotics often is all that is necessary, though it may be necessary to repeat the aspiration more than once.

A lump that isn't going away.

If you have a lump that is not going away or not getting smaller over more than a couple of weeks, you should be seen by a breastfeeding-friendly physician or surgeon. You don't have to interrupt or stop

breastfeeding to get a breast lump investigated (ultrasound, mammogram and even biopsy do not require you to stop breastfeeding even on the affected side). A breastfeeding friendly surgeon will not tell you that you have to stop breastfeeding before s/he can do tests to investigate a breast lump.

Questions? First look at the website nbci.ca or drjacknewman.com. If the information you need is not there, go to *Contact Us* and give us the information listed there in your email. Information is also available in **Dr. Jack Newman's Guide to Breastfeeding** (called **The Ultimate Breastfeeding Book of Answers** in the USA); and/or our DVD, **Dr. Jack Newman's Visual Guide to Breastfeeding** (available in French or with subtitles in Spanish, Portuguese and Italian); and/or **The Latch Book and Other Keys to Breastfeeding Success**; and/or **L-eat Latch and Transfer Tool**; and/or the **GamePlan for Protecting and Supporting Breastfeeding in the First 24 Hours of Life and Beyond**.

To make an appointment online with our clinic please visit www.nbci.ca. If you do not have easy access to email or internet, you may phone (416) 498-0002.

Blocked duct and mastitis, February 2009©
Written and revised (under other names) by Jack Newman, MD, FRCPC, 1995-2005©
Revised by Jack Newman MD, FRCPC and Edith Kernerman, IBCLC, 2008, 2009©