

## Patient information from the BMJ Group

# Mastitis

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## Mastitis

If you have mastitis one of your breasts may look red and swollen and feel tender or painful. You may also feel unwell and have a high temperature. This happens when your breast tissue becomes inflamed, usually if you are breastfeeding. Mastitis usually clears up on its own. But sometimes it needs treatment with antibiotics.

We've brought together the best research about mastitis and weighed up the evidence about how to treat it. You can use our information to talk to your doctor and decide which treatments are best for you.

## What is mastitis?

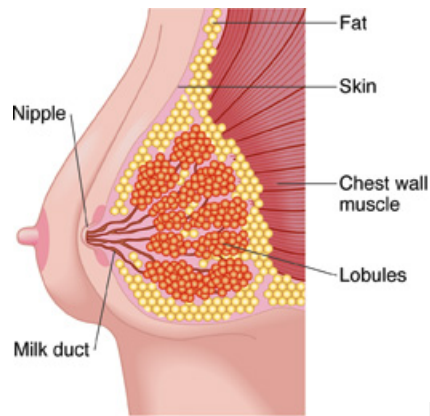
Mastitis is when part of your breast becomes inflamed. Your breast may look red and feel tender, swollen, and painful.

Mastitis usually affects women who are breastfeeding, although it can happen rarely in women who are not breastfeeding.<sup>[1]</sup> Mastitis can put some women off breastfeeding.

Some doctors say you only have mastitis if the inflammation is caused by a bacterial infection.<sup>[2]</sup> But others say mastitis is any inflammation of the breast.<sup>[3] [4] [5]</sup> This can be confusing. Here, we define mastitis as any inflammation of the breast, whether or not it is caused by an infection.

Women's breasts are made up of **breast tissue**, **lobules** (the parts of the breast where milk is made), and **fat**. There's also an intricate network of tubes, called **milk ducts**. These carry milk from the lobules to the nipple.

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Mastitis can happen if milk collects in a milk duct.

You can get mastitis when milk builds up in a milk duct. If there is too much milk then the duct becomes blocked, which makes it bulge. This makes the duct feel like a lump in your breast. Milk from the duct is then forced into the breast tissue surrounding it. Your breast will look swollen and red and it will feel painful. <sup>[6]</sup>

If germs get into your milk duct and breast tissue you can also get an infection in your breast. <sup>[6]</sup> This is a more severe form of mastitis and some doctors call it **infective mastitis**. Germs like bacteria and fungi live on everyone's skin. They can get into your breast by travelling up the milk ducts from your nipple. This is more likely if you have cracks or sores on your nipples. Sore, cracked nipples are common if you are breastfeeding. Most infections of this kind are caused by bacteria. But sometimes you can get a fungal infection in your breast.

Anything that causes milk to collect in your breast for longer than usual can increase your chances of getting mastitis. For example, you may get mastitis if your baby is not feeding as much as usual. <sup>[5]</sup> This can happen when your baby starts sleeping through the night or when you go back to work and the time between feeds increases.

Mastitis is most likely to occur during the first three months after you give birth, but it can happen any time you are breastfeeding. <sup>[7]</sup>

Mastitis can sometimes happen in women who are not breastfeeding. <sup>[8]</sup> It may be linked to other infections, or may even be caused by your nipples rubbing against clothing. Smoking increases the chances of this kind of mastitis. This type of mastitis causes pain and redness around your nipple.

## Mastitis: why me?

Some things can increase your chances of getting mastitis. These are known as **risk factors**. Risk factors for mastitis are: <sup>[3]</sup> <sup>[9]</sup>

- Having had mastitis before
- Having cracks or sores on your nipples

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- Your breast not being emptied properly. For example, if your baby is not in the right position to breastfeed, or if your baby can't latch on to your breast well, milk may be left behind in the ducts. This can lead to a blockage
- Using a breast pump for more than 10 minutes at a time. A breast pump can stimulate your breast to make more milk than is needed
- Being run down and over-tired. This can make you more likely to get an infection
- Wearing a tight-fitting bra that stops your breast draining properly.

### What are the symptoms of mastitis?

Mastitis usually starts quite suddenly and can be very painful. It usually affects just one breast.

You might get the following symptoms: <sup>[3]</sup> <sup>[10]</sup>

- Pain or tenderness in a part of your breast
- One or more hard lumps in your breast. These lumps are often wedge-shaped
- A hot or warm area on your breast
- Redness on a part of your breast
- If you have a **bacterial infection** you may get a high temperature or flu-like symptoms, such as shivers, hot sweats, and aches
- If you have a **fungal** infection you might get nipple pain, burning, itching, and shooting pains moving outwards from your nipple.

If you are breastfeeding and get any of the symptoms above you should see your midwife, health visitor, or doctor. <sup>[10]</sup>

If you're not breastfeeding and you get a painful swelling in your breast you should also see your doctor. This is important because there is a type of breast cancer that causes similar symptoms to mastitis. Your doctor will do tests to check what has caused your symptoms. Your doctor or a nurse will usually decide whether you have mastitis by examining your breast and asking about your symptoms.

Symptoms of mastitis usually last about five days, but they can last up to three weeks.

<sup>[3]</sup>

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## Engorgement

Engorgement can happen when you are breastfeeding. It is when the breasts over-fill with milk. When your breasts are engorged they feel very full and might feel hard. Both breasts are affected in the same way. And the whole breast feels full, not just a section of the breast, which is what happens with mastitis.

Your breasts might become engorged when your milk comes in, usually two or three days after you give birth. But it can also happen if there's a long gap between feeds. This is nothing to worry about and will soon ease when you feed your baby.

## How common is mastitis?

Mastitis seems to be very common in women who are breastfeeding, although it's hard to know exactly how many women get it.

Some studies suggest that it affects between 1 in 10 and 2 in 10 women who are breastfeeding.<sup>[3]</sup> <sup>[4]</sup>

Mastitis is most common in the first few weeks or months after their baby is born.<sup>[4]</sup> But mastitis can occur at any time while you're breastfeeding, even after one year of breastfeeding.<sup>[5]</sup>

## What treatments work for mastitis?

Mastitis is when your breast becomes inflamed. It's common in women who are breastfeeding and can be very painful. Mastitis usually clears up on its own. But it sometimes needs treatment with antibiotics.

Here we look only at mastitis in breastfeeding women. If you get pain and swelling in your breast and you're not breastfeeding, see your doctor.

## Key points about treating mastitis

- Most women who get mastitis won't need any treatment.
- The best thing you can do is to carry on breastfeeding to remove the milk that has collected. Always start feeding with the affected breast first.
- There are some other things you can do to make yourself feel more comfortable. For example, you may want to take a painkiller, such as paracetamol or ibuprofen. To learn more, see [What can I do to help myself?](#)
- You may be given advice about how to breastfeed to make sure you're doing it right. To learn more, see [How to breastfeed](#) .
- If your symptoms don't clear up after a day or two, or if they are severe, you may need treatment with antibiotics.

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- Make sure you finish the course of antibiotics. Otherwise your mastitis may come back.

We've looked closely at the research and ranked the treatments into categories, according to whether they work.

### Treatment Group 1

#### Treatments for mastitis

##### Treatments that work

- [Breastfeeding](#)
- [Antibiotics](#)

##### Treatments that need further study

- [Acupuncture](#)

#### What will happen to me?

Mastitis usually clears up on its own without any treatment.

The best thing you can do is to carry on breastfeeding, and to always start feeding with your affected breast first. That way, the milk that has collected and caused the mastitis will be removed by your baby. The milk won't harm your baby. To learn more, see [What treatments work for mastitis?](#) But some women with mastitis have an **infection** and will need treatment with **antibiotics** to get rid of it.

If you need treatment with antibiotics it's important you take the full course prescribed by your doctor, even if you start to feel better after a few days. If you don't finish the course there's a chance your mastitis could come back.

If you have a **fungal** infection you'll usually be given antifungal cream to rub into your nipples after feeding your baby. Your baby may also need treating. This will usually be an antifungal medicine given as a liquid that you put in your baby's mouth with a pipette.

Even with good treatment, some women get mastitis again. If this happens, you may need longer treatment with antibiotics or a course of different antibiotics.<sup>[6]</sup> If mastitis always comes back in the same part of your breast, this may be because of another condition, such as a **cyst** or, very rarely, breast cancer. Your doctor will check for these conditions.

Mastitis can sometimes become more serious. If your breast tissue is infected, there's a chance that an **abscess** can form. An abscess is when pus collects in a part of your body and forms a hard lump.

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About 1 in 10 women who get mastitis get an abscess.<sup>[3]</sup> Abscesses often happen when the infection causing the mastitis has not been properly treated with antibiotics. Abscesses can also happen if there's a delay in getting treatment. You're also at risk of getting a breast abscess if you stop breastfeeding or avoid using the breast that is affected by mastitis.<sup>[1]</sup>

Doctors can't always tell just by looking at your breast whether or not you have an abscess. Your doctor may use ultrasound to check if you have an abscess. This ultrasound will be like the one doctors use to get an image of your baby when you're pregnant. If you have an abscess, you'll need to have this treated quickly to stop the infection spreading.

For more information, see [Treating an abscess](#) .

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### Treatments:

#### Breastfeeding

In this section

Continuing to breastfeed can help clear mastitis and reduce the chances of complications, such as getting an abscess (this is when pus collects in a section of your breast and forms a hard lump).<sup>[9]</sup> Continuing to breastfeed is often the only thing that many women with mastitis need to do.

Mastitis happens when too much milk has collected in your breast. Breastfeeding helps to drain the milk and eases the symptoms of mastitis. Always start breastfeeding with the affected breast first. And empty the breast completely, using a pump if necessary. You should try to breastfeed every hour during the day and a few times at night.<sup>[9]</sup>

One study found that women who emptied their affected breast by breastfeeding got better more quickly.<sup>[9]</sup> Women who kept draining their breast had no symptoms after three days. Among women who didn't drain their breast, symptoms lasted eight days. Only 4 in 100 who kept breastfeeding got complications, compared with 80 in 100 women who didn't drain their breast.

Breastfeeding also helped women who needed treatment with [antibiotics](#) to get better.<sup>[9]</sup> Women who drained their breast were better after two days, compared with seven days for those who didn't. Women who drained their breast were also much less likely to get a breast abscess.

You may worry about feeding your baby milk from the affected breast, but this will not harm your baby. You may also find it painful to breastfeed and your baby might not want to feed from the affected breast because the milk tastes different. If this is the case, you could use a pump on the affected breast instead.

To check you're doing it right, see [How to breastfeed](#) .

## Antibiotics

In this section

Although there's not much good research, doctors agree that antibiotics can help clear up mastitis that's caused by a bacterial infection. Your doctor might prescribe antibiotics if you've tried breastfeeding using your affected [breast](#) first but your symptoms haven't eased after 24 hours.<sup>[9]</sup> The antibiotics that doctors prescribe for mastitis will not harm your baby.

Antibiotics that doctors use to treat mastitis include amoxicillin, cefalexin (brand names include Ceporex and Keflex), cefuroxime (Zinnat), cefradine, and erythromycin.

You'll usually need to take antibiotics for between 10 days and 14 days.<sup>[9]</sup> Taking them for less time than this may increase the chances of mastitis coming back.<sup>[6]</sup>

There isn't much evidence about whether antibiotics work for treating mastitis. We found one small study that looked at using antibiotics plus breastfeeding to treat mastitis caused by a bacterial infection. It found that women who had this treatment were more likely to be cured after two weeks than women who only breastfed or who had no treatment.<sup>[15]</sup>  
<sup>[16]</sup>

Another small study found that the antibiotics amoxicillin and cefradine worked equally well in women with mastitis that was caused by an infection.<sup>[16]</sup> <sup>[17]</sup> Symptoms in women treated with either of these antibiotics cleared up after four days, on average. It's important to keep taking your antibiotics even after you start to feel better, as there's an increased risk of getting an abscess if you stop treatment early.

Antibiotics are safe to use when you're breastfeeding. However, in some people they can cause mild side effects, such as diarrhoea, headaches, and feeling sick.<sup>[18]</sup>

A couple of studies have looked at whether giving antibiotics to women with cracked or sore nipples can help prevent mastitis. However, the studies were too small to tell us whether this might help.<sup>[19]</sup>

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## Acupuncture

In this section

Acupuncture is an ancient Chinese treatment. It involves having an acupuncturist put thin, sterile needles into your skin. Traditionally, people believed that the needles helped to restore the flow of energy around your body. Some doctors think acupuncture may help your body to release natural chemicals that block the feeling of pain within your brain.

Some people prefer to try acupuncture because they don't want to take medicines.

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One study found that women who had acupuncture for five days alongside their usual treatment had less pain on days three and four than women who didn't have this treatment.<sup>[20]</sup> But acupuncture did not reduce the number of days that women had the symptoms of mastitis. More research is needed to know whether acupuncture helps women with mastitis.

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### Further informations:

#### Treating an abscess

An abscess is when pus collects in a part of your body and forms a hard lump. If you have an abscess in your breast you'll need treatment with antibiotics for the infection. And your abscess will have to be drained to get rid of the pus.<sup>[5]</sup> It is important that an abscess is drained, as it may not heal with antibiotic treatment alone.

If your breast abscess is small, doctors will probably be able to drain it by putting a needle into the abscess and drawing out the pus. They will usually use ultrasound to help them get the needle in the right place. You'll be given a local anaesthetic before the procedure, so you shouldn't feel any pain while the abscess is being drained.

After the pus has been drained the needle is removed and a dressing will be put over the area. You won't need to stay in hospital for this procedure. But you'll need to come back to make sure all the pus has been drained.

In one study, nearly all women (97 in 100 women) with a breast abscess due to mastitis only needed to have the abscess drained with a needle once.<sup>[11]</sup> But about 2 in 100 women needed to go on to have surgery to drain the abscess.

If you have surgery to drain an abscess a small cut is made in your breast. A tube is then inserted into the abscess and left in place until all the pus has drained out. You might need this treatment if you have a big abscess or if treatment with a needle hasn't worked.<sup>[6]</sup> You might have this treatment using just a local anaesthetic or a general anaesthetic, depending on the size of your abscess.

Surgery usually takes about 12 days to heal, compared with about six days for draining an abscess with a needle.<sup>[12]</sup> You're also more likely to have a scar if you have surgery.

You can usually continue to breastfeed normally while you are being treated for an abscess.<sup>[6]</sup> This includes using the breast that has the abscess. But if pus leaks into the breast milk you will need to use a pump to drain the milk and throw this away.<sup>[9]</sup> Your doctor will be able to tell you if you can breastfeed with the affected breast.



### What can I do to help myself?

If you have mastitis the best thing you can do is to carry on breastfeeding. This will help to remove the milk that's causing a blockage in your breast.<sup>[13]</sup> There are also some other things that can help you feel more comfortable.

- Always start breastfeeding your baby with the affected breast first. This might be painful at first but it can help ease the pain of mastitis. The milk won't harm your baby.
- If your baby refuses to feed, or if it's too painful, use a pump to drain the milk out of your breast.<sup>[6]</sup>
- Take painkillers, such as paracetamol or ibuprofen.<sup>[10]</sup> But don't take aspirin as this can be carried in the breast milk. Very rarely this can cause problems for babies.
- Taking hot baths and putting a hot flannel on your breast might also help relieve the pain.
- You can also try massaging your breast while you're feeding.<sup>[10]</sup> This might help to release the milk.
- If the affected breast is not empty after a feed, then use a breast pump to drain the remaining milk.
- If you find breastfeeding uncomfortable, ask your midwife or health visitor for advice on other positions you can try.
- If your nipples are cracked then ask your doctor, health visitor, or midwife what you can do about it. You might want to try rubbing in a nipple cream that you can buy from your pharmacy, such as Kamilloosan ointment. This might help the cracks on your nipples to heal faster, and prevent future cracks.
- Make sure your bra isn't pressing into your breast. You might prefer to go without a bra for a few days.
- Drink lots of fluids.<sup>[10]</sup>
- Some women say putting chilled or room-temperature cabbage leaves on their breast helps with the pain. But there's no research to say that this will help to get rid of the mastitis.<sup>[10] [5]</sup>

## How to breastfeed

If you've got mastitis you've probably been breastfeeding for at least a few weeks. But it can be worth going over the basics. Some health professionals believe that mastitis happens because of poor breastfeeding technique. Although there's no evidence that this is the case, it can help to know you're doing it right. Here we describe what position you and your baby need to be in, and the signs that tell you that your baby is feeding properly.

The first thing you need to do is get into a comfortable position. Make sure you're sitting down with enough room to stretch your arms out to the elbows. Use cushions if you need extra back support. Remember you'll be in this position a lot, maybe for a long time.

Once you're comfortable you need to get your baby in a good position for feeding:

- Hold your baby close to you with their body facing yours
- Your baby's head and body should be in a straight line
- Make sure your baby's arm does not get in the way
- Keep your baby's head and neck well supported but leave enough room to tilt their head back
- Hold your baby so their nose is level with your nipple and close enough to get a big mouthful of breast
- Keep your baby's nose free for breathing (do not push it into your breast)
- You may find it helps to hold your breast from underneath, by making a C-shape with your thumb and forefinger.

The next thing you need to do is to get your baby to latch onto your breast. Your baby might do this without you having to do anything. But if your baby seems reluctant then you may need to encourage them. Try teasing your baby's lips with the nipple to get them to open their mouth.<sup>[10]</sup> As your baby opens his or her mouth, push your breast towards it with your nipple facing towards the roof of their mouth. If your baby does not want to feed, then stop and try again later.

When your baby is properly attached you should notice the following:<sup>[10]</sup>

- Your baby's mouth is wide open
- You can see the coloured skin around the nipple: you should see more of this above your baby's mouth and less underneath their chin

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- Your baby's chin is touching your breast
- Your baby's lower lip is rolled down
- Your baby's nose is free.

It's normal to feel some discomfort when you start to breastfeed. Your nipples may be sore and your breasts may feel very heavy and full, especially when your milk first comes in. This usually happens about three days after you give birth. But you shouldn't be in a lot of pain. If you are, ask a health professional about it.

There are certain signs that will tell you that your baby is feeding properly: [\[10\]](#) [\[14\]](#)

- You should be able to hear and see your baby swallowing
- Your baby should have a rhythmic suck
- Your baby's arms and hands should be relaxed
- Your baby's mouth should be moist
- Your baby should have regular soaked and heavy nappies
- Your breast should feel softer as you feed
- Breastfeeding your baby should make you feel relaxed and even sleepy.

## Glossary:

### infection

You get an infection when bacteria, a fungus, or a virus get into a part of your body where it shouldn't be. For example, an infection in your nose and airways causes the common cold. An infection in your skin can cause rashes such as athlete's foot. The organisms that cause infections are so tiny that you can't see them without a microscope.

### bacteria

Bacteria are tiny organisms. There are lots of different types. Some are harmful and can cause disease. But some bacteria live in your body without causing any harm.

### fungus

A fungus is an organism that is sometimes considered to be a type of plant. A fungus lives by feeding on other organisms. The mushrooms we eat in salads are fungi, but so are candida and cryptococcus, which can cause infections in people's bodies.

### bacterial infection

You get a bacterial infection when bacteria invade a part of your body. There are many different types of bacteria, some of which are harmful and cause disease.

### antibiotics

These medicines are used to help your immune system fight infection. There are a number of different types of antibiotics that work in different ways to get rid of bacteria, parasites, and other infectious agents. Antibiotics do not work against viruses.

### cysts

A cyst is a sac or cavity that develops under your skin and is filled with fluid. Cysts are benign, which means that they are not cancerous.

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## local anaesthetic

A local anaesthetic is a painkiller that's used to numb one part of your body. You usually get local anaesthetics as injections.

## general anaesthetic

You may have a type of medicine called a general anaesthetic when you have surgery. It is given to make you unconscious so you don't feel pain when you have surgery.

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