CONDITION

Breast infection

Learn how breast infections and mastitis develop, what symptoms to watch for, and how they are diagnosed, treated, and monitored.

WHAT IT IS
Bacterial infection of breast tissue

BODY SYSTEM
Breasts

MAIN SYMPTOMS
Breast redness and swelling, breast pain, fever and chills, tender lump

WHAT CAUSES IT
Bacteria entering breast tissue

HOW IT IS DIAGNOSED
Breast milk or drainage culture

MAIN TREATMENT
Antibiotics and abscess drainage

CAN IT BE CURED?
Yes, most improve with appropriate care

IS IT AN EMERGENCY?
Sometimes, with confusion or trouble breathing

LONG-TERM OUTLOOK
Most improve, though infections can recur

Overview

A breast infection occurs when bacteria infect breast tissue. It often develops alongside mastitis , which means inflammation of the breast. Mastitis can occur without a bacterial infection, especially during breastfeeding. This distinction matters because not every painful, red, or swollen breast needs antibiotics like amoxicillin or doxycycline .

Breast inflammation is most common during breastfeeding or milk expression. Milk production, tissue swelling, and narrowing of milk ducts can create a range of symptoms called the mastitis spectrum . Mild inflammation may improve with supportive care. Some cases progress to bacterial mastitis or an abscess , which is a pocket of infected fluid.

People who are not breastfeeding can also develop breast infections. These infections may begin near the nipple, around a damaged area of skin, or deeper within the breast. Repeated

infections near the nipple may be related to inflamed or blocked ducts.

Most breast infections improve with appropriate care. However, prompt assessment is important when symptoms are severe, a lump may contain fluid, or breast changes do not improve as expected. Certain breast conditions, including inflammatory breast cancer, can sometimes resemble infection and need to be ruled out when symptoms persist or are unusual.

Symptoms

Symptoms may affect one breast or, less often, both breasts. They may develop gradually or become noticeable over several hours.

Common symptoms include:

Redness may be less obvious on brown or black skin. The affected area may instead look darker, purple, or different from the surrounding skin. Warmth, swelling, tenderness, and skin texture can provide additional clues.

Mastitis during breastfeeding often starts with localized pain and swelling. Fever or flu-like symptoms can occur from inflammation alone, so these symptoms do not always prove that bacteria are present.

A smooth, tender lump may represent swelling, a narrowed milk duct, or an inflamed area called a phlegmon . A lump that becomes more defined or feels fluid-filled may be an abscess. An examination and ultrasound may be needed to tell the difference.

- A red, warm, swollen, or tender area
- Breast pain or burning
- A firm, wedge-shaped, or poorly defined area of thickening
- Pain during breastfeeding or milk expression
- Fever, chills, body aches, or unusual tiredness
- Nipple soreness, cracks, or skin damage
- Pus or unusual nipple discharge
- A tender lump that may feel soft or fluid-filled if an abscess has formed

Causes and risk factors

During breastfeeding, mastitis usually begins when milk-producing breast tissue becomes inflamed and swollen. Oversupply, abrupt changes in feeding, and removing more milk than the baby needs can increase milk production and tissue congestion. Forceful breast massage can injure tissue and worsen swelling.

Factors that may contribute during lactation include:

Bacteria may enter through damaged skin or travel backward through the nipple openings. Many of these bacteria normally live on the skin or in the baby's mouth. A bacterial infection is not a sign of poor hygiene.

Outside breastfeeding, infection may develop when bacteria enter through cracked skin, eczema, a nipple piercing, surgery, or another wound. Smoking is strongly associated with periductal mastitis , an inflammatory condition affecting ducts beneath the nipple. Diabetes and conditions or medicines that weaken immune defenses can also increase infection risk.

Breast implants do not commonly become infected long after surgery, but infection is possible after breast surgery or implant placement. New redness, drainage, swelling, or fever after a procedure should be reported to the surgical team promptly.

- Long gaps between feeds or sudden weaning
- Pumping substantially more milk than needed
- Problems with the baby's attachment to the breast
- Nipple injury or skin breakdown
- Pressure from a tight bra, clothing, or a sleeping position
- A previous episode of mastitis
- Breast swelling from a high milk supply

Diagnosis

A healthcare professional usually begins by asking when the symptoms started, whether you are breastfeeding, and whether there has been nipple damage, surgery, piercing, injury, or a previous infection. They will examine the breast and nearby lymph nodes.

Testing is not always needed for a straightforward first episode of lactational mastitis. If bacterial infection appears likely, treatment may be started based on the examination.

A sample of breast milk or drainage may be sent for a culture , a laboratory test that identifies bacteria and helps determine which antibiotics may work. Culture is more likely to be considered when an infection is severe, keeps returning, occurs after recent antibiotic use, or

does not improve with initial treatment.

Ultrasound can show whether a painful lump contains fluid. It may identify an abscess or inflammation deeper in the breast. Ultrasound does not use radiation and can be performed during pregnancy or breastfeeding.

Additional imaging, such as mammography, may be recommended when symptoms are unusual, occur outside breastfeeding, or do not resolve. A biopsy may be needed if imaging or examination raises concern for another condition. During a biopsy, a small tissue sample is removed for laboratory testing.

Persistent redness, skin thickening, nipple changes, or breast enlargement should not simply be assumed to be infection. Inflammatory breast cancer is uncommon, but it can cause rapid swelling, warmth, redness, and skin that looks dimpled like an orange peel. Symptoms that do not improve as expected need further evaluation.

Treatment and management

Treatment depends on whether the problem is inflammatory mastitis, bacterial infection, an abscess, or an infection unrelated to breastfeeding.

For mild lactational inflammation, the goal is to reduce swelling without overstimulating milk production. Helpful measures may include:

It is generally safe to continue breastfeeding from the affected breast. The infection is usually within the breast tissue, not the milk. Continuing normal feeding can also prevent sudden disruption of milk production. If feeding is too painful, hand expression or pumping may be used for comfort and to meet the baby's needs, but excessive pumping can worsen oversupply and swelling.

A lactation professional can help assess feeding position, latch, pump fit, and milk oversupply. The aim is comfortable, effective feeding rather than complete drainage after every session.

Antibiotics may be prescribed when bacterial mastitis is suspected. The choice depends on the likely bacteria, local resistance patterns, allergies, recent antibiotic exposure, culture results, and whether the person is breastfeeding. Many commonly used antibiotics are compatible with breastfeeding, but a clinician should review the specific medicine. Take a prescribed antibiotic exactly as directed and contact the prescriber about side effects or difficulty completing treatment.

An abscess usually needs drainage in addition to antibiotics. Drainage may be performed with a needle guided by ultrasound, through a small tube called a catheter, or with a surgical opening. More than one drainage procedure may be necessary. Breastfeeding can often continue, but

the baby's mouth should not come into contact with pus, an open wound, or a drain.

For infections outside breastfeeding, treatment may include antibiotics, drainage, wound care, and management of contributing problems such as diabetes or an inflamed duct beneath the nipple. Recurrent periductal infections sometimes require assessment by a breast surgeon. Stopping smoking can reduce the risk of recurrence and support healing.

Avoid squeezing a lump, attempting to drain it at home, or applying unproven topical products to broken skin. These actions can cause further injury or delay appropriate treatment.

- Breastfeeding according to the baby's usual needs rather than repeatedly trying to "empty" the breast
- Using cold packs wrapped in cloth for short periods
- Wearing a comfortable, supportive bra
- Resting and drinking enough fluids
- Discussing safe pain and anti-inflammatory medicines with a clinician or pharmacist
- Using only gentle touch rather than deep or forceful massage

Complications

An untreated or worsening bacterial infection can form an abscess. Surrounding tissue may also develop a phlegmon, which is a firm area of inflammation that has not formed a clear fluid pocket.

Other possible complications include:

Prompt treatment lowers the chance of these problems. Recurrence does not necessarily mean that the original treatment failed. Oversupply, pump use, nipple damage, resistant bacteria, or an underlying duct problem may need separate attention.

- Repeated episodes of mastitis
- Persistent pain or inflammation
- A draining channel between an infected duct and the skin, called a fistula
- Reduced milk production in the affected breast
- Early or unwanted interruption of breastfeeding
- Infection spreading into nearby skin or, rarely, the bloodstream

Follow up

Contact the treating clinician if symptoms are not clearly improving within about 24 to 48 hours after starting the recommended plan. A repeat examination, culture, ultrasound, or change in treatment may be needed.

Arrange routine follow-up if:

Seek urgent same-day medical care for rapidly increasing redness or swelling, severe pain, pus, a new soft or fluid-filled lump, persistent fever, or worsening illness. People with weakened immune defenses, poorly controlled diabetes, a recent breast operation, or an implant should seek advice promptly.

Call emergency services for trouble breathing, fainting, confusion, inability to stay awake, blue or gray lips, or other signs of severe illness. These symptoms are not typical of uncomplicated mastitis.

- A lump remains after pain and redness improve
- Mastitis keeps returning in the same location
- Symptoms occur when you are not breastfeeding
- You need help with latch, pumping, oversupply, or weaning
- You have ongoing nipple discharge, skin changes, or breast pain

Sources

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