CONDITION

Thrush in newborns

Thrush is a common yeast infection that causes white patches inside a newborn's mouth.

WHAT IT IS
Candida yeast overgrowth inside a newborn's mouth

BODY SYSTEM
Mouth and digestive tract

MAIN SYMPTOMS
White mouth patches, soreness, fussiness, feeding difficulty

WHAT CAUSES IT
Overgrowth of Candida yeast

HOW IT IS DIAGNOSED
Mouth examination, sometimes a swab

MAIN TREATMENT
Antifungal medicine and feeding support

CAN IT BE CURED?
Yes - treatment usually clears the infection

IS IT AN EMERGENCY?
Sometimes - fever or dehydration needs urgent care

LONG-TERM OUTLOOK
Usually clears fully, though recurrence can happen

Overview

Thrush is a yeast infection inside the mouth. It is caused by Candida , a group of yeasts that normally live on the skin and in the mouth without causing problems.

In newborns, Candida can sometimes grow more than usual. This produces creamy white or yellowish patches on the tongue, gums, roof of the mouth, or inside the cheeks and lips. The medical name is oral candidiasis.

Thrush is common during early infancy because a newborn's immune system is still developing. It does not mean that your baby is dirty or that you have done something wrong.

The infection is usually mild and treatable. Some babies remain comfortable, while others develop a sore mouth and become unsettled during feeds. Feeding problems matter in newborns because they can lead to dehydration if a baby takes much less milk than usual.

A white tongue alone is not always thrush. Milk can leave a pale coating that usually wipes away more easily. Because other mouth conditions can look similar, a healthcare professional should assess suspected thrush before a newborn is given treatment.

Symptoms

The main sign is raised white or cream-coloured patches inside the mouth. They may look like cottage cheese or milk curds.

Unlike ordinary milk residue, thrush patches tend to remain in place when gently wiped. The tissue beneath may look red and can bleed slightly if rubbed. Do not scrape the patches, as this may cause pain or bleeding.

Thrush may affect several parts of the mouth, including:

Some newborns have no other symptoms. Others may be fussy, pull away from the breast or bottle, or cry while feeding because sucking irritates the sore areas.

A Candida diaper rash can occur at the same time. It is usually bright red, often affects the skin folds, and may have small red spots around its edges. However, not every diaper rash in a baby with oral thrush is caused by Candida.

If you are breastfeeding, you may also have nipple or breast pain. Candida is sometimes considered as a cause, especially when both parent and baby have symptoms. However, nipple pain can also result from positioning, skin irritation, inflammation, blood vessel spasm, or another infection. An assessment is important rather than assuming that all breast pain is thrush.

- The inner cheeks and lips
- The gums or roof of the mouth
- The tongue, especially when patches also appear elsewhere

Causes and risk factors

Candida can live harmlessly in and on the body. Thrush develops when conditions allow it to multiply and irritate the lining of the mouth.

A baby may come into contact with Candida during birth or through ordinary close contact. This does not usually cause illness. Newborns are more likely to develop overgrowth because their immune defences and balance of normal mouth organisms are not yet mature.

Antibiotics like amoxicillin or doxycycline can increase the chance of thrush because they reduce some of the bacteria that normally keep Candida under control. This can happen after a baby receives antibiotics. Antibiotic treatment in a breastfeeding parent may also affect the balance of microorganisms.

Premature or medically unwell newborns may be more vulnerable to Candida infections. However, oral thrush in an otherwise well, full-term baby is usually limited to the mouth and is different from invasive candidiasis, a serious infection seen mainly in very premature or critically ill babies.

Thrush is not proof of poor hygiene. It can occur even when bottles, breast-pump equipment, and pacifiers are cleaned carefully.

Diagnosis

Thrush is usually diagnosed by examining the baby's mouth and asking about feeding and other symptoms. The location and appearance of the patches often provide enough information.

Milk coating usually affects the tongue more than the cheeks or gums and tends to come away more easily. Other harmless findings, including small newborn mouth cysts, can also be mistaken for thrush.

A clinician may take a swab by gently rubbing the affected area if the diagnosis is unclear, the patches do not improve with treatment, or infections keep returning. The sample can be tested for Candida and, when needed, to identify which treatment may work.

Repeated or unusually severe thrush may prompt a review of medicines, feeding equipment, recent antibiotic use, and the baby's general health. Tests for an immune problem are not routinely needed for a single mild episode.

Treatment and management

A newborn with suspected thrush should be assessed before treatment starts. A clinician can confirm the likely cause, check that feeding is safe, and select an antifungal medicine suitable for the baby's age.

Antifungals like fluconazole or terbinafine are medicines that stop yeast from growing or kill it. Treatment is often given as a liquid or another preparation placed inside the mouth. Nystatin is commonly used in young babies. Other antifungals may be considered in certain countries or when the first treatment has not worked. Some mouth gels have age restrictions or can be a

choking risk if used incorrectly, so follow the product-specific instructions given by a qualified professional.

Complete the advised course, even if the patches begin to disappear sooner. Contact the prescribing clinician if the medicine is difficult to give, causes an unexpected reaction, or does not appear to help.

You can usually continue breastfeeding or bottle-feeding. Offer feeds regularly and watch for signs that your baby is swallowing milk. Smaller, more frequent feeds may be easier for a baby with a sore mouth, but feeding advice should be tailored if your baby was born prematurely or has another medical condition.

If you are breastfeeding and have nipple or breast symptoms, arrange an assessment for yourself as well. When Candida is thought to be affecting both parent and baby, both may need treatment to reduce the chance of passing it back and forth. Do not stop breastfeeding solely because of thrush unless a healthcare professional advises this for another reason.

Wash your hands before and after giving mouth medicine and after diaper changes. Clean bottles, nipples, pacifiers, breast-pump parts, and other items that enter the baby's mouth according to their manufacturer's instructions and local newborn-feeding guidance.

Do not scrape the patches or use adult mouthwash. Avoid unproven home treatments. Honey must never be given to a child younger than 12 months because it can cause infant botulism, a rare but serious illness.

Complications

Most cases clear without lasting effects. The main short-term concern is that mouth soreness may interfere with feeding.

A baby who drinks much less milk can become dehydrated. Warning signs include fewer wet diapers than expected, a dry mouth, unusual sleepiness, or a sunken soft spot on the head. These symptoms need prompt medical assessment.

Thrush can return, particularly after another course of antibiotics or if Candida is still affecting a breastfeeding parent. Persistent symptoms may also mean that the patches have another cause, the medicine has not reached the affected areas, or a different treatment is needed.

Invasive candidiasis occurs when Candida enters the bloodstream or internal organs. This is a serious but separate condition that mainly affects very premature, very low-birth-weight, or critically ill babies in hospital. Ordinary oral thrush in a well newborn does not usually progress to invasive infection.

Prevention

Thrush cannot always be prevented. Candida is naturally present on many people, and newborn immune systems are still developing.

Careful hygiene may reduce repeated exposure during an episode:

Antibiotics should be used only when prescribed, but a necessary antibiotic should not be avoided because of concern about thrush.

If you express breast milk, follow normal guidance for collecting, storing, and handling it. Do not discard stored milk or stop breastfeeding unless your own healthcare professional gives a specific reason.

- Wash your hands before feeds, milk expression, and mouth treatment
- Clean feeding and breast-pump equipment after use
- Sterilise feeding items when advised for newborns in your location
- Clean or replace pacifiers as directed during treatment
- Do not share bottle nipples, pacifiers, or feeding utensils

Living with it and what to expect

Thrush is usually a short-term condition. With suitable treatment, discomfort often begins to improve within a few days, although the visible patches may take longer to disappear. The full treatment course may continue after symptoms begin improving.

Your baby's feeding, alertness, and wet diapers are more important than the number of white patches alone. A baby who feeds comfortably and has the usual number of wet diapers is generally less concerning than one who is becoming sleepy or taking much less milk.

Thrush can come back during the following weeks or months. Recurrence does not necessarily mean that there is a serious health problem. It may follow antibiotic use, incomplete treatment, continued symptoms in a breastfeeding parent, or repeated contact with contaminated feeding items.

Most babies have no long-term mouth or feeding problems after thrush clears. As the immune system matures, repeated episodes usually become less likely. Persistent, severe, or frequent infections should be reviewed rather than repeatedly treated without confirming the diagnosis.

When to get medical help

Arrange a routine but prompt assessment if your newborn develops white mouth patches that do not wipe away easily. Contact a clinician sooner if feeding appears painful, the patches are spreading, or there is an associated diaper rash.

Seek same-day medical help if your baby:

A temperature of 38°C or higher in a baby younger than 3 months requires urgent medical assessment, even if thrush is also present. Do not assume that fever is caused by oral thrush.

Call emergency services if your baby is struggling to breathe, becomes blue or grey, has a seizure, is floppy, or cannot be woken normally.

- Takes much less milk than usual or repeatedly refuses feeds
- Has fewer wet diapers, a dry mouth, or a sunken soft spot
- Is unusually sleepy, weak, or difficult to settle
- Has persistent vomiting
- Develops worsening symptoms despite treatment
- Was born prematurely or has a condition affecting immunity

Common questions

Is the white coating on my baby's tongue thrush or milk?

Milk residue is often limited to the tongue and usually wipes away more easily. Thrush tends to form raised patches that also affect the cheeks, gums, lips, or roof of the mouth. Because appearance alone can be misleading, have persistent patches assessed.

Can I wipe or scrape thrush off?

Do not scrape it. Thrush patches are attached to the lining of the mouth, and scraping can leave sore, red, or bleeding areas. Prescribed antifungal treatment is safer than trying to remove the patches physically.

Can my baby still breastfeed with thrush?

Usually, yes. Continuing to breastfeed is generally safe. If feeds are painful for your baby or you have nipple or breast symptoms, seek help with both feeding and diagnosis. Parent and baby may both need assessment.

Is newborn thrush contagious?

Candida can pass through close contact and between a breastfeeding parent and baby.

However, it commonly lives on the body without causing symptoms. Handwashing and proper cleaning of feeding items can help reduce repeated transfer.

How long does newborn thrush last?

Many babies begin to improve within several days of starting appropriate treatment, but complete clearing may take longer. Finish the recommended course. Arrange a review if symptoms are not improving, become worse, or return soon after treatment.

Why does my baby's thrush keep coming back?

Possible reasons include recent antibiotics, incomplete treatment, persistent Candida symptoms in a breastfeeding parent, or another condition being mistaken for thrush. Repeated episodes should be reassessed rather than treated indefinitely without review.

Sources

- NHS - Oral thrush (mouth thrush)
- NHS - Breastfeeding and thrush
- Pregnancy, Birth and Baby, Australian Government - Oral thrush in babies and children
- Canadian Paediatric Society - Antifungal agents for common outpatient paediatric infections
- American Academy of Pediatrics, HealthyChildren.org - Thrush and other Candida infections
- US Centers for Disease Control and Prevention - About candidiasis