CONDITION

Roseola

Roseola is a common childhood viral infection that causes a sudden fever followed by a pink rash.

WHAT IT IS
Short viral fever and rash illness in young children

BODY SYSTEM
Whole body, especially skin and immune system

MAIN SYMPTOMS
High fever, pink rash, irritability, reduced appetite

WHAT CAUSES IT
Human herpesvirus 6, sometimes human herpesvirus 7

HOW IT IS DIAGNOSED
Typical fever-rash pattern; viral testing rarely needed

MAIN TREATMENT
Fluids, rest, and fever comfort measures

CAN IT BE CURED?
Yes - active illness usually resolves completely

IS IT AN EMERGENCY?
Sometimes - prolonged seizure or severe illness signs

LONG-TERM OUTLOOK
Full recovery expected for most children

Overview

Roseola is a short viral infection that mainly affects babies and young children. It is most common between about 6 months and 2 years of age, although older children and adults can occasionally be affected.

The illness often begins with a sudden high temperature. The child may otherwise seem surprisingly well, or they may be irritable, sleepy, or less interested in food. After several days, the temperature usually returns to normal. A pink or red rash then appears, often beginning on the chest, abdomen, or back.

This pattern can be confusing because the rash commonly develops as the fever improves. The rash itself is usually harmless and does not need treatment.

Roseola matters mainly because its fever can be high. A rapid rise in temperature can sometimes trigger a febrile seizure, which is a seizure associated with fever in a young child. Most children recover fully, including those who have a brief febrile seizure, but any first seizure needs prompt medical assessment.

Symptoms

Symptoms usually begin several days after exposure to the virus. Not every child develops the complete pattern, and some infections cause few or no noticeable symptoms.

The fever often starts suddenly and may last for three to five days. During this time, a child may have:

The rash usually appears as the fever settles, although it may occur earlier or may not appear at all. It is made up of small, flat or slightly raised pink-red spots. The spots often fade when pressed, which is called "blanching."

The rash normally starts on the chest, abdomen, or back. It may spread to the neck, face, arms, or legs. It is usually not itchy or painful and often fades within one to two days, although it can last a little longer.

A child with roseola may be more active once the fever ends, even while the rash is visible. A rash that does not fade when pressed, however, is not a typical feature to assume is roseola and needs urgent medical assessment.

- Irritability, tiredness, or unusual fussiness
- Reduced appetite
- A runny nose, mild cough, or sore throat
- Swollen glands in the neck
- Mild diarrhoea or vomiting
- Puffy eyelids

Causes and risk factors

Roseola is usually caused by human herpesvirus 6, known as HHV-6. Human herpesvirus 7, or HHV-7, can cause a similar illness. These viruses are related to other herpesviruses, but roseola is not the same as cold sores or genital herpes.

The virus is thought to spread mainly through saliva and respiratory droplets. These droplets

are released when someone coughs, sneezes, talks, or has close contact with another person. Adults who carry the virus without symptoms may sometimes pass it to children.

A child may be able to spread the virus before it is clear that they have roseola. This makes prevention difficult. The rash itself is not thought to be the main source of infection.

After the first infection, the virus remains inactive in the body. This is called latency. It does not usually cause further problems in a healthy child, and repeat episodes of classic roseola are uncommon.

Young age is the main risk factor. Babies may have some temporary protection from antibodies passed to them before birth. This protection decreases during the first months of life. Children with a severely weakened immune system can have more serious illness if the virus becomes active again, but this is uncommon.

Diagnosis

Roseola is usually diagnosed from the sequence of symptoms and a physical examination. The clearest clue is a high fever that settles, followed by a typical pink rash on the trunk.

Diagnosis can be harder during the fever because many childhood infections begin in a similar way. A healthcare professional may check for other causes, such as an ear infection, throat infection, urinary infection, or another viral illness.

Blood, urine, or viral tests are not routinely needed for a child with the usual pattern who is recovering well. Testing may be considered when symptoms are unusual, the fever has no clear source, the child appears seriously unwell, or the immune system is weakened.

A rash alone cannot reliably confirm roseola. Other infections and some reactions to medicines can also cause a rash after a fever.

Treatment and management

There is no routine medicine that removes the roseola virus. The immune system usually controls the active infection on its own. Treatment focuses on comfort and preventing dehydration while the fever passes.

Offer fluids often. Babies can usually continue breast milk or formula. Older children may prefer small, frequent drinks if they do not want a full cup at once. It is usually acceptable for appetite to be reduced briefly as long as the child is drinking and urinating.

Keep clothing light and the room comfortably cool. Cold baths, ice, or rubbing alcohol are not

recommended because they may cause discomfort and do not treat the infection.

A fever-reducing medicine may help if the child is uncomfortable. Use only a product suitable for the child's age and weight, and follow its label or advice from a pharmacist or healthcare professional. Aspirin should not be given to children because it is linked to a rare but serious condition called Reye syndrome.

Antibiotics like amoxicillin or doxycycline do not treat roseola because antibiotics work against bacteria, not viruses. Antiviral treatment is not routinely used for otherwise healthy children. Specialist treatment may be considered in rare, serious infections affecting someone with a weakened immune system.

The rash does not usually need creams or lotions. Seek advice if it is painful, very itchy, blistering, or behaving differently from a typical roseola rash.

Complications

Most children recover without complications.

A febrile seizure is the best-known complication. During a seizure, a child may become stiff, jerk their arms or legs, roll their eyes, or become briefly unresponsive. These seizures can be frightening to see, but brief febrile seizures usually do not cause brain damage or mean that a child has epilepsy.

If a seizure occurs, place the child on their side on a safe surface. Move hard objects away and protect the head if possible. Do not hold the child down and do not place anything in their mouth. Note the time the seizure started.

Dehydration can occur if a child drinks too little while feverish. Signs include a dry mouth, fewer wet nappies or trips to the toilet, no tears when crying, sunken eyes, or unusual sleepiness.

Rarely, roseola can cause more serious illness involving the brain, liver, lungs, or other organs. This is more likely in people with severely weakened immune systems, such as some transplant recipients.

Prevention

There is no vaccine for roseola, and it cannot always be prevented. The virus can spread before anyone knows that a child is infected.

Routine hygiene may reduce the spread of respiratory and saliva-borne infections:

A child with a fever should stay home from childcare or school. Return rules differ by setting,

but children can generally return when the fever has gone without fever-reducing medicine and they feel well enough to take part in normal activities. The remaining roseola rash alone does not usually require exclusion.

- Wash hands after wiping a nose, changing a nappy, or handling saliva
- Avoid sharing cups, utensils, and toothbrushes
- Clean frequently touched surfaces
- Teach children to cover coughs and sneezes when they are old enough

Living with it and what to expect

Roseola is usually an illness measured in days rather than months or years. The fever commonly lasts three to five days. The rash then fades over the next day or two, sometimes a little longer.

Energy and appetite may take several more days to return fully. Quiet activities, extra fluids, and rest may help during this period. The rash should disappear without scarring or a lasting change in skin colour.

Most children develop immunity after infection and do not have classic roseola again. The virus remains inactive in the body, as other herpesviruses do, but this usually has no effect on everyday health or development.

A previous febrile seizure does not mean a child will develop epilepsy. Some children who have had one febrile seizure may have another during a later illness with fever. Routine follow-up may be useful if recovery is slower than expected, fever returns, symptoms change, or there are questions after a seizure.

When to get medical help

Arrange prompt medical advice if the child's fever lasts longer than expected, returns after improving, or is accompanied by worsening symptoms. A baby younger than 3 months with a temperature of 38°C or higher needs urgent medical assessment.

Seek urgent medical care if the child:

Call emergency services if a seizure lasts five minutes or longer, another seizure begins before the child recovers, or the child has trouble breathing. Emergency help is also needed for blue or grey skin, severe breathing difficulty, marked unresponsiveness, or a rapidly spreading non-blanching rash.

A typical pink rash that appears as the fever ends, in a child who is alert and improving, is usually suitable for routine monitoring rather than emergency care.

- Has their first seizure, even if it stops quickly
- Is drinking very little or has signs of dehydration
- Is unusually sleepy, difficult to comfort, or getting worse
- Has a weakened immune system
- Has a rash that is painful, blistering, or does not fade under pressure
- Has fever with severe headache, neck stiffness, or repeated vomiting

Common questions

Is roseola contagious?

Yes. The viruses that cause roseola can spread through saliva and respiratory droplets. A child may be contagious before the rash appears, when the illness looks like an unexplained fever. The rash itself is not usually considered the main contagious stage.

Can my child get roseola twice?

Classic roseola usually happens once because the immune system develops protection after infection. A similar fever and rash can occur from another virus, and HHV-6 and HHV-7 can cause similar illnesses. A second rash should not automatically be assumed to be roseola.

Is the rash painful or itchy?

Usually not. A typical roseola rash does not cause much discomfort and fades without treatment. Pain, strong itching, blisters, swelling, or skin peeling suggests a different problem and should be assessed.

Can my child go to childcare with the rash?

A child who has no fever and feels well enough to join normal activities can often return even if a faint rash remains. Follow the childcare setting's illness policy. A child who still has a fever or feels unwell should remain at home.

Does roseola cause seizures?

The rapid fever can trigger a febrile seizure in some young children. Most are brief and do not cause lasting harm. Any first seizure needs prompt assessment, and a seizure lasting five minutes or longer is an emergency.

Is roseola dangerous during pregnancy?

Roseola is mainly a childhood illness. Serious problems during pregnancy are not commonly reported, but a pregnant person with a new fever, rash, or known significant exposure should contact their maternity care team. Other infections that cause fever and rash may need to be considered.

Sources

- NHS. Roseola
- American Academy of Pediatrics, HealthyChildren.org. Roseola in Babies and Toddlers
- Merck Manual Consumer Version. Roseola Infantum
- Mayo Clinic. Roseola: Symptoms and causes
- MedlinePlus Medical Encyclopedia. Roseola
- Royal Children's Hospital Melbourne. Clinical Practice Guideline: Febrile seizure