CONDITION

Red measles

Red measles is a highly contagious viral infection that causes fever, breathing symptoms, and a spreading rash.

WHAT IT IS
Highly contagious viral infection causing fever and rash

BODY SYSTEM
Whole body, especially airways, skin, and immune system

MAIN SYMPTOMS
Fever, cough, red eyes, spreading blotchy rash

WHAT CAUSES IT
Infection with measles virus

HOW IT IS DIAGNOSED
Nasal or throat PCR and measles IgM blood test

MAIN TREATMENT
Supportive care and treatment of complications

CAN IT BE CURED?
No - no specific antiviral cure

IS IT AN EMERGENCY?
Sometimes - trouble breathing, confusion, or severe dehydration

LONG-TERM OUTLOOK
Most recover fully; rare complications cause lasting harm

Overview

Red measles is another name for measles, an infection caused by the measles virus. The term was once used to distinguish measles from "German measles," which is now called rubella. Measles and rubella are caused by different viruses.

Measles spreads through the air when an infected person breathes, talks, coughs, or sneezes. It is highly contagious. The virus can remain in the air for up to two hours after an infected person has left an indoor space.

The condition usually begins with fever, cough, a runny nose, and red or watery eyes. A blotchy rash then spreads from the face to the rest of the body.

Most people recover, but measles can sometimes cause pneumonia, brain inflammation, or

other complications. Babies, pregnant people, adults, and people with a weakened immune system may have a greater risk of serious illness. Vaccination provides strong protection.

Symptoms

Symptoms usually begin about 7 to 14 days after exposure. During this early period, the virus is multiplying but you may feel well.

The first symptoms often include:

Small white spots may appear inside the cheeks. These are called Koplik spots. They can look like grains of salt on a red background, but they are not always noticed.

The measles rash usually develops several days after the first symptoms. It commonly starts around the hairline, forehead, or behind the ears. It then spreads down the face, neck, trunk, arms, and legs. The spots may join together as the rash spreads.

On lighter skin, the rash often looks red or reddish-brown. On brown or black skin, redness may be less obvious. The affected skin may look darker, purple, or slightly raised. Looking for changes in skin texture can help.

Fever may rise when the rash appears. The rash generally fades in the same order in which it developed. Some temporary discoloration or light peeling may follow.

Not every fever and rash is measles. Other viral infections, medicine reactions, and skin conditions can look similar. Laboratory testing is needed to confirm measles.

- Fever
- Cough
- Runny or blocked nose
- Red, sore, or watery eyes
- Tiredness and reduced appetite

Causes and risk factors

Red measles is caused by the measles virus. It infects the airways before spreading through the body.

A person with measles is usually contagious from about four days before the rash starts until four days afterward. People with a severely weakened immune system may remain contagious for longer.

You are more likely to become infected if you do not have immunity and spend time near someone with measles. Immunity usually comes from measles vaccination or a previous confirmed infection.

Exposure is more likely during an outbreak, while travelling to an area where measles is circulating, or in crowded indoor settings. Household members and others sharing the same air are at particular risk.

Babies who are too young for routine vaccination may be vulnerable. People who cannot receive a live vaccine because of pregnancy or certain immune conditions also rely partly on high vaccination levels around them.

Vaccinated people can occasionally develop measles, but this is uncommon. Their symptoms may be milder or less typical, although they can still spread the virus.

Diagnosis

A clinician may suspect measles from the pattern of fever, breathing symptoms, eye inflammation, and a rash that begins on the face and spreads downward. Your vaccination history, recent travel, and possible contact with measles are also important.

Laboratory tests are used to confirm the diagnosis. These usually include:

Test timing matters. An early blood test can sometimes be negative even when measles is present, so another sample may be needed. Public health laboratories may also examine the virus to help identify links between cases.

If you think you may have measles, call before going to a clinic, pharmacy, or emergency department. Staff can arrange a safer place and time for assessment so that other people are not exposed in a waiting room.

Confirmed and suspected cases are normally reported to the local public health service. This allows officials to identify exposed people and offer timely protection when appropriate.

- A nasal or throat swab tested for viral genetic material using PCR
- A blood test for measles-specific IgM antibodies, which show a recent immune response

Treatment and management

There is no routine antiviral treatment that cures measles. Care focuses on keeping you comfortable, preventing dehydration, and identifying complications early. The immune system clears the infection in most people.

Rest and regular fluids are important. Fever and discomfort can be treated with an appropriate over-the-counter pain reliever if it is safe for you. A pharmacist or clinician can help if you are unsure what you can take. Aspirin should not be given to children or teenagers with a viral infection because of the risk of a rare but serious condition called Reye syndrome.

Vitamin A may be given to children with measles under medical supervision, particularly when illness is severe or vitamin A deficiency is possible. It is not a substitute for vaccination. Large amounts can be harmful, so vitamin A should not be started at high doses without clinical advice.

Antibiotics like amoxicillin or doxycycline do not treat the measles virus. They may be needed if a bacterial complication develops, such as an ear infection or bacterial pneumonia.

Hospital care may be needed for breathing problems, severe dehydration, brain inflammation, or other serious complications. Treatment may include oxygen, fluids, and close monitoring.

While contagious, stay away from work, school, childcare, public transport, and social gatherings. Avoid contact with babies, pregnant people, and anyone with a weakened immune system. Follow the isolation instructions given by your healthcare or public health team.

Complications

Measles can temporarily weaken the immune system, making it harder to fight other infections. This effect can continue after the rash has settled.

Possible complications include:

Pneumonia is one of the main reasons people with measles require hospital care. Encephalitis can cause confusion, seizures, or loss of consciousness and needs emergency treatment.

A very rare complication called subacute sclerosing panencephalitis, or SSPE, can appear years after the original infection. It causes progressive damage to the brain. SSPE is not caused by the measles vaccine.

The risk of complications is higher in young children, adults, pregnant people, people with poor nutrition, and those whose immune system is weakened by a condition or treatment.

- Middle-ear infection, which may cause pain or temporary hearing problems
- Diarrhoea and dehydration
- Croup or other inflammation of the airways
- Pneumonia
- Inflammation of the brain, called encephalitis

- Seizures, sometimes related to fever
- Problems during pregnancy, including pregnancy loss or premature birth

Prevention

Measles can usually be prevented through vaccination. The combined MMR vaccine protects against measles, mumps, and rubella. Two doses provide stronger and more reliable protection than one dose.

MMR is a live vaccine, so it is not suitable during pregnancy or for some people with a severely weakened immune system. A clinician can assess which vaccine or other protection is appropriate based on your health and vaccination record.

If you have been exposed to measles and are not immune, contact a healthcare or public health service promptly. MMR vaccination given within 72 hours of exposure may prevent measles or reduce its severity in some people.

An injection of antibodies called immunoglobulin may be offered within six days of exposure to certain people at higher risk, including some babies, pregnant people, and people with weakened immunity. The choice depends on age, health, vaccination history, and timing.

Vaccination after exposure is not a treatment for symptoms that have already started. Do not attend a vaccination clinic without calling ahead if you have fever or a possible measles rash.

Good ventilation and avoiding shared indoor air with an infected person can reduce exposure, but routine handwashing alone cannot reliably prevent an airborne infection as contagious as measles.

Living with it and what to expect

The most intense part of measles usually lasts days rather than months. The fever and rash settle as the immune system brings the infection under control. Cough, tiredness, reduced appetite, or weakness may continue after the rash has faded.

Recovery should be gradual. Children may need extra rest before returning to school or usual activities. Adults can also feel tired for a while. Follow public health advice about when it is safe to stop isolating, rather than using the appearance of the rash alone.

Most people recover without lasting problems and develop long-term immunity to measles. A second infection is unusual, although suspected cases still need testing because other rashes can resemble measles.

Some people need follow-up after pneumonia, severe dehydration, seizures, or brain inflammation. The type and length of follow-up are based on the complication rather than the rash itself.

There is no routine long-term treatment after uncomplicated measles. If your cough, energy, hearing, breathing, or concentration is not returning toward normal, arrange a routine medical review.

When to get medical help

Call a healthcare service promptly if you think you or your child may have measles. Call before attending in person. Mention the symptoms, vaccination history, recent travel, and any known exposure.

Seek urgent same-day advice if the affected person:

Call emergency services for severe trouble breathing, blue or grey lips, a seizure, confusion, a stiff neck with severe headache, collapse, or difficulty waking. Signs of severe dehydration, such as very little urine with marked drowsiness or weakness, also need emergency assessment.

Routine follow-up is appropriate when the infection has passed but symptoms such as tiredness, cough, hearing changes, or reduced appetite are not steadily improving.

- Is a baby, pregnant, or has a weakened immune system
- Is drinking poorly or passing much less urine
- Has a fever or cough that is getting worse rather than improving
- Develops ear pain, chest pain, unusual sleepiness, or repeated vomiting
- Improves and then becomes unwell again

Common questions

Is red measles the same as measles?

Yes. Red measles is an older name for measles, also called rubeola. It is not the same as rubella, which used to be called German measles.

How long is measles contagious?

Most people can spread measles from about four days before the rash appears until four days afterward. A public health team may recommend a longer period for someone with a severely

weakened immune system.

Can I get measles if I have had the MMR vaccine?

It is possible, but uncommon. Two documented MMR doses provide strong protection. Breakthrough infections may have milder or less typical symptoms, so testing is still important after a significant exposure.

Can you get measles twice?

A confirmed measles infection usually produces long-term immunity, so getting it twice is unusual. A later fever and rash may be caused by another condition that looks similar.

Is a measles rash itchy?

It can be mildly itchy, but itching is not always present. The pattern of the rash and other symptoms cannot confirm measles without laboratory testing.

What should I do after being near someone with measles?

Contact a healthcare or public health service promptly, especially if you are not fully vaccinated, are pregnant, have a weakened immune system, or are calling about a baby. Time-sensitive vaccination or immunoglobulin may be available. Call ahead rather than entering a healthcare setting unannounced.

Sources

- Clinical Overview of Measles , Centers for Disease Control and Prevention
- Clinical Care of Measles , Centers for Disease Control and Prevention
- Laboratory Testing for Measles , Centers for Disease Control and Prevention
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- Measles , World Health Organization
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