

Rubella (German measles)

Rubella is a viral infection and is sometimes called German measles, although it is not related to measles itself. Most people with rubella experience a mild illness involving fever and rash. It is important as rubella illness during pregnancy may significantly affect the developing foetus. Up to 20% of pregnant women with rubella infection will miscarry. If miscarriage does not occur, there is a risk of the infant being born with congenital rubella syndrome (CRS). Abnormalities from CRS occur in up to 90% of infants born to women who are infected with rubella during the first trimester of pregnancy, but defects are rare in women infected after the 20th week of pregnancy. The most common defects in CRS include deafness, cataracts and other vision problems, inflammation of the brain, heart defects, liver disease, bone disease and growth retardation.

Rubella is uncommon in Australia and other countries with widespread immunisation programs. However, rubella infection and CRS is still reported and outbreaks occur among unimmunised groups.

Signs and Symptoms:

Up to 50% of people infected with rubella, and particularly children, show mild symptoms or none at all. Adults may have a fever, headache, loss of appetite and feel generally unwell from around 5 days before the onset of a generalised rash. Other symptoms of rubella may include arthritis or painful joints, swollen lymph glands (especially at the back of the neck), cough, runny nose and conjunctivitis. Inflammation of the brain (encephalitis) is a rare complication seen in about one in 6,000 cases, occurring more frequently in adults than in children.

A red rash, which often starts on the face and then spreads over the body, is the most common symptom of rubella and usually lasts 3 to 5 days. If fever is present, the fever usually settles on the first day of the rash. The rubella rash looks like the red rash found with other common viral illnesses, such as parvovirus and adenovirus, making the illness difficult to diagnose. Now that rubella is uncommon in Australia, illnesses involving fever and a rash will usually be due to a cause other than rubella.

Treatment:

Symptoms of the rubella virus can generally be treated with rest, plenty of fluids, and paracetamol to reduce fever or pain. Your local doctor can provide you with advice.

People with rubella should stay away from childcare, school or work until fully recovered and until at least 4 days after the rash appears.

It is very important that a person with rubella stays away from crowded areas such as shopping centres, and also keeps away from pregnant women while they are infectious.

Rubella and Pregnancy

Rubella is dangerous for a pregnant woman. If pregnant women are infected with rubella, it can result in miscarriage, or the baby may be born with birth defects.

A pregnant woman who thinks they have been in contact with rubella should consult a doctor/specialist for blood tests and appropriate counselling about the risk to her baby.

Transmission:

Rubella is highly contagious. It is spread by droplets from the nose and throat produced during coughing or sneezing, or by direct contact with infectious people.

The usual time between contact with the virus and the development of the illness is approximately 14-17 days, although it may take up to 21 days for illness to develop.

A person is infectious from 7 days before the onset of the rash until at least 4 days after the rash appears. Infants with CRS shed large quantities of virus in urine and faeces for up to 1 year and can therefore transmit rubella to non-immune people caring for them.

Prevention:

Rubella can be prevented with vaccination. While rubella is generally a mild disease, vaccination is important to prevent the virus from being spread to pregnant women and their unborn babies.

There are two types of rubella vaccine. In the first type, the rubella vaccine is combined with the measles and mumps vaccines and is commonly known as the measles, mumps, rubella (MMR) vaccine. In the second type the rubella vaccine is combined with measles, mumps and varicella (chickenpox) vaccines and is commonly known as MMRV.

The MMR vaccine is recommended for all children at 12 months of age and the MMRV vaccine is recommended for all children at 18 months of age. Vaccination is offered free as part of the National Immunisation Program to young children and adults who are not protected against rubella by vaccination or past confirmed rubella infection.

Although many older adults have protection against rubella from past infection, younger adults may not have been infected or vaccinated in the past and may not be immune. Vaccination is critical in women and men of child-bearing age to reduce the risk of pregnant women coming into contact with the virus.

Women intending pregnancy should have a blood test to check for immunity against rubella and then have a vaccination if necessary. Vaccinated women should avoid becoming pregnant for 28 days after vaccination. Women should also have a blood test 2 months after vaccination to make sure they have become immune. A second dose of the vaccine can be given if needed and if the woman is not pregnant.

Vaccination is also important for the following groups:

- people born overseas who have moved to Australia after the age of routine infant vaccination;
- males born during or after 1966 who do not have a record of having 2 rubella vaccinations at least 4 weeks apart
- women who were found not to be immune on blood tests while pregnant (these women should be vaccinated after delivery)
- healthcare staff and people working with or caring for young children.

Other resources:

Related Content

- [Queensland Health immunisation website](https://www.health.qld.gov.au/public-health/topics/immunisation/default.asp) [https://www.health.qld.gov.au/public-health/topics/immunisation/default.asp]
- [Having a vaccination: what to expect](http://conditions.health.qld.gov.au/HealthConditions/2/Infections-Parasites/192/Immunisation-Vaccination/732/Having-a-vaccination-what-to-expect) [http://conditions.health.qld.gov.au/HealthConditions/2/Infections-Parasites/192/Immunisation-Vaccination/732/Having-a-vaccination-what-to-expect]
- [Measles fact sheet](http://conditions.health.qld.gov.au/HealthConditions/2/Infections-Parasites/41/Viral-Infections/402/Measles) [http://conditions.health.qld.gov.au/HealthConditions/2/Infections-Parasites/41/Viral-Infections/402/Measles]
- [Mumps fact sheet](http://conditions.health.qld.gov.au/HealthConditions/2/Infections-Parasites/41/Viral-Infections/427/Mumps) [http://conditions.health.qld.gov.au/HealthConditions/2/Infections-Parasites/41/Viral-Infections/427/Mumps]

Help and assistance:

For further information, please contact your local doctor, health centre or nearest [Public Health Unit](https://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units/default.asp) [https://www.health.qld.gov.au/system-governance/contact-us/contact/public-health-units/default.asp]; or call 13 HEALTH (13 43 25 84) 24 hours a day 7 days a week for the cost of a local call.

Other Resources

- [13 HEALTH](http://www.health.qld.gov.au/13health/) [http://www.health.qld.gov.au/13health/] (call 13 43 25 84)
- [Immunise Australia](http://www.immunise.health.gov.au/) [http://www.immunise.health.gov.au/] (call 1800 671 811)

References

- Bennett J, Dolin R and Blaser M. 2015. Mandell, Douglas and Bennetts *Principles and Practice of Infectious Diseases* Elsevier Saunders
- Heymann, D., ed. 2015. Control of Communicable Diseases Manual, 20th edition. Washington, DC: American Public Health Association, pp 529-534.
- Australian Government, 2013. [The Australian Immunisation Handbook](http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home) [http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home] (10th Ed.) Canberra: National Capital Printing.