

Chickenpox

What is chickenpox?

Chickenpox is a highly contagious viral illness caused by the varicella-zoster virus. Most people recover completely, but sometimes the infection can lead to serious complications, such as pneumonia and inflammation of the brain. Rarely, the infection can be fatal.

What are the symptoms?

Chickenpox usually begins with a sudden onset of fever, runny nose, cough and tiredness. About one to two days later a rash appears, starting as pink blotches that quickly become fluid filled blisters. The rash is usually more concentrated over the trunk, face and scalp.

The blisters can be very itchy and last four to six days before drying out and forming scabs. The rash can occur in different stages; at any one time new blisters may be forming while old blisters are drying out.

Most children experience a relatively mild illness. Chickenpox can be severe in newborns, and individuals with a weakened immune system, such as those with human immunodeficiency virus (HIV) or those receiving treatment for cancer. Non-immune pregnant women are also at risk of developing severe complications from chickenpox.

How is chickenpox spread?

Chickenpox is very easily spread from one person to another when an infected person coughs or sneezes. It can also be spread by direct contact with fluid from the nose and throat or contact with the liquid in the blisters.

People with chickenpox should cover their mouth and nose when sneezing and coughing, dispose of used tissues immediately, wash their hands carefully and not share eating utensils, food or drinking cups. Carers should wash their hands thoroughly after contact with the blisters or soiled items (such as tissues, clothes, utensils etc.).

How long does a person remain infectious?

A person is infectious from one to two days before the rash starts until all of the blisters have formed dry scabs (usually around five days).

A person with chickenpox should be excluded from school, childcare or work for *at least* five days from when the rash first appeared, and should not return until all the blisters have formed dry scabs.

Who is most at risk from chickenpox?

Chickenpox is highly contagious. People who have not had chickenpox infection or vaccination before are at most risk of catching chickenpox if exposed to someone who is infectious.

People who have been vaccinated may still get chickenpox but it is more likely to be mild and less likely to lead to severe complications.

People who have had chickenpox in the past are likely to be immune to the virus and are unlikely to become infected again.

What if I have been in contact with someone with chickenpox?

It generally takes between 10 and 21 days after exposure to the varicella-zoster virus to develop symptoms of chickenpox. People who are not immune to chickenpox should see their doctor for advice if they have had close contact with a person with chickenpox.

The chickenpox vaccine may prevent infection in non-immune people if given within 3 days (and possibly up to 5 days) after first exposure to an infectious person.

People at higher risk of developing severe disease or complications from exposure to chickenpox may need to have Zoster immunoglobulin (ZIG). If given within 96 hours of exposure to the infection, ZIG may prevent or reduce the severity of the infection.

ZIG may be recommended for:

- Pregnant women who are not immune to chickenpox;
- Infants less than one month old whose mother may not be immune to chickenpox;
- Premature or low birth weight infants who are still hospitalised; and
- People with weakened immune systems, such as those receiving immunosuppressive medications or undergoing chemotherapy, organ transplant recipients, burns patients and people with HIV.

What is the treatment?

There is no specific treatment for uncomplicated chickenpox infection. Antiviral medications may be prescribed for those at risk of complications or for those with severe disease.

The risk of secondary infection through scratching can be reduced by the use of anti-itch soaps and lotions and by keeping fingernails short.

Immunisation Recommendations

Young Children

Two doses of chickenpox vaccine (given at least one month apart) are recommended to provide the best protection for children under 14 years of age.

A single dose of chickenpox vaccine is routinely offered at 18 months of age and is funded by the National Immunisation Program (NIP). This dose is given as part of a combination vaccine with measles, mumps and rubella (MMRV).

A second dose of chickenpox vaccine for children under 14 years of age is not funded by the NIP but may be purchased on private prescription.

Children can receive the chickenpox vaccine from as young as 12 months of age. This can provide earlier protection, which may be needed before travelling or during an outbreak.

Older children and adults

For optimum protection, if the person receiving the vaccine is 14 years of age or older, two doses of vaccine (given at least one month apart) are required.

Vaccination is free for adolescents under the age of 20 years who have not been previously vaccinated.

Vaccination is also recommended (but not funded) for non-immune adults, particularly those in high risk occupations (such as health care workers, teachers and child care workers); for non-immune women prior to pregnancy; for non-immune parents of young children and for non-immune household contacts of people with a weakened immune system.

If there is uncertainty whether a person has previously had chickenpox, it is still safe to have the vaccine and there is no need to test for immunity prior to having the vaccine.

Are there any side effects from the vaccination?

The chickenpox vaccine is generally well tolerated and any side effects are usually mild. Side effects may include fever and localised pain, redness and swelling at the injection site.

A mild chickenpox-like rash may develop at the injection site or elsewhere on the body. If this occurs, the rash usually appears between five and 42 days following vaccination.

The vaccine is **not** recommended for people with a weakened immune system (e.g. those with some medical conditions; those receiving chemotherapy or radiotherapy, or people who take high-dose steroid medications); recipients of recent blood transfusions; or pregnant women.

Need more information?

For more information about chickenpox, contact your doctor or call the Health Protection Service, Communicable Diseases Information Line during business hours on **(02) 6205 2155**.

Communicable Disease Control Section at the Health Protection Service is responsible for the investigation and surveillance of notifiable or infectious conditions in the ACT in order to control or prevent their spread in the community. This includes the promotion of immunisation, education and other strategies that help to limit the spread of diseases.

Chicken pox is a notifiable disease. Cases are notified to ACT Health.

Acknowledgements

1. Heymann DL. *Control of Communicable Diseases Manual*. 20th edn. Washington: American Public Health Association, USA; 2015.
2. Australian Technical Advisory Group on Immunisation (ATAGI). *Australian Immunisation Handbook*, Australian Government Department of Health, Canberra, 2018. Available from: <https://immunisationhandbook.health.gov.au>

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