

Chicken pox

Overview

Chicken pox (varicella) is highly contagious condition that usually affects children in primary school. It's caused by the varicella zoster virus. People experiencing chicken pox will develop a blister like rash all over the body and may experience mild discomfort that includes fever and muscle ache. It spreads easily and unfortunately is the most contagious just before the rash appears.

People usually only get chicken pox once but the virus can remain in the system, lying dormant, only to reappear much later, usually in adulthood, as shingles (varicella zoster) which produces blister like formations most commonly on one side of the chest, back, abdomen or face.

Although chicken pox is generally considered a harmless disease that can be managed through bed rest and plenty of fluids, it can present a significant problem for certain groups such as pregnant women and people with a compromised immune system. It can also be quite a severe illness with an increased risk of serious complications like pneumonia.

While it is rare that pregnant women contract chicken pox, it can put them at increased risk of secondary infections such as pneumonia and it may also affect the developing foetus, depending on how far along the pregnancy is. People with a weakened immune system will have increased risk of developing severe complications.

There is a vaccine against chicken pox that is recommended for all children at 18 months of age who have not had chicken pox, or between 10-13 years of age if there is no history of having had chicken pox or of having been immunised earlier. Adults who have not had chicken pox should also consider being immunised.

Cause

Chicken pox is caused by the airborne virus varicella zoster. This extremely contagious virus first infects the nose and the respiratory tract, then after about 4 -6 days the virus will have replicated and travelled to multiple organs of the body. Within 10-14 days following initial infection, it will travel through the bloodstream to the skin, where it will lead to typical blistering skin rash typical of chicken pox.

The varicella zoster virus can also lead to a chicken pox related disease known as shingles. This is a reactivation of the virus that remains hidden and dormant inside the body – sometimes for many years.

Shingles also has similar blisters but they usually only appear on one side of the chest, back, abdomen or face. It can be a very painful condition.

Symptoms

Chicken pox produces:

- A red, blister like rash. Lesions start out

looking red then rapidly form blisters which crust over. The rash usually appears on the scalp, face and torso first, then over the next 3 - 4 days it spreads to other parts of the body. Ultimately the rash will dry up becoming crusted and scab like.

- A fever.
- Adults tend to have more symptoms compared to children and may experience muscle ache, headache, joint pain and a general feeling of discomfort (malaise). These symptoms usually present 1 -2 days before the rashes start (when it is the most contagious).

In some cases there can be complications related to chicken pox including bacterial skin infections, pneumonia and encephalitis (inflammation of the brain)

Diagnosis

The main mode of diagnosis of chicken pox is by physical examination. It is not difficult to recognise the rash like symptoms of chicken pox.

In special cases, a serological test can also be carried out to detect for the virus in the blood or skin samples.

Treatment

For most people the treatment for chicken pox mainly focuses on managing the symptoms and maintaining a level of comfort. Simple remedies such as bed rest and plenty of fluids are usually enough to manage this disease. Paracetamol can be taken for fever if necessary and to ease the itching sensation.

Ointments and creams such as those containing calamine and colloidal oatmeal can help alleviate itching and moisturise the skin. It is advisable to file nails and avoid scratching, as scratching may lead to infection and scarring.

People with chicken pox are contagious for a few days prior to the onset of the rash and for a week after the rash first appears. Once all the lesions have formed a crust, they are no longer contagious. So children with chicken pox, however mild, need to be off school for a week.

Chicken pox can be more severe in children younger than 1 year of age and in adults. Severe cases can be treated with anti-viral antibiotics like acyclovir.

Vaccination

Vaccination is a preventive measure for chicken pox. The vaccine is recommended for all children over the age of 18 months who have not had chicken pox or at ages 10-13 if there is no history of immunisation or previous chicken pox infection. It is part of the standard childhood immunisation schedule and is free for all children born after 1 May 2004. The vaccine is safe and effective but can sometimes generate a short lived rash. Those who already have had a case of chicken pox will naturally have acquired immunity and will

not need the vaccination.

Adults who have not had chicken pox (or are not sure if they have) should consider vaccination, especially if they are in a high risk occupation eg child care worker, a woman planning a pregnancy or in contact with someone who is immunocompromised eg has cancer or a transplant. Adults need to have 2 doses of the vaccine.

Medicines

Paracetamol – A common over the counter painkiller that can reduce the effects of fever.

Aciclovir, valaciclovir and famciclovir – antiviral drugs that can be given in severe cases. This medication is available orally and intravenously.

Lifestyle and diet

Vaccination

Chicken pox vaccination is available and is part of the Australian National Immunisation Program. The chicken pox vaccine is quite safe and effective. Although it is extremely rare that immunisation may cause a contagious infection, caution is advised when immunising those who may come into contact with pregnant women or people with compromised immune systems.

In Australia, the immunisation schedule recommends children at 18 months of age should be immunised. Children 10 - 13 years old should also be immunised if they have no history of chicken pox or immunisation.

Adults who have not had chicken pox (or are not sure if they have) should consider vaccination, especially if they are in a high risk occupation eg child care worker, a woman planning a pregnancy or an adult in contact with someone who is immunocompromised eg has cancer or a transplant. Adults need to have 2 doses of the vaccine.

Support & online resources

- National Immunisation Program Australia: www.immunise.health.gov.au/

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