

Patient information from BMJ

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Chickenpox vaccine

The chickenpox vaccine is designed to protect against infection with the virus that causes chickenpox.

In many countries, including the UK, the chickenpox vaccine is not part of normal childhood vaccinations. But it may be given to people who have a high chance of becoming infected, and of becoming seriously ill.

What is chickenpox?

Chickenpox in children

Chickenpox is a common infection. It is caused by a virus called **varicella zoster**. The most common symptoms are a **mild fever and a rash**, which usually clear up after a few days.

Most **children** catch chickenpox at a young age with no lasting effects. The illness is usually mild and, after being infected, children are **immune** to the virus (their body is able to fight off the infection so they don't become unwell again). So children who have already had chickenpox don't need a vaccine.

Chickenpox in adults

Although chickenpox is almost always a mild illness in children, it can sometimes be serious, especially for people who catch it as adults.

More serious cases of chickenpox, which are more common in adults, can cause **pneumonia** and **meningitis**, which can both be fatal.

Chickenpox can be especially dangerous for **pregnant women** and their unborn babies.

Who needs the chickenpox vaccination?

In many countries, including the UK, chickenpox is not one of the vaccinations normally given to children.

But many countries offer the vaccine to:

Chickenpox vaccine

- People who have an increased chance of being infected as adults, and
- People of any age who have an increased chance of becoming more unwell if they become infected.

For example, in some countries, the chickenpox vaccine may be offered to:

- Healthcare workers who are not already immune, either by having the vaccine before or by having had chickenpox
- Those likely to come into contact with people who have weakened immune systems (such as their family members). A weakened immune system means your body is less good at fighting off infections. Examples of people with weakened immune systems include people having chemotherapy treatment, and people with HIV or AIDS
- People who work with children, and
- People joining the military (for example, the army).

Is there anyone who shouldn't have the vaccine?

You should not have the vaccine if you:

- Are allergic to any of its ingredients
- Have a weakened immune system
- Are taking certain medicines that affect your immune system, or
- Are pregnant. The chickenpox vaccine contains small amounts of live chickenpox virus, which is dangerous for pregnant women and their unborn babies.

The vaccine is also not recommended for very young babies.

Is it safe?

The chickenpox vaccine has been used for many years and is safe for most people. But it can cause side effects in some people. These are usually mild and only last for a short time. These side effects can include:

- Pain and redness where the injection is given (called the injection site)
- A fever, and
- A mild rash.

Very rarely, someone can have a severe allergic reaction (called **anaphylaxis**) to the vaccine. This happens to about one person in every one million who are vaccinated.^[1] The staff who give you the vaccine will have been specially trained in how to treat this type of rare reaction.

How is the vaccination given?

The vaccine is given as an injection, usually into the upper arm. For the best protection, you need two separate injections, which are given at least one month apart.

How well does the vaccine work?

The vaccine seems to work better in younger children than in teenagers and adults. But it still protects most people against chickenpox when they have both doses, and the protection appears to last a long time.

References

1. McNeil MM, Weintraub ES, Duffy J, et al. Risk of anaphylaxis after vaccination in children and adults. *J Allergy Clin Immunol*. 2016 Mar;137(3):868-78.

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