Chickenpox is an infection with a virus that causes an itchy rash. It usually goes away after a week or so, but for some people it can cause a serious illness.

We've brought together the best research about chickenpox and weighed up the evidence about how to treat it. You can use our information to talk to your doctor and decide which treatments are best for you.

**What is chickenpox?**

Chickenpox is a condition that causes an itchy rash.
Chickenpox

Chickenpox is caused by a virus. You catch it from other people who have it. You can get it if they cough or sneeze around you. You can also catch it from the fluid that comes out of the spots in the rash. \[1\] \[2\]

Chickenpox is very easy to catch. If you haven't had it before and come into contact with someone who has it, there's a 9 in 10 chance that you'll get it. \[1\] You can catch chickenpox from someone a day or two before they know that they have it. \[2\]

If you don't know whether you've had chickenpox before, you can have a blood test to find out. If you've had chickenpox in the past, you'll probably be immune to it. This means you can't get it again.

**What are the symptoms of chickenpox?**

The main symptom of chickenpox is a rash. It will most likely start about two to three weeks after you come into contact with someone who has it.

Before the rash appears, you may also:

- Feel ill
- Have a raised temperature of about 38°C to 39°C (100°F to 102°F).

The rash will probably start on your upper body, face, or scalp. Later, you may get it on your legs and arms.

At first you will get spots, which are itchy and filled with fluid. \[3\] After a few days, the spots will crust over and get a scab.

The spots from chickenpox don't usually leave a scar unless they get infected. This can happen if you scratch them. You can use calamine lotion or another type of cream to reduce the itching. You can buy this at the pharmacist.

Your doctor can probably tell whether you have chickenpox by looking at your rash. \[4\] If your doctor is not sure that you have chickenpox, then you can have a test done on the fluid in your spots, or on your blood.

**How common is chickenpox?**

Chickenpox is common. It is very easy to catch.

If someone in your family gets chickenpox and you haven't had it, or been vaccinated against it, you have a 9 in 10 chance of getting it. \[5\]

Most people get chickenpox as children, usually between the ages of 1 and 14. \[6\]
What treatments work for chickenpox?

Most children don't need any treatment for chickenpox. But chickenpox can be more serious for adults, babies, people with a weak immune system, and pregnant women. People in these groups may need treatment.

Key points about treating chickenpox

• A vaccine can help to prevent chickenpox in people who haven't had it before. But it's only recommended for some groups of people.

• An injection containing antibodies that fight the chickenpox virus may help to prevent chickenpox after someone has come in contact with the virus. It's called varicella zoster immune globulin (VZIG).

• If you take a drug called aciclovir (brand name Zovirax) very soon after getting chickenpox, the illness will probably be milder. But this isn't usually given to healthy children who get chickenpox, because they will get better without any treatment.

Which treatments work best? We've looked at the research and given each treatment a rating according to how well it works.

Treatment Group 1

Treatments for chickenpox

Treatments that work

• Vaccine (to prevent chickenpox)

Treatments that are likely to work

• Injections that contain antibodies (to prevent chickenpox)

• Aciclovir

What will happen?

Most children get better from chickenpox without any medical treatment.

But your child may be very uncomfortable while they have the illness. They may run a temperature, itch, and feel generally unwell. There are some things you can do to help them feel better. For more, see Caring for a child with chickenpox.

Children with chickenpox usually miss about one week of school. But the number of children who get serious health problems because of chickenpox is very small. Less than 1 in 100,000 children became seriously ill.
Chickenpox can be more serious for: [9] [10] [11]

- Adults
- Babies under 12 months
- People with a weak immune system (because, for example, they have AIDS or are being treated with chemotherapy)
- Pregnant women.

Healthy people can sometimes get other problems from chickenpox (called complications), but this doesn't often happen. [11] [12]

The most common complication is when the rash becomes infected with bacteria. Other rare complications include:

- Toxic shock syndrome. This is a serious condition that causes a high fever, low blood pressure, and other symptoms
- Loss of balance due to swelling in one part of the brain. This is called cerebellar ataxia
- Pneumonia. This is an infection in your lungs
- Losing too much fluid from your body (dehydration)
- Inflammation in your liver (hepatitis)
- Inflammation in your brain (encephalitis)
- Ear infections. [10]

Most people get chickenpox only once. But the virus that causes chickenpox does not completely leave their body. It stays on in some of their nerves. About 1 in 7 people who have had chickenpox later get a condition known as shingles.

Shingles is caused when the chickenpox virus becomes active again. [9] [11] You get pain and blisters on one area of your body, such as your chest. This is more likely to happen if you are older, or if you have a problem with your immune system.

People who have a weak immune system can get very severe chickenpox, either the first time they get it or if the virus becomes active again. [9]

It's worth remembering that you can't travel by plane if you or your child has chickenpox. Most airlines won't let people travel if they have an illness that other people could catch.
**What if I'm pregnant?**

It's rare for a woman to get chickenpox when pregnant. Most women will be immune because they've had chickenpox before.

If you're not sure whether you're immune, it's best to avoid people with chickenpox or shingles until they're better. Someone with chickenpox can pass on the condition until their rash has crusted over.\[^{13}\]

If you think you might have come into contact with someone who has chickenpox, and you're not sure whether you've had it, **see a doctor straight away**. You should also see a doctor if you get chickenpox within a week of having your baby.

The doctor can arrange a blood test, which will tell you whether you've had chickenpox. If you haven't, you can be given an **injection of antibodies** to try to prevent it.\[^{13}\] And if you get chickenpox in the second half of your pregnancy, you may be given a drug called **aciclovir**.\[^{14}\]

Women who get chickenpox during the last three months of their pregnancy have a slightly higher risk of getting pneumonia as well.\[^{9}\]

**Will it affect my baby?**

Most women who get chickenpox while pregnant have a healthy baby. But if you get chickenpox during the first six months of pregnancy, there's a small risk your baby could get a condition called **congenital varicella syndrome**. It happens to between 1 in 200 and 4 in 200 babies whose mothers had chickenpox during this time.\[^{11}\]

Babies born with congenital varicella syndrome may have:\[^{15}\]

- Muscle weakness in their arms or legs
- Underdeveloped arms, legs, fingers, or toes
- Brain damage
- Learning difficulties
- Eye problems
- Scarring.

If you get chickenpox late in your pregnancy, especially around the time you have your baby, there's a risk your baby will develop chickenpox. Your baby may be given a drug called **aciclovir**, or **injections of antibodies**.\[^{13}\] \[^{14}\]
Treatments:

**Vaccine (to prevent chickenpox)**

In this section

Having a vaccine can stop you getting chickenpox. The chickenpox vaccine is made from very weak chickenpox viruses. Its brand names are Varilrix and Varivax. After having an injection of the vaccine, your immune system makes antibodies to fight the weak virus. Your body remembers how to fight the virus in the future. So, if you come into contact with the virus again, you fight it off without getting ill.

In the UK, the chickenpox vaccine is recommended only for:

- Health care workers
- People in contact with someone with a weak immune system (for example, someone who has a sister or brother with leukaemia).

You won't need a vaccine if you've already had chickenpox, because you'll have built up an immunity to the virus. You can have a blood test to see if you're immune to chickenpox.

The vaccine isn't recommended for:

- Healthy children
- Pregnant women
- People with a weak immune system (such as people having chemotherapy for cancer, or people with AIDS).

Two studies of healthy children found that having the chickenpox vaccine prevented chickenpox. These studies included more than 1,000 children.

One summary of the evidence looked at three studies that tested whether giving the vaccine to brothers and sisters of a child with chickenpox stopped them from getting the infection. The summary said that fewer than 2 in 10 children given the vaccine within three days got chickenpox from their sibling, compared with almost 8 in 10 children who had a dummy (placebo) vaccine. Also, the children who had the vaccine and did get chickenpox had a milder illness.

There haven't been any good studies about whether the vaccine stops adults getting chickenpox. Some research suggests that the immunity provided by the vaccine may decrease in adults over time.
The chickenpox vaccine is safe and doesn't usually cause problems. You might have soreness and redness at the point where you are injected. You might also get a mild rash. [26]

A few children get a high temperature after their vaccination. [27] It's possible for a high temperature to trigger a seizure in children. But the number of children who got a seizure in studies was less than 1 in 1,000. And doctors don't know if the chickenpox vaccine caused the seizures. They could have been caused by another illness, or other vaccines the children had at the same time. [27] [28]

There's also a very small chance your child could spread chickenpox to someone else after having the vaccine. [27]

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**Aciclovir**

In this section

If you take aciclovir very soon after getting chickenpox, the illness will probably be milder.

Aciclovir is a medicine that fights viruses. Its brand name is Zovirax. It comes as tablets, as a liquid, and as a drip (sometimes called an intravenous infusion or IV). [29]

In the UK, aciclovir isn't usually prescribed for healthy children who get chickenpox, because they will get better without any treatment.

The Royal College of Obstetricians and Gynaecologists recommends aciclovir for:

- Women who get chickenpox in the second half of their pregnancy, but only if they start to take it within a day of getting the rash [30]

- New babies who get chickenpox. [30]

Aciclovir can also be given to adults who get chickenpox.

One review of 1,000 healthy children found that taking aciclovir tablets within a day of getting chickenpox reduced how long they had a fever by about a day. [31] But it didn't help with the rash.

Another review of 300 adults found that taking aciclovir within a day of getting chickenpox helped to make the rash less severe. [32] Aciclovir didn't help people who took it on the second or third day.

One review of about 2,000 people with HIV found that those who took a high dose of aciclovir for up to about two years were less likely to get chickenpox or die during this time. [33]
Two studies looked at children with cancer who had chickenpox while they were having chemotherapy. One of the studies found that children who had a drip (an intravenous infusion) of aciclovir got less ill than children who took a dummy treatment (a placebo). The second small study found that aciclovir didn't help.

We don't know whether aciclovir can help people with other types of weak immune systems, or newborn babies whose mothers had chickenpox while pregnant. There's not enough good research to tell us.

As side effects, aciclovir can cause diarrhoea and make you feel sick.

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**Injections that contain antibodies (to prevent chickenpox)**

In this section

These injections are made from other people’s blood and contain antibodies that can help fight chickenpox. They aren't used to treat chickenpox once you have it, but they can be used for certain people who haven't had chickenpox but have come into contact with it.

There isn't much research on these injections, but doctors agree that they are likely to help prevent some people from getting the illness, or make their illness milder.

In the UK, an injection called varicella zoster immune globulin (VZIG) is sometimes used to treat people who've come into contact with chickenpox in the past 10 days. The injection is put into a muscle. It's used for people who haven't had chickenpox before, so they haven't built up an immunity to the virus. You can have a blood test to see if you're immune to chickenpox.

The people who may need VZIG are:

- Pregnant women
- Newborn babies whose mothers might have had chickenpox when they were born
- People with a weak immune system

There isn't much research about using these injections to prevent chickenpox. And some studies have looked at injections that aren't usually used, such as zoster immune globulin (ZIG). This is made from the blood of people who are recovering from shingles.

One study looked at about 200 children, most of whom had leukaemia. The children took either ZIG or VZIG after coming into contact with chickenpox through a brother or sister. Three months after getting either ZIG or VZIG, about 4 in 10 children had got chickenpox.
There aren't any good studies about using these kinds of injections to prevent chickenpox in other people with a weak immune system, in pregnant women, or in newborn babies whose mothers got chickenpox while pregnant. But doctors agree that the injections are likely to help these groups of people.

An injection of VZIG can cause redness and swelling at the place where you have the injection.

Further informations:

Caring for a child with chickenpox

If your child has chickenpox, he or she will usually recover without medical treatment. But they may feel very uncomfortable in the meantime. There are some things you can try that may help. There's not much evidence to show they work, but doctors often recommend them.

• If your child has a high temperature, you can give them paracetamol. Be sure not to give too much, as it can be dangerous in overdose. Don't give aspirin to a child under 16 years old. In rare cases this can cause a serious illness called Reye's syndrome. [16]

• Calamine lotion may help soothe the itching spots. You can dab it on with cotton wool. Or let your child 'paint' it onto the spots with a clean paint brush.

• Try to stop your child from scratching the spots. This can make them worse, and may lead to an infection or leave a scar. Keep fingernails short to avoid deep scratching.

• Give your child plenty of fluids to drink so they don't get dehydrated.

• If the itching is so bad it stops your child from sleeping, ask your pharmacist to recommend a drug to reduce the itching. This will probably be an antihistamine.

If your child develops worrying symptoms, such as breathing problems, drowsiness, or convulsions, see a doctor.

Chickenpox is very infectious. If your child has chickenpox, keep them home from school or nursery so they don't spread the illness. Children are infectious until all the spots have crusted over (usually about four to five days after the rash appears). [13]

Glossary:

viruses
Viruses are microbes (tiny organisms) that need the cells of humans or other animals to exist. They use the machinery of cells to reproduce. Then they spread to other cells in the body.
immune system
Your immune system is made up of the parts of your body that fight infection. When bacteria or viruses get into your body, it's your immune system that kills them. Antibodies and white blood cells are part of your immune system. They travel in your blood and attack bacteria, viruses and other things that could damage your body.

AIDS
AIDS stands for acquired immunodeficiency syndrome. People who are infected with the human immunodeficiency virus (HIV) get AIDS when the virus has destroyed most of their immune system. When people have AIDS, their body isn't able to fight infections. So even common infections, such as colds, can cause serious problems.

chemotherapy
The use of chemicals or drugs to treat or prevent disease, usually cancer.

bacteria
Bacteria are tiny organisms. There are lots of different types. Some are harmful and can cause disease. But some bacteria live in your body without causing any harm.

low blood pressure
If your blood pressure is about 100/60 or less, your doctor may say that you have low blood pressure. Low blood pressure is usually not a problem unless it becomes too low to push blood to your brain and the rest of the body. If you have low blood pressure, you may sometimes feel dizzy when you stand up.

pneumonia
Pneumonia is an infection in your lungs. Anything that causes infections (bacteria, viruses or fungi, for example) can give you pneumonia.

dehydrated
When you're dehydrated, you don't have enough fluid in your blood. This could be because you're not drinking enough or because you're losing water by sweating or having diarrhoea.

inflammation
Inflammation is when your skin or some other part of your body becomes red, swollen, hot, and sore. Inflammation happens because your body is trying to protect you from germs, from something that's in your body and could harm you (like a splinter) or from things that cause allergies (these things are called allergens). Inflammation is one of the ways in which your body heals an infection or an injury.

liver
Your liver is on the right side of your body, just below your ribcage. Your liver does several things in your body, including processing and storing nutrients from food, and breaking down chemicals, such as alcohol.

encephalitis
Encephalitis is inflammation of the brain. Viruses are the most common cause. People with encephalitis may become less alert and have difficulty speaking and controlling their movements.

shingles
Shingles is when the chickenpox virus becomes active again in people who had been infected with chickenpox in the past. If you get shingles, you get pain and blisters on one area of your body, such as your chest. You are more likely to get shingles if you are older or if you have a problem with your immune system.

antibodies
Antibodies are an important part of your immune system. They are proteins made by white blood cells (another part of your immune system). They help destroy bacteria and other agents that cause infections.

leukaemia
Leukaemia is a type of cancer that affects your body's production of white blood cells. White blood cells are important for fighting infections. So, if you have leukaemia, you are more likely to catch an infectious disease.

placebo
A placebo is a 'pretend' or dummy treatment that contains no active substances. A placebo is often given to half the people taking part in medical research trials, for comparison with the 'real' treatment. It is made to look and taste identical to the drug treatment being tested, so that people in the studies do not know if they are getting the placebo or the 'real' treatment. Researchers often talk about the 'placebo effect'. This is where patients feel better after having a placebo treatment because they expect to feel better. Tests may indicate that they actually are better. In the same way, people can also get side effects after having a placebo treatment. Drug treatments can also have a 'placebo effect'. This is why, to get a true picture of how well a drug works, it is important to compare it against a placebo treatment.

intravenous infusion
When a medicine or a fluid, such as blood, is fed directly into a vein, it's called an intravenous infusion (or IV). To give you an intravenous infusion, a nurse, technician or a doctor places a narrow plastic tube into a vein (usually in your arm) using a needle. The needle is then removed and the fluid is infused (or dripped) through the tube into the vein.

**HIV**
HIV stands for human immunodeficiency virus. It's the virus that causes AIDS. It makes you ill by damaging cells called CD4 cells. Your body needs these cells to fight infections. You can get HIV by sharing needles for injecting drugs, or by having sex without a condom with someone who has the virus.

**diarrhoea**
Diarrhoea is when you have loose, watery stools and you need to go to the toilet far more often than usual. Doctors say you have diarrhoea if you need to go to the toilet more than three times a day.

**Sources for the information on this leaflet:**

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