

Slapped cheek syndrome - information prescription

Introduction

Slapped cheek syndrome (also known as “fifth disease” or erythema infectiosum) is a type of viral infection that is most common in children, although it can affect anyone of any age.

Slapped cheek syndrome usually affects children aged between six and 10 years. Most cases develop during the late winter months or early spring.

In children, the most common symptom is the appearance of a distinctive bright red rash on the cheeks. This is how the condition got its name.

Although many symptoms of slapped cheek syndrome are similar to other conditions, most cases can be diagnosed by examining the rash. Usually, no further testing is necessary in children.

Read more information about the symptoms of slapped cheek syndrome.

What treatment will my child need?

Most children will not need treatment as slapped cheek syndrome is usually a very mild condition that passes in a few days. Occasionally it can last up to four or five weeks.

There is no specific antiviral therapy available for slapped cheek syndrome.

Symptoms such as headaches, high temperature or itchy skin can usually be treated with over-the-counter medications such as paracetamol and antihistamines.

Adults, especially women, who frequently develop joint pain with or without a skin rash, can use non-steroidal anti-inflammatory drugs (NSAIDs) as painkillers.

You will probably only need to contact your GP if one or both of the following occurs:

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- your (or your child's) temperature rises to 39C or above
- your (or your child's) symptoms suddenly worsen

Read more about treating slapped cheek syndrome.

What are the causes of slapped cheek syndrome?

Slapped cheek syndrome is caused by a virus called parvovirus B19. Parvovirus B19 is an airborne virus spread in much the same way as the cold or flu viruses. It can be spread through coughs and sneezes that release tiny droplets of contaminated saliva which are then breathed in by another person.

It's very difficult to prevent the spread of the virus as people are most contagious before their symptoms begin, so they are unaware they are infected.

Once you've been infected you should develop a lifelong immunity and not experience any further symptoms.

Read more about the causes of slapped cheek syndrome.

Complications

There are three high-risk groups in which the parvovirus B19 can cause a much more serious infection and trigger a range of complications. These are listed below.

- People with certain blood disorders, such as sickle cell anaemia or thalassaemia. This is where the blood doesn't contain enough healthy red blood cells (anaemia) and infection can lead to a further and more severe loss of red blood cells.
- Pregnant women without immunity. Parvovirus B19 infection can increase the risk of a miscarriage because the virus can cause severe anaemia in the unborn child. The overall risk of miscarriage after infection during pregnancy is thought to be less than 5%.
- People with a weakened immune system (immunocompromised), either due to a side effect of treatment, such as chemotherapy, or from a condition such as HIV. These groups can experience prolonged, and sometime severe, symptoms of infection.
- Older children and adults who develop slapped cheek syndrome may experience persistent joint pain once the skin rash disappears.

If you're in one of these high-risk groups and you have been in close contact with someone who goes on to develop slapped cheek syndrome, contact your GP for advice.

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A blood test may be recommended to see if you are immune to the infection. If you are not immune, treatment can begin immediately to prevent complications.

You may need to be admitted to hospital and in some cases, a blood transfusion is necessary.

In rare cases, being infected with parvovirus B19 can lead to meningitis developing.

Read more about the complications of slapped cheek syndrome.

Prevention

At present there is no vaccination available to prevent slapped cheek syndrome. People who have already been infected with parvovirus B19 in the past are immune to another infection.

To prevent the spread of slapped cheek syndrome try to ensure that everyone in your household washes their hands frequently to reduce the chances of the infection spreading.

Advice for pregnant women

A pregnant woman should avoid contact with any infected child. However, in practice this can be difficult as a child can be most contagious before their symptoms begin.

So there isn't much you can do to prevent yourself from getting the infection. But if you have been in close contact with a child who then goes on to develop slapped cheek syndrome, contact your GP for advice.

Read more about slapped cheek syndrome and other infections in pregnancy that may affect your baby.

Symptoms of slapped cheek syndrome

The symptoms of slapped cheek syndrome usually begin in the first couple of weeks after your child is exposed to the parvovirus B19 virus.

The initial symptoms are flu-like, and usually last a few days. They include:

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- a high temperature (fever) of 38C (100.4F), although your child's temperature will not usually rise above 38.5C (101F)
- sore throat
- headache
- upset stomach
- feeling tired
- itchy skin
- joint pain

In around 20-30% of cases these symptoms do not occur, or are so mild as to be barely noticeable.

Your child will be most contagious during these initial symptoms.

After this stage, there is usually a period of around seven to 10 days without any further symptoms. This tends to be followed by a rash which occurs in three distinct stages.

First stage

Around 75% of children will develop a bright red rash on both cheeks (the so-called "slapped cheeks").

The rash may be particularly noticeable in bright sunlight and usually fades over two to four days.

Second stage

One to four days after the appearance of the "slapped cheek" rash, a light pink rash usually appears on your child's chest, stomach, arms and thighs. This rash often has a raised, lace-like appearance and may cause discomfort and itching.

By this time, your child should no longer be contagious and they will be able to return to nursery or school without the risk of passing the infection onto others.

The rash should then pass after a few days.

Third stage

In some cases, the rash can continue to fade, then re-appear, for weeks after the infection has passed.

The re-appearance of the rash is usually triggered by exercise, or if your child is hot, anxious or stressed.

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Parvovirus B19 infection in adults

The most common symptom of a parvovirus B19 infection in adults is joint pain and stiffness in your:

- hands
- knees
- wrists
- ankles

Other flu-like symptoms, such as developing a fever and sore throat, are also more common in adults than in children.

Less than 50% of adults will develop a rash. This means a diagnosis of slapped cheek syndrome may be missed at first as the symptoms are often mistaken for arthritis or joint damage.

If there is doubt over a diagnosis, you may have a blood test to check the antibodies that your body produces as a response to infection. The results of this test will confirm a diagnosis.

In most people, the symptoms of a parvovirus B19 infection will pass within one to three weeks, although some adults will experience recurring episodes of joint pain and stiffness for days or months afterwards.

When to seek medical advice

Slapped cheek syndrome in children and parvovirus B19 infection in adults is usually mild and the infection should clear up without treatment.

When to seek urgent medical advice

People who are in the risk groups listed below are advised to contact their GP as soon as possible if they think they have developed a parvovirus B19 infection. If this is not possible, contact your local out-of-hours service or call NHS 111.

- pregnant women
- people with a condition known to cause chronic anaemia, such as sickle cell anaemia, thalassaemia and hereditary spherocytosis (an uncommon genetic condition that causes red blood cells to have a much shorter life span than normal)
- people with a weakened immune system as a result of a condition such as HIV or acute leukaemia

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- people having treatments known to weaken the immune system, such as chemotherapy or steroid medication

You may also have a weakened immune system if you're taking medication to suppress your immune system because you've recently received a bone marrow transplant or organ donation.

Causes of slapped cheek syndrome

Slapped cheek syndrome is caused by parvovirus B19. A parvovirus B19 infection is spread in the same way as a cold or flu.

It can be spread inside infected droplets of saliva that can be:

- inhaled in by other people when you cough or sneeze
- left on surfaces which other people can touch and then transfer into the body by touching their mouth or nose

A child is no longer contagious once the distinctive red rash appears.

Humans are not born with immunity to parvovirus B19, which is why most cases occur in children. Once infected, a person usually develops a lifelong immunity to further infection.

Children old enough to attend nursery or school are most at risk of infection because of their close proximity to lots of other children. It's also common for older children to pass the infection along to younger brothers and sisters.

Adults who haven't previously had the infection are most at risk if they work with children, including teachers and nursery workers.

How the virus affects the body

Once parvovirus B19 enters the body, it targets cells called erythroid progenitor cells which are found in bone marrow and blood. It is the fact that the parvovirus B19 infection targets blood and bone marrow that makes it a particularly serious infection for people with blood and bone marrow disorders.

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Most of the symptoms of a parvovirus B19 infection, such as the red rash, are not caused by the virus itself but by the immune system releasing antibodies to kill the virus.

Treating slapped cheek syndrome

There is no vaccination for slapped cheek syndrome. For most people, the infection is usually a mild illness, which quickly passes without the need for treatment.

There are various self-care techniques that you can use to help relieve symptoms. These are explained below.

- Painkillers, such as paracetamol or ibuprofen, can be used to relieve symptoms, such as a high temperature, headache and joint pain. Children aged 16 or under should not take aspirin.
- Antihistamines can be used to relieve the symptoms of itchy skin. Some antihistamines are not suitable for children younger than two, so check with your pharmacist beforehand.
- Another way to soothe itchy skin is to use an emollient (moisturising lotion).
- Make sure that you (or your child) get plenty of rest and drink plenty of fluids as this will help to relieve the symptoms of sore throat and a high temperature.
- Adults who develop joint pain can be treated with non-steroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen.

Complications of slapped cheek syndrome

In the majority of cases, slapped cheek syndrome does not lead to complications. However, sometimes complications can arise due to an already existing condition, such as those outlined below.

Pregnancy

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If you develop a parvovirus B19 infection during pregnancy, and you do not have immunity, there is a one-in-three chance that you will pass the infection onto your unborn baby.

There is then a risk that your baby will develop severe anaemia. This can cause heart failure and an abnormal collection of fluid inside the baby's tissues of your baby (hydrops fetalis) which can sometimes result in a miscarriage.

Due to this risk, it is likely that you will be given regular ultrasound scans so that the health of your baby can be carefully assessed. If your baby does show signs of severe anaemia, they may be treated with a blood transfusion.

The risk of miscarriage is highest in the first 20 weeks of your pregnancy, at around one in 10. After 20 weeks, the risk reduces significantly, but in rare cases has been known to cause miscarriage or stillbirth. It is rare for miscarriage to occur during the first trimester.

If you believe you have come into contact with the virus during pregnancy, speak to your doctor immediately.

Blood abnormalities

If you have sickle cell anaemia, thalassaemia or other blood abnormalities, parvovirus B19 can cause severe anaemia.

This is known as an "aplastic crisis", and symptoms include:

- very pale skin
- feeling very tired
- headache
- high temperature (fever) of 38C (100F) or above
- rapid heartbeat (tachycardia)
- dizziness
- fainting

If you experience an aplastic crisis, it is likely that you will need to be admitted to hospital and given a blood transfusion. After having a blood transfusion, most people will make a full recovery.

Weakened immune system

If a person with a weakened immune system (immunocompromised) develops a parvovirus B19 infection, the

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virus can quickly spread through their bone marrow and interfere with the production of red blood cells. This can cause symptoms of severe anaemia, a high temperature and a sense of feeling very unwell.

A blood transfusion can be used to treat anaemia. Antibodies that have been donated by someone who is immune to parvovirus B19 can be used to treat the underlying infection.

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