

Parvovirus B19 during pregnancy

This factsheet contains important information about parvovirus B19. It explains what parvovirus B19 is, the common symptoms and how catching this virus may affect you and your baby during pregnancy. We hope it will help to answer some of the questions you may have. If you have any further questions or concerns, please speak to your midwife or a member of the fetal medicine team.

What is parvovirus B19?

Parvovirus B19 (also known as slapped cheek syndrome, human parvovirus and fifth disease) is part of a family of viruses that can cause an infection.

There are many different types of parvoviruses. However, parvovirus B19 is the only type of parvovirus that can infect humans. Parvovirus B19 is **not** the same parvovirus that can affect pets. The virus cannot be passed from humans to animals or animals to humans.

How is it spread?

Parvovirus B19 is passed from person to person. Most people catch parvovirus B19 when they breathe in the tiny airborne droplets (containing the virus) which come from the coughs or sneezes of someone who has the virus. You can also catch parvovirus B19 if you touch something with the virus on it, and then touch your mouth, nose, or eyes.

How can I protect myself and others?

To reduce your risk of catching parvovirus B19 or infecting others, you should:

- wash your hands regularly with soap and water
- · cover your mouth and nose when you cough or sneeze
- not touch your eyes, nose, or mouth
- avoid close contact with people who are feeling unwell (close contact means being in the same room as the person for 15 minutes or more, or having face-to-face contact with the person for any length of time)
- stay at home when you are feeling unwell

What are the symptoms?

Parvovirus B19 usually causes a mild illness and in some cases, a rash. You could be infectious from ten days before the rash appears until one day after it has appeared.

Common symptoms include:

- a high temperature (37.5°C or above)
- a sore throat
- a runny nose
- a headache
- mild nausea (feeling sick) and/or diarrhoea

The symptoms above may occur several days before a rash appears. In children, the rash often appears on the face and has a 'slapped cheek' appearance. Although less common in adults (less than 50%), a rash may appear on the chest, arms, stomach or thighs.

The symptoms of a parvovirus B19 infection usually disappear on their own and no treatment is needed. However, if you do experience symptoms, we recommend:

- taking paracetamol to relieve symptoms of a headache and/or fever (if needed, you can take two 500mg tablets four times in 24 hours)
- drinking plenty of fluids
- ensuring you get enough rest

The severity of the symptoms can vary from person to person. Some people (up to 30%) may have no symptoms at all.

Less common but more severe symptoms of a parvovirus B19 infection include:

- painful or swollen joints
- anaemia (a condition which occurs when the levels of red blood cells in your blood are lower than normal)

Seek advice from your general practitioner (GP) if you are experiencing persistent joint pain or anaemia.

Is parvovirus B19 screened for during pregnancy?

Parvovirus B19 is not routinely screened for in pregnancy as there is no vaccine or preventative treatment available.

Will a parvovirus B19 infection affect my baby?

It is unusual (occurring in less than 5% of pregnancies) to have a parvovirus B19 infection for the first time in pregnancy. If you do, it is possible (in about 30% of cases) that your baby may develop the infection too.

The parvovirus B19 infection can travel across the placenta (this delivers oxygen and nutrients to your baby during pregnancy) to your growing baby through the umbilical cord. If your baby develops a parvovirus B19 infection, it can cause the following complications:

• Fetal anaemia

A very small number of babies infected by parvovirus B19 may become unwell in the womb with a condition called 'fetal anaemia'. Fetal anaemia occurs when the levels of red blood cells in an unborn baby's blood are lower than normal. Most babies who become anaemic will get better without any treatment. If your baby does need treatment for anaemia, we will discuss this with you. For more information about fetal anaemia, please speak to a member of our fetal medicine team or read our 'Fetal anaemia' factsheet which can be found on our maternity and parent information page (please see the 'Useful links' section at the end of this factsheet).

• Miscarriage or stillbirth

The likelihood of miscarriage or stillbirth is extremely rare and depends on how many weeks pregnant you are when your baby develops the infection.

- If a baby develops the infection early on in the pregnancy (between 4 and 20 weeks), the risk of miscarriage is higher, affecting up to 13% of infected babies.

- If a baby develops the infection later on in the pregnancy (after 20 weeks), the risk of miscarriage or stillbirth is much lower, affecting less than 1% of infected babies.

It is important to remember that most babies will be healthy and will not be infected or affected by the virus.

What happens if I think I may have been in contact with parvovirus B19?

If you have any symptoms of a parvovirus B19 infection or think that you may have been in close contact with someone who has a parvovirus B19 infection, contact your midwife or GP immediately.

We will offer you a blood test to find out if:

- you currently have or have recently had a parvovirus B19 infection
- you have been exposed to parvovirus B19 in the past and are now immune (once you have had a parvovirus B19 infection, you will not get it again)

About 60% of adults have had the parvovirus B19 infection and are immune. Knowing whether or not you are immune will allow your midwife and obstetrician (a doctor who specialises in care during pregnancy, labour and after birth) to plan your care and take steps to protect the wellbeing of you and your baby.

What do my blood test results mean?

Your blood test results will show if you have any parvovirus B19 antibodies. Antibodies are substances made by your body's immune system in response to infection. They will attach themselves to the parvovirus and allow your body to fight the infection.

There are two types of parvovirus B19 antibodies:

- **Short-lasting (IgM) antibodies** These are your body's first response to infection. If these are found in your blood sample, this is probably your first parvovirus B19 infection. IgM antibodies are only detected during an active or recent infection.
- Long-lasting (IgG) antibodies These will stay in your body for the rest of your life, fighting infection and providing you with immunity against parvovirus B19. If these are found in your blood sample, it means that you have previously had a parvovirus B19 infection.

Your midwife or GP will contact you to discuss the results of your recent blood test.

We have included what will happen next based on your blood test results in the table on the next page.

Blood test result	What does it mean?	What happens next?
Your body has developed long-lasting (IgG) parvovirus B19 antibodies which will protect you and your baby from recurrent infection.	You have been exposed to parvovirus B19 in the past (before you were pregnant) and are now immune .	You and your baby are not at risk of infection because you have antibodies to protect you. No additional monitoring is necessary.
You have not developed any parvovirus B19 antibodies.	You are not immune to parvovirus B19. You have not had a parvovirus B19 infection before and are at risk of infection.	 If you are not immune but have been exposed to parvovirus B19, we will: offer you a further blood test (two to four weeks later) closely monitor the wellbeing of you and your baby during this time To reduce the risk of spreading the infection, you should avoid contact with other pregnant women until you have received the results of your second blood test. To reduce the likelihood of catching parvovirus B19 while you are pregnant, you should also avoid places where parvovirus B19 is common (for example, in schools, nurseries, children's play areas).
Your body has developed both short (IgM) and long-lasting (IgG) parvovirus B19 antibodies.	You have had a parvovirus B19 infection during the last three months.	 We will: offer you a further blood test (two to four weeks later) closely monitor the wellbeing of you and your baby during this time To reduce the risk of spreading the infection, you should avoid contact with other pregnant women until you have received the results of your second blood test.
Your body has developed short-lasting (IgM) parvovirus B19 antibodies.	You currently have a parvovirus B19 infection.	 We will: refer you to the fetal medicine unit monitor the growth and wellbeing of your baby for the next 12 weeks through regular ultrasound scans assess your baby's movements and look for signs of fetal anaemia To reduce the risk of spreading the infection, you should avoid contact with other pregnant women until you are no longer contagious.

When to seek urgent medical advice

You will usually start to feel your baby move between 16 and 22 weeks. The first movements may feel like flutters and can be mistaken for indigestion. By 24 weeks, your baby will have developed their own pattern of movements. This will range from kicks and jerks to rolls and ripples. Sometimes your baby will hiccup. You will very quickly get to know the pattern of your baby's movements.

It is important that you become familiar with your baby's usual daily pattern of movements. If you feel that your baby's movements have changed, or you have any concerns about your baby's wellbeing, call the maternity triage line immediately on: **0300 123 9001** (if your maternity care is provided by University Hospital Southampton NHS Foundation Trust) **or** call your local maternity day assessment unit.

For more information, please read our 'Your baby's movements' factsheet which can be found online here: www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/ Pregnancyandbirth/Your-babys-movements-3102-PIL.pdf

Contact us

If you have any further questions or would like to discuss your baby's wellbeing or the outcome of any of the tests you have been offered in more detail, please contact us.

Fetal medicine team Telephone: **023 8120 6025** (Monday to Friday, 9am to 5pm)

Your GP, midwife and obstetrician may also be able to give you more information.

For **urgent** queries outside of these hours, please call the maternity triage line on: **0300 123 9001** (if your maternity care is provided by University Hospital Southampton NHS Foundation Trust) **or** call your local maternity day assessment unit.

Useful links

www.uhs.nhs.uk/departments/maternity-services/maternity-and-parent-information/ information-factsheets

www.uhs.nhs.uk/Media/UHS-website-2019/Patientinformation/Pregnancyandbirth/Your-babysmovements-3102-PIL.pdf

www.what0-18.nhs.uk/pregnant-women/concerns-during-pregnancy/over-20-weeks/reducedbaby-movements-after-24th-week-pregnancy

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For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit **www.uhs.nhs.uk/additionalsupport**

5