Parvovirus B19 (B19) Infection during pregnancy
Patient Information Leaflet

This factsheet contains important information about Parvovirus B19 (B19). It explains what it 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 healthcare provider.

What is Parvovirus B19?

Parvovirus B19 (also known as slapped cheek syndrome, human parvovirus and fifth disease) is part of a family of viruses whose name derives from the Latin parvum, meaning small.

There are many different types of parvoviruses. As such, B19 is not the same parvovirus that can affect pets. In fact, the virus cannot be passed from humans to animals or animals to humans. Parvovirus B19 is not a notifiable disease in Ireland.

How is it spread?

Parvovirus B19 is passed from person-to-person and can be picked up through close personal contact with someone who has the infection. Most people catch 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 B19 if you touch something with the virus on it, and then touch your mouth, nose, or eyes. A pregnant woman who is infected with B19 can occasionally pass the virus to her baby in the womb.

What are the symptoms?

Most individuals with Parvovirus B19 infection will have no symptoms or a mild ‘cold-like’ illness: however, others will develop a rash or some of the symptoms listed below. You could be infectious (i.e. contagious) to others from seven days before you develop a rash.

Symptoms include:

- Fever
- Sore throat
- Headache
- Cough
- Rash
- Joint pain

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 also appear on the chest, arms, stomach or thighs.

People with a B19 infection usually get better on their own and no treatment is needed.

However, if you do experience symptoms, it is recommended that you:

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

The severity of the symptoms can vary from person to person. 50% of non-pregnant women and almost 30-50% of pregnant women may have no symptoms at all.

How can I protect myself and others?

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

- wash your hands regularly with soap and water
- cover your mouth and nose when you cough or sneeze
- try not to touch your eyes, nose, or mouth frequently
- avoid close contact with people who are feeling unwell (*for B19, 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.

I had blood tests at my booking visit: was I tested for B19?

B19V is not routinely tested for in pregnancy as there is no vaccine or preventative treatment available.

Will a B19 infection affect my baby?

It is unusual (occurring in less than 5% of pregnancies) to have a B19 infection for the first time in pregnancy. Approximately 60% of adults have been exposed to B19 in the past and are now immune (once you have had a B19 infection, your risk of getting it again is very low). However, if you do get the infection for the first time in pregnancy, it is possible that your baby may develop the infection too (17-33% risk).

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

- **Foetal anaemia**

A very small number of babies infected by B19 may become unwell in the womb with a condition called 'foetal anaemia'. Foetal 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 unborn baby does need treatment for anaemia, your obstetrician will discuss this with you. For more information about foetal anaemia, discuss with your GP or obstetrician.

- **Miscarriage or stillbirth**

The likelihood of miscarriage or stillbirth due to a B19 infection is extremely low and depends on how many weeks pregnant you are when your baby develops the infection.

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

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

If you have any symptoms of a B19 infection or think that you may have been in close contact with someone who has a B19 infection, contact your healthcare provider without delay.

You will be offered a blood test to find out if:

- you currently have, or have recently had, a B19 infection
- you have been exposed to B19 in the past and are immune

About 60% of adults have had the B19V 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 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 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 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 protection against B19. If these are found in your blood sample, it means that you have previously had a B19 infection.

Your healthcare provider will contact you to discuss the results of your recent blood test. We have included a short table outlining what your blood test results mean on the next page.

Blood Test Result	What does it mean?
Long-lasting (**IgG) parvovirus B19 antibodies** detected	You have been exposed to B19 in the past (likely before you were pregnant). These antibodies are likely to **protect** you and your baby against B19 infection.
No parvovirus B19 antibodies detected.	You are not immune to B19. You have not had a B19 infection before and are at risk of infection.
Short-lasting (**IgM**) and long-lasting (**IgG**) parvovirus B19 antibodies detected.	You have had a parvovirus B19 infection during the last three months.
Short-lasting (IgM) parvovirus B19 antibodies detected	You currently have a B19 infection.

What happens if I am exposed in a setting where there is an outbreak of B19 infection?

During an outbreak, parents of preschool and school children as well as employees will be informed of the risk of infection and its management. You will receive information about your individual risk, based on risk of infection, stage of your pregnancy, and other obstetric considerations.

Further information

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, contact your GP/Midwife/Obstetrician.

Additional guidance can be found

Ireland HPSC: http://www.hpsc.ie/a-z/other/parvovirus/

HSE: https://www2.hse.ie/conditions/parvovirus-pregnancy/

UK https://www.gov.uk/guidance/parvovirus-b19

USA : https://www.cdc.gov/parvovirusb19/fifth-disease.html

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