

Information on cytomegalovirus (CMV) infection during pregnancy

What is CMV?

CMV stands for cytomegalovirus. CMV is a common virus that is transmitted through contact with bodily fluids such as saliva and urine. Most people who are infected with CMV have no symptoms at all, others can have a mild flu-like illness. The virus rarely causes serious health problems in healthy adults.



What is congenital CMV?

CMV can pass from a pregnant person to their developing baby. If the baby is infected before birth, it is called congenital CMV. Most babies born with congenital CMV remain well. However, some babies born with CMV will have complications that appear later, most commonly hearing loss.

What is a 'primary infection'?

The first time someone gets CMV, it is called a primary infection. Once infected, the virus remains in the body for life but rarely causes future problems.

What are the chances of CMV passing to my baby if I have a 'primary' CMV infection during pregnancy?

The chance of the virus passing to your baby before birth depends on when the infection occurred in pregnancy. The most important factor is whether your infection occurred during the first trimester (during the first 14 weeks of pregnancy) or later.

If a primary infection occurs:

- during the first trimester, there is a 4 in 10 chance that the virus will pass to the baby.
- after the first trimester, there is a 6 in 10 chance the virus will pass to the baby.

What could happen if my baby is infected with CMV during pregnancy?

Most babies born with congenital CMV are well and don't have any health problems from CMV. However, some babies may have symptoms at birth from their infection. These can include a low birth weight, abnormal blood tests or hearing loss.

Some may develop complications in early childhood. The most common of these is hearing loss. Other possible complications include poor growth, vision problems, seizures, developmental delay, intellectual disability and cerebral palsy.

If my baby is infected with CMV, what is the chance that this infection will cause a health problem?

The chance of a baby having health problems from their CMV infection depends on the timing of the mother's infection in pregnancy.

If a baby is infected during the first trimester, 1 in 4 will have long term complications such as hearing loss or developmental delay.

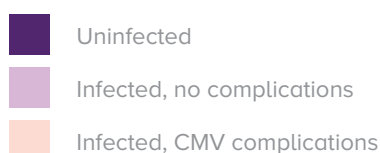
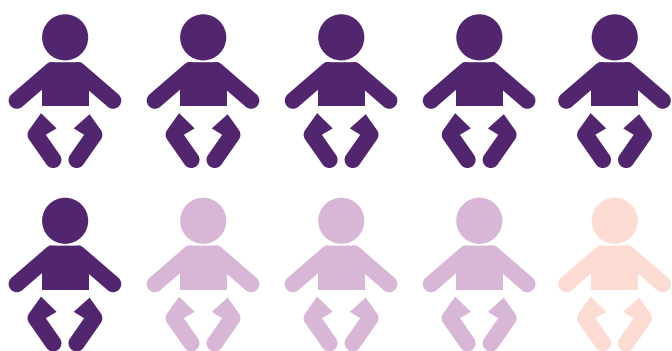
If the baby is infected after the first trimester, the chance of complications is low (less than 1 in 100).

What is the overall risk of having a baby with long term CMV complications if I have a primary infection in the first trimester?

The overall chance of having a baby with CMV complications if you have had a primary infection in the first trimester is about 1 in 10.

This calculation is based on the chance of having a complication (1 in 4) and the chance of the baby becoming infected (4 in 10).

If ten pregnant people have a primary infection in first trimester, six will have babies that are not infected, three will have healthy babies with congenital CMV, and one will have a baby with congenital CMV with health complications.



Is there any treatment to reduce the risk of the infection passing from me to my baby?

There is an antiviral medication called valaciclovir that your doctor may discuss with you if you have a primary infection in the first trimester. Valaciclovir appears to reduce the risk of the virus passing to the baby in some cases, but this treatment is still considered experimental. It should only be prescribed by a specialist with expertise in infectious diseases and pregnancy. You should understand the potential risks and benefits before commencing treatment.

How can I find out if my baby has CMV before birth?

The most accurate way to tell if the virus has passed to your baby during pregnancy is to have a medical procedure called an amniocentesis. This test is usually done after 20 weeks gestation. A needle is passed through the skin into the womb to collect a small sample of fluid from around the baby. The fluid is then tested for the CMV virus. A 'CMV positive' result means the baby has been infected.

If my amniocentesis shows the baby is infected, can we tell if the baby is going to have health complications after birth?

You will be offered regular ultrasounds in a specialist fetal medicine centre to check your baby's growth and brain development. Your specialist may also discuss a fetal brain magnetic resonance imaging (MRI) scan to check your baby's brain development. If there are changes on the ultrasounds and/or MRI scans that indicate that your baby has been affected by CMV, then your doctor will explain these findings to you.

If all the imaging tests are normal, the chance of your baby having major health problems after birth is reduced. However, some babies still have consequences, including hearing loss or developmental delay, even if the ultrasounds and MRI are normal. The role of medical therapies to treat a CMV-infected baby before birth is still evolving. Your doctor will discuss your options with you.

What other options are there?

Some people choose to have no treatment or tests and wait to see how their baby is at birth. Others may choose to have some treatment and/or tests and make decisions later in pregnancy based on the test results. Some people may choose to have a termination of pregnancy. Your doctor will discuss your options with you at your appointment.

How can I find out if my baby has congenital CMV after birth?

If you have had CMV in pregnancy, you will be offered testing for CMV in the placenta at birth, and from your newborn baby's urine and saliva in the first few weeks of life. If your newborn baby has CMV confirmed, you will have the option of seeing a paediatrician to discuss follow up and possible treatments. Ongoing testing for hearing, eye checks and medical follow up of your baby will be recommended.

Resources and references

Where can I get more support?

It can be worrying to be told that your baby may have congenital CMV and so it is important that you have support during this stressful time – this might be your partner, relative or friend, midwife or doctor, your baby's paediatrician, and/or a mental health professional.

Most importantly, you are not alone. Please talk with your doctor or midwife if you need more support. There are also community groups that support pregnant people and families in this situation, including CMV Australia.

You may find some helpful resources here

- **CMV Australia** aims to empower and support families who have been affected by congenital CMV. You can find information on their website and social media as well as a private peer to peer support group for CMV families on Facebook: <https://www.cmv.org.au>
- *Through the Unexpected* works to protect the mental wellbeing of people who receive unexpected news regarding the health, development or genetics of their unborn baby: <https://throughtheunexpected.org.au/find/wellbeing-support/>
- *Perinatal Anxiety & Depression Australia (PANDA)* – supports the mental health of parents and families during pregnancy and in their first year of parenthood: <https://panda.org.au/>
- To find a psychologist near you, ask your GP or go to the Australian Psychological Society's 'Find a Psychologist' search engine: <https://psychology.org.au/find-a-psychologist>
- The Australian Department of Health has general information on CMV at: <https://www.health.gov.au/resources/pregnancy-care-guidelines/part-g-targeted-maternal-health-tests/cytomegalovirus>

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