

CMV is a common viral infection, especially among young children. Congenital CMV occurs when the infection is passed across the placenta from a pregnant woman to her developing baby. Some babies with congenital CMV infection show signs at birth, while others are born healthy.

Cytomegalovirus (CMV) and pregnancy fact sheet

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What is CMV?

Cytomegalovirus (CMV) is a common virus in the herpesvirus family. Fifty percent people have been infected by young adulthood and up to 85% by 40 years of age.

Peaks of infection occur in children under 2 years age, and during adolescence. Once a person becomes infected, the virus remains alive but usually inactive (dormant) within that person's body for life.

It is rare for a person to get symptoms after the initial infection unless their immune system is weakened by severe illness and treatments (e.g. for cancer).

Reactivation can occur during pregnancy in women who have had infection previously, with a very small risk of transmission of CMV to the unborn baby.

What are the symptoms?

Children and adults with healthy immune systems do not usually develop symptoms when infected, but may develop an illness similar to glandular fever with tiredness, sore throat, swollen glands and fever. People with a weakened immune system are more likely to develop symptoms.

How is CMV spread?

Humans are the only source of CMV. The virus is found in urine, saliva, nasal mucus, breast milk, vaginal secretions and semen of infected people.

The risk of transmission from children born with disability due to CMV infection is no greater than that from children who have CMV infection without symptoms.

CMV is spread through:

- Close contact with a person excreting the virus in their saliva, nasal mucus, urine or other body fluid
- Handling children's toys that have saliva or mucus on them, or handling contaminated items like dirty tissues or soiled nappies then touching the eyes, nose or mouth without first washing hands
- From mother to her unborn child as a result of maternal infection during pregnancy
- From mother to her unborn child as a result of virus reactivation during pregnancy
- Breast milk of an infected woman who is breast feeding
- Sexual contact.

Who is at risk?

If a woman is newly infected with CMV while pregnant, there is a risk that her unborn baby will also become infected (congenital CMV). Infected babies may, but not always, be born with a disability.

The highest risk to the unborn baby occurs when a woman who has never had CMV before is infected with the virus for the first time during pregnancy (primary [first] CMV infection) and when infection occurs during the first half of the pregnancy. Infection during one pregnancy does not increase the risk for subsequent

pregnancies. However, if primary infection occurs, consideration should be given to waiting for at least 12 months before becoming pregnant again.

Studies in Australia have shown that out of 1,000 live births, about 6 infants will have congenital CMV infection and 1-2 of those 6 infants (about 1 in 1000 infants overall) will have permanent disabilities of varying degree. These can include hearing loss, vision loss, small head size, cerebral palsy, developmental delay or intellectual disability, and in rare cases, death.

Sometimes, the virus may reactivate while a woman is pregnant but reactivation does not usually cause problems to the woman or her unborn baby.

Can congenital CMV be prevented?

There is no licensed vaccine against CMV currently available

Pregnant women are recommended to take steps to reduce their risk of exposure to CMV and so reduce the risk of their developing baby becoming infected.

- Wash hands often with soap and running water for at least 15 seconds and dry them thoroughly. This should be done especially after close contact with young children, changing nappies, blowing noses, feeding a young child, and handling children's toys, dummies/soothers.
- Do not share food, drinks, eating utensils or toothbrushes with young children.
- Avoid contact with saliva when kissing a child.
- Use simple detergent and water to clean toys, countertops and other surfaces that come into contact with children's urine, mucous or saliva.

Child care workers who are pregnant or considering pregnancy should pay particular attention to good hand hygiene, especially after changing nappies or assisting with blowing noses or toileting.

How is congenital CMV diagnosed?

A person who has been infected with CMV will develop antibodies in their blood that indicate infection has occurred, either recently, or in the past. These antibodies stay in the body for the rest of that person's life. Other tests, that detect the virus, are used to determine if a person has an active CMV infection.

Testing for CMV is not routinely recommended for all women during pregnancy or for newborn babies. CMV testing is currently recommended for pregnant women who develop an acute viral illness or when ultrasound reveals a foetal abnormality. However, pregnant women and women planning a pregnancy may wish to discuss CMV testing with their doctor, particularly if they work in high risk settings (e.g. in child care centres) or have very young children at home.

Infants born to mothers diagnosed with a primary CMV infection during pregnancy should be tested for congenital CMV infection. Babies who do not have a normal hearing screening test at birth (SWISH) can also be tested for congenital CMV, as hearing loss is the most common sign of congenital CMV. However, some infants with congenital CMV infection who appear healthy at birth develop hearing or vision loss over time; for this reason, babies known to be infected should have their hearing and vision assessed regularly.

How is congenital CMV treated?

Currently, international research is being conducted about the best methods for treating CMV infection during pregnancy.

Pregnant women diagnosed with primary (first) CMV infection should be referred for specialist follow up and counselling in order to receive up to date information about the risks and benefits of the available treatments, which are currently experimental. Infants born with neurological disabilities due to CMV may benefit from early antiviral treatment; this should be discussed with a specialist paediatrician.

Most babies born with CMV infection grow up with normal health. Concerns about CMV infection can be discussed with a general practitioner or MotherSafe, a free telephone service that provides a comprehensive counselling service for women and their healthcare providers concerned about exposures during pregnancy and breastfeeding <http://www.mothersafe.org.au/>

What is the public health response?

CMV infection is not a notifiable disease in New South Wales. Infection with CMV or congenital CMV does not affect access to school, work or childcare, including infants who have disabilities due to congenital CMV. There is currently no licensed vaccine for CMV but vaccine trials are underway.

Further Information

- NSW Kids and Families Having a Baby - Handle with Care: Looking after yourself during pregnancy <http://www.health.nsw.gov.au/kidsfamilies/MCFhealth/Documents/having-a-baby/hab-handle-with-care.pdf>
- The Children's Hospital Westmead CMV factsheet <https://www.schn.health.nsw.gov.au/parents-and-carers/fact-sheets/cytomegalovirus-cmv>
- CDC Cytomegalovirus (CMV) and Congenital CMV Infection <http://www.cdc.gov/cmvi/index.html>
- Congenital CMV Association Australia <http://cmv.org.au/>
- NHMRC Staying Healthy: Preventing infectious diseases in early childhood education and care services (5th Edition) 2013 <https://www.nhmrc.gov.au/guidelines-publications/ch55> .

For further information please call your local Public Health Unit on **1300 066 055**