

Cytomegalovirus (CMV)

Cytomegalovirus (CMV) infection is a common virus which infects people of all ages.

Infection in healthy children and adults is usually mild or without any symptoms. People with weakened immune systems and babies that are infected before birth can experience a more severe illness.

Once a person has had CMV, the virus stays in their bodies for the rest of their lives and can reactivate if the person develops problems with their immune system.

Signs and Symptoms:

Cytomegalovirus infection in healthy people often causes no symptoms at all. A small number of people will experience a sore throat, tiredness, generalised aches and pains and sore glands. These symptoms may last for two to three weeks.

People with weakened immune systems can develop a more severe illness which may include infections of the blood, central nervous system, bowel, liver, kidneys, lungs or eyes.

The most serious disease is seen in a small percentage of babies infected before birth, who can experience small birth weights, lethargy, fitting, yellowing of the skin (jaundice), rash and problems with brain, liver and spleen. This can result in lasting problems such as hearing loss, vision loss, small head size, cerebral palsy, developmental delay or intellectual disability. In rare cases infection in babies may be fatal.

Treatment:

Treatment for mild CMV infections is not usually required apart from bed rest and drinking plenty of fluids. For more serious CMV illness, treatment is most often in the form of antiviral drugs. Treatment may also be needed for complications such as pneumonia.

Transmission:

Humans are the only source of CMV. The risk of getting CMV through casual contact is very small. The virus is generally passed from infected people to others through direct contact with body fluids that carry the virus, such as urine, saliva, vaginal secretions, semen and breast milk.

CMV can be shed in saliva and urine on and off for many months, sometimes years. Adults are usually infectious for less time than babies.

People with weakened immune systems may experience a recurrence of CMV or may be infected with a new strain of the virus.

Transmission can occur:

- From contact with the body fluids of a person who is shedding the virus in their saliva, nasal mucus, urine or other body fluid. The virus needs to come into contact with another person's mucous membranes such as the mouth, nose or eyes.
- From mother to her unborn child. The highest risk to an unborn baby is when a woman acquires CMV for the first time during her pregnancy and when infection occurs during the first half of the pregnancy.
- During delivery of a child.
- Through breast milk of an infected woman who is breast feeding.
- During sexual contact.
- Following an organ or bone marrow transplant.
- Following transfusion with infected blood. (However, most blood products in Australia undergo a treatment process that greatly reduces the risk of CMV from blood transfusions).

Prevention:

CMV does not spread easily, and transmission can be prevented by simple hygiene methods:

- Wash your hands with warm soapy water before and after preparing food, after feeding a young child, after handling children's toys, after going to the toilet or after changing a child's nappy.
- Wash toys, and other surfaces that come into contact with urine or saliva, with detergent and warm water.
- Children who are unwell should stay home from childcare or school.

Pregnant women particularly, should observe strict hygiene practices to avoid contact with infectious fluids—especially around young children.

- Do not place a child's dummy/pacifier into your mouth.
- Do not share a toothbrush with a young child.
- Do not share food or drinks or eating utensils with a young child.
- Avoid contact with saliva when kissing a young child.

Breastfeeding

Although CMV can be shed in breast milk, infections that occur from breastfeeding usually do not cause symptoms or disease in the infant and there are no recommendations against breast feeding. However, mothers of very premature or low birth weight infants should consult their healthcare provider about breastfeeding, as CMV infection after birth may cause illness in these babies.

Health outcome:

As cytomegalovirus is very common, it is likely that many people will be infected with the virus at some time in their life.

By adulthood, 40% or more of the adult population have been infected. Most of these infections will have been acquired in childhood and many of the children would have had no symptoms. Because most infections with CMV are not apparent, people may be infected or acquire the infection and not realise it. As the infection is never eliminated from the body, the symptoms from the virus can show years later if the person's immune system is weakened, such as those with some cancers, those undergoing cancer treatment, or people with AIDS.

The most severe form of the illness occurs in infants infected in utero, however most babies born with CMV infection grow up with normal health.

Other resources:

[Handy facts about hygiene brochure](https://www.health.qld.gov.au/__data/assets/pdf_file/0020/444314/handwash-6steps.pdf)

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[Hand Hygiene Australia – Resources for the community](http://www.hha.org.au/ForConsumers.aspx) (<http://www.hha.org.au/ForConsumers.aspx>)

[Staying Healthy: Preventing infectious diseases in early childhood education and care services](https://www.nhmrc.gov.au/guidelines-publications/ch55)

(<https://www.nhmrc.gov.au/guidelines-publications/ch55>) (5th Edition)

Help and assistance:

For further information, please contact your local doctor or call **13 HEALTH (13 43 25 84)** 24 hours a day 7 days a week for the cost of a local call.

References

Heymann, D. (2015). Control of Communicable Diseases Manual. (20th edition). Washington, DC: American

Public Health Association, pp.141-144.

Bennett, J., Dolin, R., Blaser, M., Mandell, G. & Douglas, R. (2014). Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases (8th edition). Philadelphia, PA: Elsevier/Saunders, pp. 3380-3381.

[Cytomegalovirus \(CMV\) and Congenital CMV Infection](https://www.cdc.gov/cmV/overview.html) (<https://www.cdc.gov/cmV/overview.html>) - Centers for Disease Control and Prevention