

## FACT SHEET

### Cytomegalovirus (CMV) Infection

CMV is a viral infection found universally throughout all geographic locations and socioeconomic groups and infects between 50% and 85% of adults in the United States by 40 years of age. Up to 70% of children ages 1-3 years old in childcare settings excrete CMV.

**Cause:** CMV is a member of the human herpesvirus group  
<http://www.cdc.gov/cmvi/index.html>

**Symptoms:** For most healthy persons *who acquire CMV after birth* there are few symptoms and no long-term health consequences. Some persons with symptoms experience a mononucleosis-like syndrome with prolonged fever and occasionally enlarged spleen or liver. Once a person becomes infected, the virus remains alive, but usually dormant within that person's body for life. Recurrent disease rarely occurs unless the person's immune system is suppressed due to therapeutic drugs or disease. Healthy pregnant women are not at special risk for disease from CMV infection. When infected with CMV, most women have no symptoms and very few have a disease resembling mononucleosis. During a pregnancy when a woman *who has never had CMV infection* becomes infected with CMV, there is a potential risk that after birth the infant may have CMV-related complications, the most common of which are associated with hearing loss, visual impairment, or diminished mental and motor capabilities. On the other hand, infants and children *who acquire CMV after birth* have few, if any, symptoms or complications.

**Spread:** Transmission of CMV occurs from person to person. Infection requires close, intimate contact with a person excreting the virus in their saliva, urine, or other bodily fluids. CMV can be sexually transmitted and can also be transmitted via breast milk, transplanted organs, and rarely from blood transfusions.

Although the virus is not highly contagious, it has been shown to spread in households and among young children in day care centers. Transmission of the virus is often preventable because it is most often transmitted through infected bodily fluids that come in contact with hands and then are absorbed through the nose or mouth of a susceptible person. Therefore, care should be taken when handling children and items like diapers. Simple hand washing with soap and water is effective in removing the virus from the hands.

**Incubation:** Illness following a transplant or transfusion with infected blood begins within 3-8 weeks. Infection acquired during birth is first demonstrable 3-12 weeks after delivery.

**Contagious Period:** Virus is excreted in urine and saliva for many months and may persist or be episodic for several years following primary infection. After neonatal infection, virus may be excreted for 5-6 years.

**Precautions:** Workers in hospitals, daycares and preschools (especially pregnant women in these fields) need to use strict hygiene practices, including handwashing after contact with urine or saliva. Handle diapers with gloves, wash hands before and after diaper changes and toilet care of newborns, infants and children.

**Diagnosis and Treatment:** Most infections with CMV are not diagnosed because the virus usually produces few, if any, symptoms and tends to reactivate intermittently without symptoms. However, persons who have been infected with CMV develop antibodies to the virus, and these antibodies persist in the body for the lifetime of that individual. A number of laboratory tests that detect these antibodies to CMV have been developed to determine if infection has occurred and are widely available from commercial laboratories.

Currently, no treatment exists for CMV infection in the healthy individual. Antiviral drug therapy is now being evaluated in infants. Ganciclovir treatment is used for patients with depressed immunity that have either sight-related or life-threatening illnesses. Vaccines are still in the research and development stage.

**Prevention:** Recommendations for individuals providing care for infants and children:

- Hand washing, single most effective method of prevention
- Susceptible non-pregnant women working with infants and children should not routinely be transferred to other work situations.
- Pregnant women working with infants and children should be informed of the risk of acquiring CMV infection and the possible effects on the unborn child.