

Cytomegalovirus (CMV) and Congenital CMV Infection



What is CMV?

Cytomegalovirus (CMV) is a common virus that is a member of the herpesvirus family. It is related to other herpes viruses such as those that cause chicken pox, sexually transmitted infections, and cold sores. According to the Centers for Disease Control and Prevention (CDC), over half of adults are infected with CMV by age 40. Once infected, your body retains the virus for life. Most people don't know they have CMV because it rarely causes symptoms in healthy people.

What is Congenital CMV?

When a baby is born with CMV infection, it is called congenital CMV infection. CMV is the most common congenital infection in the United States. According to the CDC, 1 in 200 babies are born each year with congenital CMV. Based on this statistic, it is estimated that approximately 115 babies born in Idaho each year may have congenital CMV infection. Of those born with congenital CMV, about 1 in 5 will develop long-term health problems due to the infection.

How is CMV spread?

CMV is generally spread from infected people to others through direct contact with body fluids such as urine, saliva, tears, blood, breast milk, semen, and vaginal fluids. For example, it can be spread during diaper changes, bathing, sharing cups or toothbrushes, or through other close contact such as kissing. The developing baby can get congenital CMV infection from the infected mother during pregnancy. Babies may also be infected by the virus during birth, as a newborn, and through breastfeeding. For healthy, full-term infants, acquiring a CMV infection after delivery (including through breastfeeding) generally does not cause any serious problems.

What are the health effects of CMV and Congenital CMV?

Most people who are infected with CMV have no signs or symptoms and suffer no harmful effects. That's because a healthy person's immune system usually keeps the virus from causing illness. However, CMV infection can cause serious health problems for people with weakened immune systems, as well as unborn babies of pregnant women who are infected with the virus.

Most babies born with congenital CMV will not show any signs of infection or suffer harmful effects. However, some babies born with congenital CMV infection may have some or all of these signs and symptoms at birth: failed hearing screening, low birth weight, small head size (microcephaly), jaundice (yellowing of the skin), seizures, lethargy (tiredness), enlargement of the liver and spleen, eye problems, brain imaging abnormalities, and rash. Children with congenital CMV infection are more likely to develop permanent disabilities in their first few years of life if they have symptoms of this infection at birth. These disabilities may include hearing loss, vision loss, mental disability, lack of coordination, seizures, and death (in rare cases). Some babies without symptoms of congenital CMV infection at birth may later develop hearing loss.

What can be done to reduce the likelihood of getting CMV?

While you cannot completely eliminate all risks of catching CMV, there are measures that can be taken to reduce your chances of getting it. If you are pregnant or planning to become pregnant, the best way to protect your baby from congenital CMV is to protect yourself.

- Wash your hands often with soap and water for 15-20 seconds, especially after changing diapers, feeding a young child, wiping a young child's nose or drool, and handling children's toys.
- Wear gloves when changing diapers or touching bodily fluids such as urine, vomit, or saliva.
- Don't share food, drinks, eating utensils, or a toothbrush with a child.
- Do not put a child's pacifier in your mouth.
- Use soap and water or a disinfectant to clean toys, countertops, or other surfaces that may have a child's saliva or urine on them.
- Avoid contact with a child's saliva when kissing or snuggling.

Anyone who works closely with children in settings such as child care facilities and church nurseries may be at greater risk of CMV infection as CMV is common in these settings. Young children tend to shed the virus in high amounts in saliva and urine, even if they themselves have no signs of infection. If you are pregnant and work in these settings, reduce your risk of getting CMV by following the above steps.

Because CMV is a very common virus and is widespread in the community, children and adults known to have CMV should not be excluded from attending or working in child care settings or schools. To lessen the chance of infection, good personal hygiene is needed at all times.

Is there a vaccine for CMV?

A few CMV vaccines are being tested in humans, but there is currently no approved vaccine available to prevent CMV. The Institute of Medicine has prioritized the development of a CMV vaccine; however, it may be a number of years before a vaccine is approved by the Food and Drug Administration (FDA).

Is there a test for CMV a woman should have if she is pregnant?

The CDC does not recommend routine screening for CMV infection during pregnancy. However, a pregnant woman or a woman who is considering pregnancy should talk to her doctor if she is concerned about CMV infection, takes care of infants or young children, or handles urine or saliva in any home or work setting. A pregnant woman should consult with her doctor if she experiences illness such as a fever, swollen glands, stiff joints, and muscle aches.



Is there treatment for CMV infection during pregnancy or for Congenital CMV?

Generally, pregnant women with CMV infection are treated only for their symptoms (e.g., acetaminophen for fever) and not for the virus itself. Antiviral medications currently available for CMV infection have serious side effects, are not approved for use in pregnant women, and have not been shown to prevent CMV infection in the fetus.

Babies with suspected congenital CMV infections should be evaluated by physicians who specialize in these infections to discuss the care and additional services the child may need. Babies with congenital CMV infection, with or without signs at birth, should have regular hearing checks and should be watched closely for normal growth and development. In addition, there are interventions available such as speech therapy, hearing aids, cochlear implants (for severe hearing loss), and physical therapy to assist children who have problems from CMV infection.

Studies are on-going to determine what types of therapy and treatment are of greatest benefit to pregnant women and CMV-infected babies.

Where can I get more information?

If you have concerns about CMV infection or are pregnant or planning a pregnancy, talk with your health care provider.

Additional CMV Resources

1. Centers for Disease Control and Prevention - www.cdc.gov/cmvr/references-resources.html
2. Congenital Cytomegalovirus Foundation - www.congenitalcmv.org/public.htm
3. Idaho Sound Beginnings (early hearing detection and intervention) - <http://healthandwelfare.idaho.gov/Children/InfantToddlerProgram/IdahoSoundBeginnings/tabid/2489/Default.aspx>
4. Idaho CMV Advocacy Project - www.idahocmv.com
5. Idaho Department of Health & Welfare/ Cytomegalovirus - cmv.dhw.idaho.gov

