



Fact Sheet

Spotlight on Cytomegalovirus (CMV)

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What is Cytomegalovirus (CMV)? CMV is a common virus that infects most people at some time during their lives, but rarely causes an obvious illness. CMV is a member of the herpes virus family. CMV infection can become dormant for a while and then may reactivate at a later time. The virus is carried by people and is not associated with food, water, or animals.

Who Can Contract CMV? Anyone can become infected with CMV. Almost all people have been exposed to CMV by the time they reach adulthood.

How is CMV Spread? Although the virus is not highly communicable, it can be spread from person-to-person by direct contact. The virus is primarily shed in the urine, saliva, semen and, to a lesser extent, in other body fluids. Transmission can also occur from an infected mother to her fetus or newborn and by blood transfusion and/or organ transplants.

What are the Symptoms of CMV Infection? Most children and adults who are infected with CMV do not develop symptoms. Those who develop symptoms may experience an illness resembling infectious mononucleosis and have fever, swollen glands and feel tired. People with a compromised immune system may experience more serious illness involving fever, pneumonia and other symptoms.

How Soon After Exposure do Symptoms Appear? Although most people never develop symptoms after exposure, the incubation period appears to be between three and 12 weeks.

How Long can an Infected Person Carry CMV? CMV remains in the body throughout a lifetime. Infected people may occasionally shed the virus in urine or saliva. Research studies have found that from three to 11 percent of normal adults and up to 50 percent of healthy children shed the virus in either urine or saliva. The virus rapidly dies once outside the body.

How is CMV Diagnosed? There are special laboratory tests to culture the virus, but such testing is difficult, expensive, and not widely available. Specific blood tests can be helpful to the physician in making a diagnosis or determining if a person has been exposed but the results are sometimes inaccurate.

What Is The Treatment For CMV Infection? In most cases, there is no treatment. An effective vaccine has not yet been developed.

Is CMV Infection Very Serious in Infants? If a mother gets a CMV infection for the first time in her life while pregnant, it can be passed to the fetus during birth. Most pregnant women will not have any symptoms, and those that do have symptoms experience something similar to mononucleosis. According to the Centers for Disease Control and Prevention (CDC), only a small percentage (1% to 4%) of uninfected pregnant women will become infected with CMV.

CMV is the most common viral infection that infants are born with in the United States. About one in 150 children are born with congenital (present at birth) CMV infection. In the United States, about 30,000 children are born with congenital CMV infection each year. About ten percent of congenitally infected babies will have symptoms at birth (symptomatic) and ninety percent will be "silently" infected, without symptoms (asymptomatic). If there are symptoms, they usually include jaundice or an enlarged liver or spleen.

Children born with either type of congenital CMV infection may have long-term problems, including hearing loss, developmental and motor disabilities, and eye disease. In the United States, more than 5,000 children each year have permanent problems caused by CMV infection. As the baby grows, the damage caused by the CMV becomes evident – learning and physical disabilities (including sensory loss) appear.

What Types of Vision Problems Are Associated with Children Born with a CMV Infection? Eye involvement occurs in only 10 to 20 percent of symptomatic infants and in one to two percent of asymptomatic infants. In one study, the cause of the vision loss included retinitis (inflammation on the back of the eye or retina) with macular scars (scars on the vision portion of the back of the eye), cortical vision loss (inability of the brain to decode or interpret vision signs received from the eyes), optic atrophy (abnormal optic nerve in the back of the eye), and/or strabismus (eyes turn in or turn out).

What Types of Hearing Problems Are Associated with Children Born with a CMV Infection? A substantial percentage of symptomatic newborns and a smaller percentage of nonsymptomatic newborns will develop a sensorineural hearing loss, which usually is progressive hearing loss. The child may present with either a unilateral (one ear) or bilateral (both ears) hearing loss.

What Types of Medical Treatment Is Important for a Child Born with a CMV Infection?

All children born with congenital CMV infection should have a comprehensive eye examination in the newborn period. Careful follow-up is recommended for all those who have abnormalities as infants, or at any time the child experiences symptoms of concern, such as inability to move the eyes in all directions, vision loss, eye pain, or other concerns about vision or the eye that may occur.

Due to the high risk for progressive hearing loss, an annual audiology evaluation is recommended annually is recommended to monitor changes in hearing. Early detection of hearing loss and proper intervention improves a child's ability to keep pace with developmental milestones, especially language development. Children with a significant hearing loss may benefit from hearing aids or other listening devices.

Should an Infected Child Be Excluded from School or Daycare? Experts note there is no reason to exclude children who have CMV.

What precautions should pregnant women take when performing patient care or child care? Pregnant women should practice good hygiene and carefully wash their hands after caring for patients or children. This is particularly important when handling diapers or having contact with the child's urine or saliva. Pregnant women working in child care facilities should minimize direct exposure to saliva and avoid kissing babies or young children on the mouth. Hugging is fine and is not a risk factor.

What can be done to prevent the spread of CMV? Good hand washing is the best preventive measure. Plastic disposable gloves should be worn when handling linen or underclothes soiled with feces or urine.

Resources

National Congenital CMV Disease Registry - Parent-to-Parent Support Network: The National Congenital CMV Disease Registry assists families affected by CMV by providing a way to exchange information and by offering help and support to one another

http://www.bcm.edu/pediatrics/index.cfm?Realm=99991126&This_Template=p-to-p

References:

Congenital CMV Disease: Effects on Vision, Vol. 8, No. 1 – Retrieved at:

<http://www.congenitalcmv.org/effectsvision.pdf>

CMV Fact Sheet – Retrieved from:

http://www.health.state.ny.us/diseases/communicable/cytomegalovirus/fact_sheet.htm

For more information about the Colorado Services for Children and Youth with Combined Vision and Hearing Loss Project contact:

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Fact Sheets from the Colorado Services to Children and Youth with Combined Vision and Hearing Loss Project are to be used by both families and professionals serving individuals with vision and hearing loss. The information applies to children, birth through 21 years of age. The purpose of the Fact Sheet is to give general information on a specific topic. More specific information for an individual student can be provided through personalized technical assistance available from the project. For more information call (303) 866-6681 or (303) 866-6605. Updated: 3/11