

CMV (Cytomegalovirus)

CMV is a virus that is generally harmless to most people but can cause severe disease in certain individuals. Over half of adults have been infected with CMV by age 40, however, most people with CMV infection have no symptoms and are unaware that they have been infected. CMV is a member of the herpes group of viruses, which stays in your body for life and can reactivate at any time. CMV is the most common infectious cause of birth defects in the United States. In severe cases, CMV can cause mononucleosis, with prolonged fever and mild hepatitis.

Transmission

People can spread the disease when the virus is in body secretions. The virus stays in an infected person's body for life and can reactivate. Because this virus is common in child care settings, excluding infected children from the child care won't reduce the spread of the disease.

- **Person to person** through direct contact with infected secretions and urine. Including:
 - **Mother to infant** before, during, and following birth and from breast milk to nursing infants.
 - **Blood transfusions** from an infected person.
 - **Organ or stem cell transplant.**

Risk factors for CMV include:

- **Babies born to women infected with CMV (Congenital CMV Infection).** About one in five babies with congenital CMV may have symptoms or long-term health problems.
- **People on certain drugs or medicines** such as chemotherapy or organ transplant medicines. If infected, these people may get a more serious illness.
- **People who cannot fight infection** (those with immune deficiency diseases such as HIV or AIDS) also may develop serious illnesses.

Symptoms

Most adults and children infected with CMV have no symptoms and are not harmed by the virus. Symptoms may include:

- **Fever**
- **Sore throat**
- **Fatigue**
- **Swollen glands**

It is unknown how long it takes for someone infected with CMV to develop symptoms. Infection after a blood transfusion or organ transplantation may develop symptoms within three to eight weeks. Transmission from mother to infant or from breast milk may result in symptoms within three to 12 weeks

Diagnosis

Laboratory tests can be ordered to diagnose CMV in a person with symptoms. Blood tests can be done to see if the person was infected with CMV in the past. Tests of saliva or urine are preferred for newborns.

Treatment

Antivirals are available but do not eliminate CMV from the body. For babies with signs of congenital CMV infection at birth, antiviral medications (primarily valganciclovir) might improve hearing and developmental outcomes.

Prevention

- **Wash your hands often**, especially after changing diapers or after contact with urine.
- **Medication is available for exposed individuals with high-risk conditions**, including certain organ transplant recipients.
- **Exposed high-risk individuals should contact their health care provider.**
- **Everyone should practice respiratory precautions**, such as covering coughs and sneezes, throwing tissues in the trash, and frequent hand washing.

For more information about the treatment of CMV contact your health care provider or visit https://www.cdc.gov/cytomegalovirus/about/?CDC_AAref_Val=https://www.cdc.gov/cmV/overview.html.

Pregnancy and CMV

If you are pregnant and get infected with CMV, you can pass the virus to your baby during pregnancy. This can happen when you are infected with CMV for the first time or again during pregnancy. It is not recommended that doctors routinely test pregnant women for CMV infection. You may be able to lessen your risk of getting CMV by:

- **Reducing contact with saliva and urine** from babies and young children.
- **Not sharing food, utensils, or cups** with a child.
- **Washing your hands after** changing diapers.

Exclusion Guidance

People should not be excluded from child care, school, work, or other activities unless the [general exclusions apply](#). All others can attend work and other functions as long as they are well enough to do so and are able to practice good hand washing and respiratory etiquette.

For additional information about CMV, contact the North Dakota Department of Health and Human Services', Public Health Division, at 800.472.2180.

Resources:

1. Kimberlin, D. W., Barnett, E. D., Lynfield, R., Sawyer, M. H. (2021) Red Book: 2021-2024 Report of the Committee on Infectious Diseases. 32nd ed. American Academy of Pediatrics. [Management and Prevention of Infectious Diseases] [pages 116, 122-123].
2. Centers for Disease Control and Prevention. (2020, August 18). *CDC - cmv*. Centers for Disease Control and Prevention. Retrieved May 12, 2023, from https://www.cdc.gov/cytomegalovirus/about/?CDC_AAref_Val=https://www.cdc.gov/cmV/overview.html.
3. Centers for Disease Control and Prevention. (2020, August 18). *CDC – cmv- congenital infection*. Centers for Disease Control and Prevention. Retrieved May 12, 2023, from https://www.cdc.gov/cytomegalovirus/congenital-infection/?CDC_AAref_Val=https://www.cdc.gov/cmV/congenital-infection.html.

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