About Cytomegalovirus

JAN. 17, 2025

KEY POINTS

- Cytomegalovirus (pronounced sy-toe-MEG-a-low-vy-rus or CMV) is a common virus found in people of all ages.
- A healthy person's immune system usually keeps the virus from causing illness.
- Some babies born with CMV can have health problems at birth or that develop later.

What it is

CMV is a common virus that infects people of all ages. In the United States, nearly 1 in 3 children is already infected with CMV by age 5. Over half of adults have been infected with CMV by age 40.

Once CMV is in a person's body, it stays there for life and can reactivate. A person can also be re-infected with a different strain of the virus.

Signs and symptoms

Most people with CMV show no signs or symptoms and aren't aware that they have been infected.

In healthy people

Sometimes, infection in healthy people can cause mild illness like:

- Fever
- Sore throat
- Fatigue
- Swollen glands

Occasionally, CMV can cause mononucleosis or hepatitis (liver problems).

In people with weakened immunity

If you have a weakened immune system and get CMV, you can have more serious symptoms affecting the eyes; lungs; liver; esophagus; stomach; and intestines.

In babies

Babies born with CMV can have brain, liver, spleen, lung, and growth problems. The most common long-term health problem in babies born with CMV infection is hearing loss. This may be detected soon after birth or may develop later in childhood.

Who is at risk

Anyone can get CMV. Some people are at higher risk for complications from CMV, like those who are pregnant or have weakened immune systems.

If you are pregnant and infected with CMV, you can pass CMV to your developing baby. When a baby is born with a CMV infection, it is called congenital CMV.

About 1 in 200 babies is born with congenital CMV infection. About 1 in 5 babies with congenital CMV infection will have birth defects or other long-term health problems.

CMV is most common infectious cause of birth defects in the US.

KEEP READING
CMV in Newborns

How it spreads

Children are a common source of CMV

The virus can stay in a child's body fluids for months after the infection. People who are often around young children are more likely to get infected.

People with CMV can pass the virus through body fluids, such as saliva, urine, blood, tears, semen, and breast milk.

An infected person can spread CMV:

- From direct contact with saliva or urine, especially from babies and young children
- Through sexual contact
- From breast milk to nursing infants
- Through transplanted organs and blood transfusions
- During pregnancy

Prevention

You can lower your chances of getting CMV by reducing contact with saliva (spit) and urine from babies and young children. Make sure you:

- Do not share food, utensils, cups, or pacifiers with a child.
- Wash your hands with soap and water after changing diapers or helping a child to use the toilet.

Testing and diagnosis

Healthcare providers can order blood tests to identify CMV infection in adults who have symptoms. However, blood is not the best fluid to test newborns with suspected CMV infection.

Saliva or urine tests are preferred for newborns. These tests must be done **within 2 to 3 weeks** of birth to confirm if the baby has congenital CMV.

PUBLIC HEALTH
Laboratory Testing for CMV and Congenital CMV

Treatment and recovery

Healthy people who are infected with CMV usually do not require medical treatment.

Medications called antivirals are available to treat:

- CMV infection in people who have weakened immune systems.
- Babies with signs of congenital CMV at birth.

Valganciclovir is an antiviral that might improve hearing and developmental outcomes in babies. It can have serious side effects and has only been studied in babies with signs of congenital CMV infection. There is limited information on the effectiveness of valganciclovir to treat infants with hearing loss alone.

Hearing checks and therapies can help

Children with congenital CMV should have regular hearing and vision checks. There are other services a child may need to help them develop strong language and communications skills.

CMV in newborns

What CDC is doing

CDC aims to reduce the burden of congenital CMV. We work closely with national experts to conduct research and increase awareness of CMV among the public and healthcare providers.

Specific activities include:

Research

- Evaluating the various laboratory tests for newborn screening for CMV.
- Determining the most effective screening approaches to identify babies with congenital CMV.
- Characterizing the impact of the disease in various populations.
- Assessing the long-term outcomes of children with congenital CMV.

Education

- Updating our CMV website to include the latest information about congenital CMV.
- Developing and disseminating communication resources to educate pregnant women, parents, and healthcare providers about congenital CMV.
- Working with partners to ensure our messages about congenital CMV reach healthcare providers, pregnant women, and parents of children born with congenital CMV.
- Promoting National CMV Awareness Month in June.

National CMV Awareness Month

In 2011, Congress passed a resolution naming June "National CMV Awareness Month," to raise awareness about the most common infectious cause of birth defects. During this time, CDC offers resources to increase understanding of CMV and congenital CMV among healthcare providers, pregnant women, and parents.

About 1 out of every 200 babies is born with congenital CMV infection.

Resources

- About Hearing Loss in Children
- Reducing Risks of Birth Defects | ACOG
- National CMV Foundation

Parent to Parent Support Network

The National Congenital CMV Disease Registry assists nearly 600 families affected by CMV by providing a way to exchange information and by offering help and support to one another.

Get involved

SOURCES

CONTENT SOURCE:
National Center for Immunization and Respiratory Diseases; Division of Viral Diseases