urHealth

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Your Health & Beauty

Cytomegalovirus (CMV)

Nu Mu Lambda...

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Cytomegalovirus (CMV) Infection

Cytomegalovirus (CMV) is a common virus that can infect almost anyone. Once infected, your body retains the virus for life. Most people don't know they have CMV because it rarely causes problems in healthy people.

But if you're pregnant or have a weakened immune system, CMV is cause for concern. A woman who develops an active CMV infection during pregnancy can pass the virus to her baby, who might then experience signs and symptoms. For people with compromised immunity, especially due to organ transplantation, CMV infection can be fatal.

CMV spreads from person to person through body fluids, such as blood, saliva, urine, semen and breast milk. There's no cure for the virus. However, medications can help treat newborns and people with weak immune systems.

Symptoms

Most people infected with CMV who are otherwise healthy experience few if any signs and symptoms. People at greater risk of signs and symptoms of CMV include:

- Newborns infected with CMV before birth (congenital CMV).
- Infants who become infected during birth or shortly afterward (perinatal CMV). This group includes babies infected through breast milk.
- People with weakened immune systems, for example due to organ transplant or HIV infection.

Babies

Most babies with congenital CMV appear healthy at birth. A few babies with congenital CMV who appear healthy at birth can develop signs over time — sometimes not for months or years after birth. The most common of these late-occurring signs are hearing loss and developmental delay. A small number of babies may also develop vision problems.

Babies with congenital CMV who are sick at birth tend to have significant signs and symptoms, including:

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- Premature birth
- Low birth weight
- Yellow skin and eyes (jaundice)
- Enlarged and poorly functioning liver
- Purple skin splotches or a rash or both
- Abnormally small head (microencephaly)
- Enlarged spleen
- Pneumonia
- Seizures

People with weakened immunity

If your immune system is weakened, you might experience more-serious signs and symptoms affecting your:

- Eyes
- Lungs
- Liver
- Esophagus
- Stomach
- Intestines
- Brain

Otherwise healthy adults

Most people infected with CMV who are otherwise healthy experience few if any signs or symptoms. When first infected, some adults may have symptoms similar to infectious mononucleosis, including:

- Fatigue
- Fever
- Sore throat
- Muscle aches

CMV mononucleosis is less likely than infectious mononucleosis to cause enlarged lymph nodes and spleen.

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When to see a doctor

See your doctor if:

- You have a weakened immune system and you're experiencing signs or symptoms of CMV infection. CMV infection in people with compromised immunity can be serious or even fatal. People who have undergone stem cell or organ transplants seem to be at greatest risk.

- You develop a mononucleosis-like illness while you're pregnant so that you can be evaluated for CMV infection.

If you have CMV but are otherwise healthy, and you're experiencing any mild, generalized illness, you could be in a reactivation period. Practical self-care, such as getting plenty of rest, should be enough for your body to control the infection.

When your child should see a doctor

If you know you were infected with CMV during your pregnancy, tell your baby's doctor. The doctor should regularly assess your baby for hearing or vision problems.

Causes

CMV is related to the viruses that cause chickenpox, herpes simplex and mononucleosis. CMV may cycle through periods when it lies dormant and then reactivates. If you're healthy, CMV mainly stays dormant.

During activation you can pass the virus to other people. Casual contact doesn't transmit CMV. The virus is spread through body fluids — including blood, urine, saliva, breast milk, tears, semen and vaginal fluids.

Transmission might occur through:

- Touching your eyes or the inside of your nose or mouth after coming into contact with the body fluids of an infected person.

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- Sexual contact with an infected person.

- The breast milk of an infected mother.
- Organ transplantation or blood transfusions.
- Birth. An infected mother can pass the virus to her baby before or during birth. The risk of virus transmission to your baby is higher if it's the first time you've had the infection rather than a reactivated infection.

Risk factors

CMV is a widespread and common virus that can infect almost anyone. Most healthy children and adults who contract the virus have few if any symptoms, so CMV often goes undiagnosed.

Complications

Complications of CMV infection vary, depending on your overall health and when you were infected.

Otherwise healthy adults

Rarely, CMV causes a healthy adult to develop mononucleosis. Other rare complications for healthy adults include problems with the digestive system, liver, brain and nervous system.

People with weakened immunity

Complications of CMV infection can include:

- Vision loss, due to inflammation of the light-sensing layer of the eye (retinitis)
- Digestive system problems, including inflammation of the colon (colitis), esophagus (esophagitis) and liver (hepatitis)

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- Nervous system problems, including brain inflammation (encephalitis)
- Pneumonia

Infants with congenital CMV

Complications are more likely to develop if the infant's mother had a primary CMV infection during pregnancy, rather than a reactivated infection. Complications for the baby can include:

- Hearing loss
- Intellectual disability
- Vision problems
- Seizures
- Lack of coordination
- Weakness or problems using muscles

Prevention

Careful hygiene is the best prevention against CMV. You can take these precautions:

- **Wash your hands often**. Use soap and water for 15 to 20 seconds, especially if you have contact with young children or their diapers, drool or other oral secretions. This is especially important if the children attend child care.
- **Avoid contact with tears and saliva when you kiss a child**. Instead of kissing a child on the lips, for instance, kiss on the forehead. This is especially important if you're pregnant.
- **Avoid sharing food or drinking out of the same glass as others**. Sharing glasses and kitchen utensils can spread the CMV virus.
- **Be careful with disposable items**. When disposing of diapers, tissues and other items that have been contaminated with bodily fluids, be careful not to touch your hands to your face until after thoroughly washing your hands.

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- Clean toys and countertops. Clean any surfaces that come in contact with children's urine or saliva.

- Practice safe sex. Wear a condom during sexual contact to prevent spreading the CMV virus through semen and vaginal fluids.

If you have a compromised immune system, you may benefit from taking antiviral medication to prevent CMV disease.

Experimental vaccines are being tested for women of childbearing age. These vaccines may be useful in preventing CMV infection in mothers and infants, and reducing the chance that babies born to women who are infected while pregnant will develop disabilities.

Diagnosis

Laboratory tests — including tests of blood and other body fluids or tests of tissue samples — can detect CMV virus.

Screening and testing for your baby

If you're pregnant, testing to determine whether you've ever been infected with CMV can be important. Pregnant women with antibodies have a very small chance of a reactivation infecting their unborn child.

If your doctor detects a new CMV infection during pregnancy, a prenatal test (amniocentesis) can determine if the fetus has the infection. In amniocentesis your doctor obtains and examines a sample of amniotic fluid. Amniocentesis is generally recommended when abnormalities that might be caused by CMV are seen on ultrasound.

If your doctor suspects your baby has congenital CMV, it's important to test the baby within the first three weeks of birth. After that, tests can't show your baby has congenital CMV because the baby might have contracted the infection by nursing or exposure to other people with the virus. If your baby has CMV, your doctor likely will recommend additional tests to check the health of the baby's organs, such as the liver and kidneys.

Screening and testing if you have weakened immunity

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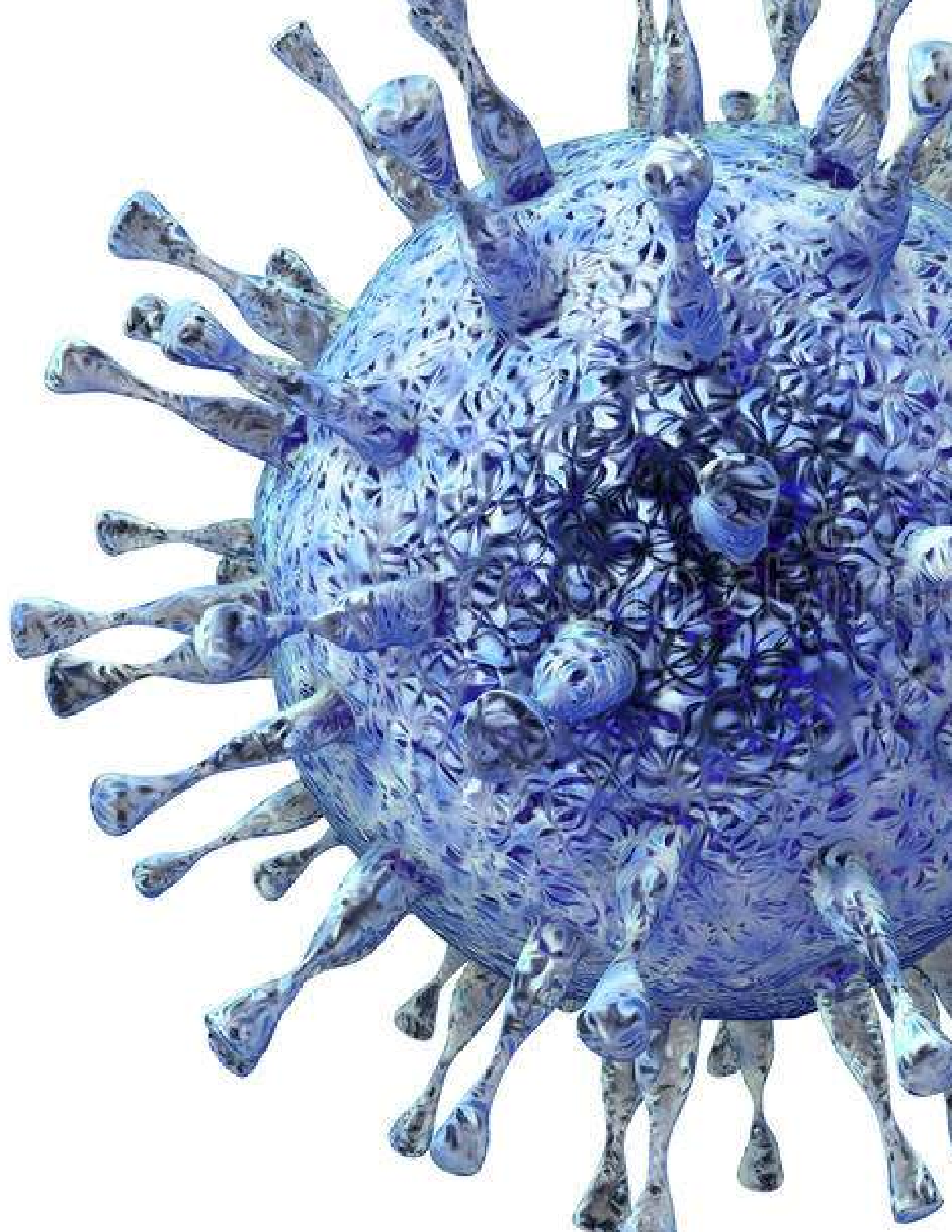

Testing for CMV can also be important if you have a weakened immune system. For example, if you have HIV or AIDS, carrying the CMV virus means you'll need regular monitoring for complications of CMV, such as vision and hearing problems.

Treatment

Treatment generally isn't necessary for healthy children and adults. Healthy adults who develop CMV mononucleosis generally recover without medication.

But newborns and people with compromised immune systems need treatment when they're having signs and symptoms of CMV infection. The type of treatment depends on the signs and symptoms and their severity.

The most common treatment is antiviral medications. They can slow reproduction of the virus, but can't eliminate it. Researchers are studying new medications and vaccines to treat and prevent CMV.

Preparing for your appointment

Before your appointment take these steps:

Write down any signs and symptoms you or your child is experiencing. Include signs and symptoms even if they seem minor, such as low-grade fever or fatigue.

Write down questions to ask your doctor. Your time with your doctor is limited, so it can be useful to prepare a list of questions.

For CMV, questions to ask your doctor include:

- What is likely causing my symptoms?
- What tests do I need?
- Is my condition likely temporary or chronic?
- What is the best course of action?
- Will I infect others?
- Are there any restrictions I need to follow?
- I have other health conditions. How can I best manage them together?

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What to expect from your doctor

Your doctor will likely ask you a number of questions, including:

- How long have you had your symptoms?
- Do you work or live with young children?
- Have you had a blood transfusion or organ transplant recently?
- Do you have a medical condition that compromises your immune system, such as HIV or AIDS?
- Are you receiving chemotherapy?
- Do you practice safe sex?
- Are you pregnant or breast-feeding?

In addition, if you think you have been exposed during pregnancy:

- When do you think you may have been exposed?
- Have you had symptoms of the condition?
- Have you been tested for CMV before?

Sources: Bennett JE, et al., eds. Cytomegalovirus (CMV). In: Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. 8th ed. Philadelphia, Pa.: Saunders Elsevier; 2015. https://clinicalkey.com. Accessed September 2018; Goldman L, et al., eds. Cytomegalovirus. In: Goldman-Cecil Medicine. 25th ed. Philadelphia, Pa.: Saunders Elsevier; 2016. http://www.clinicalkey.com. Accessed September 2018; Friel TJ. Epidemiology, clinical manifestations, and treatment of cytomegalovirus in immunocompetent adults. http://www.uptodate.com/home. Accessed September 2018; Kliegman RM, et al. Cytomegalovirus. In: Nelson Textbook of Pediatrics. 20th ed. Philadelphia, Pa.: Elsevier; 2016. http://clinicalkey.com. Accessed September 2018; Bialas KM, et al. Perinatal cytomegalovirus and varicella zoster virus infections: Epidemiology, prevention, and treatment. Clinics in Perinatology. 2015;42:61; Demmler-Harrison GJ. Congenital cytomegalovirus infection: Clinical features and diagnosis. http://www.uptodate.com/home. Accessed September 2018; Cytomegalovirus (CMV) and congenital CMV infection: Babies born with CMV (congenital CMV infection). Centers for Disease Control and Prevention. https://www.cdc.gov/cmv/congenital-infection.html. Accessed September 2018; Cytomegalovirus (CMV) and congenital CMV infection: About CMV. Centers for Disease Control and Prevention. http://www.cdc.gov/cmv/overview.html. Accessed September 2018; Sheffield JS, et al. Cytomegalovirus infection in pregnancy. http://www.uptodate.com/home. Accessed September 2018; Feldman DM, et al. Toxoplasmosis, parvovirus, and cytomegalovirus in pregnancy. Clinics in Laboratory Medicine. 2016;36:407; Caliendo AM. Approach to the diagnosis of cytomegalovirus. http://www.uptodate.com/home. Accessed September 2018; Demmler-Harrison GJ. Congenital cytomegalovirus infection: Management and outcomes. http://www.uptodate.com/home. Accessed September 2018.

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