

Cytomegalovirus (CMV) in Newborns



What is CMV in newborns?

CMV (cytomegalovirus) is a type of herpes virus. It's very common. It affects people of all ages and in all parts of the U.S. In most cases, CMV causes mild symptoms, or no symptoms at all. But it can cause serious problems in an unborn baby or newborn.

What causes CMV in newborns?

CMV is a virus that spreads from a person with the virus to someone else. The virus can spread:

- To the unborn baby from the mother during pregnancy (congenital CMV)
- To the newborn from the mother during delivery or through breastmilk (perinatal CMV)
- In households with young children and in daycare centers
- By contact with infected saliva, urine, vaginal fluid, or semen

What are the symptoms of CMV in newborns?

Congenital CMV

Most babies with CMV that is present at birth (congenital CMV) don't have symptoms. If present, symptoms may include:

- Hearing loss (this may be found during regular newborn hearing screening)
- Small size, including small head size
- Enlarged liver and spleen
- Yellow color to skin (jaundice)
- Small broken blood vessels under the skin
- Eye problems

Perinatal CMV

Babies with CMV that is passed along during birth or through breastmilk (perinatal CMV) may not have symptoms. Signs and symptoms are usually seen only in very premature or sick newborns between 3 weeks and 6 months of age. They may include:

- Abnormal blood test results. For example, the results may show low platelet levels, low white blood cell counts, or abnormal liver function.
- Enlarged liver and spleen
- Swelling (inflammation) of the lungs (pneumonitis)

The symptoms of CMV may look like other health conditions. Talk with your baby's healthcare provider if you think your baby may have CMV infection.

How is CMV in newborns diagnosed?

Most CMV infections in the mother are not diagnosed because the virus causes few symptoms. Tests for diagnosis include:

- In the fetus, amniotic fluid or fetal blood may be checked for CMV.
- In the newborn within 3 weeks from birth, urine and saliva lab studies may find CMV.

Other tests may include:

- Blood tests, including complete blood count, liver function tests, and tests that can find the virus in the blood or signs of past infection in the blood
- Imaging of the brain
- Hearing exams
- Eye exams

How is CMV in newborns treated?

Treatment will depend on your child's symptoms, age, and general health. It will also depend on how severe the condition is. Treatment is not always recommended for healthy newborns with no symptoms. The type and length of treatment depends on symptoms and risk factors in the baby.

Treatment with medicine that works against the virus (ganciclovir or valganciclovir) is recommended for some babies with CMV. Babies may get this treatment if they have the following:

- Swelling of the lungs
- Very low platelet counts
- Eye problems that may lead to vision loss
- Immunodeficiency
- Hearing loss
- Any other infection with symptoms

What are possible complications of CMV in newborns?

Possible complications of CMV may include:

- Nervous system problems, like seizures
- Problems with growth and development
- Feeding problems
- Vision and hearing loss
- Dental problems
- Learning or behavior problems
- Neuromuscular disabilities

What can I do to prevent CMV in my child?

Because it is so common, it's hard to prevent a CMV infection. These measures may help to prevent CMV infection, especially in pregnant women:

- Wash hands with soap and water, especially after changing diapers, feeding children, wiping a child's nose or mouth, or touching toys.
- Don't kiss young children on the mouth.
- Don't share forks, spoons, cups, or food with young children.

Key points about CMV in newborns

- CMV can be passed to an unborn baby during pregnancy. It can be passed to a newborn during delivery or in breastmilk.
- Most babies with congenital CMV have no symptoms.
- CMV can cause serious problems in the unborn baby and newborn.
- Some newborns with CMV may be treated with antiviral medicine.
- Washing hands with soap and water works well to remove the virus from the hands to prevent spreading CMV.

Next steps

Tips to help you get the most from a visit to your child's healthcare provider:

- Know the reason for the visit and what you want to happen.
- Before your visit, write down questions you want answered.
- At the visit, write down the name of a new diagnosis and any new medicines, treatments, or tests. Also write down any new instructions your provider gives you for your child.
- Know why a new medicine or treatment is prescribed and how it will help your child. Also know what the side effects are.
- Ask if your child's condition can be treated in other ways.
- Know why a test or procedure is recommended and what the results could mean.
- Know what to expect if your child does not take the medicine or have the test or procedure.
- If your child has a follow-up appointment, write down the date, time, and purpose for that visit.
- Know how you can contact your child's provider after office hours.

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