



# Etiologies of Deafblindness: Cytomegalovirus (CMV)

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## What is cytomegalovirus?

Cytomegalovirus (CMV) is one of a group of viruses which includes the herpes simplex viruses, varicella-zoster virus (chickenpox and shingles causing virus), and Epstein-Barr virus (which causes mono). These viruses are referred to collectively as the herpesviruses. CMV is usually harmless, and once initial infection occurs the virus can remain dormant in the infected person's body for life. Somewhere between 50-80 adults out of every 100 in the United States are infected with CMV by the time they turn 40. Most infected adults do not become symptomatic, and most will go their entire lives never knowing that they have the CMV infection.

## Transmission

CMV is often transmitted from infected people to non-infected people through direct contact with body fluids, such as urine, saliva, breast milk, or through reproductive secretions. CMV may also be spread through transplanted organs and blood transfusions.

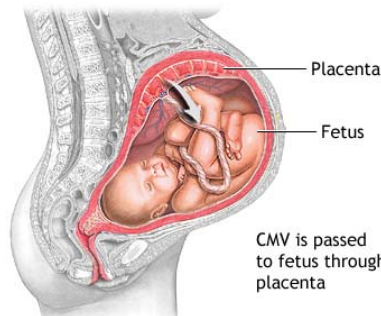
## Congenital CMV

Prenatal exposure to CMV can result in significant consequences for the infected child (referred to as congenital CMV infection). **Congenital cytomegalovirus** refers to transmission of CMV from an infected pregnant mother to the fetus, through the placenta. Because CMV can be dormant in a human carrier, the mother may not know she has the infection. Current statistics indicate that 1 in every 150 children are born with congenital CMV infection, however only about 1 of every 5 children born with congenital CMV infection will develop permanent issues related to the infection (such as hearing loss or developmental disabilities) due to the infection.

## Signs of CMV that may be present at birth:

- premature birth
- liver problems
- lung problems
- spleen problems
- small size at birth
- small head size
- seizures
- inflammation of the retina
- jaundice
- mineral deposits in the brain
- rash (petechiae)

Taken from <http://www.cdc.gov/cmvi/index.html>



## Permanent health problems/disabilities associated with congenital CMV infection:

- hearing loss
- vision loss
- intellectual disability
- small head size
- lack of coordination
- seizures
- death (in rare cases only)

Taken from <http://www.cdc.gov/cmvi/index.html>

Newborn children with CMV may not immediately appear to have symptoms, but this does not indicate that they never will. Children born with CMV can develop hearing and vision problems over time and should therefore be screened

regularly. While children born with CMV infection can develop health problems and disabling conditions up to two years after birth, it is more common for the CMV infection to remain dormant. Currently 80% of children with congenital CMV never develop symptoms.

## Preventing Congenital CMV

Here are a few simple steps that pregnant women can take to avoid exposure to saliva and urine that might contain CMV:

- Wash your hands often with soap and water for 15-20 seconds, especially after:
  - \* changing diapers
  - \* feeding a young child
  - \* wiping a young child's nose or drool
  - \* handling children's toys
- Do not share food, drinks, or eating utensils used by young children
- Do not put a child's pacifier in your mouth
- Do not share a toothbrush with a young child
- Avoid contact with saliva when kissing a child
- Clean toys, countertops, and other surfaces that come into contact with children's urine or saliva

Taken from <http://www.cdc.gov/cmvi/index.html>

## References:

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- MedlinePlus (2013). *Congenital cytomegalovirus*. Retrieved on July 25, 2013 from, <http://www.nlm.nih.gov/medlineplus/ency/article/001343.htm>
- Pregnancy image retrieved on July 25, 2013 from, <http://www.nlm.nih.gov/medlineplus/ency/imagepages/17144.htm>



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Page 1 of 1

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