



CYTOMEGALOVIRUS (CMV)



DESCRIPTION

CMV is a virus in the herpes family and is transmitted through bodily fluids. Toddlers and young children are the most frequent source on infection. Infected people may present with flu-like symptoms but most are asymptomatic.

SIGNIFICANCE IN PREGNANCY

CMV can cross the placenta during pregnancy, be transmitted during birth, or during lactation and potentially affect the baby. Early exposure in pregnancy can result in psychological difficulties in the baby, hearing loss, cerebral palsy, and a few other infections that may present after birth. If any pregnant person is often around young children, they should take proper precautions to avoid exposure.

SYMPTOMS

- Typically, CMV is asymptomatic.
- If symptoms present in adults: fever, aching muscles, fatigue, skin rash, sore throat, swollen lymph nodes.
- About 1 in 200 babies are born with congenital CMV; about 1 in 5 of those babies will have birth defects. Signs at birth of congenital CMV:
 - Rash, jaundice, microcephaly (abnormally small head), low birth weight, enlarged liver or spleen, seizures, retinitis

RISK FACTORS

- Compromised immune system for gestational parent
- Other children in the household age 1-5 who attend daycare or school
- Being around others that are sick
- Sharing food, beverages & swapping bodily fluids with others

PREVENTION

Not all infections of CMV can be prevented, but there are ways to lower the likeness of infection.

- Limit contact with saliva and urine of babies
- Not sharing food, utensils, cups or pacifiers with child
- Wash hands after changing diaper or helping children use the bathroom

RECOMMENDED TESTING

Serologic tests that test for CMV antibodies (IgM & IgG). ELISA (enzyme-linked immunosorbent assay) is the most common in those older than 12 months. PCR (polymerase chain reaction) on saliva in newborns. Urine is collected and tested to confirm.

TREATMENT

Several antiviral drugs, including cidofovir, foscarnet, ganciclovir, and valganciclovir, have been approved for treating cytomegalovirus (CMV). Antiviral medications can have significant side effects, so their use must be carefully considered and balanced with the potential benefits. Intravenous ganciclovir, and/or valganciclovir are commonly used for congenital CMV in infants. Early treatment can help to decrease hearing loss and improve developmental outcomes.

REFERENCES:

Centers for Disease Control and Prevention. (2024). CMV in newborns. <https://www.cdc.gov/cytomegalovirus/congenital-infection/index.html>

Centers for Disease Control and Prevention. (2024). Laboratory testing for CMV and congenital CMV.

<https://www.cdc.gov/cytomegalovirus/php/laboratories/index.html>

Gupta, M., & Shorman, M. (2023). Cytomegalovirus. StatPearls - NCBI Bookshelf. <https://www.ncbi.nlm.nih.gov/books/NBK459185/>

Phillippi, J., & Kantrowitz-Gordon, I. (2023). Varney's Midwifery. Jones & Bartlett Learning.

Schuiling, K. D., & Likis, F. E. (2020). Gynecologic health care: With an Introduction to Prenatal and Postpartum Care. Jones & Bartlett Learning.