

About Cytomegalovirus (CMV) Testing FOR OBSTETRIC HEALTH CARE PROVIDERS

Screening Pregnant Women

- When infected with CMV, most women have no symptoms, but some may have symptoms resembling mononucleosis or influenza. Women who develop a mononucleosis or flu-like illness during pregnancy should be tested for CMV.
- Testing should also be considered for women who have close contact with children or adults with known CMV infection.
- CMV can cause fetal abnormalities that are visualized by ultrasound. Possible findings include intrauterine growth restriction, microcephaly, ventriculomegaly, intracranial calcifications, and echogenic bowel. If abnormalities are detected during routine fetal ultrasonography, CMV testing may be important and should be discussed with a high-risk obstetrician (Maternal-Fetal MD).
- In women who have a stillbirth (fetal death ≥ 16 weeks gestation), CMV infection should be considered as a possible cause. The fetus should be evaluated for signs of CMV infection (through placental pathology and fetal autopsy). Maternal serology is not generally helpful in this situation.
- The value of screening asymptomatic pregnant women or women of childbearing age for CMV is uncertain. Women should discuss this with their obstetricians or primary care physicians. Women who show prior evidence of CMV infection through blood testing (immunity to CMV) have considerable protection from the potentially damaging effects of CMV on the unborn infant, although this protection is not complete. Therefore all pregnant women, regardless of prior exposure, should take steps to reduce exposure to CMV.

Testing Pregnant Women

CMV antibodies (IgG and IgM) are tested on maternal serum.

- IgG- IgM- indicates a woman is not immune to CMV and should be especially careful to prevent infection by avoiding contact with the saliva and urine of young children.
- IgG+ IgM- indicates immunity to CMV. Women should still use the same precautions to avoid CMV, since **reinfection may still pose a risk to the fetus.**
- IgG+ IgM+ indicates either a recent or past infection. The presence of CMV IgM is not solely indicative of primary infection. CMV IgM is detectable when a person 1) is newly infected, 2) has been infected in the past but recently re-exposed to CMV, 3) is undergoing reactivation of CMV infection that was acquired in the past, or 4) has a false-positive test result. Thus, the presence of CMV IgM should not be used by itself to diagnose primary CMV infection.

Recently, IgG avidity assays, which measure antibody maturity, have been shown to reliably detect recent primary CMV infection. When a person is infected with CMV for the first time, the body produces low-avidity IgG. After 2-4 months, the body begins to produce high-avidity CMV IgG. Low CMV IgG avidity suggests a primary CMV infection occurred within the past 2-4 months. High CMV IgG avidity suggests that CMV infection occurred at some point in the past. In the United States, CMV IgG avidity tests are not yet widely available commercially, but are available at some labs.

Testing for congenital CMV infection in neonates

- Fetal infection is diagnosed by PCR or viral culture of amniotic fluid collected by amniocentesis.
- Congenital CMV infection can be best diagnosed in an infant if the virus is detected in the urine or saliva within 2-3 weeks after birth (PCR testing is a preferred method).

Where should I go for additional information about CMV?

**Connecticut Department of Public Health
Early Hearing Detection and Intervention (EHDI) Program**

860.509.8074

www.ct.gov/dph/ehdi

or

www.cdc.gov/cmV

www.nationalcmv.org