Cytomegalovirus (CMV)

This sheet is about exposure to cytomegalovirus (CMV) in pregnancy and while breastfeeding. This information is based on research studies. It should not take the place of medical care and advice from your healthcare provider.

What is cytomegalovirus (CMV)?

CMV is a common virus that can spread from one person to another through contact with saliva, semen, vaginal fluids, blood, urine, tears, feces, or breast milk. Most people with CMV do not have symptoms; some might have fever, tiredness, and muscle aches when they are first infected.

Once the CMV virus gets into the body, it stays there for life. A healthy immune system usually keeps the virus in check. Sometimes the virus can be reactivated ("wakes up" and becomes active). People can also be infected with more than one strain of CMV in their lives.

Over half (more than 50%) of people in the United States have the virus by age 40, and 1 out of 3 children have the virus by age 5. Close contact with children less than three years old, such as in daycare settings, is a common way to become infected with CMV.

How can I find out if I am infected with CMV?

Blood tests can diagnose CMV infection in adults who have symptoms. Talk to your healthcare provider about your risk for CMV and what tests are right for you.

I have CMV. Can it make it harder for me to get pregnant?

Having CMV is not expected to make it harder to get pregnant.

Does having/getting CMV increase the chance of miscarriage?

Miscarriage is common and can occur in any pregnancy for many different reasons. It is not known if CMV can increase the chance of miscarriage.

How likely is it that CMV infection in pregnancy will pass to the fetus?

When a woman is pregnant and infected with CMV for the first time, there is about 1 in 3 (30%) to a 2 in 5 (40%) chance that CMV will pass to the fetus. When an old infection is reactivated, or you get a new strain of the virus during pregnancy, there might be a lower chance of passing the infection to the fetus than with a new infection.

Does having/getting CMV increase the chance of birth defects?

Birth defects can happen in any pregnancy for different reasons. Out of all babies born each year, about 3 out of 100 (3%) will have a birth defect. We look at published data to try to understand if a certain exposure, like CMV, might increase the chance of birth defects or other problems in a pregnancy.

If there is a CMV infection during pregnancy, the virus can pass to the fetus. This is called congenital CMV. Congenital CMV can cause vision problems (including blindness), an enlarged liver, an enlarged spleen, small head size, and problems with the nervous system. Most babies with congenital CMV do not show signs or have health problems.

Babies with congenital CMV can have health problems at birth or ones that develop later. Of those babies who get the virus, about 1 in 100 (1%) to 1 in 10 (10%) will have symptoms at birth. If the CMV infection happens in the first trimester, the chance that the brain, hearing, and vision will be affected is higher than if the infection happens later in pregnancy.

Does having/getting CMV increase the chance of other pregnancy-related problems?

Pregnancies affected with CMV have a higher chance of preterm delivery (birth before week 37) or low birth weight (weighting less than 5 pounds, 8 ounces [2500 grams] at birth). CMV might also increase the chance of preeclampsia (high blood pressure and problems with organs, such as the kidneys), that can lead to seizures (called eclampsia),

Some studies suggest that CMV might increase the chance of jaundice (yellow skin and eyes caused by the buildup of bilirubin in the blood) or delays in physical movement. CMV might be a possible cause of stillbirth. However, CMV is common, and many pregnancies with CMV result in live birth.

Does having/getting CMV in pregnancy affect future behavior or learning for the child?

Babies that show signs of congenital CMV at birth can have long-term problems, such as intellectual disability, language delay, poor physical coordination, weakness, hearing loss, and seizures. Some babies who do not show signs of congenital CMV at birth can develop hearing loss or learning problems as they get older.

How can I find out during my pregnancy if my baby will be affected by CMV?

Prenatal ultrasounds can be used to screen for some issues related to congenital CMV, such as slow growth, small head size, large placenta, and changes in brain structure. However, many babies with congenital CMV will not show any signs of infection on a prenatal ultrasound. Issues such as intellectual disability and learning problems cannot be seen on ultrasound and might not be known until the child gets older.

Amniocentesis is a procedure that removes a small amount of fluid from around the fetus (amniotic fluid). This fluid can be tested for CMV. Your healthcare providers can talk with you about the risks and benefits of having this test during pregnancy. After a baby is born, their saliva, urine, or blood can be tested for CMV. Some states include screening for CMV in their state's newborn screening programs.

Talk with your healthcare providers about any prenatal screenings or testing that are available to you. There are no tests available during pregnancy that can tell how much effect there could be on future behavior or learning.

I am pregnant and have a CMV infection. Is there a way to prevent or treat congenital CMV?

Talk with your healthcare providers about what treatments are recommended for you and your pregnancy. At this time, there is no known treatment that can completely prevent all the symptoms or long-term effects of congenital CMV. Using antiviral medication when there is a CMV infection in pregnancy might lower the chance the virus will pass to the fetus. Newborns with CMV might be given antiviral medication to help reduce the chance of hearing loss, eye disease, and learning problems.

Breastfeeding and CMV:

Women with CMV have been encouraged to breastfeed if their baby is full term and healthy. Full-term babies who get infected with CMV through breast milk usually do not get seriously ill. Babies born before 30 weeks of pregnancy and / or weigh less than 3.3 pounds (1500g) might have a higher chance of getting sick from CMV through breast milk. If you suspect the baby has symptoms (fever, diarrhea, or yellowish skin/eyes), contact the child's healthcare provider. Be sure to talk to your healthcare provider about all your breastfeeding questions.

If a man has CMV, could it affect fertility or increase the chance of birth defects?

CMV is not expected to affect male fertility (ability to get a woman pregnant). CMV can be spread to a partner who is pregnant. Men who have a partner that is pregnant can use latex condoms during intercourse to lower the chance of passing the CMV infection to the woman who is pregnant. If you or your partner have a CMV infection, talk with your healthcare providers. For more general information on exposures in Fathers or sperm donors, please see the MotherToBaby fact sheet at https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/.

Please click here for references.