Cytomegalovirus (CMV)

This sheet is about exposure to cytomegalovirus (CMV) in pregnancy or while breastfeeding. This information 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, but some may 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 U.S. 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.

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

Based on the studies reviewed, having CMV is not expected to make it harder to become pregnant.

Does having CMV increase the chance for miscarriage?

Miscarriage can occur in any pregnancy. It is not known if CMV increases the chance of miscarriage.

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

When a person is pregnant and infected with CMV for the first time, there is about a 40% chance that it will pass to the baby. When an old infection is reactivated, or you get a new strain of the virus during pregnancy, there may be a lower chance of passing the infection to the developing baby.

Does having CMV in pregnancy increase the chance of birth defects?

Every pregnancy starts with a 3-5% chance of having a birth defect. This is called the background risk. If there is a CMV infection during pregnancy, the virus can pass to the developing baby. This is called congenital CMV.

Congenital CMV is the leading viral cause of developmental problems. It is the leading non-genetic cause of hearing loss. Congenital CMV can also cause vision problems (including blindness), jaundice (yellow skin and eyes), an enlarged liver, an enlarged spleen, low birth weight, small head size, problems with the nervous system, and delays in physical movement.

Not all babies who get the virus in a pregnancy will have birth defects or other issues from the infection. Of those babies who get the virus, about 1-10% 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 CMV in pregnancy increase the chance of other pregnancy related problems?

Pregnancies affected with CMV have a higher chance of resulting in delivery before 37 weeks of pregnancy (preterm delivery).

There are some studies that suggest that CMV could be a possible cause of some stillbirths. Other infections have also been shown to be related to stillbirth; however, there are factors other than infections that can cause stillbirth. CMV is common, and many pregnancies with CMV result in live birth. Though CMV may be related to stillbirth, it is hard to know how much CMV could increase the chance for stillbirth.

Does having CMV in pregnancy increase the chance for long-term problems?
Babies that show signs of congenital CMV at birth can have long-term problems. These problems can include intellectual disability, poor physical coordination or weakness, 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. Long-term effects of congenital CMV develop in 10-15% of infected babies who do not show symptoms at birth.

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

Ultrasound can show some of the issues caused by 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 ultrasound. Issues such as intellectual disability and learning problems cannot be seen on ultrasound.

Amniocentesis is a procedure that removes a small amount of fluid from around the baby (the amniotic fluid). This fluid can be tested for CMV. Your healthcare provider can discuss the risks and benefits of getting this test. After a baby is born, their saliva, urine, or blood can be tested for CMV.

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

At this time, there is no known treatment that can completely prevent all the symptoms or long-term effects of congenital CMV. Giving antiviral medication when there is a CMV infection in the pregnancy might lower the chance the virus will pass to the baby. Newborns with CMV may be given antiviral medication. This may reduce the baby’s chance for hearing loss, eye disease, and learning problems. Researchers are looking at other treatments that may be helpful.

Breastfeeding while having a CMV infection:

People with CMV are encouraged to breastfeed if the 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 weighing less than 3.3 pounds (1500g) may have a higher chance of getting sick from CMV through the breast milk. If you suspect that the baby has symptoms of CMV such as fever, diarrhea or yellowish skin, talk to the child’s healthcare provider. Be sure to talk to your healthcare provider about all of your breastfeeding questions.

If a male has CMV, could it affect fertility (ability to get partner pregnant) or increase the chance of birth defects?

CMV has not been shown to affect male fertility. In one study, there were no differences in fertility between males who have had CMV those who have not.

CMV can be spread by sexual intercourse to a partner who is pregnant. People who are pregnant and have partners that have recently been infected should use latex condoms during intercourse to prevent CMV infection during the pregnancy. In general, exposures that fathers or sperm donors have are unlikely to increase the risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures at https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/.

Please click here for references