Cytomegalovirus (CMV)

This sheet talks about exposure to cytomegalovirus (CMV) in pregnancy or while breastfeeding. This information should not take the place of medical care and advice from your health care provider.

What is cytomegalovirus (CMV) and how does it spread?

CMV is a virus that can spread from one person to another through contact with saliva, semen, vaginal fluids, blood, urine, tears, feces, or breast milk.

CMV is so common that over half (more than 50%) of people in the U.S. have the virus by age 40, and 1 out of 3 children has it by age 5. Close contact with children less than three years of age, such as in daycare settings, is a common way to become infected with CMV.

Once the CMV virus enters the body it stays there for life, but 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.

What are the symptoms of CMV?

Most people with CMV will never have any symptoms, although a very small number of adults may have fever, tiredness (fatigue), and muscle aches when they are first infected.

How can I lower the chance of getting CMV?

The best way to prevent CMV infection is to practice good hygiene, especially proper hand washing. Wash hands after changing diapers and after contact with urine, feces, or saliva. Clean toys, strollers, high chairs and other surfaces where children play and place their hands or saliva. Try to avoid mouth-to-mouth kissing with children in daycare settings. Do not share food, drinks, or eating utensils. People who have more than one sexual partner can reduce the chance of getting CMV by using latex condoms during intercourse.

Does having CMV increase the chance for miscarriage?

It is not known if CMV infection increases the chance of miscarriage (early pregnancy loss), but studies of babies who were stillborn (died later in pregnancy) have found infection by CMV and other similar viruses as possible causes. Because CMV infection is common and stillbirth is not common, it is difficult to know how much a CMV infection might increase the chance of stillbirth. More research is also needed to know if a first-time infection in pregnancy carries a greater chance of stillbirth than subsequent infections in pregnancy do.

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

In every pregnancy, a woman starts out with a 3-5% chance of having a baby with a birth defect. This is called her background risk. If a woman gets CMV during pregnancy, the virus can pass to the developing baby. This is called congenital CMV.

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

When a woman gets a first-time CMV infection ("primary infection") during pregnancy, the chance that she will pass the infection to the baby is somewhere between 30% and 50%. Pregnant women who get a reactivation of an old infection or are exposed to a new strain of the virus during pregnancy may have a lower chance of passing the infection to the developing baby.

However, not all babies who get the virus in a pregnancy will have birth defects from the infection. Of those babies who get the virus, about 1-10% will have symptoms at birth. Long-term effects such as hearing loss and learning problems can still occur in 10-15% of infected babies who do not show 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 in the second half of pregnancy.

How can I find out if I have CMV?

Tests are available to screen for CMV infection. In the U.S., CMV screening is not routinely offered. But women can talk to their healthcare providers about the benefits and limitations of being tested for CMV.

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

Ultrasound can show some of the problems caused by congenital CMV, such as slow growth, small head size, large placenta, and differences in brain structure. However, many babies with congenital CMV will not show any signs of infection 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 signs of CMV. Your health care 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 to prevent infection before birth or completely prevent all the symptoms or long term effects of congenital CMV. Researchers are working to see if giving antiviral medication to pregnant women with CMV infection might decrease the chance of passing the virus to a developing baby. Newborns with CMV who receive antiviral medication might have a lower chance of hearing loss, eye disease, and learning problems.

Can I breastfeed if I have a CMV infection?

Women 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. Premature babies born before 30 weeks and weighing less than 1500g (about 3.3 pounds) may have a higher risk of getting a sick from a CMV infection 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.

If a man has CMV does it increase the chance of infertility or birth defects?

CMV has not been shown to affect a man's fertility. A father cannot pass a CMV infection directly to a baby during pregnancy. However, since CMV can be spread by sexual intercourse, pregnant women whose partners have recently been infected should use latex condoms during intercourse so that the woman does not get the infection. In general, exposures that fathers have are unlikely to increase risks to a pregnancy. For more information, please see the MotherToBaby fact sheet Paternal Exposures and Pregnancy at https://mothertobaby.org/fact-sheets/paternal-exposures-pregnancy/pdf/.

Please click here for references

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