



Cytomegalovirus and permanent hearing loss in children

What is cytomegalovirus?

Cytomegalovirus is a virus that's often just called CMV. Like many viruses, if someone has CMV it can be passed on to other people through direct contact with body fluids such as respiratory droplets from a cough or sneeze, or blood. Pregnant mothers can also pass CMV infection on to their baby. CMV isn't spread through food, water or animals.

CMV is a very common virus found across the world. Many people get CMV during childhood and it's estimated that more than 60% of Australian adults have had CMV at some point. You may have had CMV but not even know because the symptoms, which can include tiredness, swollen glands, a sore throat, and a fever can be very similar to the flu. Some people might not experience any symptoms at all. For some people who have had CMV, the infection can remain dormant, or 'sleeping' in their system, and come on again when they are ill or stressed and their immune system is weakened.

What is congenital cytomegalovirus?

Congenital means 'present at birth'. If a mother has CMV while she is pregnant there is 50% chance that CMV will be passed through the placenta to the baby during the pregnancy. This can cause the baby to be born with congenital CMV. A baby can be born with congenital CMV if their mother had a CMV infection during pregnancy. The virus is passed from the mother to the baby through the placenta. It's possible that the mother may not know she has a CMV infection because she may only experience mild 'flu-like' symptoms or no symptoms at all.

If a mother gets CMV during pregnancy it can affect the baby's health and development. A baby is most at risk if their mother has never had CMV and gets it for the first time during the first three months of her pregnancy. When this happens there is a possibility that the baby may be born with specific problems such as neurological difficulties, developmental difficulties, vision loss or hearing loss.

When this occurs, it is not unexpected that parents might feel concerned that they did not do all they could to prevent their child from getting congenital CMV. However, because it is hard to know when CMV is present, it is very difficult to stop it spreading from person to person. You may be familiar with rubella, or German measles, as another example of an infection that can cause hearing loss in a baby if their mother gets it during pregnancy. Unfortunately, unlike rubella, there is no vaccination to prevent CMV.

What are the benefits of having my baby's newborn screening card ('heel prick test') checked for CMV?

We know that CMV does not cause hearing loss if someone gets it after they are born. Because of this, to find out if CMV is a possible cause of a baby's hearing loss it is important to test blood that was taken very soon after the baby was born to see if CMV was present in these early days. The blood taken during your baby's 'heel-prick test', and stored on their 'newborn screening card', provides an opportunity to check if your baby had CMV when they were born.

If it's confirmed that your baby does have congenital CMV, and no other cause for their hearing loss is found, then it's possible that their hearing loss was caused by CMV. However, it's important to note that even if congenital CMV is found, it is still possible that your child's hearing loss is due to another cause. For example, a child may have had congenital CMV but they could still have a genetic reason for their hearing loss. Your doctor will be able to discuss these issues with you in more detail.

Testing for congenital CMV is still worthwhile. If congenital CMV is found to be present this information will contribute not only to understanding a possible cause of your child's hearing loss, but also to understanding their overall health and development needs, both now and into the future.

On the other hand, if the test confirms that your child did not have CMV at birth, you can be quite confident that congenital CMV is not the cause of your child's hearing loss. This can assist in exploring other possible causes if you choose to.

My child is no longer a baby, can their newborn screening card still be checked for CMV?

Yes. Newborn screening cards are kept until a child is 28 years old. If you do not know the cause of your child's hearing loss, the test for CMV can still be done.

Where can I get more information?

If you need more information, either before or after your child's newborn screening card has been tested for CMV, the following people should be able to help you. If they cannot answer your questions directly, they should be able to find out who can give you the information you need:

- Paediatrician
- Ear Nose and Throat Specialist
- General Practitioner
- Queensland Hearing Loss Family Support Service (1800 352 075)

<http://www.health.qld.gov.au/healthyhearing/default.asp>