Cytomegalovirus (CMV)
Neonate & Pediatrics

Cytomegalovirus, or CMV, is a very common *virus* (a germ that can cause illness). Both children and adults have it. Adults have it. Some children are even born with it. CMV is so common that more than 90% of people in the United States will be infected with it by the time they are 40 years old. The virus is passed from person to person in body fluids. These include blood, urine, breast milk and spit (*saliva*). Once you are infected with CMV, you will have it for the rest of your life.

Most of the time, being infected is not a problem. Most people who have CMV do not even know they have it. These infections most often have no symptoms and there are usually no health problems. However, it can cause trouble for some children. The *immune system* (helps the body fight off illness) is not fully developed in infants and young children. That makes it harder for their bodies to keep the virus under control. Rarely, CMV may lead to disability in children.

CAUSES

Children get CMV from two main sources:

- Their mother.
  - This happens before the child is born. The virus is passed from the mother to the *fetus* (baby in the womb). This is called congenital CMV. Most pregnant women who have CMV though do not pass it to their babies.
- Other children/adults.
  - If the virus develops after a child is 3 weeks old, it is not called congenital CMV. Then, a child usually gets it from another child or adult.
  - The virus is not spread by casual contact (playing together, touching). It is only passed from one person to another through body fluids. For example, a little boy gets saliva from another boy on his hands. He puts his hands in his mouth. If the first boy had CMV, this is enough to pass it on to the other boy.
  - A child infected after birth almost never develops a disability from CMV.

SYMPTOMS

Most children with CMV have no symptoms.

- If symptoms do appear, they usually are mild. They may include:
  - Fever.
  - Sore throat.
  - Swollen glands.
  - Feeling extra tired (*fatigued*).
  - Achy muscles.
  - Headache.
- In children with congenital CMV, some symptoms are temporary (will go away). They include:
  - Small size at birth.
  - Yellow skin or eyes (*jaundice*).
  - A rash or purple splotches on the skin.
  - A lung infection (*pneumonia*).
- Other symptoms may be signs of a disability caused by the virus. These symptoms sometimes get worse with time. They include:
  - Hearing loss.
  - Vision loss.
  - Being clumsy (uncoordinated).
  - Lung problems. Breathing can be hard.

- Thinking (mental) problems.
- *Seizure* (a brain condition that causes the child to lose consciousness).

DIAGNOSIS

To decide if an infant has CMV, the child's caregiver will probably:

- Ask about the child's symptoms.
- Ask whether the child's mother had CMV.
- Review the child's overall health.
- Do a physical exam.
- Order a blood test to check for the virus.
- Order tests of saliva, urine or both to check for the virus.

TREATMENT

No treatment will make the CMV virus go away. However, many symptoms can be treated. And, a child can be treated for complications that develop because of the virus.

- Some medications are available to ease problems caused by a CMV infection in children with problems with their immune system. They are called antiviral drugs. However, these drugs have side effects.
- Treatment for symptoms and complications will vary. The child's age and symptoms help determine treatment. Your child's caregiver will determine if your child should receive any specific treatment.

PROGNOSIS

Most infants and children with CMV have no health problems. Most people live a normal life and do not even know they have the virus. Babies who are born with CMV should be watched closely as they grow up. Be on the lookout for hearing or vision problems. Finding a possible problem means treatment can be started early. Early treatment can often prevent more serious problems.

HOME CARE INSTRUCTIONS

- Make sure the child takes any medication that has been prescribed. Follow the directions carefully.
- A child with congenital CMV should be tested for hearing and vision problems. Ask the child's caregiver how often this should be done.
- If the child has a weak immune system:
  - Make sure you understand how to protect the child's health. Ask if there is anything the child should or should not do.
  - Some children with CMV may need extra care. This includes children with cancer or HIV/AIDS. It also includes children who have had an *organ transplant* (an operation to give them a new body organ, such as a kidney) or a *bone marrow transplant* (a procedure to give them the soft tissue inside bones).

SEEK MEDICAL CARE IF:

- You have questions about any medication that has been prescribed or suggested.
- Your child has an oral temperature above 102° F (38.9° C).
- Your baby is older than 3 months with a rectal temperature of 100.5º F (38.1° C) or higher for more than 1 day.
- Your child is extremely tired.
- Your child's muscles or head aches.
- The child seems to have problems seeing or hearing clearly.
- The child does not seem to be developing at a normal pace.

SEEK IMMEDIATE MEDICAL CARE IF:

- You or your child has an oral temperature above 102° F (38.9° C), not controlled by medicine.
- Your baby is older than 3 months with a rectal temperature of 102º F (38.9º C) or higher.
- **Your baby is 3 months old or younger with a rectal temperature of 100.4º F (38º C) or higher.**

Document Released: 10/14/2010 Document Re-Released: 01/09/2011
ExitCare® Patient Information ©2011 ExitCare, LLC.