



**1 IN 5 CHILDREN  
INFECTED WITH CMV DURING  
PREGNANCY WILL HAVE A  
PERMANENT DISABILITY SUCH  
AS HEARING LOSS OR  
DEVELOPMENTAL DELAY.**

## WANT TO HELP?

Help prevent CMV and reduce the leading cause of preventable hearing loss in children.

LMC Manna Research is looking for volunteers to participate in a research study for an investigational vaccine that may help prevent CMV in newborns.

## SPEAK WITH A SPECIALIST TODAY!



1-833-323-JOIN



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**LMC MR**

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## HEARD OF CYTOMEGALOVIRUS?

1 in 200 Canadian  
Infants are infected  
with CMV during  
pregnancy.

## WHAT IS CMV?

CMV is a wide spread virus, that could go undetected since most patients don't show any symptoms. However, this virus could lead to severe end-organ disfunction in patients with a weak immune system, especially transplant recipients or HIV patients.

It can be asymptomatic in healthy individuals or presents as infectious mononucleosis.



## CMV DURING PREGNANCY

CMV infection in pregnant women is associated with congenital CMV resulting in deafness and mental disabilities in newborns.

## TRANSMISSION

Transmission can occur through multiple routes including:

1. Direct contact, kids in daycare or family members shed the virus from upper respiratory tract or urine.
2. Transmission of CMV through blood transfusion or transplanted organs from seropositive patients
3. Sexual exposure (rates of infection are higher in patients with multiple sexual partners).
4. Perinatal transmission, neonates are infected during exposure in utero.

## WHO'S AFFECTED THE MOST...

### BABIES

(develop congenital CMV)

- Premature birth
- Low birth weight
- Microcephaly
- Viral Hepatitis
- Pneumonia
- Enlarge Spleen

### IMMUNOCOMPROMISED PATIENTS

Specific disease entities are:

- CMV Hepatitis
- CMV Retinitis
- CMV Esophagitis
- CMV Colitis
- Transverse Myelitis
- Subacute Encephalitis

### HEALTHY INDIVIDUALS

Infectious Mononucleosis Including:

- Fever
- Atypical Lymphocytosis
- Heterophile Negative Antibody
- Rash
- Enlarged Spleen



## THERAPY

- Infectious Mononucleosis is self-limited, with complete recovery over a period of days to weeks. Antiviral therapy is usually not recommended.
- For systemic therapy of CMV infection (Ganciclovir, Valganciclovir and Foscarnet are approved antiviral agents).
- Toxicities are common with the use of these agents and must be weighted against the benefit of initiating treatment.

**No vaccine currently exists for CMV. Investigational vaccines are being tested for CMV**

## HOW TO IMPROVE LIFE WHEN YOU SUFFER FROM CMV...

- People with a healthy immune system require no treatment/ibuprofen can relieve mild symptoms like fever, myalgias.
- If a patient is scheduled for a transplant, one should discuss prophylaxis with Ganciclovir.
- If pregnant or planning to get pregnant, avoid kissing toddlers, sharing utensils and sexual contact with a partner sick from a CMV infection.
- Test saliva/urine in newborns if CMV is suspected as newborns can be treated with antivirals to have better developmental outcomes.