

CYTOMEGALOVIRUS INFECTION IN PREGNANCY

Cytomegalovirus (CMV) is a common herpesvirus. It can be passed from person-to-person without their knowledge, usually via intimate contact. The most common sources of CMV infection are young children, as they are more likely to shed high levels of virus in their saliva, urine or nasal secretions for long periods. Women who catch CMV infection while pregnant may pass the virus to their unborn child. Some babies born with congenital CMV will die, have hearing loss, epilepsy, intellectual impairment and/or cerebral palsy. The highest risk is in the first trimester.

Pregnant women can use simple hygiene strategies to reduce their risk of CMV infection. However most women have never heard of CMV. The RANZCOG statement of CMV¹ prevention states:

- Hygiene practices to reduce infection should be recommended to all pregnant women and women trying to conceive, regardless of their CMV serology status.
- The 5 key hygiene messages are:
 - Do not share food, drinks, or utensils used by young children (less than 3 years of age)
 - Do not put a child's dummy in your mouth
 - Avoid contact with saliva when kissing a child
 - Attention to hand hygiene, when changing nappies or when in contact with urine. Thoroughly wash hands with soap and water for 15–20 seconds, especially after changing nappies/, feeding a young child, or wiping a young child's nose or saliva
 - Clean toys, countertops, and other surfaces that come into contact with children's urine or saliva, and not sharing a toothbrush with a young child.
- Universal routine serological screening for CMV in pregnancy is not recommended.
- Pre-pregnancy or early pregnancy screening with CMV IgG only may be considered for women who are high risk of infection. Early determination of CMV serostatus may aid in distinguishing between primary infection and reactivation/reinfection during pregnancy if clinically indicated, but does not remove the need to follow recommended hygiene measures.
- Women with suspected CMV infection in pregnancy should have CMV serology testing for IgG and IgM, and IgG avidity if CMV IgG and IgM are positive.
- When congenital CMV infection is suspected on the basis of maternal serology or fetal ultrasound abnormalities, a referral to a maternal fetal medicine specialist, or the Infection in Pregnancy clinic at RHW is recommended.
- Further information about how to interpret serology is below. (Table 1).
- Further information can be obtained from the Australasian Society of infectious Diseases (ASID) Management of perinatal infections: <https://www.asid.net.au/documents/item/368>
- A vaccine trial (CMVictory) will be starting at UNSW/RHW in March 2022. Further information about the trial can be obtained on <https://cmvictory.com/>

¹ Prevention of congenital cytomegalovirus (CMV) infection. RANZCOG statement, 2019 [https://ranzocg.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Prevention-of-congenital-cytomegalovirus\(CMV\)infection-\(C-Obs-64\)-New-Statement-March-2019-Amended.pdf?ext=.pdf](https://ranzocg.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Prevention-of-congenital-cytomegalovirus(CMV)infection-(C-Obs-64)-New-Statement-March-2019-Amended.pdf?ext=.pdf)

Table 1. Interpretation of CMV serology.

Serology			Interpretation of serology	
IgM	IgG	IgG avidity	Interpretation	Action
-	-		Susceptible/ no evidence of recent infection	Educate about transmission. Consider repeat serology in 2-3 weeks if clinical suspicion of recent infection
+	-		Possible recent infection or false positive IgM	Repeat serology in 2 weeks and perform avidity if IgG then positive
+	+	Low	Recent primary infection	Refer – likely primary infection
+	+	Intermediate	Possible recent primary infection	Test stored sera, or manage as recent primary
+	+	High	Past infection	Refer- Non-primary (reinfection/ reactivation.