

A photograph of a woman with dark hair, wearing a light blue shirt, kissing a baby on the cheek. The baby is lying in a wooden crib. The background is softly blurred, showing a window with light coming through. The Siemens logo is in the top left corner.

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# Women's health depends on a lifetime of answers—one test at a time.

Women and TORCH

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A number of infectious diseases can be transmitted to a pregnant woman and passed on to her baby, increasing the risk of miscarriage, birth defects, and developmental problems. These infections are collectively known as TORCH, which stands for Toxoplasmosis, Other (e.g., syphilis, HIV, varicellazoster, parvovirus B19), Rubella, Cytomegalovirus, and Herpes simplex virus.

## Toxoplasmosis<sup>1</sup>

- *Toxoplasma gondii* is an obligate intracellular parasite known to infect as much as 50% of the world's human population.
- A congenital infection can cause premature delivery, spontaneous abortion, or stillbirth.
- Neonates may manifest chorioretinitis, hydrocephaly, microcephaly, cerebral calcification, and psychomotor retardation.

## Other (syphilis, HIV, varicella-zoster, parvovirus B19)

- Worldwide, congenital HIV infection is a major cause of infant and childhood morbidity and mortality, responsible for an estimated 4 million deaths since the start of the HIV pandemic.<sup>2</sup>
- In pregnant women with untreated early syphilis, 25% of pregnancies result in stillbirth and 14% in neonatal death, an overall perinatal mortality of approximately 40%.<sup>3</sup>

## Rubella<sup>4</sup>

- Rubella, also known as German measles, occurs throughout the world.
- While rubella is primarily an infection of children, rubella infections during the first trimester of pregnancy can result in congenital defects with disastrous consequences.
- Deafness and/or congenital heart defects are the most common manifestations of a congenital rubella infection.

**Answers for life.**

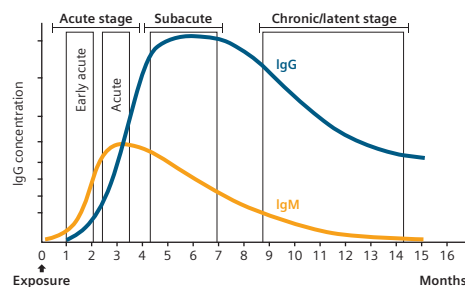
## Cytomegalovirus<sup>5</sup>

- Health problems or disabilities due to congenital CMV infection may appear 2 or more years after birth, or they may never appear—80 of every 100 infants with congenital CMV infection never develop symptoms or disabilities.
- Cytomegalovirus is a genus of the viral family known as Herpesviridae, or herpes viruses.
- Permanent health problems or disabilities due to congenital CMV infection include hearing loss, vision loss, mental disability, small head size, lack of coordination, seizures, and death (in rare cases).

## Herpes simplex virus<sup>6</sup>

- Herpes simplex virus (HSV) causes acute and recurrent infections in humans. The virus enters the mucous membranes (ocular, genital, or oral) and replicates locally.
- Infection of neonates during passage through the birth canal may result in neurological damage and death.
- Nearly all infants born to mothers with symptoms at the time of delivery contract the infection.
- Neonatal infections include skin, eye, and mouth infections (SEM); encephalitis (CNS involvement) with or without SEM; and disseminated infection with or without SEM infections.

## Immune response to a TORCH infection



### References

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