

# Zika Virus & Your Eyes\*



## What is Zika Virus?

Zika virus is an illness spread to people mostly through a bite from an infected mosquito (*Aedes aegypti* or *Aedes albopictus*). The illness caused by the virus is usually mild with symptoms lasting up to a week. Many people do not develop symptoms or they will only be mild. However, acquiring the Zika virus during pregnancy can cause the baby to be born with **Congenital Zika Syndrome**. Congenital Zika Syndrome is a serious condition which is characterized by a pattern of developmental and health issues with the cause linked to Zika Virus infection during pregnancy. The health issues include a serious birth defect called microcephaly (a condition where a baby's head is much smaller than expected) and other severe brain defects.

## How can you be exposed to the Zika Virus?

- Mosquito bite: Zika is spread to people directly through the bite of an infected *Aedes* species mosquito (*Aedes aegypti* or *Aedes albopictus*).
- Mother to fetus: A pregnant woman can pass Zika to her fetus during pregnancy or around the time of birth.
- Sexual contact: A man with Zika can pass it to his sexual partners.

The Centers for Disease Control and Prevention (CDC) encourages people who have traveled to or live in places with Zika Virus outbreaks to protect themselves by preventing mosquito bites and sexual transmission of Zika.

Link to the latest Zika Virus outbreak information and guidance: <http://www.cdc.gov/zika/index.html>

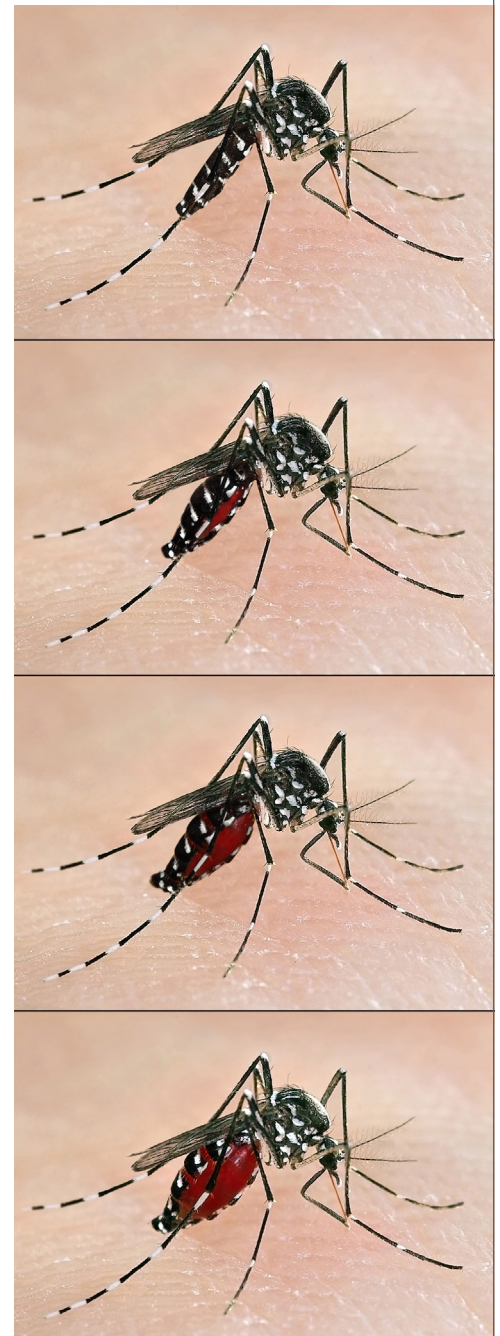
## What health problems can result from getting Zika?

Many people infected with Zika will have no **symptoms** or mild symptoms that last several days to a week.

The most common symptoms of Zika virus disease:

- Fever
- Rash
- Joint pain
- Red eyes (conjunctivitis)
- Other symptoms include muscle pain and headache

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\*Information and recommendations related to Zika are rapidly updating and changing as more research on this topic is available. This fact sheet will be updated as new evidence and guidelines are available.

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**Guillain-Barre syndrome**, an uncommon disease of the nervous system, is also very likely triggered by Zika in a small number of cases. Zika infection during pregnancy (Zika Virus Disease) can cause a serious birth defect called **microcephaly** and other severe fetal brain defects.

**Pregnant women should not travel to any area with a Zika Virus outbreak.** Travelers who go to places with outbreaks of Zika can be infected with Zika, and Zika infection during pregnancy can cause microcephaly and other severe fetal brain defects including severe vision problems.

- Pregnant women who have recently traveled to an area with Zika should talk to their doctor about their travel, even if they do not feel sick.
- Pregnant women should see a doctor if they have any Zika symptoms during their trip or within 2 weeks after traveling.
- All pregnant women can protect themselves by avoiding travel to an area with Zika, preventing mosquito bites (through use of insect repellent including DEET and covering exposed skin with long sleeves, socks, and pants), and following **recommended precautions** against getting Zika through sex.

Once someone has been infected with Zika, it's very likely they will be protected from future infections. There is no evidence at this time that past Zika infection poses an increased risk of birth defects in future pregnancies.

### What impact does the Zika Virus have on eyes?

**For those who contracted Zika from a mosquito bite, through sexual intercourse, or a blood transfusion:**

Mild symptoms may include conjunctivitis (redness of eyes with a clear, watery eye discharge but without fever, eye pain, or eyelid redness.)<sup>1</sup> The conjunctivitis is generally not contagious especially if the Zika-related symptoms have been present for several days. Individuals should consult an eye care provider (optometrist or ophthalmologist) if the symptoms continue after several days.

**For children who are born with Congenital Zika Syndrome:**

Researchers are still discovering the full scope of vision-related problems for children who are born with Congenital Zika Syndrome; however significant structural and developmental issues have been observed in the eyes of



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babies born with the infection and presence of microcephaly. Vision problems can include macular and optic nerve damage.<sup>2</sup> The impact of Zika Virus on vision for children born without the presence of microcephaly is not yet known and careful monitoring of these children is needed until formal practice standards are established.

### What long-term vision and health care will children born with Congenital Zika Syndrome require?

The amount and frequency of healthcare services for children born with Congenital Zika Syndrome will vary on the severity of the microcephaly or other brain defects. These infants are recommended to be evaluated by several health care specialists within the first month of life; additional evaluations will be necessary within the first year of life. Specialty care assessments recommended for children born with Congenital Zika Syndrome may include vision, hearing, feeding, growth, and neurodevelopmental and endocrine functions. The child's primary health care provider will coordinate services with other health specialists – including eye care providers – based on the specific health needs of the child. Appointments with specialty care providers should be made before the child and family leaves the birth hospital.<sup>3</sup>

All infants born with Congenital Zika Syndrome should receive an extensive eye examination before they are one month old with a repeated eye examination at age 3 months. Additionally, these children should maintain a regular schedule of well-child visits with the primary health care provider. This provider should conduct an age- and developmentally-appropriate vision screening during these visits.

Babies born with severe microcephaly will need care and treatment for their multiple health problems, which will likely include long-term vision care and monitoring. Children who experience vision loss or blindness will need to see a low vision specialist or have access to low vision devices to maximize their independence and mobility as they get older. Developmental services early in life will often help babies with microcephaly to improve and maximize their abilities. These services, known as **early intervention**, can include speech, occupational, and physical therapies.<sup>4</sup>

### What resources are available for families that need help accessing eye care?

Families whose children are born with Congenital Zika Syndrome should receive long-term support and resources to address the complex health needs of the child as well as the needs of the caregivers themselves. Health care providers should work closely with parents to ensure that the health care plan that is developed is consistent with the infant's needs as well as the family's wishes and cultural considerations. Families with limited access to the recommended specialty care should talk to their child's healthcare provider to see if there are alternative ways specialty care can be provided.

Prevent Blindness maintains a regularly updated list of national programs that may be able to help pay for the cost of eye examinations, medical care, and medications. Access the list at <http://www.preventblindness.org/vision-care-financial-assistance-information> for information on individual program eligibility, how to apply to receive services, and program contacts. This information is available in English and Spanish.

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### For more information:

Centers for Disease Control and Prevention – Zika Information:

<http://www.cdc.gov/zika/index.html>

Centers for Disease Control and Prevention – Support for Families:

<http://www.cdc.gov/zika/parents/families-of-newborns-affected-zika.html>

Prevent Blindness

<http://www.preventblindness.org>

National Center for Children’s Vision and Eye Health

<http://nationalcenter.preventblindness.org/>

American Academy of Ophthalmology

<http://www.aao.org/clinical-statement/zika-virus-infection-potential-ophthalmic-manifest>

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*Last updated: 8/29/16*

<sup>1</sup> (AAO Quality of Care Secretariat, Hoskins Center for Quality Eye Care, 2016)

<sup>2</sup> (de Miranda, et al., 2016)

<sup>3</sup> Russell, K et al. Update: Interim Guidance for the Evaluation and Management of Infants with Possible Congenital Zika Virus Infection- United States, August 2016. MMWR August 19, 2016, Vol 65 early release.

<sup>4</sup> (Centers for Disease Control and Prevention – National Center for Birth Defects and Developmental Disabilities, 2016)