

Zika virus resource center

With infection rates of Zika virus increasing rapidly, physicians should be prepared to handle cases of the virus and answer patients' questions. In the continental United States, Zika cases have been confirmed in returning travelers and infections through sexual transmission have been documented. The Florida Department of Health has concluded that a high likelihood exists that Zika virus infections are being caused by bites of local *Aedes aegypti* mosquitoes. As a result, a travel warning has been issued for the Wynwood and Miami Beach areas of Miami-Dade County, Florida. The AMA will update this resource center regularly to provide information to the public, physicians and other health care workers as they seek to learn more.

View CDC/AMA webinar on Zika virus

The CDC/AMA webinar "Preparing for Zika Transmission in the U.S." presented by the AMA in partnership with the Centers for Disease Control and Prevention (CDC) is now available for viewing. Listen to CDC Medical Epidemiologist Susan Hills, MBBS, MTH, present an update on the epidemiological and clinical aspects of the current outbreak. CDC Medical Officer Kiran Perkins, MD, MPH, presented on the implications for pregnant women, including CDC's updated interim clinical guidance, before fielding questions from webinar participants.

Updated information on Zika virus

The CDC Health Alert Network: CDC Expands Guidance for Travel and Testing of Pregnant Women, Women of Reproductive Age and Their Partners for Zika Virus Infection Related to Mosquito-Born Zika Virus Transmission in Miami-Dade, Florida.

The Centers for Disease Control and Prevention updated its recommendation for men with possible Zika virus exposure who are considering trying to conceive with their partners. The updated guidance recommends waiting at least 6 months to conceive after symptom onset or last possible Zika virus exposure (if asymptomatic). The recommendation is based on new scientific evidence and is consistent with the World Health Organization guidance.

Updated information on Zika virus

- CDC expands guidance for travel and testing of pregnant women, women of reproductive age, and their partners for Zika virus infection related to mosquito-borne Zika virus transmission in Miami-Dade, Florida
- Update: Interim guidance for preconception counseling and prevention of sexual transmission of Zika virus for persons with possible Zika virus exposure — United States, September 2016

Resources for the public

- What you need to know about Zika virus; Information from the Centers for Disease Control and Prevention
- Frequently asked questions about Zika virus; Videos fact sheets and other information from the World Health Organization (WHO) that explain what the virus is, which symptoms to look for and how to protect your family
- Zika virus infection, prevention and recommendations for pregnant women; infographics, frequently asked questions, interactive games and more from the Pan American Health Organization (PAHO) and WHO
- Zika and pregnancy; Latest information from the CDC for pregnant women
- Information for parents about Zika virus; Latest information from the CDC for parents
- Zika virus disease; Journal of the American Medical Association (JAMA) patient page from April 13
- How to protect against mosquito bites; Latest information from the CDC
- Zika-infected areas; World map and list of countries and territories with active Zika transmission, provided by the CDC

Resources for physicians: Understanding Zika virus

- Zika virus information for health care professionals; Includes clinical evaluation and diagnostic testing information from the CDC
- Interim CDC Zika response plan; Initial response to Zika virus infections in continental U.S. and Hawaii
- CDC Zika Action Plan Summit; Presentations and resources from April 1
- Zika and pregnancy; CDC vital signs from April 1
- Local mosquito-borne transmission of Zika virus — Miami-Dade and Broward Counties, Florida, June–August 2016; MMWR from Sept. 30
- Guillain-Barré Syndrome during ongoing Zika virus transmission — Puerto Rico, January 1–July 31, 2016; MMWR from Aug. 26

- Preliminary findings from an investigation of Zika virus infection in a patient with no known risk factors — Utah, 2016; MMWR from Sept. 16
- Likely sexual transmission of Zika virus from a man with no symptoms of infection — Maryland, 2016 MMWR from Aug. 26
- Hearing loss in infants with Microcephaly and evidence of congenital Zika virus infection — Brazil, November 2015–May 2016; MMWR from Aug. 30
- Possible Zika virus infection among pregnant women—United States and Territories, May 2016; MMWR from May 20
- CDC changes reporting of numbers of pregnant women affected by Zika virus; CDC media statement from May 2016
- Male-to-male sexual transmission of Zika virus—Texas, January 2016; CDC Morbidity and Mortality Weekly Report (MMWR) from April 15
- Survey of blood collection centers and implementation of guidance for prevention of transfusion-transmitted Zika virus infection—Puerto Rico, 2016; MMWR from April 8
- Estimating contraceptive needs and increasing access to contraception in response to the Zika virus disease outbreak—Puerto Rico, 2016; MMWR from March 25
- Travel-associated Zika virus disease cases among U.S. residents—United States, January 2015–February 2016; MMWR from March 18
- Zika virus infection among U.S. pregnant travelers—August 2015–February 2016; MMWR from Feb. 26
- Transmission of Zika virus through sexual contact with travelers to areas of ongoing transmission — continental United States, 2016; MMWR from Feb. 26
- Notes from the field: Evidence of Zika virus Infection in brain and placental tissues from two congenitally infected newborns and 2 fetal losses—Brazil, 2015; MMWR from Feb. 10
- Increase in reported prevalence of Microcephaly in infants born to women living in areas with confirmed Zika virus transmission during the first trimester of pregnancy—Brazil, 2015; MMWR from March 8
- Zika virus emergency preparedness and response; Latest information from the WHO
- Zika virus infection; Information and resources from the PAHO and WHO
- Zika virus spreads to new areas: Region of the Americas, May 2015–January 2016; MMWR from Jan. 22

Resources for physicians: Clinical guidance

- Update: Interim guidance for preconception counseling and prevention of sexual transmission of Zika virus for persons with possible Zika virus exposure — United States, September 2016; MMWR from Sept. 30
- Update: Interim guidance for the evaluation and management of infants with possible congenital Zika virus infection — United States, August 2016; MMWR from Aug. 19

- Updated: Interim guidance for prevention of sexual transmission of Zika virus—United States, July 2016; MMWR from July 25
- Update: Interim guidance for health care providers caring for pregnant women with possible Zika virus exposure—United States, July 2016; MMWR from July 25
- Diagnostic testing of urine specimens for suspected Zika virus infection CDC health advisory from May 25
- CPT codes for Zika-related imaging and lab test procedures; Last updated April 15
- Preventing transmission of Zika virus in labor and delivery settings through implementation of standard precautions United States, 2016; MMWR from March 22
- Zika virus—what clinicians need to know; CDC webinar from Jan. 26
- Interim guidelines for pregnant women during a Zika virus outbreak; MMWR from Jan. 19
- Possible association between Zika virus infection and Microcephaly; MMWR from Jan. 22
- Recognizing, managing and reporting Zika virus infections in travelers returning from Central America, South America, the Caribbean and Mexico; CDC Health Advisory from Jan. 15

Medical journal articles

- Low risk of a sexually-transmitted Zika virus outbreak; The Lancet from October 2016
- Fast-track Zika vaccine development — is it possible?; NEJM Perspective from Sept. 29
- Considerations for developing a Zika virus vaccine; NEJM Perspective from Sept. 29
- Zika virus infection in mice causes Panuveitis with shedding of virus in tears; Cell reports, Washington University School of Medicine report from Sept. 6
- Zika: Worse than Thalidomide? JAMA from Aug. 24
- Congenital brain abnormalities and Zika virus: What the radiologist can expect to see prenatally and postnatally; Radiology original research from Aug. 23
- Estimating the number of pregnant women infected with Zika virus and expected infants with Microcephaly following the Zika virus outbreak in Puerto Rico, 2016; JAMA Pediatrics from Aug. 19
- Insect repellents; JAMA from Aug. 16
- Zika virus 6 months later; JAMA Viewpoints from Aug. 8
- Protective efficacy of multiple vaccine platforms against Zika virus challenge in rhesus monkeys; Science research article from Aug. 4
- Development and Implementation of a Zika Virus Disease Response protocol at a large academic medical center; Disaster Medicine and Public Health Preparedness from July 19
- Modeling Zika virus infection in pregnancy; New England Journal of Medicine (NEJM) from Aug. 4
- Zika and the risk of Microcephaly; NEJM Perspectives from July 7
- Congenital Zika virus syndrome in Brazil: a case series of the first 1501 live births with complete investigation; The Lancet from June 29
- Pathology of congenital Zika syndrome in Brazil: a case series; The Lancet from June 29

- Zika virus and birth defects—reviewing the evidence for causality; NEJM from May 19
- More evidence linking Zika virus to birth defects; JAMA Global Health published May 17
- On the seasonal occurrence and abundance of the Zika virus vector mosquito *Aedes Aegypti* in the contiguous United States; PLOS current outbreaks published March 16
- Is the United States prepared for a major Zika virus outbreak?; JAMA Viewpoint published April 13
- Zika virus; NEJM from March 30
- Pregnancy in the time of Zika: Addressing barriers for developing vaccines and other measures for pregnant women; JAMA Viewpoint published March 22
- Zika virus infection in pregnant women in Rio de Janeiro—preliminary report; NEJM from March 4
- Infectious Zika viral particles in breastmilk; Lancet correspondence from March 1
- Guillain-Barré Syndrome outbreak associated with Zika virus infection in French Polynesia: a case-control study; Lancet from Feb. 26
- Detection and sequencing of Zika virus from amniotic fluid of fetuses with Microcephaly in Brazil: a case study; Lancet infectious disease from Feb. 17
- "Pregnancy in the time of Zika: Addressing barriers for developing vaccines and other measures for pregnant women"; JAMA Viewpoint published Feb. 24
- "Researchers focus on solving the Zika riddles"; Commentary on establishing causality, vaccine research, and containment published in JAMA Feb. 24
- "What pediatricians and other clinicians should know about Zika virus"; JAMA Pediatrics viewpoint published Feb. 18
- "Ocular findings in infants with Microcephaly associated with presumed Zika virus congenital infection in Salvador, Brazil"; Significant new clinical data on the Zika virus and infants, published online in JAMA Ophthalmology, Feb. 9
- "Zika virus infection and the eye"; Commentary on ocular findings in infants, published online in JAMA Ophthalmology, Feb. 9
- "The emerging Zika pandemic: Enhancing preparedness"; JAMA Viewpoint published Jan. 27
- "Anticipating the international spread of Zika virus from Brazil"; Published in The Lancet, Jan. 23
- "Zika virus in the Americas—yet another arbovirus threat"; Commentary published in The New England Journal of Medicine, Jan. 13 (e-publication ahead of print)
- Potential sexual transmission of Zika virus; CDC emerging infectious diseases dispatch from Feb. 2015

Medical products

- Zika virus response updates; Latest from FDA

- FDA allows use of investigational test to screen blood donations for Zika virus; FDA press release from March 30

Occupational exposure

- Interim guidance for protecting workers from occupational exposure to Zika virus; OSHA and NIOSH guidance from April 22

Research

- NIH begins testing investigational Zika vaccine in humans; National Institutes of Health News Release from Aug. 3
- Potential research priorities to inform public health and medical practice for domestic Zika virus: Workshop in brief; Institute of Medicine workshop summary from Feb. 16
- Notice of NIAID's interest to highlight high-priority Zika virus research areas; Research notice by the National Institutes of Health from Jan. 22

Vector control

- FDA releases final environmental assessment for genetically engineered mosquito; FDA from Aug. 5
- Interim recommendations for Zika vector control in the continental United States; CDC from March 18
- FDA announces comment period for draft environmental assessment for genetically engineered mosquito; FDA from March 11

Advocacy letter: House

- Letter from AMA CEO James Madara to U.S. Congressional leadership about the Zika virus (PDF)

Advocacy letter: Senate

- AMA letter to the Senate, May 26, 2016