Science AMA Series: We are Gary Brunette, Jeff Nemhauser, and Ali Walker of CDC’s Travelers’ Health Branch, here to talk with you today about Zika and travel for men. AUA (Ask Us Anything!)

CDC-Zika r/SCIENCE

Nice to virtually meet you, Reddit. I'm Dr. Gary Brunette, Travelers' Health Branch Chief at CDC. Hi, I'm Dr. Jeff Nemhauser, Chief Medical Officer with CDC's Travelers' Health Branch. I'm Dr. Ali Walker, Epidemiologist with CDC Travelers’ Health Branch.

Zika virus (or Zika) is still a risk in many parts of the world. Zika is spread primarily through mosquito bites, but it can also spread through sex. A pregnant woman can pass Zika to her fetus, which can cause serious birth defects. Many people infected with Zika won't have symptoms or will only have mild symptoms. For this reason, if you travel to an area with risk of Zika, you can be infected with Zika and not know it. Guys: You can pass Zika to your partner through sex, even months after infection. This means Zika is a concern not only for women who are pregnant or may become pregnant, but also for their partners who've been in areas with risk of Zika. If you travel to an area with risk of Zika, there are steps you should take to prevent getting Zika and passing it to your partner – especially if she is pregnant or may become pregnant. We are here to answer your questions and concerns and to clear up any confusion about how you can protect yourself and the ones you love against Zika, both during and after travel. Ask us anything! We'll be back at 1:00 p.m. and will do our best to answer as many of your questions as possible! Additional Resources:

- Don’t forget to follow us on Twitter @CDCTravel!

EDIT: We're out of time, but we'd like to thank you all for your participation and your thoughtful questions. Don't forget to follow us on Twitter @CDCTravel and like our page on Facebook! Thanks r/Science!

I'm a mod at the r/TryingForABaby community, which is for people trying to conceive, and our community has been following Zika news with interest.

Is there an emerging sense of the percentage of Zika infections that cause microcephaly in the fetuses of affected moms? Now that we're a few years into the outbreak, what about more subtle neurological defects in young children who were infected in utero?

developmentalbiology

Thank you for the work you do! Data from the US states and territories show that about 5-10% of fetuses or infants of women with possible Zika virus infection during pregnancy had birth defects potentially related to Zika. Researchers estimate a 20-fold increase in Zika-related birth defects in pregnancies with Zika virus infection compared with pre-Zika outbreak years.
Hi and thanks for joining us today!

- How long before we can expect the Zika vector populations to rebound after Maria?
- Is there evidence for antibody-dependent enhancement between Zika and other flaviviruses?
- Do mosquito co-infections with Zika and other viruses allow for simultaneous transmission?
- How likely is it for Mayaro, Oropouche, or Venezuelan Equine Encephalitis to follow in Zika's path?
- Will CDC eventually recommend routine Zika testing for MSM populations?

PHealthy

Thanks for your question u/PHealthy! Jeff here! Adult mosquitoes do not generally survive high winds during a hurricane. The types of mosquitoes that can spread viruses may increase 2 weeks to 2 months after a hurricane, especially in areas that did not flood but received more rainfall than usual. CDC will work closely with state, local, and territorial health officials to monitor the situation and take action if necessary.

2-4. There are bodies of literature that address questions 2-4. 5. CDC recommends Zika virus testing for people who are not pregnant who have been exposed to Zika and who also have Zika symptoms.

A friend of mine and his wife are refusing to go to anywhere that has zika because they want to have another baby. Should I be worried? If I get zika, will it permanently affect any kids I have in the future?

acEightyThrees

Hi, acEightyThrees, this is Gary. Currently, there is no evidence that a woman or man who has recovered from Zika virus infection (the virus has cleared the body) will have Zika-related pregnancy complications in the future.

If you are considering pregnancy in the near future and you are planning travel to an area with Zika, you should keep in mind that couples traveling together should consider waiting at least 6 months after their return (or from the start of symptoms, if the man develops symptoms) before trying to conceive. During that time, they should use condoms or not have sex. This is because Zika can remain in semen longer than in blood or other body fluids, and it may be passed to partners during that time.

How big of a threat is sexually transmitted Zika? Is this realistically going to become a new STD threat?

nate

Thank you for the question u/nate! Jeff here! At this time, we do not know how common it is for people to transmit Zika to their sex partners. Although sexual transmission of Zika virus is possible, the primary mode of transmission is through mosquitoes. CDC considers Zika virus infection a mosquito-borne infection, with sexual transmission being a less common mode of transmission.

I'm on the admin team overseeing OBGYN and Perinatology practices, as well as a NICU in Florida. Naturally this is a hot topic. What is the most effective way to educate our community, patients, and staff about Zika?

causeyeffect

Thanks for your question and all the work you do, causeyeffect! Although the most effective way to
reach your audiences will depend on how they consume information, whom they trust, etc, CDC offers a suite of resources you can use to educate different audiences in your community, such as videos, posters and other print materials, infographics, and PPT presentations. See https://www.cdc.gov/zika/comm-resources/index.html

We also offer Zika communication toolkits here https://www.cdc.gov/zika/comm-resources/toolkits.html

Are there tests for men to help identify whether they have been infected with Zika and if they are still a risk to their partners? My understanding is that it often presents in ways that are similar to the flu, making it hard for people to self-diagnose. So how do you know if you ACTUALLY caught Zika and whether you're a risk?

firedrops

Ali here, thank you for your question u/firedrops. It’s true that many people infected with Zika have no symptoms or only mild symptoms -- so may not know they are infected. Men and women traveling in an area with risk of Zika should consider using condoms every time they have sex or not have sex while traveling. If you traveled to an area with risk of Zika, then you should consider using condoms or not having sex for at least 6 months after your return.

Testing semen is not recommended to determine how likely a person is to pass Zika virus through sex. Because Zika virus can remain in semen longer than blood, you might have a negative blood test, but still carry Zika. Testing semen for Zika virus is not currently available outside of the research setting, and testing is not recommended for asymptomatic men.

Is Puerto Rico expected to see increase in Zika cases due to Hurricane Maria? What can the US do to help if they are at an increased risk?

thegrapist89

Thank you for your question u/thegrapist89! See our full answer to u/PHealthy for the first part of your question. The best way to prevent diseases spread by mosquitoes is to prevent mosquito bites.

❖ Treat your clothing and gear with permethrin or buy pre-treated items (except in Puerto Rico, where permethrin is not effective).

❖ Use Environmental Protection Agency (EPA)-registered insect repellents on exposed skin. Use a repellent with one of the following active ingredients: DEET, picaridin, IR3535, oil of lemon eucalyptus, para-menthane-diol, or 2-undecanone.

❖ Stay in places with air conditioning and window and door screens to keep mosquitoes outside.

❖ Wear long-sleeved shirts and long pants.

I’m a certified nurse midwife who works in a large urban area in the Midwest if he US. We routinely counsel our patients not to travel to high risk Zika areas when planning pregnancy or if they are pregnant but often times they do anyways and then panic if they are bitten by mosquitoes. Currently the MFM group we refer to for testing are telling us that testing is only recommended if there are symptoms of infection (flu-like symptoms with red eyes), otherwise we continue with routine antenatal care and encourage condom use if the male partner also traveled. Is this best practice? I feel things change so quickly.

dennydoo15
Ali here, thanks for your question u/dennydoo15! Zika testing is recommended if you have symptoms of Zika and you live in or traveled to an area with risk of Zika, or if you have symptoms of Zika and you had sex without a condom with a partner who lives in or traveled to an area with risk of Zika. Zika testing is recommended for pregnant women who don’t have Zika symptoms in certain cases. You should be tested for Zika if you are pregnant and you have ongoing exposure to Zika because you live in or frequently travel to an area with risk of Zika, or your doctor sees Zika-associated abnormalities on an ultrasound or you deliver a baby with birth defects that may be related to Zika.

Recent research has called attention to the risk of Zika spreading among MSM (http://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1006633). Is the CDC doing anything to target this group, specifically?

dmrozComm

CDC is messaging to all populations who may be at risk for Zika. For info to share with members of the LGBT community, please see below https://www.cdc.gov/zika/pdfs/lgbt-zika-fact-sheet.pdf https://www.cdc.gov/condomeffectiveness/

How have recent weather events changed the approach to containing Zika? Is a larger geographical area now at risk due to floodwaters/migration, etc?

gravity_steve

Hi, gravity_steve. You sound heavy. This is Gary, here to answer you question.

Flooding caused by Hurricanes Harvey, Irma, and Maria is severe and an increase in mosquito populations is expected in the coming weeks. Mosquito eggs laid in the soil by floodwater mosquitoes during previous rain or floods hatch. This results in very large populations of floodwater mosquitoes. Most of these mosquitoes are considered nuisance mosquitoes. In general, nuisance mosquitoes do not spread viruses that make people sick. The types of mosquitoes that can spread viruses may increase 2 weeks to 2 months after a hurricane, especially in areas that did not flood but received more rainfall than usual. In areas with Ae. aegypti mosquitoes, which can spread Zika, chikungunya, or dengue, increased rainfall may result in increased hatching of Ae. aegypti eggs from water-holding containers. People may be at more risk of getting infected with these viruses, and they should take steps to protect themselves from mosquito bites. CDC will work closely with state, local, and territorial health officials to monitor the situation and take action if necessary.

By the way, adult mosquitoes do not generally survive high winds during a hurricane.

Is there any tested and proven method of reducing the chance of being bitten by a mosquito? As someone who mosquitoes are attracted to, I would like to do reduce the risk of Zika as much as possible, ideally without constantly using bug spray.

sparklymarkly

Hey, Gary here. Thanks for your question, sparklymarkly. Insect repellent is important, but there are many other things you can do to help prevent mosquito bites.

The best way to prevent mosquito bites (and therefore diseases spread by mosquitoes) is to take the following steps:
Wear long-sleeved shirts and long pants.  
Stay in places with air conditioning and window and door screens to keep mosquitoes outside.  
Treat your clothing and gear with permethrin or buy pre-treated items (except in Puerto Rico, where permethrin is not effective).  
Use an insect repellent with one of the following active ingredients: DEET, picaridin, IR3535, oil of lemon eucalyptus, para-menthane-diol, or 2-undecanone.

It is also important reduce mosquito populations around your home. Take these steps to control mosquitoes outside your home:

- Once a week, empty and scrub, turn over, cover, or throw out any items that hold water like tires, buckets, planters, toys, pools, birdbaths, flowerpot saucers, or trash containers. Mosquitoes lay eggs near water.
- Tightly cover water storage containers (buckets, cisterns, rain barrels) so that mosquitoes cannot get inside to lay eggs.
- For containers without lids, use wire mesh with holes smaller than an adult mosquito. Window and door screens sold at hardware stores have mesh small enough to keep mosquitoes out.
- Use larvicides to kill larvae in large containers of water that will not be used for drinking and cannot be covered or dumped out.
- Use an outdoor insect spray made to kill mosquitoes in areas where they rest. Mosquitoes rest in dark, humid areas like under patio furniture, or under the carport or garage.
- If you have a septic tank, repair cracks or gaps. Cover open vent or plumbing pipes. Use wire mesh with holes smaller than an adult mosquito.

To control mosquitoes inside your home:

- Install or repair and use window and door screens. Do not leave doors propped open.
- Use air conditioning when possible.
- Once a week, empty and scrub, turn over, cover, or throw out any items that hold water like vases and flowerpot saucers. Mosquitoes lay eggs near water.
- Kill mosquitoes inside your home. Use an indoor insect fogger or indoor insect spray (see examples in table below) to kill mosquitoes and treat areas where they rest. These products work immediately, and may need to be reapplied. When using insecticides, always follow label directions. Only using insecticide will not keep your home free of mosquitoes.
- Mosquitoes rest in dark, humid places like under the sink, in closets, under furniture, or in the laundry room.

With the weather patterns seen in late summer/early fall, how have the warmer temperatures effected mosquitoes in the southern parts of the United States?

hold-that-thought

This is Ali, thanks for your question u/hold-that-thought! In the extreme southern portions of southern US states (Florida, Alabama, Mississippi, Louisiana, Arizona, New Mexico, Texas, and California) where temperatures do not fall below 10 °C (50°F) for long periods of time, adult mosquitoes can
survive at least through the fall and possibly all winter. Mosquito eggs can survive drying out for up to 8 months.

In other states, where temperatures do fall and stay below 10°C (50°F), Ae. aegypti mosquitoes search for warm places as temperatures begin to drop. Some will hibernate in enclosed spaces, like garages, sheds, and under (or inside) homes to survive cold temperatures. Mosquitoes and mosquito eggs die at temperatures below 0°C (32°F). When outdoor temperatures rise above 10°C (50°F), mosquitoes will become active again. Exposed adult mosquitoes die at temperatures below 0°C (32°F).