

Question and Answers: Zika virus infection (Zika) and pregnancy

Travel

What places have outbreaks of Zika?

Local transmission of Zika has been reported in many countries and territories. Specific areas where Zika is spreading are often difficult to determine and will likely change over time. Check CDC's Zika Travel Information webpage often for the most up-to-date travel recommendations.

Should pregnant women travel to places with Zika outbreaks?

Zika virus can be spread from a pregnant woman to her fetus. There have been reports of a serious birth defect of the brain called microcephaly in babies of mothers who had Zika virus while pregnant. Knowledge of the link between Zika and birth defects is evolving, but until more is known, CDC recommends special precautions for pregnant women. Pregnant women in any trimester should consider postponing travel to any area where Zika virus is spreading. If you must travel to one of these areas, talk to your healthcare provider first and strictly follow steps to prevent mosquito bites during your trip.

Should women trying to get pregnant travel to places with Zika outbreaks?

Until more is known, CDC recommends that women trying to get pregnant and their male partners talk to their healthcare provider before traveling to areas with Zika. Because sexual transmission is possible, both men and women should strictly follow steps to prevent mosquito bites during the trip.

Areas where Zika is spreading will likely change over time. Check CDC's travel website often for a current list of areas with Zika. Specific areas where Zika virus is spreading are often difficult to determine and are likely to change. As more information becomes available, travel notices will be updated. Please check back frequently for the most up-to-date recommendations.

Zika and Pregnancy

Can mothers pass Zika on to their fetuses during pregnancy?

Zika virus can be passed from a mother to her fetus during pregnancy. We are studying how Zika affects pregnancies.

What should a pregnant woman do if she has previously traveled to a place with a Zika outbreak?

Pregnant women who have recently traveled to an area with Zika should talk to a healthcare provider about their travel even if they don't feel sick. CDC has guidance to help doctors decide what tests are needed for pregnant women who may have been exposed to Zika. CDC recommends that all pregnant women who have traveled to an area with Zika talk to their doctors. It is especially important that pregnant women see a doctor if they develop a fever, rash, joint pain, or red eyes during their trip or within 2 weeks after traveling to a country where Zika has been reported. They should tell the doctor where they traveled.

What should a pregnant woman do if she gets sick during or after travel to a place with a Zika outbreak?

Pregnant women who are worried that they had Zika should talk to their healthcare provider and tell their provider about their recent travel. It is especially important for a pregnant woman to see a doctor if she develops a fever,

rash, joint pain, or red eyes during her trip or within 2 weeks after traveling to an area with Zika. CDC has guidance to help doctors decide what tests are needed for pregnant women who may have been exposed to Zika.

Information for healthcare providers can be found on the Zika virus [Information for Health Care Providers](#) webpage.

Does Zika in pregnant women cause birth defects?

Brazil has been having a significant outbreak of Zika virus since May 2015. Officials in Brazil have also noted an increase in the number of babies with congenital [microcephaly](#) (a birth defect in which the size of a baby's head is smaller than expected for age and sex) during that time. Congenital microcephaly is often a sign of the brain not developing normally during pregnancy. Health authorities in Brazil, with assistance from the Pan American Health Organization, CDC, and other agencies, have been investigating the possible association between Zika virus infection and microcephaly.

Additional studies are needed to determine the degree to which Zika might be linked with microcephaly. More lab testing and other studies are planned to learn more about the risks of Zika virus infection during pregnancy.

Because of the possible association between Zika infection and microcephaly, pregnant women should take [steps to prevent mosquito bites](#)

Effects of Zika on Future Pregnancies

Can a previous Zika infection cause a woman who later gets pregnant to have a baby with microcephaly?

Currently, there is no evidence to suggest that Zika virus, after it is cleared from the blood, poses a risk of birth defects for future pregnancies. Zika virus usually remains in the blood of an infected person for about a week.

Is it safe to get pregnant after traveling to a place with a Zika outbreak?

Women thinking about getting pregnant who have recently traveled to an area with Zika should talk to their healthcare provider. Once a person becomes sick, Zika virus usually remains in the blood for about a week. Zika virus has been found in semen longer.

Prevention

Is there a vaccine or medicine for Zika?

No. There is no vaccine or medicine for Zika.

How can people protect themselves against Zika?

The best way to prevent Zika is to prevent mosquito bites. Here's how

- Wear long-sleeved shirts and long pants.
- Stay in places with air conditioning or that use window and door screens to keep mosquitoes outside.
- Use [Environmental Protection Agency \(EPA\)-registered insect repellents](#) (bug spray). Always follow the instructions on the label and reapply every few hours.
- Eliminate mosquito breeding sites, like containers with standing water.

Visit CDC's website for more information about [preventing mosquito bites](#).

Can pregnant and breastfeeding women use insect repellent?

Yes. Use EPA-registered insect repellents. When used as directed, these insect repellents are proven safe and effective even for pregnant and breastfeeding women. Some natural products are EPA-registered. The effectiveness of non-EPA registered insect repellents is NOT known. Insect repellents registered by the EPA can be expected to repel the mosquitoes that spread Zika, provided the EPA-approved labeling says the product is for use to protect against mosquitoes in general or against *Aedes* mosquitoes in particular. An example of a natural product with an EPA registration is oil of lemon eucalyptus.

Testing

Should a pregnant woman who lives in or has traveled to a place with a Zika outbreak be tested for the virus?

CDC has guidance to help healthcare providers decide what tests are needed for pregnant women who may have been exposed to Zika. CDC recommends that all pregnant women who have traveled to a place with a Zika outbreak get tested. It is especially important for pregnant women to see a doctor if they develop a fever, rash, joint pain, or red eyes during their trip or within 2 weeks after traveling to an area with Zika. Be sure to tell your doctor where you traveled.

Bugs (including mosquitoes, ticks, and some flies) can spread a number of diseases. Many of these diseases cannot be prevented with a vaccine or medicine. You can reduce your risk by taking steps to prevent bug bites.

What type of insect repellent should I use?

- **FOR PROTECTION AGAINST TICKS AND MOSQUITOES:** Use a repellent that contains 20% or more **DEET** for protection that lasts up to several hours. Products containing DEET include Off!, Cutter, Sawyer, and Ultrathon.
- **FOR PROTECTION AGAINST MOSQUITOES ONLY:** Products with one of the following active ingredients can also help prevent mosquito bites. Higher percentages of active ingredient provide longer protection.
 - **DEET**
 - **Picaridin** (also known as KBR 3023, Bayrepel, and icaridin. Products containing picaridin include Cutter Advanced, Skin So Soft Bug Guard Plus, and Autan [outside the US])
 - **Oil of lemon eucalyptus (OLE) or PMD** (Products containing OLE include Repel and Off! Botanicals)
 - **IR3535** (Products containing IR3535 include Skin So Soft Bug Guard Plus Expedition and SkinSmart)
- Always follow product directions and reapply as directed.
 - If you are also using sunscreen, apply sunscreen first and insect repellent second.
 - Follow package directions when applying repellent on children. Avoid applying repellent to their hands, eyes, and mouth.
- Consider using permethrin-treated clothing and gear (such as boots, pants, socks, and tents). You can buy pre-treated clothing and gear or treat them yourself.

- Treated clothing remains protective after multiple washings. See the product information to find out how long the protection will last.
- If treating items yourself, follow the product instructions carefully.
- Do **not** use permethrin directly on skin.

What other steps should I take to prevent bug bites?

- **Prevent mosquito bites.**
 - Cover exposed skin by wearing long-sleeved shirts, long pants, and hats.
 - Stay and sleep in screened or air-conditioned rooms.
 - Use a bed net if the area where you are sleeping is exposed to the outdoors.
- **Prevent tick bites.**
 - Cover exposed skin by wearing long-sleeved shirts, long pants, and hats.
 - Tuck in shirts, tuck pants into socks, and wear closed shoes instead of sandals to prevent bites.
 - Avoid wooded and brushy areas with high grass, brush, and leaves. Walk in the center of hiking trails.
- **Prevent tsetse fly bites.**
 - The tsetse fly lives in sub-Saharan Africa and can spread African sleeping sickness (African trypanosomiasis).
 - Cover exposed skin by wearing long-sleeved shirts, long pants, and hats.
 - Clothing fabric should be at least medium weight because the tsetse fly can bite through thin fabric.
 - Wear neutral-colored clothing. The tsetse fly is attracted to bright colors, very dark colors, metallic fabric, and the color blue.
 - Avoid bushes during the day, when the tsetse fly is less active. It rests in bushes and will bite if disturbed.
 - Inspect vehicles for tsetse flies before entering. The flies are attracted to moving vehicles.

What should I do if I am bitten by bugs?

- **If you are bitten by mosquitoes:**
 - Avoid scratching mosquito bites.
 - Apply hydrocortisone cream or calamine lotion to reduce itching.
- **Find and remove ticks from your body.**
 - Bathe or shower as soon as possible after coming indoors.
 - Check your entire body (under your arms, in and around your ears, in your belly button, behind your knees, between your legs, around your waist, and especially in your hair). Use a hand-held or full-length mirror to view all parts of your body.
 - Be sure to remove ticks properly.
 - Parents should check their children for ticks.
 - Check your pets and belongings. Ticks can be on outdoor equipment and clothes

Insect Repellent Use & Safety

Which mosquito repellents work best?

CDC recommends the use of products containing active ingredients which have been registered with the U.S. Environmental Protection Agency (EPA) for use as repellents applied to skin and clothing.

Of the products registered with the EPA, those containing DEET, picaridin, IR3535, and some oil of lemon eucalyptus and para-menthane-diol products provide longer-lasting protection.

EPA registration means that EPA does not expect the product to cause adverse effects to human health or the environment when used according to the label.

How often should repellent be reapplied?

Repellents containing a higher percentage of the active ingredient typically provide longer-lasting protection.

Regardless of what product you use, if you start to get mosquito bites, reapply the repellent according to the label instructions.

What precautions should I follow when using repellents?

Always follow the recommendations appearing on the product label. EPA recommends the following when using insect repellents:

- Apply repellents only to exposed skin and/or clothing (as directed on the product label). Do not apply repellents under your clothing.
- Never use repellents over cuts, wounds or irritated skin.
- Do not apply to eyes or mouth, and apply sparingly around ears. When using repellent sprays, do not spray directly on your face—spray on your hands first and then apply to your face.
- Do not allow children to handle or spray the product. When using on children, apply to your own hands first and then put it on the child. Avoid applying repellent to children's hands because children frequently put their hands in their eyes and mouths.
- Use just enough repellent to cover exposed skin and/or clothing. Heavy application does not give you better or longer lasting protection.
- After returning indoors, wash treated skin with soap and water or bathe. This is particularly important when repellents are used repeatedly in a day or on consecutive days.
- If you (or your child) get a rash or other reaction from a repellent, stop using the repellent, wash the repellent off with mild soap and water, and call a local poison control center for further guidance. If you go to a doctor, it might be helpful to take the repellent with you.

Can insect repellents be used on children?

Yes. Most products can be used on children. Products containing oil of lemon eucalyptus should not be used on children under the age of three years. EPA does not recommend any additional precautions for using registered repellents on children other than those listed above.

Can insect repellents be used by pregnant or nursing women?

Yes. EPA does not recommend any additional precautions for repellent use by pregnant or nursing women.

Can I use an insect repellent and a product containing sunscreen at the same time?

Yes. People can, and should, use both a sunscreen and an insect repellent when they are outdoors. Follow the instructions on the package for proper application of each product. In general, the recommendation is to apply sunscreen first, followed by repellent.

Should I use combination sunscreen/insect repellent products?

It is not recommended to use a single product that combines insect repellent containing DEET and sunscreen. Repellent usually does not need to be reapplied as often as sunscreen. There are not specific recommendations for products that combine other active ingredients and sunscreen. Always follow the instructions on the label of whatever product you are using.

What is permethrin?

Permethrin is a repellent and insecticide. Certain products containing permethrin are recommended for use on clothing, shoes, bed nets, and camping gear. Permethrin-treated products repel and kill ticks, mosquitoes, and other arthropods. These products continue to repel and kill insects after several washings. Permethrin should be reapplied following the label instructions.