**Zika: The Basics of the Virus and How To Protect Against It**

**About Zika**
Zika virus spreads to people primarily through the bite of an infected Aedes species mosquito (*Ae. aegypti* and *Ae. albopictus*). People can also get Zika through sex with a man infected with Zika and it can be spread from a pregnant woman to her fetus. People can protect themselves from mosquito bites and getting Zika through sex. This fact sheet explains who’s most affected and why, symptoms and treatment, and how to protect against Zika.

**How Zika Spreads**
The mosquitoes that carry Zika are aggressive daytime biters, but they can also bite at night. A mosquito becomes infected when it bites a person already infected with Zika. That mosquito can then spread the virus by biting more people.

Zika virus can also spread:
- During sex with a man infected with Zika.
- From a pregnant woman to her fetus during pregnancy or around the time of birth.
- Through blood transfusion (likely but not confirmed).

**Current Zika Outbreak**
Zika outbreaks are currently happening in many countries and territories. The mosquitoes that can become infected with and spread Zika live in many parts of the world, including parts of the United States.

Specific areas where Zika virus is spreading are often difficult to determine and are likely to change over time. If traveling, please visit the [CDC Travelers’ Health website](https://www.cdc.gov/travel) for the most recent travel information.

**Zika Symptoms**
Many people infected with Zika won’t have symptoms or will only have mild symptoms. The most common symptoms are fever, rash, joint pain, or red eyes. Other common symptoms include muscle pain and headache. Symptoms can last for several days to a week. People usually don’t get sick enough to go to the hospital, and they very rarely die of Zika. Once a person has been infected with Zika, they are likely to be protected from future infections.
Why Zika is Risky for Some People
Zika infection during pregnancy can cause fetuses to have a birth defect of the brain called microcephaly. Other problems have been detected among fetuses and infants infected with Zika virus before birth, such as defects of the eye, hearing deficits, and impaired growth. There have also been increased reports of Guillain-Barré syndrome, an uncommon sickness of the nervous system, in areas affected by Zika.

How to Prevent Zika
There is no vaccine to prevent Zika. The best way to prevent diseases spread by mosquitoes is to protect yourself and your family from mosquito bites. Here’s how:

- Wear long-sleeved shirts and long pants.
- Stay in places with air conditioning and window and door screens to keep mosquitoes outside.
- Take steps to control mosquitoes inside and outside your home.
- Treat your clothing and gear with permethrin or buy pre-treated items.
- Use Environmental Protection Agency (EPA)-registered insect repellents. Always follow the product label instructions.
  - When used as directed, these insect repellents are proven safe and effective even for pregnant and breastfeeding women.
  - Do not use insect repellents on babies younger than 2 months old.
  - Do not use products containing oil of lemon eucalyptus or para-methane-diol on children younger than 3 years old.
- Mosquito netting can be used to cover babies younger than 2 months old in carriers, strollers, or cribs to protect them from mosquito bites.
- Sleep under a mosquito bed net if air conditioned or screened rooms are not available or if sleeping outdoors.
- Prevent sexual transmission of Zika by using condoms or not having sex.

What to do if You Have Zika
There is no specific medicine to treat Zika.

Treat the symptoms:
- Get plenty of rest.
- Drink fluids to prevent dehydration.
- Take medicine such as acetaminophen to reduce fever and pain.
- Do not take aspirin or other non-steroidal anti-inflammatory drugs.
- If you are taking medicine for another medical condition, talk to your healthcare provider before taking additional medication.

To help prevent others from getting sick, strictly follow steps to prevent mosquito bites during the first week of illness.

www.cdc.gov/zika
Zika virus is spread to people mainly through the bite of an infected mosquito. Mosquitoes that spread Zika virus bite mostly during the day, but they can also bite at night. The best way to prevent Zika is to protect yourself from mosquito bites.

Use insect repellent
Use Environmental Protection Agency (EPA)-registered insect repellents with one of the following active ingredients: DEET, picaridin, IR3535, oil of lemon eucalyptus, or para-methane-diol. Always follow the product label instructions.
- When used as directed, these insect repellents are proven safe and effective even for women who are pregnant or breastfeeding.
- Reapply insect repellent as directed.
- Do not spray repellent on the skin under clothing.
- If you are also using sunscreen, apply sunscreen first.
- The effectiveness of non-EPA registered insect repellents, including some natural repellents, is not known.

If you have a baby or child
- Do not use insect repellent on babies younger than 2 months old.
- Do not use products containing oil of lemon eucalyptus or para-methane-diol on children younger than 3 years old.
- Dress your child in clothing that covers arms and legs.
- Cover crib, stroller, and baby carrier with mosquito netting.
- Do not apply insect repellent onto a child's hands, eyes, mouth, and any cut or irritated skin.
  » Adults: Spray insect repellent onto your hands and then apply to a child's face.

Treat clothes and gear
- Treat items such as clothing and gear with permethrin or buy permethrin-treated clothes and gear.
  » See product information to find out the number of washings or length of time the protection will last.
  » If treating items yourself, follow the product instructions.
  » Do not use permethrin products directly on skin.

Insect Repellent Guide

<table>
<thead>
<tr>
<th>Active ingredient</th>
<th>Some brand name examples*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher percentages of active ingredient provide longer protection</td>
<td></td>
</tr>
<tr>
<td>DEET</td>
<td>Off!, Cutter, Sawyer, Ultrathon</td>
</tr>
<tr>
<td>Picaridin, also known as KBR 3023, Bayrepel, and icaridin</td>
<td>Cutter Advanced, Skin So Soft Bug Guard Plus, Autan (outside the United States)</td>
</tr>
<tr>
<td>Oil of lemon eucalyptus (OLE) or para-methane-diol (PMD)</td>
<td>Repel</td>
</tr>
<tr>
<td>IR3535</td>
<td>Skin So Soft Bug Guard Plus Expedition, SkinSmart</td>
</tr>
</tbody>
</table>

*Insect repellent brand names are provided for your information only. The Centers for Disease Control and Prevention and the U.S. Department of Health and Human Services cannot recommend or endorse any name brand products.
Control mosquitoes outside your home

- **Once a week**, empty and scrub, turn over, cover, or throw away any items that hold water like tires, buckets, and planters.
- Tightly cover water storage containers (buckets, rain barrels, etc.).
- For containers without lids, use wire mesh with holes smaller than an adult mosquito.
- Use larvicides to treat large containers of water that will not be used for drinking and cannot be covered or dumped out.
- Use an outdoor flying insect spray in dark humid areas where mosquitoes rest, like under patio furniture, or in the carport or garage. When using insecticides, always follow label instructions.
- If you have a septic tank, repair cracks or gaps. Cover open vent or plumbing pipes using wire mesh with holes smaller than an adult mosquito.

Control mosquitoes inside your home

- Keep windows and doors shut and use air conditioning when possible.
- Use, install, or repair window and door screens.
- **Once a week**, empty or throw out any items that hold water like vases and flowerpot saucers.
- Use an indoor flying insect fogger or indoor insect spray to kill mosquitoes and treat areas where they rest. These products work immediately, but may need to be reapplied. Always follow label directions.
- Only using insecticide will not keep your home free of mosquitoes.

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**Do-It-Yourself Products**

<table>
<thead>
<tr>
<th>Product</th>
<th>Active ingredient</th>
<th>Brand name examples**</th>
<th>How long it works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor flying insect spray</td>
<td>Imidacloprid, β-Cyfluthrin</td>
<td>Home Pest Insect Killer, Raid, Ortho, HotShot, EcoLogic</td>
<td>7-10 days</td>
</tr>
<tr>
<td>Indoor flying insect fogger</td>
<td>Tetramethrin, Cypermethrin</td>
<td>Hot Shot, Raid, Real Kill, Spectracide</td>
<td>Up to 6 weeks</td>
</tr>
</tbody>
</table>

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www.cdc.gov/zika
Mosquito Bite Prevention (United States)

Not all mosquitoes are the same. Different mosquitoes spread different viruses and bite at different times of the day.

**Type of Mosquito**
- *Aedes aegypti, Aedes albopictus*
- *Culex species*

**Viruses spread**
- Chikungunya,
- Dengue,
- Zika
- West Nile

**Biting habits**
- Primarily daytime, but can also bite at night
- Evening to morning

Protect yourself and your family from mosquito bites

Use insect repellent

Use an Environmental Protection Agency (EPA)-registered insect repellent with one of the following active ingredients. When used as directed, EPA-registered insect repellents are proven safe and effective, even for pregnant and breastfeeding women.

**Active ingredient**
- Higher percentages of active ingredient provide longer protection

<table>
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<tr>
<th>DEET</th>
<th>Picaridin, also known as KBR 3023, Bayrepel, and Icaridin</th>
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Protect yourself and your family from mosquito bites (continued)

- Always follow the product label instructions.
- Reapply insect repellent every few hours, depending on which product and strength you choose.
  - Do not spray repellent on the skin under clothing.
  - If you are also using sunscreen, apply sunscreen first and insect repellent second.

Natural insect repellents (repellents not registered with EPA)
- The effectiveness of non-EPA registered insect repellents, including some natural repellents, is not known.
- To protect yourself against diseases like chikungunya, dengue, and Zika, CDC and EPA recommend using an EPA-registered insect repellent.
- When used as directed, EPA-registered insect repellents are proven safe and effective.
- For more information: www2.epa.gov/insect-repellents

If you have a baby or child

- Always follow instructions when applying insect repellent to children.
- Do not use insect repellent on babies younger than 2 months of age.
- Dress your child in clothing that covers arms and legs, or
- Cover crib, stroller, and baby carrier with mosquito netting.
- Do not apply insect repellent onto a child's hands, eyes, mouth, and cut or irritated skin.
  - Adults: Spray insect repellent onto your hands and then apply to a child's face.
- Do not use products containing oil of lemon eucalyptus (OLE) or para-methane-diol (PMD) on children under 3 years of age.

Treat clothing and gear

- Treat items such as boots, pants, socks, and tents with permethrin or purchase permethrin-treated clothing and gear.
  - Permethrin-treated clothing will protect you after multiple washings. See product information to find out how long the protection will last.
  - If treating items yourself, follow the product instructions.
  - Do not use permethrin products directly on skin.

Mosquito-proof your home

- Use screens on windows and doors. Repair holes in screens to keep mosquitoes outside.
- Use air conditioning when available.
- Keep mosquitoes from laying eggs in and near standing water.
  - Once a week, empty and scrub, turn over, cover, or throw out items that hold water, such as tires, buckets, planters, toys, pools, birdbaths, flowerpots, or trash containers. Check inside and outside your home.

www.cdc.gov/features/StopMosquitoes
ZIKA AND SEXUAL TRANSMISSION

WHAT WE KNOW AND WHAT WE DON’T KNOW.

What we know

- Zika virus can be spread during sex by a man infected with Zika to his partners. This includes vaginal, anal, and oral (mouth-to-penis) sex.

- In known cases of sexual transmission, the men had Zika symptoms. From these cases, we know the virus can be spread when the man has symptoms, before symptoms start, and after symptoms end.

- The virus can stay in semen longer than in blood.

What we don’t know

- How long Zika virus can stay in the semen of infected men or spread through sex.

- If men infected with Zika who never develop symptoms can have Zika virus in their semen or spread Zika through sex.
CDC's Response to Zika

HOW TO PROTECT YOURSELF
FROM GETTING ZIKA FROM SEX

Information for People whose Partner Traveled to an Area with Zika

Can I get Zika from sex?

• Yes, you can get Zika from sex with a partner who has Zika, even if your partner does not have symptoms at the time, or if their symptoms have gone away.
• Only people with sex partners who live in or traveled to an area with Zika are at risk for getting Zika through sex.
• Sex includes vaginal, anal, and oral sex, and the sharing of sex toys.

Should I be concerned about getting Zika from sex?

• Zika is of greatest concern for pregnant women and women who may become pregnant while infected. This is because Zika can cause birth defects in babies born to women who are infected during pregnancy.
• For everyone else, Zika rarely causes serious disease. Many people with Zika won’t have symptoms. When symptoms do appear, they are usually mild. The most common symptoms are fever, rash, joint pain and conjunctivitis (red eyes).

What can I do to reduce my chance of getting Zika from sex, if my partner traveled to an area with Zika?

Condoms can reduce the chance of getting Zika from sex. To be effective, condoms should be used from start to finish, every time during vaginal, anal, and oral sex.

If you’re pregnant:

Use a condom every time you have sex or do not have sex during your pregnancy. This is important, even if your partner does not have symptoms of Zika.

If you’re not pregnant but want to avoid getting Zika from sex:

You can use condoms every time you have sex or not have sex after your partner returns from travel. The length of time for taking these precautions depends on your partner:

• If your male or female partner does not have Zika or Zika symptoms: at least 8 weeks after his or her return.
• If your female partner has Zika or Zika symptoms: at least 8 weeks after her symptoms started.
• If your male partner has Zika or Zika symptoms: at least 6 months after his symptoms started. Zika stays in semen longer than other body fluids and can be passed to a man’s partner during that time.

Zika is mainly spread through mosquito bites. Travelers should take steps to prevent mosquito bites for 3 weeks after returning from an area with Zika. This is because you can have Zika in your blood and a mosquito can bite you, get infected with Zika virus, and spread the virus to other people.