

Patient information from BMJ

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Zika virus

The Zika virus infection is a disease that is mainly spread by bites from some types of mosquito.

These mosquitoes generally live in warm, moist climates. If you live in or travel to these places you should take steps to avoid being bitten.

What is it?

The Zika virus is found in areas where certain types of mosquito are common. For example, Zika has been found in South and Central America, the Caribbean, and Mexico. It has also been found in parts of Miami, Florida, in the US, and some parts of West Africa, the Western Pacific, and Southeast Asia.

In the outbreak of 2019, cases of Zika in returning travellers were reported in the UK, Europe, the US, Australia, New Zealand, Israel, and China, among other countries.

The Zika virus usually causes mild symptoms or no symptoms at all. But it has been linked with two serious conditions: microcephaly at birth and Guillain-Barré syndrome.

Microcephaly at birth is when a baby is born with a small head. This can affect the growth and development of the baby's brain. Microcephaly is rare, but women infected with Zika during pregnancy have a greater chance than other pregnant women of having a baby with this condition.

Zika has also been linked to other problems in newborns, including:

- seizures
- eye problems
- hearing loss, and
- other birth defects affecting the face and head.

Guillain-Barré syndrome is a rare condition that affects the body's nervous system. It can cause problems with movement, breathing, speech, and swallowing.

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People infected with Zika seem to have a raised risk of getting this illness. Zika may also be linked to other rare problems affecting the nervous system, such as myelitis (inflammation of the spinal cord).

How does Zika spread?

Mosquito bites

People can catch Zika from the bites of some types of mosquito - in the same way you can catch diseases such as malaria, chikungunya, and dengue fever from mosquito bites in some countries.

One big difference between malaria and Zika is that the mosquitoes that spread Zika bite mainly during the day (though also sometimes at night), while the mosquitoes that spread malaria bite at night.

This means that, if you're in an area where Zika is found, you need to take measures to avoid mosquito bites 24 hours a day.

Another problem is that the mosquitoes that spread Zika breed in small pools of water near homes. This makes them hard to get rid of.

Other ways Zika might spread

Nearly everyone infected with Zika gets it from mosquito bites. But a small number of people have also caught it from having sex with an infected person. It's likely that the virus can be spread through vaginal, anal, and oral sex.

Zika can also spread from a pregnant woman to her unborn baby.

You may have heard that Zika can be spread by other types of contact, such as kissing and breastfeeding. But, while the Zika virus has been found in other body fluids, including saliva and breast milk, there is not yet any clear evidence that it can be spread through other specific types of contact.

However, there has been one case in the US of the virus spreading to a carer from a person very ill with Zika.

What are the symptoms?

Most people infected with Zika have no symptoms at all. It's thought that only about 20 in every 100 people who get infected will become ill.

If you get symptoms of Zika after a mosquito bite, the symptoms usually develop between 3 and 14 days after you are bitten. But it can be shorter or longer than this.

Zika symptoms tend to be mild and to go away after 2 to 7 days. Possible symptoms include:

- a slight fever

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- pain in the joints, and sometimes swelling in the fingers and toes
- a rash, which may or may not be itchy
- red eyes or conjunctivitis (a mild eye infection)
- headache
- pain in some muscles, and
- pain in the eyes.

The symptoms of Zika are similar to (but milder than) some of the symptoms of dengue fever, which is found in some of the same countries where Zika is found.

It is rare for anyone to have severe symptoms and to become very ill. It is very rare for anyone to die from the Zika virus.

If you have any or even all of the symptoms listed above, it is highly unlikely that you have Zika unless:

- you live in an area where there is Zika, or
- you have recently travelled to an area where there is Zika, and the symptoms appeared within two weeks of your return, or
- you have had sexual contact with someone who is infected with Zika or might be infected (for example, if they have recently travelled to an area with Zika).

What treatments are available?

There is no vaccine to prevent Zika infection yet. And there is no drug that can treat Zika specifically. Treatment is aimed at easing the symptoms, such as fever and pain.

For now, then, the best way to treat Zika is to prevent it. This means taking steps to avoid mosquito bites if you are in an area affected by Zika. These steps include:

- using **mosquito repellents**. You will need to use an approved repellent, according to the directions in your local health guidelines. If you are using sunscreen, apply mosquito repellent over the sunscreen. Some repellents should not be used on very young babies. Be sure to check the label before using a repellent on an infant
- **covering up** as much exposed skin as possible so that it's harder for mosquitoes to find a place to bite. This might mean wearing clothes that cover more of your body than you might normally wear in a hot country, such as long trousers, and shirts with long sleeves
- treating clothing and gear with an insect repellent called permethrin or purchasing permethrin-treated items. You should not, however, put permethrin directly on your skin
- taking steps to avoid bites 24 hours a day
- staying in air-conditioned rooms when possible, or in rooms with insect screens over windows and doors
- sleeping under a mosquito net, and also covering cots, prams, and baby carriers with a mosquito net.

Zika, travel, and pregnancy

Because of the risk of microcephaly in babies born to women infected with Zika during pregnancy, much of the advice around Zika, and in particular travel advice, is aimed at women.

The main points are:

- If you are a pregnant woman, or if you are planning to become pregnant, you should avoid travelling to an area with an active Zika outbreak.
- If you can't avoid travelling to an area where there is an active Zika outbreak, or if you live in an area with Zika, then carefully follow the steps listed above for avoiding mosquito bites.

If you are pregnant and have recently returned from an area where there is Zika, you should see your doctor. Your doctor should arrange for you to have tests to check whether you have been infected.

At the moment, women are advised to avoid becoming pregnant while travelling in an area where there is an active Zika outbreak.

You should also avoid becoming pregnant for a while after returning from your journey. This is to allow enough time to be as sure as possible that you haven't been infected.

The advice on how long you should wait before becoming pregnant varies. For example, women returning to the UK from areas with an active Zika outbreak are advised not to become pregnant for 8 weeks.

However, women living in areas with Zika may be advised to avoid becoming pregnant for a much longer period.

Sexual contact

Although Zika is usually spread through mosquito bites, the virus can also be passed from person to person through sexual contact.

Advice about sexual contact differs among countries. For example, in the UK, men who have lived in or travelled to an area with Zika and have a pregnant partner are advised to either:

- not have sex with their partner for the whole of the pregnancy, or to
- use condoms every time for vaginal, anal, and oral sex for the whole of the pregnancy.

Also, if a couple is travelling to an area with Zika and there is a chance the woman might become pregnant, they are advised to use effective contraception to prevent pregnancy, as well as condoms when having vaginal, anal, or oral sex. They are also advised to continue with these measures:

- for 8 weeks after returning from an area with Zika if the man has no symptoms similar to those of Zika

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- for 6 months after the man has recovered from an illness with symptoms similar to those of Zika, and
- for 6 months after the man has recovered from an illness that was confirmed as being Zika.

It is possible that this advice will change as we learn more about Zika and about how it is, and is not, spread.

What to expect in the future?

Most people infected with Zika don't have any symptoms. Those people who do have symptoms usually have a mild illness that lasts only a few days - a bit like a mild flu.

It is rare for anyone to have serious complications from Zika or to die from it. However, be sure to see your doctor if you have weakness in your arms or legs, or difficulty breathing. These could be symptoms of Guillain-Barré syndrome.

The main concern about Zika at the moment is that pregnant women who are infected with Zika might have babies with microcephaly or other problems.

If you are pregnant or are planning to become pregnant and are worried about Zika, talk to your doctor. Your doctor may recommend that you have additional monitoring and tests, such as ultrasounds, if you are already pregnant.

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