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## Zika virus - update and advice for travellers

**Following an expert review, three risk ratings for areas of Zika virus transmission have been defined - Advice for travellers visiting these areas has been updated**

The geographical distribution of [Zika virus](#) (ZIKV) has expanded globally in recent years. Specific areas where ZIKV transmission is ongoing are often difficult to determine, and subject to change over time.

The World Health Organization (WHO), in conjunction with US Centres for Disease Control and Prevention (CDC) and the European Centre for Disease Prevention and Control (ECDC), developed a revised ZIKV country classification scheme which was published on 10 March 2017 [1]. There continues to be differences in travel advice worldwide as public health authorities and policy makers in different countries have used the new WHO categories differently to determine their own public health recommendations.

Public Health England (PHE) and NaTHNaC have reviewed this revised classification scheme, and made the following changes to the ZIKV guidance:

- Travel recommendations from PHE and NaTHNaC will continue to use the high/moderate/low risk ratings and the underlying travel advisories for pregnant women travelling to countries/areas with these risk ratings have not changed.
- Most countries or areas in WHO categories 1 and 2 (i.e. those which have reported recent outbreaks, re-introduction of ZIKV or endemic transmission) have been rated as moderate risk and pregnant women are advised to consider postponing non-essential travel to these countries or areas. However, where there is evidence of a current outbreak of ZIKV with significant transmission that may increase the risk to UK travellers, the rating of the country or area has been increased to, or will remain at high risk and pregnant women are advised to postpone non-essential travel.
- Countries or areas in WHO category 3 are those with interrupted transmission and with potential for future transmission and are rated as low risk. There is no specific ZIKV travel advisory for these countries or areas.
- Countries or areas in WHO category 4 are those that have not reported any past or current transmission of ZIKV, but do have the competent vector (*Aedes aegypti* mosquito) and may border countries where ZIKV has been reported. These countries do not have a ZIKV risk rating, but they will be mentioned separately to reflect the risk of other vector borne diseases being present and the theoretical risk that ZIKV transmission could be identified in these countries in the future.
- Guidance on the sexual transmission of ZIKV infection has been revised to focus messaging on pregnant women, their partners and, importantly, couples planning pregnancy. This will ensure that the advice on the use of barrier measures (e.g., condoms) and avoiding conception are targeted to those for whom the implications of sexual transmission of ZIKV are greatest.

While many countries have been downgraded from high to moderate risk, the following countries or areas currently remain classified as 'high risk': Belize, Bolivia, Caribbean Netherlands islands (Aruba, Bonaire, Curaçao, Saba and Sint Eustatius) Costa Rica, Ecuador, Peru and Puerto Rico.

There are eight countries in Africa: Burkina Faso, Burundi, Cameroon, Central African Republic, Cote d'Ivoire (Ivory Coast), Nigeria, Senegal, Uganda, that will be newly added to the moderate risk category (previously they did not have Zika advisory notices). WHO has identified that these countries have historically (since 1980) reported a small number of Zika cases and are likely to have endemic transmission of Zika. There is no indication that there has been any recent change in transmission in these countries.

A small number of countries have moved from low to moderate risk category: Bangladesh, Cambodia, Gabon, Guyana, Laos and Marshall Islands.

Summary of travel advice according to PHE/NaTHNaC Zika risk rating

### High and moderate risk

#### 1. Pregnant women:

- **should postpone non-essential travel to high risk areas** until after pregnancy
- **should consider postponing non-essential travel to moderate risk areas** until after pregnancy
- If travel is essential, be aware of the risk, be scrupulous with insect bite avoidance, seek advice from your GP or midwife on return, even if you have not been unwell

**2. All travellers** should avoid mosquito bites day and night. If you experience symptoms suggestive of ZIKV infection, seek medical advice (while the symptoms are still present)

**3. Male travellers:** if your female partner is pregnant, consistent use of condoms or other barrier methods is advised during vaginal, anal and oral sex to reduce the risk of transmission during travel and for the duration of the pregnancy even if you did not develop symptoms compatible with ZIKV infection if your female partner is planning pregnancy: effective contraception is advised to prevent pregnancy AND consistent use of condoms or other barrier methods is advised during vaginal, anal and oral sex to reduce the risk of transmission during travel and for 6 months after return even in the absence of symptoms

**4. Female travellers:** avoid becoming pregnant during travel and for 8 weeks after your last possible ZIKV exposure\*

### Low risk

- All travellers should avoid mosquito bites particularly between dawn and dusk.
- Pregnant women should seek medical advice if they develop ZIKV symptoms, and contact their GP on return

\* Last possible ZIKV exposure is defined as the date of leaving an area with high or moderate ZIKV risk, or the date on which unprotected sexual contact with a potentially infectious partner took place.

Risk ratings for countries and areas will be reviewed on a regular basis. Information and advice for travellers is available from our [Country Information](#) pages (information is found in the 'other risk' section for affected areas). Public Health England (PHE) also provides an [A-Z list of countries showing the ZIKV risk rating](#).

## About ZIKV

ZIKV is transmitted by daytime biting *Aedes* mosquitoes, most commonly *Aedes aegypti*. A relatively small number of cases of sexual transmission of ZIKV have also been reported. The infection often occurs without symptoms but can also cause an illness similar to [dengue](#). For those [with symptoms](#), the disease is usually mild and short-lived. Serious complications and deaths from

ZIKV are not common. Based on a systematic review of the literature up to 30 May 2016, [WHO concluded](#) that ZIKV infection during pregnancy is a cause of congenital brain abnormalities, including [microcephaly](#) (also referred to as congenital Zika syndrome (CZS)) and that Zika virus is a trigger of Guillain-Barré syndrome (GBS) [2].

## Advice for travellers

Our [Country Information](#) pages 'Other Risk' section provides information on ZIKV transmission and recommendations for travellers to high, moderate and low risk areas.

There is currently no vaccine available to prevent ZIKV.

*Aedes* mosquitoes transmit ZIKV (as well as diseases such as chikungunya, dengue and yellow fever). *Aedes* mosquitoes bite predominantly during the daytime, particularly during mid-morning and late afternoon to dusk. However, you should take [insect bite avoidance measures](#) during both day and night time hours to reduce the risk of infection with ZIKV and other mosquito borne diseases. A repellent containing up to 50 percent N, N-diethylmetatoluamide (DEET), should be used on exposed skin, together with light cover-up clothing. If sunscreen is needed, repellent should be applied after sunscreen. Sunscreen should be 30 SPF or above to compensate for DEET-induced reduction in SPF. This type of mosquito is unlikely to be found at altitudes over 2,000m.

If you have any additional concerns these should be discussed with your healthcare provider.

### A. Pregnant women and their male partners who are planning to travel

i. If you are pregnant:

Before booking travel you should check the ZIKV risk for your destination (see [A - Z list](#)) and consider any travel advisories.

- It is recommended that you should postpone non-essential travel to areas with ZIKV transmission designated as 'high risk' (see A-Z list) until after pregnancy.
- You should consider postponing non-essential travel to areas designated as 'moderate risk' (see A-Z list) until after pregnancy.
- In the event that travel to a high or moderate risk area cannot be postponed, you should make sure you are fully aware of the risks ZIKV may present.
- In addition, you should be scrupulous with mosquito bite avoidance measures both during daytime and night time hours (but especially during mid-morning and late afternoon to dusk, when the mosquito is most active). Public Health England has produced an information leaflet: [mosquito bite avoidance for travellers](#).

ii. If your female partner is pregnant, consistent use of condoms or other barrier methods are advised during vaginal, anal and oral sex to reduce the risk of transmission during travel and for the duration of the pregnancy even if you did not develop symptoms compatible with ZIKV infection.

### B. Pregnant women who have travelled

- If you travelled in a high or moderate risk area (details can be seen on our [Country Information](#) pages 'other risk' section) while you were pregnant you should seek advice from your GP or midwife on your return to the UK, even if you have not been unwell. Your GP or midwife will discuss whether you need further evaluation such as fetal ultrasound scanning, and, if necessary, referral to the local fetal medicine service.
- If you are currently experiencing symptoms suggestive of ZIKV infection, your GP will arrange testing as appropriate.
- If you develop symptoms suggestive of ZIKV infection in an area categorised as low risk, you should seek medical advice and contact your GP on return.

### **C. Couples planning pregnancy**

Before booking travel, if you are planning pregnancy within 6 months following travel you should check the ZIKV risk for your destination (see [A - Z list](#)) and consider any travel advisories and sexual transmission advice. You should discuss your travel plans with your healthcare provider to assess your risk of infection with ZIKV and, where travel is unavoidable, receive advice on mosquito bite avoidance measures.

You should seek advice from your healthcare provider on the potential risks of ZIKV infection in pregnancy.

Consistent use of effective contraception is advised to prevent pregnancy and barrier methods (e.g. condoms) for vaginal, anal and oral sex during and after travel is advised to reduce the risk of conception and the developing fetus being exposed to Zika virus. These measures should be used even in the absence of symptoms while travelling in a high or moderate risk area and if:

- Both partners travelled, for 6 months after return or after last possible Zika virus exposure (i.e. return from these areas or unprotected sexual contact with a potentially infectious partner)
- Male traveller only, for 6 months after return or after last possible Zika virus exposure
- Female traveller only, for 8 weeks after return or after last possible Zika virus exposure

Following this, attempts to conceive can resume.

In addition, you should be scrupulous with mosquito bite avoidance measures both during daytime and night time hours (but especially during mid-morning and late afternoon to dusk, when the mosquito is most active). Public Health England has produced an Information leaflet: [mosquito bite avoidance for travellers](#).

If you are planning pregnancy and you develop symptoms compatible with ZIKV infection on your return to the UK, seek advice from your GP; testing will be arranged as appropriate. It is recommended you avoid becoming pregnant for a further 8 weeks following the onset of symptoms.

### **D. Preventing sexual transmission in other travellers**

A relatively small number of cases of sexual transmission of ZIKV have been reported. The vast majority of cases have involved men who experienced typical ZIKV symptoms at or before the estimated time of sexual transmission to their female partners [3].

Transmission of ZIKV from a female to a male sexual partner, and from a male to a male sexual partner has also been reported but these appear to be very rare events [3].

Zika virus has been shown to be present in semen and vaginal secretions. The virus persists longer in semen than in the female genital tract, but the viral RNA detected is not necessarily infectious.

The overall risk of sexual transmission of ZIKV is considered to be low. ZIKV infection is usually an asymptomatic (without symptoms) or mild illness so sexually transmitted cases of infection may not be recognised.

Individuals with further concerns regarding potential sexual transmission of ZIKV and options for contraception should contact their GP for advice [3].

## Advice for health professionals

Our [Country Information](#) pages 'other risks' section provides information on ZIKV transmission and the specific recommendations for travellers. The [A-Z list](#) from PHE and our [Outbreak Surveillance](#) section may also be helpful. Health professionals should be aware of the advice described above for pregnant women, their partners and couples planning pregnancy. A comprehensive risk assessment should be undertaken for travellers in these groups going to high or moderate areas of ZIKV transmission. See information on [factors that health professionals should consider when assessing the risk of infection with ZIKV](#).

An [algorithm](#) is available to summarise the advice for the different travellers.

- ZIKV should be considered among the differential diagnoses of patients with fever, or other symptoms suggestive of ZIKV infection, returning from countries with active ZIKV transmission. [Further information about diagnosis is available from Public Health England](#).
- If a case of ZIKV infection is suspected, samples need to be sent to [PHE's Rare and Imported Pathogens Laboratory \(RIPL\)](#); this should be done by liaising with the local diagnostic laboratory. In addition to completing any local laboratory request form, a RIPL request form also needs to be completed by the clinician assessing the patient.
- [Guidance for health professionals](#) on assessing pregnant women with a history of travel to an area with high or moderate risk of ZIKV transmission during pregnancy is available from Public Health England [4].
- Guidance for health professionals on [ZIKV and immunocompromised patients](#) who wish to travel or who have travelled to ZIKV affected areas is available from Public Health England [5].

Health professionals should also be vigilant for any increase of neurological and autoimmune syndromes (in adults and children), or congenital malformations/birth defects in new born infants (where the cause is not otherwise evident) in patients with a history of travel to areas where ZIKV transmission is known to occur [6, 7].

## Resources

- [Algorithm: Sexual transmission advice](#)
- [British Fertility Society: Zika virus, fertility treatment and gamete donation. June 2016 \(updated\)](#)
- [Insect and tick bite avoidance](#)
- [Public Health England: Zika virus](#)
- [Public Health England: Zika virus- algorithm for assessing pregnant women with a history of travel during pregnancy to areas with active Zika virus \(ZIKV\) transmission](#)
- [Public Health England: Zika virus infection, guidance for primary care](#)
- [Public Health England: Mosquito bite avoidance for travellers leaflet](#)
- [Pregnancy](#)
- [Zika - Risk Assessment: Factors health professionals should consider when advising those travelling to Zika virus affected areas](#)

## References

1. [World Health Organization Zika virus country classification scheme, March 2017 \[Accessed 3 August 2017\].](#)
2. [World Health Organization, Zika virus factsheet, 6 September 2016, \[Accessed 3 August 2017\].](#)
3. [Public Health England, Zika virus: prevention infection by sexual transmission, 2 August 2017. \[Accessed 3 August 2017\]](#)
4. [Public Health England, Zika virus: algorithm for assessing pregnant women with a history of travel during pregnancy to areas with active Zika virus \(ZIKV\) transmission, 2 August 2017. \[Accessed 3 August 2017\]](#)
5. [Public Health England, Zika virus and immunocompromised patients, 2 August 2017. \[Accessed 3 August 2017\]](#)
6. [Public Health England, Guidance: Zika virus congenital infection: algorithm and interim guidance for neonatologists and paediatricians, 2 August 2017 \[Accessed 3 August 2017\]](#)
7. [Royal College of Obstetricians and Gynaecologists: Public Health England briefing on the Zika virus and vector borne diseases for returning travellers 15 December 2015 \[Accessed 3 August 2017\]](#)