



INTERNATIONAL  
OLYMPIC  
COMMITTEE

Medical and Scientific Department

## Health Advice relevant to the Olympic Games Rio 2016 in Brazil (adapted from WHO advice)

### Vaccine preventable diseases

A medical consultation should be scheduled at least 4–8 weeks before departure in order to allow sufficient time for optimal immunization schedules to be completed and effective for both, routine vaccines and vaccines indicated according to the specific itinerary. However, even when departure is imminent, there is still time to provide both advice and possibly some vaccines. There is comprehensive medical cover at all venues as described in the Rio 2016 medical guide and in case of illness for any reason during the Games it is important to seek the advice of a health professional.

### Routine vaccines

Routine immunizations should be checked including **diphtheria, pertussis, tetanus, polio, measles, mumps** and **rubella**. It is critical that measles and rubella vaccinations are up to date in order to prevent the importation of cases into Brazil (rubella was eliminated from Brazil in 2009).

**Influenza:** Travellers to Brazil should consider vaccination, particularly those at risk of serious complications of influenza (such as individuals with asthma or diabetes). The prevailing influenza strain currently circulating in Brazil A(H1N1) pdm09 (swine flu) is included in both Northern hemisphere 2015-2016 and Southern hemisphere 2016 vaccines. Travellers not already immunised in the last 9 months who decide to receive influenza vaccine should receive it at least two weeks prior to departure.

### Travel-related vaccines

- **Hepatitis A** is recommended since Brazil is prone to hepatitis A outbreaks.

If travelling outside Rio and depending on the specific travel itinerary, vaccines that might be considered for some travellers include:

- **Typhoid fever:** advised if travelling to Manaus
- **Rabies:** the risk of rabies infection in Rio de Janeiro and the remaining five cities hosting the Games is negligible. Travellers visiting rural areas or deprived urban areas where canine vaccination rate is low should consider getting immunized.
- **Yellow fever:** The vaccination is recommended for travellers, older than 9 months, planning to visit areas at risk of yellow fever transmission (see: [http://gamapserver.who.int/mapLibrary/Files/Maps/ITH\\_YF\\_vaccination\\_americas.png?ua=1](http://gamapserver.who.int/mapLibrary/Files/Maps/ITH_YF_vaccination_americas.png?ua=1)). Vaccination is not recommended for travellers limiting their stay to Rio de Janeiro, Salvador and São Paulo.

## Mosquito-borne diseases

In addition to yellow fever, mosquito-borne diseases transmitted by Aedes mosquitoes in many countries as well as Brazil include Zika virus disease, chikungunya, and dengue.

The Olympics will take place during the winter season in Rio de Janeiro when the cooler and drier weather will reduce mosquito populations, so the risk of infection due to mosquito borne diseases is at its lowest. Rio de Janeiro authorities are also undertaking an extensive programme of vector (mosquito) control activities and are increasing these activities in the lead up to, and during the Games.

Travellers should take personal protective measures throughout the whole day to prevent mosquito bites. In accordance with WHO advice these include the use of appropriate repellents and wearing of light-coloured loose fitting clothing. Repellents should contain either DEET (diethyltoluamide) 20% or more, or IR 3535, or Picaridin, and may be applied to exposed skin or to clothing (but not under clothing) and have been shown to be effective and safe, although some individuals may suffer skin sensitivity especially if applied over zealously and under clothing. The percentage of DEET does not increase its mosquito repelling power but rather increases its longevity of action, with repeat application normally needed several times a day. Repellents must be used in strict accordance with the label instructions, including regarding the duration of protection conferred. Any sunscreen should be applied first.

## Zika virus disease

Zika virus infection usually causes a mild disease and the majority of cases of Zika virus infection show no symptoms. However there is scientific consensus that Zika virus is a cause of microcephaly and in very rare cases Guillain-Barré syndrome.

Zika virus is nearly always spread by mosquitoes, though cases of sexual transmission have been documented. Therefore, while measures to prevent mosquito bites are the most effective way to reduce the risk of Zika virus infection, on the basis of current knowledge about Zika virus disease and its complications, the following is recommended in accordance with the advice of the World Health organisation with whom the IOC are working closely:

- Pregnant women should not to travel to areas of ongoing Zika virus transmission, including Brazil.
- Pregnant women whose sexual partners live in or travel to areas with Zika virus transmission should adopt safer sexual practices (barrier contraception) or abstain from sex for the duration of their pregnancy.
- Couples or women planning a pregnancy, living or returning from areas where transmission of Zika virus is known to occur, are strongly recommended to wait at least **8 weeks** before trying to conceive; and 6 months if the male partner was symptomatic.
- Men and women returning from areas where transmission of Zika virus is known to occur should adopt safer sex practices or consider abstinence for at least **8 weeks** upon return. If before or during that period Zika virus symptoms (rash, fever, arthralgia, myalgia or conjunctivitis) occur, men should adopt safer sex practices or consider abstinence for at least 6 months.
- In case of suspected Zika virus infection see a medical practitioner for appropriate clinical management and testing. The test for Zika is improving but is still inaccurate, so the decision whether to test for Zika virus should be made on an individual basis in consultation with a medical practitioner.

- Travellers should not donate blood for at least one month after return.

WHO are continuing to monitor the situation, and as new scientific information on Zika is published the medical advice will be updated between now and the Games in August.

The latest travel advice and recommendations issued by WHO regarding Zika virus disease and travellers is available at:

<http://www.who.int/mediacentre/news/releases/2016/zika-health-advice-olympics/en/>

<http://who.int/csr/resources/publications/zika/sexual-transmission-prevention/en/>

<http://www.who.int/csr/disease/zika/information-for-travelers/en/>

[http://www.who.int/ith/updates/2016\\_04\\_11/en/](http://www.who.int/ith/updates/2016_04_11/en/)

<http://www.who.int/emergencies/zika-virus/en/>

<http://www.who.int/features/qa/zika/en/>

## **Malaria**

The risk of malaria transmission is negligible or non-existent except in the Northern states of Brazil including the city of Manaus (see: <http://portalsaude.saude.gov.br/images/jpg/2015/junho/24/Mapa-de-risco-2014.jpg>). In these areas, in addition to mosquito bite prevention, antimalarial tablets such as atovaquone–proguanil, or doxycycline, or mefloquine should be considered.

## **General advice**

### **Food and water safety**

Due to the high incidence of gastrointestinal infections in Brazil travellers should take precautions to avoid illnesses caused by unsafe food and drink. These include: frequent hand washing and always before handling and consuming food; making sure that food has been thoroughly cooked and remains steaming hot; choosing safe water (e.g. bottled water or, if in doubt, water vigorously boiled); avoiding any uncooked food, apart from fruits and vegetables that can be peeled or shelled; avoiding foods at buffets, markets, restaurants and street vendors if they are not kept hot or refrigerated/on ice. The safest food will be that provided in the Olympic Village and venues.

### **Recreational Water**

The quality of recreational water areas in Rio de Janeiro has been known to vary and visitors should follow the advice issued by local authorities on whether it is safe to swim. A number of actions have been taken on the bodies of water being used for the Games to improve their water quality.

### **Sun protection and hydration**

Travellers to Brazil should also take precautions about exposure to the sun by using sunscreen, sunglasses and a hat and avoid dehydration by drinking bottled water.

Health advice for visitors to Brazil issued by Brazilian health authorities is available at:

[http://portalsaude.saude.gov.br/index.php?option=com\\_content&view=article&id=9656](http://portalsaude.saude.gov.br/index.php?option=com_content&view=article&id=9656), and is also

available from national authorities including the European Centre for Disease Prevention and Control (ECDC)

[http://ecdc.europa.eu/en/publications/\\_layouts/forms/Publication\\_DispForm.aspx?List=4f55ad51-4aed-4d32-b960-af70113dbb90&ID=1486](http://ecdc.europa.eu/en/publications/_layouts/forms/Publication_DispForm.aspx?List=4f55ad51-4aed-4d32-b960-af70113dbb90&ID=1486)