



YELLOW FEVER

WHAT IS YELLOW FEVER?

Yellow fever is a potentially fatal viral infection spread by several species of mosquitoes that inhabit either jungle, savannah or urban areas. The name 'yellow fever' derives from a complication of the disease where the skin turns yellow - this is also known as jaundice.

The mosquitoes that transmit yellow fever in urban areas are also the vectors for dengue fever, chikungunya and even Zika virus. If travelling in a yellow fever endemic area, it is necessary to avoid mosquito bites by covering up, using an effective insect repellent and minimising outdoor activities during the day (dusk and dawn are peak times).

WHAT ARE THE SYMPTOMS?

It can take several days before symptoms appear, usually within 3 to 6 days of the bite of an infected mosquito. The initial symptoms include sudden onset of fever, chills, severe headache, back pain, nausea, vomiting, fatigue and an overall feeling of weakness. While some people will get better after this stage, about 15% of those infected will enter the 'toxic' stage which can lead to death in up to 20 -50% of those who develop the severe illness. Symptoms in this stage include high fever, visible bleeding, jaundice and kidney and liver failure; death results from multi-organ failure.

WHERE IS IT FOUND?

There are currently 42 countries in tropical and subtropical areas of Africa and Central/South America where yellow fever has been declared a risk. Proof of vaccination by means of an International Certificate of Vaccination or Prophylaxis (ICVP) may be required or even mandatory under the International Health Regulations, if you are travelling to or from one of these countries, and other nations may require proof in order for travellers to cross their borders.

Australia's list of yellow fever risk areas is found on the Department of Health general [factsheet](#), and the requirements for vaccination, which are set by individual countries, are listed on the WHO's International Travel and Health website. Proof of vaccination for travel may be required if you are travelling to or from one of these countries, with many other countries also requiring vaccination for entry. Travellers should seek the advice of a yellow fever-licensed medical practitioner regarding the suitability of vaccination for their itineraries and any relevant medical circumstances.

RISK TO TRAVELLERS

For travellers, the risk of contracting yellow fever infection is highest when travelling to areas experiencing an outbreak, however travel to any endemic zone presents risks which can vary depending on a number of factors including: destination, vaccination status, season of travel, levels of exposure to mosquito bites and whether anti-insect measures are employed, amongst others.

HOW IS YELLOW FEVER TRANSMITTED?

There are 3 transmission cycles for yellow fever:

1. Jungle cycle involves transmission of the virus between non-human primates (i.e. monkeys) and mosquito species which in turn transmit the virus to humans living, visiting or working in these areas.
2. In Africa there is an intermediate cycle (savannah) which involves the transmission of the virus from mosquitoes to humans living or working in jungle border areas. Here the virus can be transmitted from monkeys to humans or from humans to humans via mosquitoes.

3. The urban cycle involves the transmission of the virus between humans through bites from feeding urban-dwelling mosquitoes. The virus is introduced into this setting by individuals who were infected in the jungle or savannah.

HOW IS YELLOW FEVER TREATED?

There is no specific cure for yellow fever; infected people are hospitalised for treatment of their symptoms and close observation.

WHAT IS YELLOW FEVER VACCINATION?

Type: Injection

- Live attenuated yellow fever vaccine

The yellow fever vaccine, which has been in use for more than 80 years, cannot be administered in some cases due to a number of contraindications or precautions – as the following lists are not exhaustive, seek advice for your particular situation from a yellow fever licensed doctor.

- Contraindications include infants under 6 months of age, anaphylaxis to eggs or any vaccine components, immunocompromised condition and history of thymus gland disorders.
- Precautions include adults aged 60 years and over, infants aged from 6 to 8 months, pregnancy and breastfeeding, and non-immunosuppressed people with HIV.

SCHEDULE

A single dose of yellow fever vaccine is recommended for anyone aged 9 months and over who is travelling to an area with a risk of yellow fever virus transmission. A certificate of vaccination (ICVP) is issued after administration of the vaccine; it becomes valid 10 days later. In most cases, protection from the vaccine is considered life-long, however there may be some situations when a booster could be advisable: People who were pregnant or had HIV when first vaccinated, or those who are travelling to a high risk or epidemic area and had their yellow fever vaccine more than 10 years previously.

LEVEL OF PROTECTION

In a healthy adult, two weeks after vaccination the level of protective antibodies is estimated to be around 90%, however these levels are reached by virtually all recipients after four weeks.

POSSIBLE SIDE EFFECTS

Generally mild, starting within days of vaccination and lasting 5-10 days: low-grade fever, headache, pain at injection site, pain, unusual weakness, myalgia, rash; and in children, also crying, irritability, drowsiness, vomiting or appetite loss.

Severe side effects:

Immediate allergic reactions with rash, itching and hives; swelling of face, tongue or other parts of the body; difficulty swallowing or breathing.

Delayed reactions (usually within a month of vaccination) affecting the nervous system: Fever, headache, confusion, stiff neck, fits, loss of movement or feeling. This is known as Yellow Fever Vaccine–Associated Neurologic Disease (YEL-AND).

Reactions affecting vital organs (generally within 10 days of vaccination) which resemble yellow fever infection and are sometimes fatal. It can present with tiredness, fever, headache and muscle pain which can progress to multiple organ dysfunction or failure. Known as Yellow Fever Vaccine–Associated Viscerotropic Disease (YEL-AVD).

References:

- Australian Immunisation Handbook (online); Vaccine preventable diseases, Yellow fever: <https://immunisationhandbook.health.gov.au/vaccine-preventable-diseases/yellow-fever>
- Australian Department of Health Yellow fever – general fact sheet <https://www1.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-communic-factsheets-yellow.htm>
- International Health Regulations (2005) 3rd edition: <https://www.who.int/ihr/publications/9789241580496/en/>
- WHO Yellow fever vaccination requirements and recommendations: <https://www.who.int/who-documents-detail/vaccination-requirements-and-recommendations-for-international-travelers-and-malaria-situation-per-country-2019-edition>

HOW CAN I STAY PROTECTED WHILE TRAVELLING?

Yellow fever is vaccine-preventable. If you are planning to travel to one of the yellow fever declared countries above, it is crucial to get vaccinated for your safety and to ensure you have no issues with entry into other countries. It is also important that while you are on your trip, you [avoid mosquitoes](#) – use [insect repellent](#), avoid perfume or cologne and wear light coloured, full-coverage clothing where possible.

DO I REALLY NEED A VACCINATION?

Yellow fever is one of a few **mandatory** vaccinations and may be a requirement if you are travelling to or from a country with a declared presence of yellow fever. **Australia's entry requirement for travellers arriving** from a yellow fever endemic country are: a yellow fever vaccination certificate is required for travellers aged 1 year or over arriving from countries with risk of yellow fever transmission (with the exception of Galápagos Islands in Ecuador) and for travellers having transited for more than 12 hours through an airport of a country with risk of yellow fever transmission (with the same exception as mentioned above).

WHO CAN PROVIDE ME WITH A YELLOW FEVER VACCINATION?

Travelvax is a leading provider of travel health advice and medical services for those travelling overseas. We provide a one-stop travel health consultation to make your preparations as smooth as possible.

Our staff are passionate, enthusiastic and experienced in providing travel health services and will adapt your travel health plan to your personal needs and itinerary.

If you require vaccination against yellow fever, call our travel health advisory line on **1300 360 164** for more information.

More information on Yellow Fever is available during your pre-travel consultation with Travelvax. Call 1300 360 164 for the location of the clinic nearest to you.