

Learn about Yellow Fever

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1. What is Yellow Fever?

Yellow fever is an infection caused by a virus from the Flavivirus family, which enters our body when an infected mosquito bites us. Generally, it presents as a fever with discomfort and general symptoms such as high fever, headache, sore muscles, nausea, and vomiting. The disease can even go unnoticed. In some people, the disease worsens or becomes complicated (see below).

2. Who can get Yellow Fever and who is at risk?

This disease requires very specific environmental conditions, which is why it occurs in very defined areas of the country and the world, known as endemic zones and located in the tropical zone of America and Africa. Therefore, it is more likely to occur under the following conditions:

- **People who live in the jungle and rural areas:** farmers, forest rangers, miners, and indigenous communities located,

mainly in Colombia, in the departments of Llanos Orientales, Amazonía, Orinoquía, Magdalena Medio, Norte de Santander, and the surroundings of the Sierra Nevada de Santa Marta, Tolima, Huila, Putumayo, Chocó, and Bajo Cauca.

- **Tourists and hikers** who visit parks or forest reserves located in the described areas, without being vaccinated, from several years to at least 10 days before visiting those places.
- **Health personnel, especially those in laboratories** who handle samples infected with the yellow fever virus or work with animals that may be infected with this virus.
- **Unvaccinated people** or those with a low immune system due to medications or other causes.
- **Displaced people or refugees** who settle in the mentioned endemic areas without being vaccinated.

3. Why does Yellow Fever appear?

Yellow Fever appears when a person in an endemic zone who is not vaccinated is bitten by an infected mosquito. This virus is not transmitted from a sick person to a healthy person; it needs an intermediary, called a vector, in this case, the mosquito (*Aedes aegypti*). This is known as the infection cycle and can be sylvatic (jungle), when the mosquito transmits the disease between monkeys or primates and humans who frequent the forest or jungle. An urban cycle also occurs when the mosquito transmits the disease between sick and healthy people through its bite.

Without the proper environmental conditions, the mosquito cannot live. Without infected mosquitoes, there is no yellow fever. And in general, vaccinated people do not get yellow fever.

Therefore, in addition to vaccinating, it is important to use repellent and eliminate mosquito breeding grounds, as they lay their eggs in stagnant water where the larvae turn into mosquitoes. Something similar happens with the mosquitoes that transmit dengue and malaria.



4. What complications can Yellow Fever cause?

As mentioned, most people with yellow fever have mild symptoms or may not notice the disease. However, in approximately one in ten to one in seven people (10% to 15%), the situation worsens, manifesting as fever, yellowing of the skin and eyes (jaundice) due to liver damage. Bleeding may appear in the gums, nose, or digestive tract, and in some patients, the virus attacks organs such as the kidneys, causing renal damage that requires dialysis; or the brain, which manifests as confusion, seizures, or coma.

In the worst cases, several organs fail at once: liver, kidney, and heart, causing death in 30 to 60% of these patients.

Each year, the World Health Organization (WHO) estimates around 200,000 cases worldwide and nearly 30,000 deaths, figures that reflect the severity of this disease when it progresses to its critical phase.

5. When to consult a doctor?

If after a trip or stay in a risk area (see question 2) any of the following signs and symptoms appear, you should consult a doctor immediately:

- High fever (> 38.5 °C) that does not drop.
- Very yellow skin or eyes.
- Bleeding from the mouth, nose, urine, or anus.
- Very intense stomach pain.
- Dark urine (tea or cola color).
- Extreme weakness, disorientation, or unusual drowsiness.
- Difficulty breathing or feeling faint.

Inform the doctor where you have been and if you were vaccinated against yellow fever and it was less than 10 days ago. Acting fast saves lives!



6. How is Yellow Fever diagnosed?

The diagnosis is made by considering whether the person has been in areas with yellow fever (see question 2) and the symptoms (see questions 1, 4, and 5). Once the disease is suspected, the doctor will order laboratory tests to confirm the diagnosis of yellow fever.

To keep in mind: if someone presents with high fever and signs like dark or yellow urine after a trip or stay in a jungle area, advise them to inform the doctor of their exposure and evaluate the possibility of yellow fever to make a quick diagnosis.

Early detection can save lives!

7. How is Yellow Fever treated?

Yellow fever as such does not have a specific treatment; only the symptoms accompanying the disease are treated. In general, only hydration (taking fluids orally or intravenously), management of fever, and discomfort (acetaminophen/paracetamol). Complicated or severe cases may require hospital management for:

- Monitoring of vital signs.
- Intravenous hydration "serum" to maintain fluids and electrolytes.
- Acetaminophen / Paracetamol for fever and pain (do not take ibuprofen or aspirin).
- Management of hemorrhage (blood transfusion), kidney support (dialysis), or intensive care if the liver or kidneys fail.

8. Is it possible to prevent Yellow Fever?

Yes; for that, there is the vaccine. This vaccine protects more than 99% of vaccinated people,

and the protection lasts a lifetime. The vaccine reaches its maximum effectiveness 30 days after vaccination, and initial defenses are present from day 10.

9. Who should be vaccinated?

- Children from 9 months to 19 years old and adults in risk areas.
- People over 60, after medical evaluation, in whom the risk of severe illness outweighs the risk of a rare vaccine reaction.
- If you live or plan to travel to Tolima, Huila, Meta, Amazonas, Caquetá, Putumayo, Chocó, Guainía, Vichada, Guaviare, Norte de Santander, Magdalena Medio, Bajo Cauca, Urabá, surroundings of the Sierra Nevada de Santa Marta.
- As international travel requirements (vaccination card is required): Africa: Angola, Benin, Burkina Faso, Cameroon, Democratic Republic of the Congo, Ghana, Nigeria, Sierra Leone, Uganda. South America: Bolivia, Brazil, Ecuador, French Guiana, Peru. Caribbean: Trinidad and Tobago and specific areas.

Note: Consult the embassy or consulate for updated information.



Vaccine Side Effects:

- Pain and swelling in the arm, mild fever, or discomfort lasting 1–2 days.
- Severe reactions such as anaphylaxis and others rarely occur. In 1 out of 55,000–250,000 vaccinated people, especially in immunosuppressed individuals (who have low defenses).

Other measures to prevent yellow fever (also useful for preventing dengue):

- Use repellent and long-sleeved clothing at dawn and dusk.
- Eliminate stagnant water in containers, planters, tires, or ground surfaces.
- Install mosquito nets and participate in community clean-up days.
- Educate and share this information with family and neighbors.

Yellow fever is generally mild in most cases, but the few patients who have complications have a very high risk of death.

The vaccine is the most effective tool to protect yourself and your community.



Recommended Readings

- Ministerio de Salud y Protección Social. Resolución 305 de 2019: Programa Ampliado de Inmunizaciones. <https://www.minsalud.gov.co>
- Instituto Nacional de Salud. Reporte de Vigilancia en Salud Pública. <https://www.ins.gov.co>
- Centers for Disease Control and Prevention. Yellow Book: Health Information for International Travel 2024. Oxford University Press, 2023.
- World Health Organization. Vaccines and immunization: Yellow fever vaccine. <https://www.who.int>

Pages consulted: • www.vid.org.co • www.saludvid.org.co

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