

PLAGUE

What to know before you go:

What is plague?

• Plague is an infectious disease caused by the bacteria *Yersinia pestis*, a zoonotic bacteria, usually found in small mammals and their fleas. There are two main clinical forms of plague infection: bubonic and pneumonic, depending on the route of infection. Currently, the three most endemic countries are the Democratic Republic of the Congo, Madagascar, and Peru. As an animal disease, plague is found in all continents, except Oceania.

- WHO does not recommend vaccination for duty travellers

What are the main types of plague and how do people become infected?

- All forms of plague are treatable and curable if detected early enough.
- **Bubonic plague** is the most common form of plague globally and is caused by the bite of an infected flea. Plague bacillus, *Y. pestis*, enters at the bite and travels through the lymphatic system to the nearest lymph node where it replicates itself. The lymph node then becomes inflamed, tense and painful, and is called a "bubo". At advanced stages of infection the inflamed lymph nodes can turn into open sores filled with puss. Human to human transmission of bubonic plague is very rare and usually occurs as a nosocomial transmission. Bubonic plague can advance and spread to the lungs, which is the more severe type of plague called Pneumonic plague.
- **Pneumonic plague** – or lung-based plague – is the most virulent form of plague. Incubation can be as short as 24 hours. Any person with pneumonic plague may transmit the disease via droplets to other humans. Untreated pneumonic plague, if not diagnosed and treated early, is fatal. However, recovery rates are good if detected and treated in time (within 24 hours of onset of symptoms).

What are the symptoms of plague?

- Whatever the clinical form of the disease, people infected with plague usually develop "flu-like" symptoms within 1-7 days of contact, including: sudden onset of fever, chills, head and body aches, and weakness, vomiting and nausea.
- Painful inflamed lymph node (unique or sometimes multiple) is the main manifestation of bubonic plague.
- Pneumonic plague presents as a severe pneumonia whose the unique specificities are the very short evolution and the very high lethality.

What to know during duty travel:

Plague is mainly a disease of small mammals, transmitted to humans in rare circumstances which are linked to poverty and contacts with wildlife. In usual circumstances the risk for a traveling staff to get infected is extremely low, unless he is engaged in an outbreak response.

However the following precautions must be respected in endemic areas:

How can I prevent from getting infected with plague?

- Ensure that you take all measures to protect against flea bites especially when in areas of potential exposure (e.g. rural areas, slums). These include:
 - ⇒ Using insect repellent that lists protection against fleas on the label, and which contains at least 25% DEET. WHO recommends formulations (lotions or sprays) that have the following active ingredients: DEET, IR3535, Icaridin (KBR3023) or Picaridin.
 - ⇒ Cover up by wearing long-sleeved shirts, long pants, socks and closed shoes.
 - ⇒ Do not pick up or touch sick or dead animals.

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How can I prevent from getting infected with plague?

- Ensure that your accommodation and living area is free of rodents and avoid contact with rodent nests and burrows as these could contain fleas.
- Avoid crowded areas where cases of pneumonic plague have recently been reported.
- Do not let pets sleep in the bed with you.

Precautions in health care settings:

- Implement Standard Precautions with all patients – regardless of their diagnosis – in all work practices at all times including safe injection practices.
- Health care workers treating patients with plague should apply extra infection control measures to prevent contact with the patient's blood and body fluids and contaminated surfaces or materials such as clothing and bedding.
- Laboratory workers are also at risk. Samples taken from suspected human plague cases for diagnosis should be handled by trained staff and processed in suitably equipped laboratories.

What do I do if I think I have plague

- If you are experiencing plague-like symptoms (sudden fever, chills, painful and inflamed lymph nodes, or shortness of breath with coughing and/or blood-tainted expectoration) seek health advice immediately from the UN physician or individual in charge of occupational health in the field
- In case of pulmonary symptoms, wear a surgical mask
- Plague is treated with antibiotics
- It is strongly advised to seek medical advice before beginning self treatment and that you do not self treat with antibiotic(s) without a prescription

What to know after duty travel:

Medical follow up is strongly recommended if you have had symptoms during your mission or 7 days after returning from duty travel (plague incubation period). Staff and non-staff must call the emergency number of the country highlighting their recent travel to an area with plague and report to the UN medical services and/or local health care provider.

For more information:

WHO Plague Factsheet: <http://www.who.int/mediacentre/factsheets/fs267/en/>

WHO Standard Precautions in Health Care: <http://www.who.int/csr/resources/publications/standardprecautions/en/index.html>

OpenWHO Plague: Knowledge resources for responders: <https://openwho.org/courses/knowledge-resources-plague>

UN Medical Services Around the Globe: <https://hr.un.org/page/medical-services-around-globe>



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