



## TRAVELER WITH XDR TB

### **CDC Investigation of Traveler with Extensively Drug-Resistant Tuberculosis (XDR TB): Questions and Answers for Passengers and Flight Crew on Affected Flights**

#### **What happened?**

CDC is currently investigating a case of extensively drug resistant tuberculosis (XDR TB). The case involves a U.S. citizen with potentially infectious XDR TB who traveled to and from Europe on commercial flights between May 12 and May 24, and then re-entered the U.S. at the Canada-U.S. border via automobile. Since May 25, the patient has been hospitalized in airborne isolation or wearing an appropriate mask, and is now receiving medical therapy for XDR TB.

#### **What are the dates and flight numbers for this investigation?**

- Air France # 385 / Delta # 8517, departing Atlanta May 12th; arriving in Paris May 13th
- Czech Air # 0104, departing from Prague and arriving in Montreal May 24th

#### **What is XDR TB?**

XDR TB is a rare type of tuberculosis that is resistant to nearly all drugs used to treat TB disease.

#### **What is CDC doing?**

CDC is working with U.S. state and local health departments, international Ministries of Health, the airline industry, and the World Health Organization to notify and follow up passengers and crew who may be at risk for exposure to XDR TB. Each country involved in the investigation is determining guidance for its own residents.

#### **Who should be tested?**

The World Health Organization has guidelines for follow-up and care of persons who may have been exposed to someone with TB during air travel. In accordance with these guidelines, CDC recommends that all U.S. citizens and residents who were passengers or crew on these flights be evaluated and tested for TB infection.

The following persons are the highest priority for evaluation:

- Passengers seated in rows 28-32 on Air France # 385/Delta # 8517, departing Atlanta May 12th; arriving in Paris May 13th
- Passengers seated in rows 10-14 on Czech Air # 0104, departing from Prague and arriving in Montreal May 24th
- Flight crew members working in the same cabin on each of the flights listed above

#### **How many people were on the planes?**

The airlines involved in the investigation are large transcontinental airlines and they are generally full of passengers. Air France # 385/Delta # 8517 had 433 passengers and 18 crew members. The Czech Air flight 0104 had 191 passengers and 9 crew members.

#### **What is the risk of acquiring TB on an airplane?**

The risk of acquiring any type of TB depends on several factors, such as extent of disease in the patient with TB, duration of exposure, and ventilation. Most important, there must be someone with infectious TB disease on the same flight to present any risk. If someone on the flight does have TB disease, persons on flights lasting 8 hours or longer are at greater risk than persons on shorter flights.

### **If I was on the same flight with the XDR TB patient, can I give TB to others?**

Only a person with active TB disease can transmit TB germs to others. If you have been around someone with TB disease (or XDR TB disease), you can get TB infection. However, not everyone infected with TB germs becomes sick. As a result, two TB-related conditions exist: latent TB infection ([www.cdc.gov/tb/faqs/qa\\_latenttbinf.htm](http://www.cdc.gov/tb/faqs/qa_latenttbinf.htm)) and active TB disease ([www.cdc.gov/tb/faqs/qa\\_TBdisease.htm](http://www.cdc.gov/tb/faqs/qa_TBdisease.htm)). A person with latent TB infection cannot spread germs to other people, but can develop active TB disease in the future. People with medical conditions or on medications that suppress the immune system are at higher risk to become ill with active TB disease.

### **What should I do if I was on one of the flights listed above?**

You need to go to your doctor or local health department and request a TB evaluation, as well as contact your city or state TB control office. You should be evaluated for signs and symptoms of TB disease, and get a TB skin test or the QuantiFERON® TB Gold blood test (QFT-G) to test for TB infection.

It is important to get a TB test as soon as possible. Because it can take 8 to 10 weeks after infection for your immune system to react to the TB skin test or QFT-G, you will need to get a second TB test 8 to 10 weeks after your air flight if your first test is negative. For an explanation of what a positive test means, please see the question and answer below.

### **I was on the flight with the patient with XDR TB. My skin test (or QFT-G test) is positive. What does this mean?**

If your skin test (or QFT-G test) is positive, you will need to get other tests to determine if you have latent TB infection (LTBI) or active TB disease.

For someone with a positive skin test (or QFT-G), a chest x-ray should be obtained to determine if active pulmonary TB may be present. Acid-fast bacilli (AFB) smears and cultures should be performed on sputum specimens of all persons who have symptoms of TB or whose chest x-ray suggests TB.

In addition, your doctor will need to determine whether the positive test is due to infection from exposure to the XDR TB patient on the flight, or from another exposure that occurred in the past.

A number of factors will be used to make this determination. These factors include risk of previous TB exposure and whether the positive result occurred with the first skin test (or QFT-G test) or the second test (done 8-10 weeks after the airline flight with the XDR TB patient).

**Related Fact: An estimated 9.6 to 14.9 million persons residing in the United States have latent TB infection (LTBI), but are unaware since there are no signs or symptoms.**

If you have never been treated for TB disease or latent TB infection, your doctor may recommend taking medications to prevent getting TB disease. Or, your doctor may recommend that you be followed with medical visits for up to 2 years so that if you should become sick with TB disease it can be detected quickly.

The decision to provide preventive treatment or to provide follow-up exams for 2 years will in part depend on whether your doctor believes your infection resulted from exposure to the XDR TB patient or from a previous exposure to TB. This is because preventive treatment can be given to persons infected by someone with regular TB disease (not drug resistant); however, there is no proven effective preventive treatment for persons infected by someone with XDR TB.

## What Is Latent TB Infection?

In most people who breathe in TB bacteria and become infected, the body is able to fight the bacteria to stop them from growing. The bacteria become inactive, but they remain alive in the body. This is called latent TB infection.

Persons with latent TB infection do not feel sick and do not have any symptoms, but usually have a positive reaction to the tuberculin skin test (or QFT-G test). They are infected with *M. tuberculosis*, but do not have active TB disease. **Persons with latent TB infection are not infectious and cannot spread TB infection to others.**

However, persons with latent TB infection may develop active TB disease at some time in the future. Overall, about 5 to 10% of infected persons will develop active TB disease at some time in their lives. About half of those people who develop active TB will do so within the first two years of infection. For persons whose immune systems are weak, especially those with HIV infection, the risk of developing active TB is considerably higher than for persons with normal immune systems. Of special concern are persons infected by someone with XDR TB who later develop active TB disease; these persons will have XDR TB, not regular TB disease.

<b>A person with latent TB infection (LTBI)</b>
<ul style="list-style-type: none"> <li>• Has inactive TB bacteria in his/her body</li> </ul>
<ul style="list-style-type: none"> <li>• Does not feel sick and is not infectious</li> </ul>
<ul style="list-style-type: none"> <li>• Cannot spread TB bacteria to others</li> </ul>
<ul style="list-style-type: none"> <li>• Needs treatment for latent TB infection to prevent TB disease; however, if exposed and infected by a person with MDR or XDR TB, preventive treatment may not be an option.</li> </ul>

## The Difference Between Latent TB Infection and Active TB Disease

<b>A Person with Latent TB Infection</b>	<b>A Person with Active TB Disease</b>
<ul style="list-style-type: none"> <li>• Has no symptoms</li> <li>• Does not feel sick</li> </ul>	<ul style="list-style-type: none"> <li>• Has symptoms that may include:               <ul style="list-style-type: none"> <li>• a bad cough that lasts 3 weeks or longer</li> <li>• pain in the chest</li> <li>• coughing up blood or sputum</li> <li>• weakness or fatigue</li> <li>• weight loss</li> <li>• no appetite</li> <li>• chills</li> <li>• fever</li> <li>• sweating at night</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• <b>Cannot spread TB to others</b></li> <li>• Usually has a positive skin test or QuantiFERON-TB® Gold test</li> <li>• Has a normal <a href="#">chest x-ray</a> and a negative sputum test</li> </ul>	<ul style="list-style-type: none"> <li>• <b>May spread TB to others</b></li> <li>• Usually has a positive skin test or <a href="#">QuantiFERON® -TB Gold</a> test</li> <li>• May have an abnormal chest x-ray, or positive <a href="#">sputum smear</a> or <a href="#">culture</a></li> </ul>

If you were a passenger on the flights in question, please contact your city TB control office, state TB control office, or CDC at 800-CDC-INFO (800-232-4636).

## Where can I get additional information?

- Visit CDC's TB websites:
  - [www.cdc.gov/tb](http://www.cdc.gov/tb)
  - [www.cdc.gov/tb/xdrtb](http://www.cdc.gov/tb/xdrtb)
- Call CDC:
  - 800-CDC-INFO (English and Spanish)
  - 800-243-7889 (TTY)
- Read educational booklets:
  - The TB Contact Investigation ([www.cdc.gov/tb/pubs/pamphlets/TB\\_contact\\_investigation.pdf](http://www.cdc.gov/tb/pubs/pamphlets/TB_contact_investigation.pdf))
  - What You Need to Know About TB Infection ([www.cdc.gov/tb/pubs/pamphlets/TB\\_infection.pdf](http://www.cdc.gov/tb/pubs/pamphlets/TB_infection.pdf))