



This article was produced in collaboration with the Public Health Agency of Canada.

TUBERCULOSIS (TB)

The Issue

For most Canadians, the risk of developing tuberculosis (TB) is very low. However, there are approximately 1,600 new cases of TB reported in Canada every year, so it is important to know the symptoms and how to minimize your risk.

Background

Tuberculosis has existed for centuries, and used to be called “consumption.” It is a serious disease that usually attacks the lungs, but can also affect other parts of the body, including the brain, lymph nodes and bones. Even though TB is completely curable with antibiotics, it continues to be a major health problem that kills almost two million people worldwide every year.

How TB is Spread

TB is not as contagious as many other diseases, such as influenza (flu) or chicken pox. Tuberculosis bacteria, called *Mycobacterium tuberculosis*, are spread through the air when someone with TB disease of the lungs or airways exhales – for example, coughing, sneezing, singing, playing a wind instrument or, to a lesser extent, talking. To become infected, a person usually has to have frequent exposure to someone with active TB. For example, spending several hours a day with a person with active TB would put you at risk of infection.

You cannot become infected with TB by handshakes, sitting on toilet seats or by sharing dishes with someone who has TB.

Tuberculosis Infection and TB Disease

Most people who are exposed to TB bacteria do not develop TB disease. In some cases, the person’s immune system is able to kill the TB germs. When this does not happen, the bacteria can remain alive but inactive in the body, and this is called TB infection. A person with TB infection has no symptoms, is not sick, and poses no risk of spreading the bacteria.

TB infection can become TB disease if the infected person’s immune system cannot stop the TB bacteria from growing. The risk of developing TB disease is highest in the first two years after someone is infected. About 10% of infected people will develop TB disease at some point in their lives, unless they are also infected with HIV. In that case, the risk is much higher.

Risk Factors for TB Infection and TB Disease

Certain population groups in Canada have an increased risk of TB infection. These groups include:

- people born in or travelling to countries where TB is widespread
- Aboriginal people who have lived in a community with a high rate of TB disease
- homeless people, and
- people who live in some long-term care or correctional facilities



People who work with any of these groups, such as health care workers, are also at greater risk of TB infection.

The risk of infection developing into TB disease is greater for anyone with a weakened immune system. Conditions that weaken the immune system include HIV infection, end-stage kidney disease, diabetes, cancer, organ transplants, silicosis, abuse of alcohol or drugs, and being underweight. Babies, pre-school children and the elderly are also at greater risk, because their immune systems are weaker than those of healthy adults.

Symptoms of TB Disease

The symptoms of TB disease in the lungs can include a bad cough lasting longer than three weeks, pain in the chest, coughing up blood or sputum, weakness or feeling very tired, weight loss, lack of appetite, chills, fever and night sweats.

Minimizing Your Risk

If you belong to one of the groups at higher risk, and suspect you may have been exposed to TB bacteria, or if you are experiencing any of the symptoms of TB, you should see your health care provider.

A TB skin test can determine whether you have TB infection. A very small amount of non-infectious TB protein is injected under the surface of your skin. If you are infected with TB, a hard swelling (induration) usually develops at the injection site within 48 to 72 hours.

If the test shows that you do have TB infection, your health care provider may recommend antibiotic treatment to cure the infection before it can develop into disease. Such treatment is especially important if you have an additional risk factor for developing TB disease (as noted above) or if you have been in recent contact with someone who has TB of the lungs or airways. You may also need additional tests or chest x-rays to determine whether you have TB disease.

Anyone with TB disease must take antibiotics for at least six months to kill all of the TB bacteria. People who do not finish a full course of antibiotic treatment are at greater risk for developing a strain of TB that is drug resistant and harder to cure. They also pose a greater risk of spreading TB to others.

The Public Health Agency of Canada's Role

The Public Health Agency of Canada collects and analyzes data on all reported cases of TB in order to enhance Canada-wide TB prevention and control. In addition, the Public Health Agency conducts national surveillance of TB drug resistance, co-publishes the Canadian Tuberculosis Standards for prevention and treatment, provides technical assistance (upon request) to provinces and territories to help prevent and control outbreaks, works with others in targeted research projects, and sponsors the Canadian Tuberculosis Committee.

Need More Info?

Contact:
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or visit the Public Health Agency of Canada's Web site for Tuberculosis Prevention and Control at:
<http://www.publichealth.gc.ca/tuberculosis>

See also:

First Nations and Inuit Health, Tuberculosis Web page at:
http://www.hc-sc.gc.ca/fnih-spni/diseases-maladies/tuberculosis/index_e.html

The Canadian Lung Association Web site on TB at:
<http://www.lung.ca/tb/main.html>

The Canadian Health Network at:
<http://canadian-health-network.ca/>
(Click on the language of your choice, and then do a search for "tuberculosis.")

The It's Your Health article on Antibiotic Resistance at:
http://www.hc-sc.gc.ca/iyh-vsv/med/antibio_e.html

For additional articles on health and safety issues go to the It's Your Health Web site at:
www.healthcanada.gc.ca/iyh
You can also call toll free at 1-866-225-0709
or TTY at 1-800-267-1245*