

How long before I get results?

A QFT result can be available in as little as 24 hours. However, this may vary depending on the preferences of both the healthcare provider and the laboratory.

What do the QFT test results mean?

There are three possible QFT results:

- Positive – suggests that TB infection is likely
- Negative – suggests that TB infection is unlikely
- Indeterminate – suggests the need for further investigations or repeat testing

Your healthcare provider will explain your QFT results to you. Any TB test results are only part of the assessment of your TB infection risk.

What do I do if I have a positive QFT result?

A positive result only indicates the likelihood of infection and does not mean you have active tuberculosis or that you are contagious. Active tuberculosis is diagnosed through a combination of laboratory tests (bacteriological testing), X-rays and other clinical evaluations. Your doctor will advise you on the next steps if you have a positive QFT result.

Know your status!

Remember to ask for the most accurate test for TB infection – QuantiFERON-TB Gold (QFT).

Consult your healthcare professional about any questions or concerns.

Visit www.QuantiFERON.com/Patients for more information.

References:

1. WHO Global tuberculosis report 2014. http://www.who.int/tb/publications/global_report/en/ (accessed May 14, 2015).
2. Pai, M., Zwerling, A., Menzies, D. (2008) Systematic review: T-cell-based assays for the diagnosis of latent tuberculosis infection: an update. *Ann. Intern. Med.* **149**, 177-184.
3. Centers for Disease Control and Prevention. (2010) Updated guidelines for using interferon gamma release assays to detect *Mycobacterium tuberculosis* infection - United States. *MMWR* **59** (RR05), 1-25.

QuantiFERON-TB Gold (QFT) is approved by the FDA as an in vitro diagnostic aid for detection of *Mycobacterium tuberculosis* infection. It uses a peptide cocktail simulating ESAT-6, CFP-10, and TB7.7(p4) proteins to stimulate cells in heparinized whole blood. Detection of IFN- γ by ELISA is used to identify in vitro responses to these peptide antigens that are associated with *M. tuberculosis* infection. QFT is an indirect test for *M. tuberculosis* infection (including disease) and is intended for use in conjunction with risk assessment, radiography, and other medical and diagnostic evaluations. Up-to-date licensing information and product-specific disclaimers can be found at www.QuantiFERON.com.

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Tuberculosis testing

Are you one of the 2 billion people infected with tuberculosis (TB)?

Are you at risk?
Know your status.

Get tested with
QuantiFERON®-TB Gold (QFT®).



Sample to Insight



What is TB?

TB is an airborne, highly contagious, infectious disease caused by *Mycobacterium tuberculosis* (Figure 1). Most frequently, TB affects the lungs, however, it can also cause disease in any part of the body, such as the lymph nodes, bones, brain, organs and eyes. TB is a serious disease that kills about 1.5 million people each year worldwide (1). TB infection begins without symptoms before becoming active. This inactive carrier state is called latent TB infection (LTBI) and can persist for weeks, months or years before developing into active contagious disease. Symptoms of active TB include chronic cough, fever, unexplained weight loss and, if severe, night sweats and even coughing up blood.

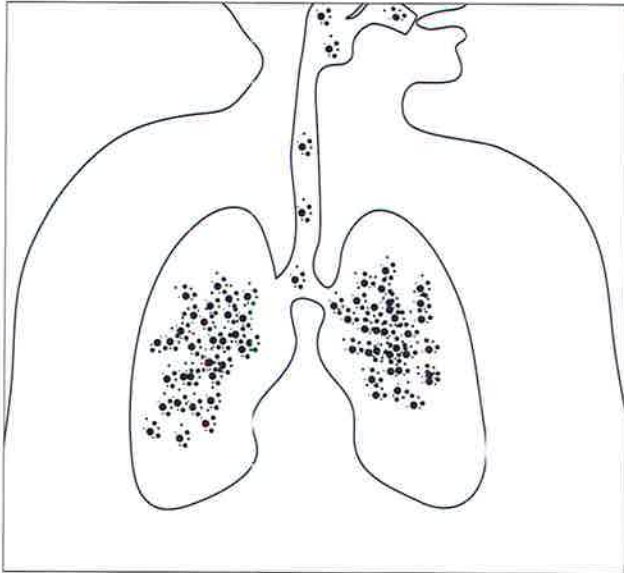


Figure 1. *Mycobacterium tuberculosis*.

The good news is that TB disease is preventable and curable. If TB infection is recognized early, effective preventive treatment can be provided by your doctor. If TB is active, a treatment of multiple drugs is required for a minimum of 6 months that will usually cure the disease and lead to a full recovery.

How do you catch TB?

Active tuberculosis is contagious and mainly transmitted through the air (Figure 2). The bacteria are spread through the air by an infected person sneezing, coughing or speaking, and then nearby people inhaling the droplets.

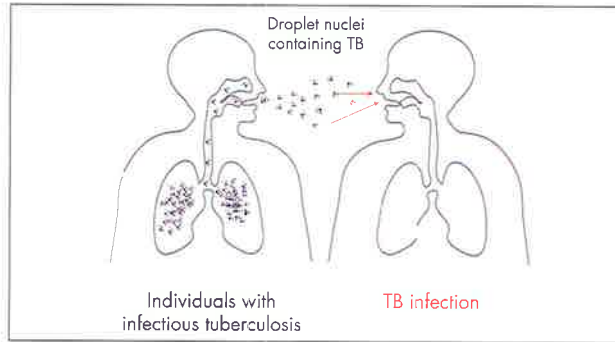


Figure 2. Transmission of tuberculosis.

What is latent TB?

A distinction is made between latent and active tuberculosis. LTBI can persist for weeks, months or years before developing into active disease. Although LTBI is not contagious, there is a 5–10% average lifetime risk of it becoming active. According to the World Health Organization, up to 1/3 of the world's population is infected with TB.

How do you detect a latent TB infection?

There are two types of tests that can detect tuberculosis infection: the tuberculin skin test (TST), also known as the Purified Protein Derivative (PPD) test, and a blood test such as QuantiFERON-TB Gold (QFT).

With the TST, tuberculin is injected into the skin of the lower arm and another visit to the doctor for a physical examination is necessary after a few days. If you are infected with TB, a raised lump will develop at the site where the tuberculin was injected. A previous Bacille Calmette-Guérin (BCG) vaccination is likely to cause a false-positive result (2). Furthermore, you may also experience severe itching at the puncture site.

With a TB blood test like QFT, a small blood sample is taken and then tested in a laboratory. There is no need to return to the doctor to get a result. Reliable results can be obtained within 24 hours. QFT provides the convenience of a single visit, and confidence in an objective, laboratory-based result.

The US Centers for Disease Control and Prevention (CDC) recommends that people born outside the US who have had the BCG vaccine should be tested with a TB blood test such as QFT, due to the likelihood of a false-positive result with the TST (3).

What is QFT?

QFT is an FDA-approved blood test for TB infection. It represents a major scientific advance over the 110-year-old TB skin test, giving greater accuracy and reliability in test results.

Table 1. Comparison of TB testing methods

QFT	TST
One visit to the doctor	Two visits to the doctor
A small sample of blood is taken	Tuberculin is injected into the skin
Results are unaffected by the BCG vaccine	Results may be affected by the BCG vaccine
Results determined in a laboratory	Results determined by subjective/visual assessment