



## Bureau of Public Health Laboratories (BPHL) Jacksonville - Miami - Tampa

# Tuberculosis Testing

Tuberculosis (TB) is a communicable disease caused by infection with bacteria in the *Mycobacterium tuberculosis* complex (MTBC). TB is primarily spread through the air from people that have active infections in their lungs. Worldwide, there are about 10 million new cases of TB each year with 9,563 cases in the United States in 2015. Four states (California, Texas, New York and Florida) make up half of these cases, with Florida reporting 602 cases in 2015. If left untreated, transmission can occur to other people and TB infection can be fatal. However, with accurate diagnosis, patients can receive the treatment they need and make a full recovery. The Florida Department of Health (DOH), Bureau of Public Health Laboratories, Mycobacteriology laboratory is a full service laboratory that offers state-of-the-art diagnostic testing for TB and provides reference and diagnostic testing support to county health departments, hospital and private laboratories across the state.

### Highlights/Specialties

- Provides TB testing services Monday through Saturday
- Performs a range of methods for diagnosis of MTBC on more than 23,000 samples per year
- Performs drug susceptibility testing on up to 1,000 TB positive samples each year
- Performs state-of-the-art molecular tests for diagnosis of MTBC which provide accurate results more quickly than traditional growth-based methods.

#### Nucleic acid amplification test (NAAT): Detects TB

This is performed directly on the specimen of all first-time, TB-suspect patients and is reported within 48 hours.

#### "Hain Test": Detects TB Resistance

This is performed directly on the specimen of all NAAT-positive patients and is performed by reflex (i.e. it does not have to be ordered, we perform it automatically on positives). This test detects mutations in MTBC DNA that can identify whether a person is infected with a resistant TB strain. Results are provided in a short time, usually 2-3 days, and help the physicians quickly determine the best treatment for the patient.

- Provides training opportunities for clinical and public health laboratories, infectious disease and pathology residents, DOH staff, and medical laboratory science students.
- Partners with scientists and physicians from the U.S. and abroad to share best practices, provide training, collaborate in research on advanced diagnostic testing methodologies.

