Tuberculosis and Congregate Settings

Austin/Travis County Health and Human Services Department Communicable Disease Unit







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Tuberculosis (TB)

What is Tuberculosis (TB)?

 TB is a disease caused by a germ called *Mycobacterium Tuberculosis* (MTB) that is breathed into the lungs.

The disease can spread to any part of the body.

How Do I Get TB?



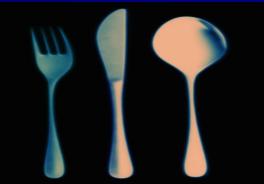
How is TB Spread?

- TB is spread through the air when someone with TB disease:
 - Coughs
 - Sneezes
 - Sings
 - Yells

How is TB NOT Spread?

- TB germs cannot be spread by:
 - casual contact
 - sharing dishes and utensils
 - handling food
 - sharing towels and clothes

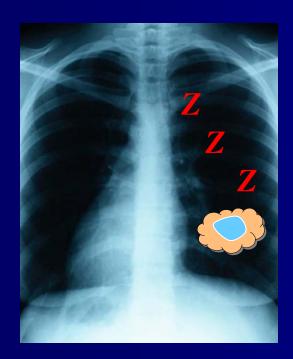


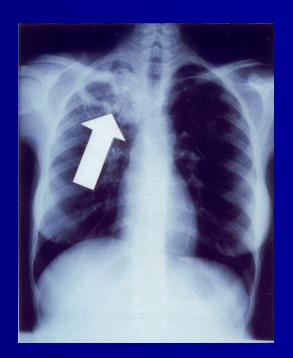




Two Stages of Tuberculosis (TB)

- Latent TB Infection (LTBI)
- TB Disease





People with TB Infection

- have only dormant (sleeping) TB germs in the body
- are not sick.
- do not have any symptoms of TB disease.
- are not contagious and cannot spread TB to other people.
- People with TB infection may:
 - return to work or school
 - be around family and friends

Persons at Higher Risk for Exposure to TB infection

- Close contacts of persons with infectious TB disease
- Recent immigrants (within the last 5 years) who come from an area where TB is common
- Residents or employees of high risk congregate settings (prisons, jails, longterm care facilities for the elderly, hospitals and other health care facilities, residential facilities for patients with AIDS, and homeless shelters)
- Drug users

Tests for TB Infection

- TB skin test
- Special blood tests
 - QuantiFERON-TB Gold (QFT-G)
 - QuantiFERON-TB Gold In-Tube test (QFT-GIT)
 - T-Spot

TB Skin Test

- TB skin tests can be done at the health department, public clinics or private doctor's offices
- It must be read within 48-72 hours of placement
- May be positive due to BCG vaccine (false positive)

Classifying the Tuberculin Reaction

\geq 5 mm is classified as positive in

- ►HIV-positive persons.
- > Recent contacts of TB case.
- ➤ Persons with fibrotic changes on chest radiograph consistent with old healed TB.
- Patients with organ transplants and other.
- Immunosuppressed patients.

≥ 10 mm is classified as positive in

- Recent arrivals from high-prevalence Countries.
- ► Injection drug users.
- Residents and employees of high-risk congregates settings.
- ➤ Mycobacteriology laboratory personnel.
- ➤ Persons with clinical conditions that place them at high risk.
- Children < 4 years of age or children and adolescents exposed to adults in high-risk Categories.

≥ 15 mm is classified as positive in

- Persons with no known risk factors for TB.
- Targeted skin testing programs should only be conducted among high-risk groups.

TB Blood Test

- Available at the health department, some public clinics and some private doctor's offices
- Requires a single patient visit
- Unaffected by BCG and most environmental mycobacterium

What if My TB Skin Test is Positive?

- If the skin test is positive someone from the health department will:
 - Ask you about symptoms of illness.
- A chest x-ray will be taken to see if there is TB disease

Treatment of TB infection may be offered.

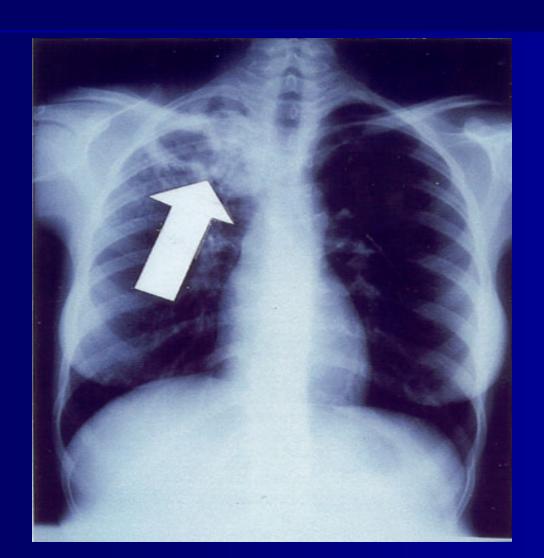
Treatment of TB Infection

 If you have TB infection you can take medicine to prevent you from getting active TB disease

The medicine is called Isoniazid (INH)

- You have to take it for 9 months
- You have to take ALL of the medicine as the doctor orders.

TB Disease



What is TB Disease?

- The TB germs are actively multiplying.
- The person is usually sick and they may be contagious to others.
- They may spread the disease to others if they are in close contact with other people.
- Anyone who is coughing should cover their mouth when coughing and use a tissue.
- If an infectious TB patient must leave their home to go to a doctor's appointment they likely will be asked to wear a mask.

Persons at Risk for Progressing to TB Disease

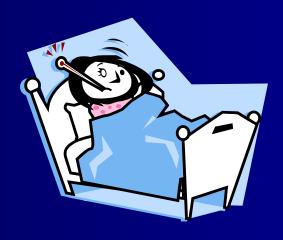
- People are more likely to progress from TB infection to TB disease because of some failure of the immune defense system.
- The immune defense system is our body's way of fighting off infection.

Persons at Risk for Progressing to TB Disease

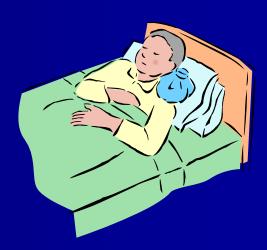
- Someone recently infected with TB
- HIV infected
- Certain medical conditions such as diabetes, silicosis and cancer
- Substance abuse and/or illegal drug use
- Medicines that suppress the immune system such as steroids
- End-stage renal disease
- Children exposed to adults in high-risk categories

Symptoms of Pulmonary TB

- Cough lasting more than
 3 weeks
- Chest pain.
- Coughing up Blood









Systemic Symptoms of TB

- Fever.
- Chills.
- Night sweats.
- Appetite loss.
- Weight loss.
- Fatigue









TB Can Be Cured!

- If someone has TB disease, it is important to start treatment right away!
- Most often it takes 4 different medicines to kill the TB germs since there are so many TB germs in the body.

Priorities for Tuberculosis Prevention and control in Congregate Settings

- 1. Reporting of individuals with signs and symptoms of TB **regardless** of skin test result!!!!!
- Identifying individuals who were inadequately treated for TB infection or Disease and refer for proper treatment
- 3. Screening and treatment of persons exposed to an infectious case of TB
- Screening and preventive therapy for persons with known medical conditions that increase the risk of TB, for example (diabetes, HIV)

What to do if you suspect TB?

- Isolate person from others
 - Provide tissues, surgical mask (if available) to cover nose and mouth
- Call TB Clinic and ask to speak to nurse on phones
- Assist in Coordinating transportation to TB clinic, (not on public transportation)
- Assist contact investigator in identifying persons with possible exposure for testing.

TB Can Be Cured And it Can Be Prevented

