

New Hampshire Department of Health and Human Services
Division of Public Health Services
Tuberculosis Program

Tuberculosis: Diagnosis and Treatment of Disease

1. What does it mean to have *active* tuberculosis disease?

Some cases of TB occur shortly after you breathe the germ into your body. Many cases, however, occur many years later when dormant (sleeping) germs “wake up.” This often happens when body’s defenses are weakened by another illness. Once the germs are “awake” or become active they begin to multiply and usually settle in the lung. This causes you to cough mucus out of your lungs. The germs may spread to other parts of the body and other people. Other symptoms include fever, unexplained weight loss and night sweats.

2. Do I need more tests besides an x-ray?

Yes. We need to be certain what germ is causing your illness and that you are being given the correct medications. Several special tests give this information.

- ***Sputum smear***--The first test is a smear. Mucus or sputum is coughed up and smeared on a glass slide and stained. When there are a lot of germs they are visible under a microscope. When giving a sample for this test it is important to cough up mucus from deep within your lungs (not saliva or spit). When this test is positive, it indicates that you are more easily able to spread the TB germs to others.
- ***Culture***--This test uses the mucus to grow the germs on a liquid or gelatin material in a warm cabinet. It can take 2-6 weeks for the germs to grow. There are other germs like TB that can cause similar illnesses, but they cannot be spread to others. The most commonly seen is mycobacterium avium complex. It is important to identify the exact type of germ that is causing you to feel sick.
- ***“Sensitivity” tests*** -- Once the germs grow they are tested to be certain that the medications will kill them. Sometimes the germs are resistant to one or more of the medications and a change is necessary.

3. Why do I need so many medicines for such a long time?

The germs that cause TB are very difficult to destroy. It takes several weapons to kill them. One medicine may attack some of the germs and another medicine some other germs. Each medicine fights the germs in a different way. When used together they can kill ***all*** the germs. It is a long, hard battle so it is important to continue your medicines for the full time prescribed. Your symptoms may clear up, but the germs will persist! It will take at least 6 months and may take even a year or two years to kill all the germs. Medicines will cure 95% of patients with TB if they are taken correctly.

Medicines will cure 95% of persons with TB if they are taken correctly.

4. What are the common medicines used for treatment?

Isoniazid (INH), Rifampin, Pyrazinamide (PZA), Ethambutol (Myambutol)

5. What are the general side effects for these medicines and what can I do to minimize them?

All drugs may have some side effects. It is important that you are aware of the possible side effects and report them to your doctor and public health nurse coordinator.

- *Fatigue* (being more tired than usual) -- If this happens, try taking the medications at bedtime.
- *Slight nausea or upset stomach* -- If this occurs; take the medications with a little food such as a cracker or with a meal. Antacids may also help, but do not take aluminum-containing antacids within one hour of the time you take your medications.

6. Are there any serious adverse reactions to these medications?

TB medications are broken down through the liver. Blood tests to check your liver functions may be drawn periodically to make sure you are tolerating the medications. Indications of problems are:

- severe loss of appetite
- persistent nausea and/or vomiting
- dark urine (tea-colored)
- yellow color of the skin or eyes
- fever (more than 3 days)
- extreme fatigue/weakness (more than 3 days)
- unexplained skin rash
- clay colored stools (whitish)

**Should any of these serious adverse reactions occur,
call your medical provider immediately.**

7. What other important information do I need to know about TB medications?

- It is important to take your medications as prescribed for the full length of treatment. Do not miss a dose. It will be helpful for you to take it consistently at the same time of day and mark your calendar when you take your medication.
- Do not drink alcoholic beverages or use Tylenol. This puts an extra strain on your liver.
- If you are pregnant or become pregnant inform your doctor right away.

8. Is there specific information about each drug that I need to know?

ISONIAZID (INH)

- * Numbness or tingling of finger or toes; if this occurs, contact your doctor. Vitamin B6 (Pyridoxine) can be ordered to lessen this side effect.
- * In rare circumstances, certain foods may cause altered blood pressures, palpitations, flushing, headache, sweating and itching. Examples of such foods are: tuna, aged cheese, smoked fish, some red wines. Avoid these foods if you experience this type of reaction.

RIFAMPIN

- * May cause a harmless red-orange color to urine, feces, sputum, sweat and tears. Soft contact lens may be permanently stained.
- * Persons taking oral contraceptives should use alternative methods of contraception. Rifampin used with oral contraceptives may cause decreased effectiveness of the contraceptive and lead to menstrual disturbances (spotting, breakthrough bleeding) or pregnancy.

PYRAZIDAMIDE (PZA)

- * May cause pain and swelling of joints or tense hot skin over swollen joints.
- * Report any difficulty in passing your urine. Maintain a good fluid intake.
- * Diabetics need to watch for loss of sugar control--inform your medical provider if there is a problem.

ETHAMBUTOL (MYAMBUTOL)

- * Report the onset of blurred vision, changes in color perception or any other visual changes.

***BE SURE TO COMPLETE
ALL YOUR MEDICATION
AS ORDERED!***