

Tuberculosis (TB) Medications

Latent tuberculosis (TB) infection (LTBI) or active TB disease can almost always be cured with medicine(s). The medicine(s) should be taken exactly as the doctor or nurse tells you. The most common medicines used to fight TB include isoniazid, rifapentine, rifampin, pyrazinamide, and ethambutol.

- **LTBI:** One or two medicines are commonly taken for 3 to 9 months to treat LTBI.
- **TB disease:** If your child has TB disease, he or she will need to take several different medicines (Picture 1) for at least 6 months. This is necessary to kill the many bacteria (germs) and to effectively treat your child. These medicines often include vitamin B6.

Most young children with TB cannot spread the TB germ to other people. LTBI is not contagious to others. However, **some** children with **active TB** are contagious to others. Your child's doctor will tell you if your child is contagious, and if he or she will need to stay home from school to decrease the risk of spreading TB bacteria to other people. Your child's doctor or nurse will tell you when your child can return to school or childcare.



Picture 1 If your child has TB disease, he or she will need to take several different medicines.

How to give TB medicines to your child

- If your child is very young, TB medicines may be given as liquids. The pharmacist who gives you the TB medicines will tell you how to measure the right amount of liquid to give to your child.
- Many young children are given TB medicines crushed and mixed with food. Rifampin is a capsule that can be pulled apart to release the medicine in a powder form. It can be mixed with soft, non-dairy foods such as applesauce or mashed potatoes. In general, the medicine **should not be mixed with any liquid**, such as juice, water, or milk. Some TB medicines should be given on an empty stomach. Your child's doctor or nurse will let you know how your child's medicine should be taken.

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Possible unwanted effects

TB medicine may cause unwanted effects. Sometimes these effects are serious, but most of the time they are not. **See the list below.** If your child has any serious bad effect from a medicine, call your doctor or nurse right away. You may be told to stop giving your child the medicine or to return to the hospital or clinic for tests.

These effects are serious – call the doctor

If your child has any of these symptoms, call your child's doctor or nurse **right away**:

- Nausea
- Aching joints
- Ringing in the ears
- Fever for 3 or more days
- Skin rash
- Hearing loss
- Yellowish skin or eyes
- Blurred or changed vision
- Dizziness
- Easy bruising
- Abdominal pain
- Tingling fingers or toes
- No appetite
- Easy bleeding
- Vomiting or diarrhea
- Tingling or numbness around the mouth

Rifampin and rifapentine will turn urine, saliva (spit), and tears orange. **This is expected**, and the medicine should still be given. Contact lenses should not be worn because they might become permanently stained. Also, these medicines can make a person more sensitive to the sun, so use sunblock of at least SPF 50 on exposed areas. Rifampin and rifapentine make birth control pills and implants (such as Norplant[®]) less effective. People who are sexually active should use at least one barrier form of birth control, such as condoms. If your older child or adolescent is taking rifampin as well as methadone (used to treat drug addiction), there may be withdrawal symptoms. The doctor or nurse may want to adjust the methadone dosage.

Why medicine must be taken regularly

TB bacteria die very slowly. For TB disease it takes at least 6 months for the medicines to kill all of the TB bacteria, but your child will probably start feeling well after only several weeks of treatment. Be aware that the TB bacteria are still alive in your child's body, so he or she must continue to take **all** of the medicines for the entire treatment (at least 6 months) until all of the TB bacteria are dead. This applies to children with either LTBI or active TB disease.

It can be very dangerous if your child stops taking the TB medicine(s) or does not take the medicine(s) regularly. The TB bacteria will grow again and he or she will stay sick, or become sick again, possibly with the serious complication of multidrug-resistant TB disease.

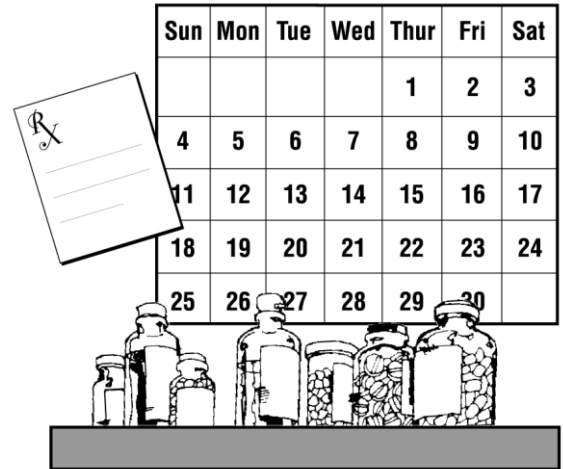
- In the case of multidrug-resistant TB, your child would need different medicines to kill the TB bacteria resistant to the old TB medicines. These new drugs must be taken for a longer time (one-and-one-half to two years or more) and usually have more serious unwanted effects.
- A child who develops more serious disease could become contagious and spread TB bacteria to family, friends, or anyone else who spends time with him or her. It is very important to give your child the medicine in the way and for the time that your child's doctor or nurse tells you.

Remembering to take the medicine

The only way for your child to get well is to take the medicine exactly as your doctor or nurse tells you. At first this may not seem easy, but you can do it! Your child will be taking medicine(s) for a long time (3 to 6 months or longer), so you should get into a routine.

Here are some ways to remember to give the medicine:

- Have your child take the medicine(s) at the same time every day. For example, give them before eating breakfast, after lunch, or after brushing teeth.
- Mark off each day on a calendar as your child takes the medicine(s) (Picture 2).
- If you forget to give the medicine one day, skip that dose and give the next scheduled dose. Tell the doctor or nurse your child missed a dose. You may also call your child's doctor or nurse for instructions.



Picture 2 It is important for your child to take all pills at the same time every day.

Directly observed therapy (DOT)

When TB medicines are given by and taken directly in front of a nurse or other health care provider, it is called Directly Observed Therapy. This is the best way to ensure that TB medicines are taken and tolerated well. DOT is used in some cases for treatment of LTBI and in all cases for active TB disease. If your child receives TB medicines by DOT, he or she will meet with a health care worker every day, several times a week, or once a week.

DOT helps in several ways.

- Your health care worker can help you remember to give the medicine and to complete your child's treatment.
- With DOT you may need to give medicine only 1 to 3 times a week instead of each day.
- The health care worker will make sure the medicine is working as it should. This person will also watch for unwanted effects and answer questions you may have about TB.

Even if your child is not getting DOT, he or she must be checked at different times to make sure everything is going well.

Multidrug-resistant TB

When patients do not take their TB medicine as prescribed, TB bacteria may become resistant to a certain medicine or medicines. This means that the medicine(s) can no longer kill the bacteria. Drug resistance is more common in people who:

- Have spent time with someone with drug-resistant TB disease.
- Do not take their medicines regularly.
- Do not take all of their prescribed medicine.
- Develop TB disease again after not finishing a prescription of TB medicine in the past.
- Come from areas where drug-resistant TB is common (Southeast Asia, Latin America, Haiti and the Philippines).

Sometimes the bacteria become resistant to more than one drug. This is called multidrug-resistant TB, or MDR-TB. This is a very serious problem. People with MDR-TB disease must be treated with special drugs. These drugs may cause more adverse effects than the regularly prescribed medicines. Your child's doctor will tell you about these unwanted effects.

If you have any questions about the medicines, be sure to ask your child's doctor, nurse or pharmacist.