

# Tuberculosis (TB) – how do we treat it?

Read this.  
Here is how you  
will be cured.

You will be cured  
if you take your  
medicines every  
day during the  
whole treatment.

You are  
not alone,  
let's do this  
together!



You have been diagnosed with tuberculosis (TB). It is caused by bacteria called *Mycobacterium tuberculosis*. The disease is spread from one person to another through the air.

Medicines can destroy TB bacteria. You will be cured if you take your medicines as instructed by your doctor throughout the whole treatment.

**This leaflet tells only about the treatment of drug susceptible tuberculosis.**

If you become infected with TB bacteria and get active TB disease:

- in most cases, TB bacteria are susceptible to TB medicines (drugs). Susceptible means that all tuberculosis medicines can kill the bacteria. The treatment starts with a combination of 4–5 medicines and continues with 2–3 medicines to the end. The treatment lasts about 6 months.
- in some cases, TB bacteria are resistant to TB medicines. You can also get a drug resistant TB if your medication is irregular or if there are several interruptions. The treatment includes a combination of 4–7 medicines. The treatment lasts about 2 years.

**How does the treatment go on?**

Treatment is started in a hospital. If your TB disease can spread to others, you will start your treatment in an isolation room. At the same time, the health staff will study your sputum samples to make sure that the combination of your medicines is effective. When there is no more risk of infecting others and you feel good, your medication continues at home.

Treatment usually starts with 4–5 medicines. You will need to take several different

medicines because the medicines together are more powerful at killing the bacteria. Bacteria can build up resistance to one particular medicine and then this medicine is not useful anymore. Some bacteria grow slowly and not very often. You must take medicines long enough so that all bacteria die and you will be cured.

Medicines work best if you take them on an empty stomach, usually about 2 hours after breakfast. After you have taken your medicines, you can eat again after about half an hour.

Usually after 2–3 months of treatment your doctor will cut down the number of medicines. You visit the hospital regularly so that the health staff can monitor your treatment and its effect on your health. You must give blood samples every 1–2 months. You will have X-rays a few times during treatment and at the end of it.



## You are not alone – you will have support during treatment

All TB patients have a right to get directly observed treatment with support and guidance. Your doctor and nurses are responsible for your medication, well-being and cure. You can also visit a social worker and a psychiatric nurse in the hospital.

Taking medicines can sometimes feel hard or you may forget to take them. You may also get side effects from the medicines. This is why your nurse will monitor how you feel and your nurse will be present when you take the medicines in the hospital and also after the hospital period. You and your nurse will agree on how you take the medicines at home. Usually you will meet your nurse 5–7 times a week.

Depending on your life situation you can go to take the medicines at your health station or, for example, in school health care or occupational health care. A home care nurse can also give you the medicines at home if your condition is weak. This is done to make sure you get cured. At the same time, this will prevent the bacteria from becoming resistant to medicines.

**Do not cough on other people.**



**When you cough, cover your mouth and nose with a tissue or cough into your upper arm tightly.**

## Basic medicines for TB treatment

The following basic medicines are used to treat drug susceptible TB: isoniazid (brand name Tubilyzin), rifampicin (Rimapen or Eremfat), pyrazinamide (Tisamid), ethambutol (Oributol) and streptomycin (Streptomysin or Streptofatol). In some situations levofloxacin (Tavanic) is also used.

## Tell your doctor all important information about yourself

When your doctor is planning your medication and the follow-up, he/she needs to know the following things about you:

- names of all medicines, organic products and nutrition supplements that you are using
- all diagnosed diseases
- previously identified drug allergies
- previously identified liver or kidney dysfunction
- previously identified problems in seeing or hearing, such as color blindness, weakened hearing or ringing in the ears
- pregnancy and breast feeding

- + TB examinations, hospital care, medicines and follow-up visits are free of charge to you.
- + Your nurse gives you the medicines and will support you during the whole medication period. You can tell your nurse how you feel and about any other things that may worry you.
- + You will visit your doctor at the hospital to check up your treatment progress.
- + Your doctor decides about possible changes in your medication and when to stop taking medicines.
- + Tell your nurse and doctor about all your symptoms and any time if you suspect that you are having side effects from the medicines.

## Medication may cause side effects

Every person tolerates medication differently. During the first weeks of treatment medication can often cause side effects but usually they get milder when treatment continues. It is possible to help a patient suffering from side effects with different actions and medicines.

The most common side effects are tiredness, poor appetite and nausea. Changes in the diet can make your appetite better. If it is necessary, you can be given anti-nausea medication.

Body fluids such as urine, tears, saliva, sperm and fluids from the vagina can turn red because of the red colour in rifampicin. This is harmless.

If you get a skin rash or your skin itches, you can regularly apply lotion on your skin and avoid soaps that dry your skin out. If necessary, you can use a cortisone lotion and an antihistamine medicine.

Other possible side effects include joint aches and swelling, stomach problems and loose stool. A doctor can prescribe painkillers to treat and relieve joint problems. Stomach and bowel problems can be relieved with diet changes and fibre as well as lactic acid bacteria products. These side effects are not dangerous.

While you are taking isoniazid, you might sense tingling or numbness in your hands or feet. These symptoms are prevented by giving always vitamin B6 together with isoniazid. You also need a vitamin D supplement because a shortage of vitamin D slows down your recovery.

TB medicines can irritate and weaken liver functions. This is why during medication you should avoid alcohol and use of medicines that affect the liver (for example, the painkiller paracetamol) and natural medicines and remedies.

## Severe side effects?

**If you have severe side effects, contact immediately your nurse or doctor or emergency care (see back page for contact information). In this case the health staff will interrupt your medication and evaluate your condition without delay.**

Such symptoms include:

- strong stomach aches
- white of the eyes or skin turn yellow
- fever and general ill feeling
- widespread rash or changes in mucous membranes
- vision accuracy and the ability to distinguish colors gets weaker
- hearing gets weaker or you have clear symptoms of dizziness
- secretion of urine slows down considerably
- feeling confused
- Achilles tendon in one foot or in both feet are painful
- feelings of irregular heartbeat and nausea
- epileptic spasm seizure.

# How can you help yourself to get cured?

## During hospital care in an isolation room

Keep contact with other family members and friends, for example, through social media.

Visits are allowed but big group visits are not recommended. Small children are not always allowed to visit, this is to protect children from TB.

Bring some of your own important things into the isolation room. Create your own daily routine.

Read books and magazines, watch movies, keep yourself updated with the Internet, meditate.

Do muscle workouts. Take a walk outdoors if it is possible.

Ask for and eat your favourite food and drinks.

## Medication

Take all medicines regularly. Do not skip doses, even if you feel well and you do not experience any symptoms of the disease.

If you doubt or notice any side effects whatsoever from the medicines, always tell about them to your nurse or doctor.

If you use over-the-counter medicines (medicines sold directly to a consumer without a prescription) or pain killers, please tell your nurse or doctor about them so that they can make sure that these medicines do not add to the risk of medication side effects.

It is better not to plan a longer trip during medication. Talk about shorter trips in advance with your nurse. Then the health staff can plan your medication in advance so that there will be no breaks.

## Appetite and food

It is important that you eat well so that your body gets enough energy to recover from the disease.

If you have lost a lot of weight, it is important to increase the fat and protein content in your diet. Good foods include vegetables, fruit, fish, meat, beans, nuts, potatoes, porridge, rice and eggs.

If you have nausea, you should have several small meals and snacks. It may also help if you eat and chew the food slowly and stay sitting for a while after the meal. Loose clothes and fresh air may also help.

If you have a weak appetite, eat the dishes you like. You may like soups or cold salads or sour fruit, berries and vegetables. If your food looks attractive and you have laid the table nicely, this may improve your appetite. So does a walk outdoors and regular exercise.

Drink enough (about 2 litres every day, for example, water and fruit juices). Remember to drink especially in between meals so that the drinking does not fill your stomach.

You should not drink alcohol during medication because alcohol burdens your liver functions. Tuberculosis medicines leave your system through the liver metabolism. Alcohol and TB medicines can have a combined effect on your liver. This may overstress your liver and it may be necessary to have a break in the medication.

## Physical exercise, going to school and ability to work

As you get better, you will feel less and less tired. It is a good idea to rest in the beginning of treatment.

Do regular exercises to maintain and improve your muscle strength. It is possible to take a slow walk every day as soon as you feel strong enough to go outdoors.

Add physical activity little by little when you feel like it.

You can go to school or work as soon as you are strong enough to eat and be active. This usually also makes your mood better and helps you get better. If you have a heavy physical job, your doctor will check your ability to work.

## Social life

TB and its treatment can bring tiredness, all kinds of feelings and a low mood.

Open discussion and information on tuberculosis will give your family members and friends an opportunity to support you during treatment.

Small activities and tasks which bring you happiness will also help you get well.

Everyone has his or her own ways and means to get better. Think about and write down those things and people that bring you strength and good feelings.

## Sex

You can have sex while you are treated for TB. TB is not spread through sexual intercourse or kissing.

At the beginning of the treatment, you may however, be so tired that sex does not interest you. It is good to tell this to your partner.

Medication for TB does not affect the fertility of the male. Rifampicin makes birth control pills less effective. If you are a woman and use birth control pills, you need to change your birth control method. Discuss this with your doctor.



## Pregnancy

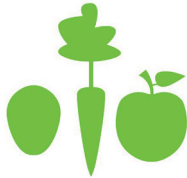
If you are planning a pregnancy, it is better to wait until your TB treatment is finished. When you are healthy, you have more strength to take care of your baby.

If you are already pregnant when TB is diagnosed, medical treatment will be planned accordingly, and a gynecologist will follow your condition. Make sure you eat well and healthy.

If TB treatment has gone well, the mother may take care of her child and breastfeed normally after delivery.

If the mother's TB can spread during birth, the newborn will be given medication to prevent TB disease.

### Your resource map



Healthy food



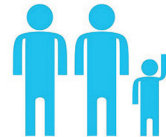
Friends



Physical exercise



A support person for TB medication



Family



Other things that give you strength



Contact information

Hospital:

Health station:



Additional information:

