

# How to Protect Ourselves from TB

## About TB Preventive Treatment



**Tuberculosis (TB)** is one of the top 10 causes of death globally. It is caused by TB bacteria, passing through air when someone with TB disease talks, coughs or sneezes.

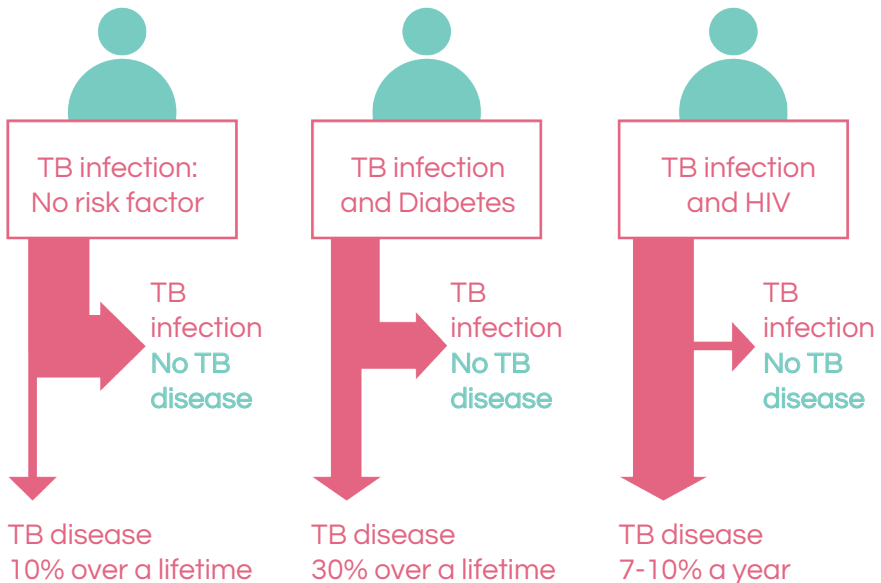


One of two things will happen if the TB bacteria enters a body.

- The bacteria will get killed by the body's immunity before they can cause harm.

OR

- The TB bacteria will be contained by your immune system. A TB infection can become active later in the life of an infected person. This is more likely if your immune system becomes weak.



**TB Preventive Treatment (TPT)** is one of the most powerful ways to prevent TB disease after exposure to the TB bacteria.

Chances of contracting the TB bacteria rise significantly when someone you are in close contact with has TB and your immunity is low.

Conditions like HIV infection, diabetes, and silicosis lower immunity. Some drugs prescribed for other diseases can also lower immunity.

Treating TB infection even when one is not ill is important and will provide protection, much like fire proofing a house even when there is no fire.

## Who needs TB Preventive Treatment?

People living with HIV (PLHIV)	Other at-risk groups
Close contact with TB patients	Patients on dialysis, anti-TNF (tumour necrosis factor) treatment, and patients preparing for an organ or haematological transplant.  Patients with silicosis should also be systematically tested and treated for latent TB infection.
Adults, adolescents and children of all ages.  Children under the age of 5 are specifically vulnerable.	

Target groups for TPT as identified in WHO TPT Guidelines 2020

## Diagnosing TB Infection

- Tuberculin skin test (TST) or interferon-gamma release assay (IGRA) can be used to test for TB infection. The availability and affordability of the tests may vary in countries as per national policy. Neither TST nor IGRA can be used to diagnose active TB disease.
- Testing by TST or IGRA is not an essential requirement for initiating TPT in PLHIV or child household contacts under 5 years of age. However, countries are expected to build infrastructure around the provision of these tests.



## TB Preventive Treatment (TPT)

There are multiple options and your doctor will be able to choose the best one for you.

1

### 3HP

Once-weekly isoniazid (INH or H) plus rifapentine (P) for 12 weeks, total 12 doses for adults, adolescents and children above 2 years of age.

2

### 1HP

A daily dose of isoniazid plus rifapentine for one month for adolescents and children above 12 years of age.

Both these regimens (3HP and 1 HP) can also be given to PLHIV.

3

### 3HR

Daily rifampicin (R) plus isoniazid for 3 months for adults and children. The regimen can also be given to PLHIV who are on rifampicin-friendly ART regimen. Child friendly formulations are available in several countries.

4

### 6H/9H/36H

Either daily isoniazid for 6 months for adults and children, or daily INH for 9 months for adults and children, or daily INH for 36 months for PLHIV in high TB transmission settings.

5

### 4R

Daily rifampicin for 4 months for adults and children.



While on INH containing regimens, supplementary vitamin B6 may be taken to prevent peripheral neuropathy. Vitamin B6 is required among individuals who have high risk e.g. PLHIV, malnourished individuals and pregnant women.

If B6 is unavailable, vitamin B complex can be an alternative. Unavailability of B6 should not become a barrier in starting TPT, which is at present the case in some countries.

## Need for community demand generation

Despite the recognized benefits of TPT, there is a lack of knowledge among community members. Community members need to get the right information and take up a TPT demand generation campaign as a strategy to improve the uptake of TPT. This is important because those infected with TB bacteria and at-risk of developing the disease may feel well and hence may not consider it necessary to take the medicine.

## Frequently asked questions from People Living with HIV

I have never been in contact with a person who I know has TB. Do I still need to take preventive treatment?

Yes. PLHIV are at higher risk of getting infected with TB and progressing rapidly to active TB due to their weak immune status.

I am already on ART, what is my risk of getting TB?

Although regular ART reduces the overall risk of developing TB, the risk of acquiring TB infection remains high even with ART compared with HIV-negative people. Combined use of TPT and ART significantly reduces the risk of TB.

Can I take both ART and TPT together?

Yes. Both ART and TPT can be taken together.





I have already been treated for TB three years back. Do I still need to take preventive treatment?

Yes, because prior treatment of TB disease does not protect you against re-infection with TB.

How long am I protected from TB if I take TPT?

Several studies have shown that TPT reduces the incidence of TB over 7—15 years. TPT saves lives, prevents illness, and averts suffering.

Do I need to take TPT if I am living with HIV and receiving ART, and have a high CD4 cell count?

Yes, all adults and adolescents living with HIV should take TPT as part of a comprehensive package of care for HIV, regardless of their CD4 cell count.

I am a HIV positive injecting drug user on opioid substitution therapy (OST). I haven't started ART. Do I need to take TB preventive treatment?

Yes. People who use drugs (PWUD) have a higher prevalence of TB infection and incidence of TB disease. People taking 3HP with OST should be closely monitored for signs of opiate withdrawal and any other adverse events. Rifampicin is best avoided.

I am a PLHIV who is also infected with hepatitis C. Can I take TPT?

Yes, but this may need some modifications. People with HCV should consult with their health care provider/treating physician.

How can we rule-out active TB in PLHIV prior to TB preventive therapy?

Active TB can be ruled out in adults and adolescents living with HIV by symptom screening for TB. Those who report current cough, fever, weight loss and night sweats should be further

tested for TB. Those with no symptoms should be offered TPT along with their ART.

### Should pregnant women living with HIV take TPT?

Yes. Pregnant women living with HIV are at risk for TB, which can have severe consequences for both the woman and the unborn child. Pregnancy should not disqualify pregnant women from receiving TPT, although close monitoring must be done for any side effects.



## General Questions

### Why should I take pills to treat TB infection when I do not feel ill?

If you have been advised to take TPT it is because your health-care worker or clinician believes you have an increased chance of developing active TB disease. Taking a complete course of TPT can prevent the infection from becoming active disease.

### What should I do if I develop adverse drug reactions?

If you are receiving TPT, and develop any symptoms you should immediately contact your health-care provider. The usual symptoms include anorexia (loss of appetite), nausea, vomiting, abdominal discomfort, persistent fatigue or weakness, dark-coloured urine, pale stools or jaundice.

### Who should receive testing and treatment for TB infection?

Adults, adolescents, children and infants living with HIV, infants and children < 5 years who are contacts of TB patients, and HIV-negative clinical risk groups, such as person initiating anti-TNF treatment, receiving dialysis, preparing for organ transplantation have the highest likelihood of developing active TB disease and should be prioritized for systematic testing and treatment of TB infection, regardless of the setting.

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