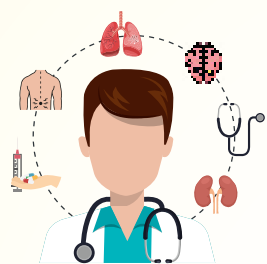




International Union Against
Tuberculosis and Lung Disease

Eliminating Tuberculosis in India Frequently Asked Questions

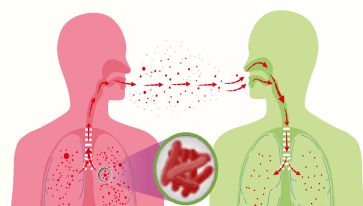
This pamphlet seeks to spread awareness, dispel myths and tackle stigma about tuberculosis. It also provides data sources on tuberculosis and information about the measures being taken to eradicate this disease in India.



What is Tuberculosis (TB)?

Tuberculosis (TB) is an infectious disease caused by the Mycobacterium Tuberculosis bacteria. TB usually affects the lungs (Pulmonary TB/Lung TB), but it can also affect other parts of the body, such as the brain, the kidneys, the spine, etc. (extra-pulmonary TB). Pulmonary TB is the more common form of TB.

Is TB infectious? How does TB disease spread?



Microbiologically confirmed Pulmonary TB is the only infectious form of the disease. Like other respiratory diseases, it is transmitted from person to person via droplets from the airway and the lungs of people with active disease. Pulmonary TB infection spreads when a person with active disease talks, sings, coughs, or sneezes, releasing airborne TB bacteria in the vicinity of susceptible individuals. However, it does not spread through handshakes, using public toilets, sharing food and utensils, and casual contact.

Is TB infection and disease the same?

TB infection is not the same as TB disease. When a person has been exposed to someone with TB disease and has breathed in the TB germs, that person may become infected with TB. In most cases, people with healthy immune systems can contain the infection at that point and not become ill with TB disease. Low immunity is regarded as one of the common reasons why TB infection breaks into TB disease. Chances of progression from infection to disease is 5 to 10 per cent.

What are the symptoms of active TB disease?

Symptoms of TB are usually specific to the site affected by the bacteria. Although there are some symptoms common to all types of TB, an indicative list is given hereunder:

Symptoms of Extra-pulmonary TB depend on the site/organ affected



Brain TB – Meningitis

Lymph node TB – Enlarged lymph nodes

Bone TB – Destruction of bones and joints



Abdominal TB – Intestinal obstruction

Symptoms of Pulmonary TB or lung TB



Persistent cough for any duration

Chest pain

Shortness of breath

Blood in sputum (spit)



Common symptoms



Weight loss

Fatigue

Evening rise of temperature (Fever)

Night sweats



Who can be affected by TB? Does it only affect people from economically weaker sections of society?

Anyone can be affected by TB. However, a few conditions increase the likelihood of the infection converting into an active disease. A few medical comorbidities and socio-economic conditions lower immunity and thereby increase the likelihood of developing an active TB disease. While TB occurrence is not just limited to individuals from economically weaker sections of society, poverty, malnutrition, and TB share a bidirectional relationship. TB is five times more likely to occur among economically weaker populations.

The following conditions increase the likelihood of developing active TB:

- Close prolonged contact with a person with Pulmonary TB
- Being in an overcrowded environment without proper precautions like using a mask, cough etiquette etc.
- Immunosuppressive drugs (anti-cancer, corticosteroids etc.)
- HIV infection
- Malnutrition
- Diabetes patients
- Smoking
- Certain lung diseases like silicosis that causes lung scarring
- Occupational hazard of working in industries that are prone to lung disease

What should be done by people experiencing symptoms of TB?

People experiencing any of the symptoms associated with TB, must visit a nearest health centre and get professional medical advice.

TB diagnosis and treatment is available free of cost at all government and identified private and NGO health facilities called TB Detection Centers. The services are channelized from district to block tehsil level. It will be useful to download the TB Aarogya Saathi app on your phone for basic clarifications and resources. You could also call the toll-free number 1800-11-6666 for further counselling and support.

Note: TB and COVID-19 both primarily affect the lungs although TB is caused by bacteria and COVID-19 by a virus. Many symptoms of COVID-19 and TB are similar as well. That's why bidirectional screening is necessary to rule out either of these disease. Therefore, if you have symptoms such as cough, fever, and difficulties in breathing, get yourself tested for both COVID-19 and TB.

What are the tests that can diagnose active TB disease?



If you, or someone you know, is experiencing symptoms of TB, please visit your nearest health centre for a check-up. You can download the TB Aarogya Saathi app on your phone and go to "Health Facilities" to find both government and private sector TB health centres in your districts.

TB is diagnosed by testing for TB bacteria in a clinical specimen taken from the patient.

Pulmonary TB is diagnosed through sputum smear microscopy and/or Chest X-Ray. While other investigations may strongly suggest tuberculosis as the diagnosis, they cannot confirm it.

In extra-pulmonary TB where it is usually difficult to demonstrate TB bacteria, the diagnosis is made based on clinical suspicion and special tests depending on the organ affected. For instance, TB of the lymph nodes is diagnosed by a special test called FNAC (Fine Needle Aspiration Cytology).

In addition, NAAT (nucleic acid amplification test) is increasingly being used for diagnosing TB. They are highly accurate and rapid molecular tests. Along with detecting TB, it also detects drug resistance to a potent anti-TB drug, Rifampicin.

What is the duration of treatment for active TB disease and how long does it take to recover from TB?

The duration and nature of TB treatment depend upon the response to drugs available for treatment. For drug-sensitive TB patients, the treatment is generally 6-9 months. After the initial diagnosis of TB, patients are offered cascade testing to check if they are resistant to any line of TB drugs. Some patients might have resistance to one or few of the drugs used to treat TB. In that case, the treatment time might be longer.

Is TB curable?

TB is curable if the prescribed drugs are taken regularly for the complete duration. The response to treatment in the case of patients with Pulmonary TB is assessed by follow-up sputum examinations/-culture done at regular intervals over the course of treatment. The sputum examination is also done at the end of the treatment to declare the patient cured. The response in extra-pulmonary TB patients is assessed through clinical improvement and follow-up investigations such as X-rays, CT scans, etc. depending on the site affected.



Is there a vaccine against Tuberculosis?



So far, the only clinically-approved tuberculosis (TB) vaccine in India – Bacille Calmette Guerin (BCG) – is given at the time of birth to provide protection in the early years when infection can lead to diseases such as miliary tuberculosis or tubercular meningitis. Infants may receive the vaccine soon after birth, but preferably before exposure to persons with active tuberculosis.

How can I protect myself if my family member has active TB disease?

If you have had a close contact with a person with active TB disease, you must visit your nearest health facility to get screened for symptoms and chest X-ray, followed by a test for detection of TB infection. The state has Cy-TB test available for TB infection. This test is offered only after ruling out active TB disease. If the person is positive for TB infection, TB preventive treatment is started.

Should a TB patient be dealt with differently within the household and/or community?



TB patients, must be supported through their recovery and encouraged to complete their treatment and to take a nutritious diet. Persons with active Pulmonary TB disease must be encouraged to adhere to appropriate respiratory practices. They should cover their mouth and nose while coughing and sneezing as a practice. Wearing a mask potentially cuts transmission of the disease/infection, therefore person who has a cough for any duration (even if not yet tested) must be encouraged to wear a mask. After over 2 weeks of treatment initiation and adherence, the chances of TB transmission are reduced. TB patients can continue living their normal lives after treatment completion.

Is there a higher prevalence of tuberculosis in Tribal Populations?

Yes. While TB can be contracted by anyone, under resourced communities – such as Indigenous tribes who contend with intergenerational poverty, lack of access to healthcare, poor living and working conditions, stigma, malnutrition etc – are particularly vulnerable to the diseases. These factors not just hinder access and availability of TB treatment, but limit the continued utilization of TB care services. Tribal people, who according to the 2011 Census comprise 8.6% of India's total population, are disproportionately affected by tuberculosis as 10.4% of all TB notified patients are from tribal communities. This higher prevalence of TB in India's tribal population i.e. 703 per 1,00,000 compared to the national average of 312 per 1,00,000 has resulted in government led TB elimination initiatives devising specific Tribal Action Plans since 2005.

However, in 2021, the Ministry of Health and Family Welfare and the Ministry of Tribal Affairs with the technical assistance of USAID launched a unique Tribal TB initiative in 2021 on the model of a multi-sectoral, multi-dimensional partnership. This initiative brings together stakeholders with diverse capabilities to improve the cascade of TB care and support services among Tribal Populations in India.

What is the correlation between TB and nutrition?



A report by the Government of India's Central TB division highlights the bidirectional relationship between undernutrition and TB. Undernutrition is an established risk factor for progression of latent TB infection to active TB. Conversely, TB leads to weight loss, wasting and worsening of nutritional status. An understanding of this bidirectional relationship is particularly important in the Indian context. Undernutrition at the population level contributes to an estimated 55% of annual TB incidence in India. Studies on nutritional status of TB patients in India have shown high levels of moderate to severe undernutrition in both women and men. According to programme data, the median weights in men and women are 43 kg and 38 kg, respectively.

Undernutrition is a serious co-morbidity in patients with active TB in India, and increases the risk of severe disease, death, drug toxicity, drug malabsorption and relapse after cure. Food insecurity in household contacts of TB patients in India increases their risk of developing active TB. This has serious implications, especially for household members of patients with multidrug-resistant TB. In the absence of nutritional support, undernourished patients with TB get caught up in a vicious cycle of worsening disease and undernutrition, which can be detrimental and even fatal.

What are the measures to reduce stigma related to TB?

Stigma around tuberculosis is a significant barrier that hampers health seeking behaviour in people with TB. Stigma primarily stems from fear of TB, and of the disastrous health, financial, personal, and social consequences of the disease on affected individuals and families. There are several types of stigma associated with TB. It may be perceived (or anticipated) or experienced (or enacted). Stigma also operates

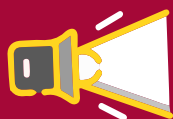


at different levels: in communities, in close social networks and institutions, including health care establishments. Stigma may also be internalized by those affected. Thus, an important component of the National Tuberculosis Elimination Program is its End Stigma Strategy. It envisions a stigma-free TB response that enables India's goal of ending TB, reduced catastrophic costs, and higher acceptance and utilization of NTEP services.

There are four principles that are invoked in this strategy:

1. People with TB and those close to them, their inner circle, are able to live with TB and access TB services without being judged or facing prejudice.
2. People in the social circle of TB-affected persons and members of the community do not fear TB, but are assured that it is a treatable disease, and that their support of persons with TB will result in a speedy and better recovery, and thus prevent its transmission.
3. Community influencers can promote positive social behaviour towards people affected by TB and contribute to the fostering of safe and acceptable environments.
4. Health care service providers and health influencers adopt standards for TB Care and demonstrate leadership in using stigma-mitigating soft-skills and non-stigmatizing language.

State Spotlight: TB Health Systems Strengthening and Community Support in Himachal Pradesh



1. Recent changes include providing ₹1000 per month to patients under the Nikshay Poshan Yojana during their treatment duration.
2. Additionally, the state government provides an extra ₹1500 per month to every DRTB patient from the state budget under Mukshya Mantri Kshay Rog Nivaran Yojna
3. In Himachal Pradesh, there are a total of 340 testing facilities for TB, including 102 NAAT sites. We also have molecular testing facilities available at the block level

How can media play a role in achieving India's TB Mukht Bharat goals?

Media is the most credible platform to take the message of TB prevention, testing and treatment to the masses on a consistent basis. Reporting on TB must be factual and informative for the readers. Media must aim to sensitize people about TB symptoms diagnostic services and treatment, TB prevention and also encourage citizens to go for testing. Adherence to treatment is vital for curing the disease. Media must put out regular informative articles on testing and treatment as well. It plays a crucial role in eliminating stigma around TB and should disseminate the right information on treatment and cure. Voices of the community, healthcare workers, TB survivors and TB champions must be frequently covered in the media and information on Government programs and free of cost treatment and testing should be disseminated among citizens. Additionally, stigma is a barrier to TB elimination. Media plays a crucial role in destigmatizing TB through news stories educating and creating awareness about TB, its spread, prevention, and treatment. Media must use destigmatizing language when writing about people with TB. Media needs to play a pivotal role in normalizing conversations about TB in the state by way of accurate, inclusive and factual reporting.

Information Sources

India Annual TB Report 2022

<https://tbcindia.gov.in/WriteReadData/IndiaTBReport2022/TBAnnauReport2022.pdf>

WHO website

https://www.who.int/health-topics/tuberculosis#tab=tab_1

Meri TB Ki Kahani Link:

https://youtu.be/CtIP2MWeH_w
<https://youtu.be/cX5uKO848Gg>

<https://youtu.be/FWmjwWpn9YU>

<https://youtu.be/zlZlYFML3vw>
<https://youtu.be/rqxrJLhyot0>

https://youtu.be/gjEW_RQKj_Y

<https://youtu.be/Am-l4sQPePs>
https://youtu.be/gl0jwMOU_ow

Oxlade O, Murray M (2012) Tuberculosis and Poverty: Why Are the Poor at Greater Risk in India? PLoS ONE 7(11): e47533.
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0047533extr>

Guidance Document: Nutritional Care and Support for TB Patients in India

<https://tbcindia.gov.in/WriteReadData/Guidance%20Document%20-%20Nutritional%20Care%20%26%20Support%20for%20TB%20patients%20in%20India.pdf>

Strategy to End Stigma and Discrimination Associated with Tuberculosis –

<https://tbcindia.gov.in/showfile.php?lid=3588>

