

FAQs

Frequently Asked Questions on Leprosy



**World Health
Organization**

Regional Office for South-East Asia

Frequently Asked Questions on Leprosy

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FAQs

Q 1: What is leprosy?	2
Q 2: What are the signs and symptoms of leprosy?	2
Q 3: Can leprosy be cured?	3
Q 4: Are there other names for leprosy?	3
Q 5: What is the infectious agent?	3
Q 6: How is leprosy spread?	3
Q 7: Are there different kinds of leprosy?	3
Q 8: How are leprosy cases classified?	4
Q 9: What is the incubation period?	4
Q 10: How is the clinical diagnosis of leprosy made?	4
Q 11: What is the laboratory criterion for diagnosis of leprosy?	5
Q 12: What is the WHO operational definition of leprosy?	5
Q 13: What other diseases have similar symptoms?	5
Q 14: Do fingers and toes fall off when someone gets leprosy?	5
Q 15: Should a person affected by leprosy be sent to a leprosy sanatorium?	6
Q 16: Can leprosy be passed on from parents to children?	6
Q 17: Can I live with a person affected by leprosy?	6
Q 18: Can we share household items such as spoons, plates, a bathroom or a bedroom with a person affected by leprosy?	6
Q 19: Can a person affected by leprosy get married?	7
Q 20: Can people affected by leprosy be employed?	7

Q 21: Does leprosy affect more men than women?	7
Q 22: Is it necessary to examine those in contact with a person affected by leprosy?	7
Q 23: What is the treatment for leprosy?	7
Q 24: Can BCG immunization also protect against leprosy?	8
Q 25: What I should know about multidrug therapy (MDT)?	8
Q 26: Is leprosy treatment life-long?	8
Q 27: How long does it take for skin discolouration to disappear?	8
Q 28: How can impairment and disabilities caused by leprosy be prevented?	9
Q 29: What if a leprosy patient cannot complete a prescribed course of MDT treatment?	9
Q 30: What are the adverse drug reactions with MDT?	10
Q 31: What if a person affected by leprosy cannot take one or more drugs in the MDT due to allergy or other medical conditions? Are there alternative drugs?	10
Q 32: Is MDT safe during pregnancy and lactation for the mother and the baby?	10
Q 33: Can I take any anti-leprosy drugs after contact with a person affected by leprosy?	11
Q 34: What is a "relapse"? How is it recognized and managed?	11
Q 35: What is "leprosy reaction"?	11
Q 36: Are there conditions which require immediate medical care when leprosy reaction occurs?	12
Q 37: What should a patient know about completing MDT?	12
Q 38: Is leprosy still a problem worldwide?	12

Q 39: Why has a prevalence of below one case per 10 000 population been chosen as the level of elimination?	13
Q 40: Why is leprosy still a problem?	13
Q 41: What are other factors that contribute to the stigma of leprosy?	14
Q 42: How can I help to reduce the social stigma?	14
Q 43: Can leprosy be prevented?	14
Q 44: What should the community know about leprosy?	15
Further reading	16

FAQs

Q 1: What is leprosy?

Leprosy is a disease caused by a type of bacteria called *Mycobacterium leprae*. These bacteria attack nerves in the hands, feet and face, causing numbness and loss of sensation to those parts of the body. It can also affect the nose and the eyes.

Early signs include discolouration or light patches on the skin with loss of sensation. When nerves in the arm are affected, part of the hand becomes numb and small muscles become paralysed, leading to curling of the fingers and thumb. When leprosy attacks nerves in the legs, it interrupts communication of sensation to the feet. As a result, the person does not feel pain, and can have injuries to their hands and feet without realizing it. The damaged nerves also lead to the skin peeling off, and the tissue beneath the skin is exposed.

The signs and symptoms vary considerably, depending on the patient's resistance to the disease. They can be easily missed or mistaken for some other disease.

Q 2: What are the signs and symptoms of leprosy?

Leprosy should be suspected if a person shows the following signs and symptoms:

- dark-skinned people might have light patches on the skin, while pale-skinned people have darker or reddish patches
- loss or decrease of sensation in the skin patch
- numbness or tingling of the hand or feet
- weakness of the hands, feet or eyelids
- painful or tender nerves
- swelling or lumps in the face or earlobes
- painless wounds or burns on the hands or feet.

Q 3: Can leprosy be cured?

Yes, leprosy can definitely be cured. Highly effective and safe drugs for the treatment of leprosy are now available for free at most health centres, including those in remote areas.

Q 4: Are there other names for leprosy?

Leprosy is also called Hansen's disease after Dr Gerhard Armauer Hansen, the Norwegian scientist who first discovered *Mycobacterium leprae* in 1873. It is called *kusht* in Hindi (India), *kusta* in Indonesian and *rate* in Tetum (Timor-Leste).

Q 5: What is the infectious agent?

Mycobacterium leprae. These bacteria multiply slowly, and cannot be grown in the laboratory in normal bacteriological media or cell culture.

Q 6: How is leprosy spread?

Humans are the only significant reservoirs. The disease is believed to be spread through droplets from the nose or mouth of a patient to the skin and respiratory tract of another person. Transmission requires close and frequent prolonged contact with untreated, infected person. Indirect transmission is very unlikely. The bacteria multiply very slowly and therefore leprosy is not highly infectious. About 95% of people have natural immunity against leprosy.

Q 7: Are there different kinds of leprosy?

Yes. It depends on a person's resistance to the disease, not the type of germ or bacteria. There is only one type of leprosy germ, but people react to it in different ways. Most people resist leprosy so well that they will never develop clinical signs even if exposed to active cases for long periods.

There are two types of clinical manifestations depending upon individual immunity levels. If a person has no resistance, the germ multiplies freely in the skin, the lining of the nose and even in deep organs such as the liver. This is lepromatous, or multibacillary leprosy. Other types, including tuberculoid, borderline, indeterminate and polyneuritic leprosy, are made up of just a few bacilli. These are known as paucibacillary leprosy.

Q 8: How are leprosy cases classified?

The classification of cases depends upon the number of patches/skin lesions. One to five patches or lesions on the skin is classified as paucibacillary leprosy, while more than five patches or lesions is called multibacillary leprosy. A trained health worker is capable of differentiating between the two types of leprosy and treating them accordingly.

Q 9: What is the incubation period?

This ranges from 9 months to 20 years. The average is about 4–5 years for tuberculoid leprosy (one or two well-defined lesions), and twice that for lepromatous leprosy (numerous flat or raised, poorly-defined shiny, smooth, symmetrically distributed lesions). However cases have been identified in children aged less than 1 year old.

Q 10: How is the clinical diagnosis of leprosy made?

Clinical diagnosis is based on complete skin examination. Doctors also check for sensitivity of patches in the skin.

Q 11: What is the laboratory criterion for diagnosis of leprosy?

Laboratory criteria include the presence of alcohol-acid-fast bacilli in skin smears (scrap-incision method). In practice, laboratories are not essential for the diagnosis of leprosy.

Q 12: What is the WHO operational definition of leprosy?

A case of leprosy is a person with one or more of the following clinical features, and who is yet to complete a full course of treatment:

- hypo-pigmented or reddish skin lesion(s) with definite loss of sensation
- involvement of the peripheral nerves (definite thickening with loss of sensation).
- skin smears positive for acid fast bacilli.

The definition includes retrieved defaulters with signs of active disease and relapsed cases, who have previously completed a full course of treatment. It does not include cured persons with late reactions or residual disabilities.

Q 13: What other diseases have similar symptoms?

Many skin diseases which cause patches or thickened skin may resemble lepromatous leprosy.

Several skin conditions including fungal infections which cause discolouration or pigmentation or scars may resemble tuberculoid leprosy.

Q 14: Do fingers and toes fall off when someone gets leprosy?

No. The bacillus attacks nerve endings and destroys the body's ability to feel pain and injury. Without feeling pain, people injure themselves on fire, thorns,

rocks, even hot coffee cups. These injuries become infected and result in tissue loss. Fingers and toes become shortened and deformed as the bone is absorbed.

Q 15: Should a person affected by leprosy be sent to a leprosy sanatorium?

There is no need to treat leprosy patients in special clinics or hospitals. In many countries, leprosaria (leprosy sanatoriums) have been transformed into general hospitals or other functions. A leprosy-affected person can and should be treated in any health care centre together with people suffering from other diseases.

Q 16: Can leprosy be passed on from parents to children?

No, leprosy is not a hereditary disease. Most people affected by leprosy do not have other family members affected by the disease.

Q 17: Can I live with a person affected by leprosy?

Yes, you can live with a person affected by leprosy because it is not highly infectious. You should, however, help them to seek health care. You should make sure they take proper medication and follow the treatment and care as per the advice of a health worker. People affected by leprosy should not be isolated or segregated from their family and community. They can take part in social events and go to work or school as normal.

Q 18: Can we share household items such as spoons, plates, a bathroom or a bedroom with a person affected by leprosy?

Yes. Household items, bathrooms and bedrooms can be shared with a person affected by leprosy.

Q 19: Can a person affected by leprosy get married?

Yes, a person affected by leprosy can lead a normal married life, and have children.

Q 20: Can people affected by leprosy be employed?

Yes, a person affected by leprosy is not a threat to fellow citizens/colleagues if he/she is taking or has completed the treatment.

Q 21: Does leprosy affect more men than women?

Yes. In general, men are more likely to be affected by leprosy than women, for reasons that are not clearly understood. In many societies, discrimination against women based on sociocultural norms often put women at a disadvantage, which limits their access to health care services, decision-making power and to opportunities across all spheres of life.

Q 22: Is it necessary to examine those in contact with a person affected by leprosy?

Those who live with a person affected by leprosy are at increased risk of getting the disease. Therefore, it is important to have people living in the same household and close friends examined regularly for leprosy. At the same time, they should also be educated regarding the signs and symptoms of leprosy as well as the type of help they can give to the leprosy patient living with them.

Q 23: What is the treatment for leprosy?

The treatment for leprosy is called multidrug therapy (MDT). It is a combination of drugs depending upon the type of leprosy. Studies show that MDT is highly effective against leprosy and has minimal side-effects.

Q 24: Can BCG immunization also protect against leprosy?

Yes. Studies show that BCG immunization protects against leprosy in addition to tuberculosis. It is therefore important that every child be immunized with BCG.

Q 25: What I should know about multidrug therapy (MDT)?

MDT is a combination of different drugs to prevent resistance of the microbe to individual drugs used for leprosy. Therefore, leprosy should never be treated with any single anti-leprosy drug.

- A patient should complete the full course of MDT as prescribed by a trained health worker according to the type of leprosy.
- MDT is available free of charge at most health facilities including in remote areas.
- MDT should be prescribed by a trained health worker only.
- A trained health worker should be capable of answering any practical questions related to MDT.
- Any adverse reaction to MDT should be reported to the nearest health facilities.

Q 26: Is leprosy treatment life-long?

No. The treatment lasts between 6–12 months, depending on the type of disease.

Q 27: How long does it take for skin discolouration to disappear?

Skin discolouration normally starts to diminish soon after discontinuation of MDT and the skin should become fully normal within a year.

Q 28: How can impairment and disabilities caused by leprosy be prevented?

Early case detection and prompt treatment with MDT is the main strategy to prevent impairments and disabilities among leprosy patients.

A trained health worker should be able to recommend appropriate and timely intervention according to the condition of the patient. The health worker should also give appropriate advice on self-care at home by the patient and his/her family members.

Q 29: What if a leprosy patient cannot complete a prescribed course of MDT treatment?

It is important to understand that a leprosy patient must complete a full course of MDT. However, there are circumstances where a patient is forced to stop the treatment.

In case the patient has to move out from the place where he/she lives, the following actions are strongly advised:

- Request for a referral letter from the health care centre where he/she is currently taking the treatment. The letter should contain reports pertinent to his/her diagnosis and treatment.
- Request from the same healthcare centre for sufficient MDT stock to ensure continuous treatment before he/she reports to the nearest healthcare centre in his/her new place. All healthcare centres can provide leprosy treatment and care.

- Identify and report to the nearest healthcare centre in his/her new place by showing the referral letter; inform the new healthcare centre about new address in detail including contact number, if appropriate.
- Continue MDT treatment till the completion of the course.

Q 30: What are the adverse drug reactions with MDT?

MDT is remarkably safe, and severe adverse reactions are rare.

Minor adverse drug reactions include:

- Rifampicin: reddish urine
- Dapsone: anaemia
- Clofazimine: brown discolouration of skin

Serious adverse drug reactions:

- Rifampicin: allergy, jaundice, puerperal shock and renal failure
- Dapsone: allergy
- Clofazimine: intestinal obstruction

Q 31: What if a person affected by leprosy cannot take one or more drugs in the MDT due to allergy or other medical conditions? Are there alternative drugs?

If a patient cannot take MDT, he/she will be given a special treatment regimen for leprosy. A trained health worker will prescribe appropriate drugs according to medical conditions. The effectiveness of alternative drugs is comparable to the original MDT.

Q 32: Is MDT safe during pregnancy and lactation for the mother and the baby?

Yes, MDT is safe for pregnant woman and the baby.

Q 33: Can I take any anti-leprosy drugs after contact with a person affected by leprosy?

The most important thing you should do is to have the other person examined by a trained health worker. The health worker will confirm whether the person is indeed a leprosy case and treat him/her accordingly. At the moment, there is insufficient evidence regarding the effectiveness of anti-leprosy drugs, including rifampicin, as a way to prevent infection with the disease.

Q 34: What is a “relapse”? How is it recognized and managed?

A relapse is defined as the reoccurrence of the disease at any time after the completion of a full course of MDT. Relapse is diagnosed by the appearance of definite new skin lesions.

If a full course of treatment has been taken properly, relapse is rare. Generally relapse cases can be treated effectively with another course of MDT.

Q 35: What is “leprosy reaction”?

Leprosy reaction is the sudden appearance of symptoms and signs of inflammation in the skin of a person with leprosy in the forms of redness, swelling, pain, and sometimes tenderness of the skin lesion. New skin lesions can also appear. There may also be swelling, pain and tenderness of nerves which often results in loss of function. Leprosy reaction can occur before, during and after completion of treatment.

Q 36: Are there conditions which require immediate medical care when leprosy reaction occurs?

Yes. Severe leprosy reactions require immediate care. The following are the clinical features of severe leprosy reaction:

- loss of nerve function, loss of sensation and muscle weakness with or without pain or tenderness
- pain or tenderness in one or more nerves
- a red, swollen skin patch on the face or overlying any major nerve trunk
- ulcerating skin lesions
- marked oedema of hands, feet or face
- pain and tenderness of eyes
- pain and swelling of testes/scrotum
- pain and swelling in fingers.

If any of the above signs occur in a leprosy patient, take the patient to the nearest health care facility immediately, where a trained worker can provide treatment.

Q 37: What should a patient know about completing MDT?

The patient should know about the risks of reactions and relapse. If they occur, the patient should report immediately to the nearest health care facility. The patient should lead a normal life, thereby contributing to the reduction of stigma and discrimination against leprosy.

Q 38: Is leprosy still a problem worldwide?

Almost all countries in the world have declared that leprosy has been successfully eliminated as a public health problem at the national level according to

the definition of WHO, i.e., less than one case per 10 000 population. All countries in the WHO South-East Asia Region have achieved elimination at the national level. However, leprosy remains a public health problem at subnational levels in many states, provinces and districts within countries.

Q 39: Why has a prevalence of below one case per 10 000 population been chosen as the level of elimination?

There are some indications that around the prevalence level of one in 10 000 there is a tendency for the disease to die out, and any resurgence of the disease is highly improbable.

Q 40: Why is leprosy still a problem?

Leprosy remains a problem due to the following factors.

- Misconceptions about the disease. Despite the discovery of *M. leprae*, the causative germ of leprosy, and scientific evidence that leprosy is not a hereditary disease, most people still react to it based on misconceptions, which leads to stigma, discrimination and ostracism of people affected by leprosy and their family members.
- Leprosy mostly affects underprivileged people, who face multiple barriers to access health care.
- The leprosy programme is less popular than other health programmes and gets less attention and resources at the global and national levels.

Q 41: What are other factors that contribute to the stigma of leprosy?

Factors that add to the stigma of leprosy include fear of contracting the disease and the misconception that there is no treatment for the disease.

Deformity and disability resulting from delayed treatment and the smell from infected and untreated ulcers cause further indignity.

It is also wrongly linked with social status, and often seen as a curse by the gods.

Q 42: How can I help to reduce the social stigma?

You can do the following:

- Enhance your understanding about leprosy and share information with others. Better knowledge about the disease helps remove misconceptions.
- People affected by leprosy have the same rights as everyone else. You can help in changing laws and regulations which discriminate against people affected by leprosy.
- You can also try to ensure that the rights of those affected by leprosy are respected, including rights to health care, education, job, and other public services.
- Contact a leprosy programme officer for additional information.

Q 43: Can leprosy be prevented?

Yes. The effective way for prevention of the disease is by detecting and treating leprosy cases as early as possible. Everyone in the community should

positively contribute to this by encouraging and supporting suspect cases to be examined by trained health care workers. There is no preventive vaccine against leprosy.

Q 44: What should the community know about leprosy?

It is important that the messages to the community are simple, clear, and positive to help dispel fear of the disease. Some examples of messages include:

- Leprosy is caused by a germ. It is neither hereditary nor a curse
- Leprosy can be easily diagnosed from clinical features alone by a trained health worker
- A combination of drugs, called multidrug therapy (MDT) kills germs and stops the spread of leprosy after the first dose. Patients on MDT do not spread leprosy
- MDT is available free of charge at all health facilities
- Leprosy can be completely cured
- Early and regular treatment prevents deformities
- Patients who complete treatment are totally cured, even if they have residual skin patches or disabilities
- Patients can lead completely normal lives during and after their treatment.

Further reading

- (1) Please visit WHO Regional Office for South-East Asia website for more information about Leprosy:
<http://www.searo.who.int/entity/leprosy/en/index.html>
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Leprosy is a debilitating chronic disease caused by a bacteria called *Mycobacterium leprae* (M. leprae). Six out of 16 countries reporting more than 1000 cases of leprosy annually are in the WHO South-East Asia Region. This booklet answers some questions, frequently asked by the general public.



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