

# PHARMA HEALTH CLUB

SAFE USE OF MEDICINES FOR BETTER HEALTH

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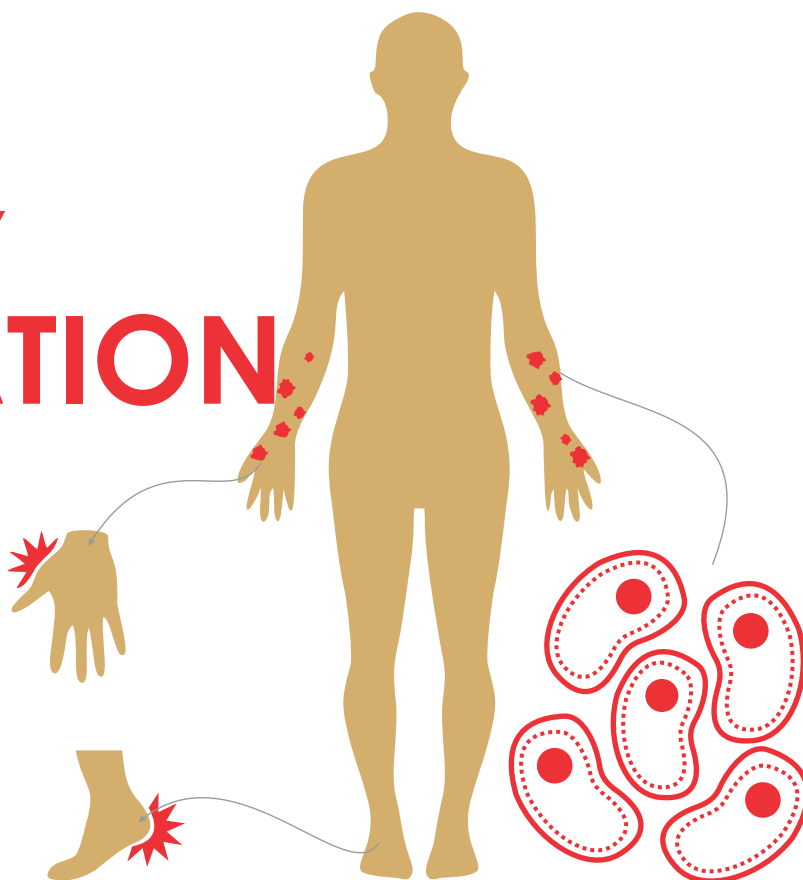
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## WORLD LEPROSY ERADICATION DAY

30<sup>th</sup> January



World Leprosy Eradication Day is observed every year on 30th January or the Sunday closest to that date. This year it was celebrated on 31st January, 2016. The aim of the day is to create awareness about leprosy, to help people living with the disease and to educate other people who take care of people suffering from this disease. This is the day when people around the world stand in support of those is suffering from the disease and raise funds for helping out people living with leprosy.[1]

**The particular date was chosen in order to show respect to death of the great Indian leader, Mahatma Gandhi.** He had a comprehensive knowledge about leprosy

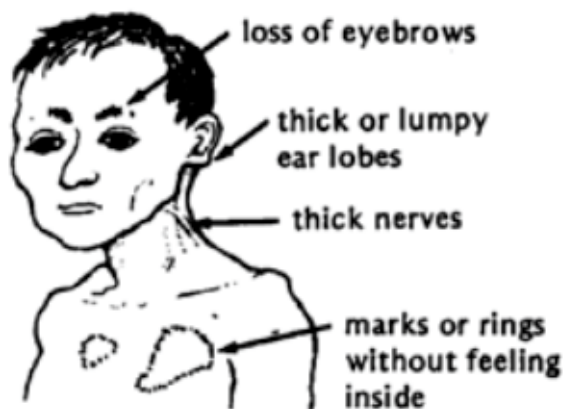
and made efforts in helping people suffering from the disease. Brazil, India, Tanzania, Madagascar, Nepal, Angola and Central Africa are some of the main countries who are plagued with leprosy. [3]

### What is Leprosy?

- The word "Leper" originates from a Greek word meaning 'scaly'. It is one of the oldest diseases known to mankind.
- Leprosy is an infectious disease that causes severe, disfiguring skin sores and nerve damage in the arms and legs. The disease has been around since ancient times, often surrounded by terrifying, negative stigmas and tales of leprosy patients being shunned as outcasts.

Outbreaks of leprosy have affected, and panicked, people on every continent. The oldest civilizations of China, Egypt, and India feared leprosy was an incurable, mutilating, and contagious disease[4]

Today, about 180,000 people worldwide are infected with leprosy, according to the World Health Organization, most of them in Africa and Asia. About 100 people are diagnosed with leprosy in the U.S. every year, mostly in the South, California and Hawaii.[4]



### What causes Leprosy?

- *Mycobacterium leprae* and *Mycobacterium lepromatosis* are the causative agents of leprosy. The latter is a relatively newly identified mycobacterium isolated from a fatal case of diffuse lepromatous leprosy in 2008.[5]
- An intracellular, acid-fast bacterium, *M. leprae* is aerobic and rod-shaped, and is surrounded by the waxy cell membrane coating characteristic of the *Mycobacterium* genus.[5]

### What are the symptoms of Leprosy?

- Spots on the skin that may be slightly red, darker or lighter than normal skin.[1]
- The spots may also become numb and even lead to loss of hair on the affected part of the skin.[1]
- Numbness in hand, finger or toe resulting in muscle paralysis; [1]
- Loss of blinking reflex of the eye; this may lead to dryness, ulceration and even blindness [1]
- Deformity and crippling may be caused at the last stage of the disease.[1]



Leprosy can damage the peripheral nerves and nerves in the skin which can lead to:[6]

- Loss of sweat and oil gland function which causes dry and cracked skin on the hands and feet.
- Loss of the ability to feel light touch or, with more severe damage, loss of protective sensation. Protective pain sensation prevents burns, cuts and exposure to destructive pressures to the hands and feet.
- Weakness of the eyelids, preventing proper closure of the lid and protection of the eye, which can lead to blindness.
- Loss of strength in the hands and feet. With severe nerve damage of the hands and feet, there is paralysis of the small muscles, leading to "clawing" of the fingers and toes.

### How can we be infected?

- It can be spread primarily by coughing & sneezing. [6]
  - In most cases, it is spread through long-term contact with a person who has the disease but has not been treated.[6]
- Leprosy may also be transmitted to humans by Armadillos. [5]
- It is not transmitted through sexual contact or pregnancy.[1]

### How to diagnose Leprosy?

- A trained health worker diagnoses leprosy through a skin biopsy. In this test, a small piece of skin is taken and sent to a laboratory where it is examined for the bacteria. Skin smears are another test that can be used. This is done by making a small incision into the skin. A small amount of tissue fluid is obtained and examined in the laboratory for the bacteria. There are no blood tests for leprosy.[6]

### How to treat Leprosy?

- For paucibacillary (PB or tuberculoid) cases,

#### MDT Regimens

Each blister pack contains treatment for 4 weeks.

**PB adult treatment:**  
Once a month: Day 1  
- 2 capsules of rifampicin (300 mg X 2)  
- 1 tablet of dapsone (100 mg)  
Once a day: Days 2-28  
- 1 tablet of dapsone (100 mg)  
Full course: 6 blister packs

PB adult blister pack

**MB adult treatment:**  
Once a month: Day 1  
- 2 capsules of rifampicin (300 mg X 2)  
- 3 capsules of clofazimine (100mg X 3)  
- 1 tablet of dapsone (100 mg)  
Once a day: Days 2-28  
- 1 capsule of clofazimine (50 mg)  
- 1 tablet of dapsone (100 mg)  
Full course: 12 blister packs

MB adult blister pack

It is crucial that patients understand which drugs they have to take once a month and which every day.

**PB child treatment (10-14 years):**  
Once a month: Day 1  
- 2 capsules of rifampicin (300 mg+150 mg)  
- 1 tablet of dapsone (50 mg)  
Once a day: Days 2-28  
- 1 tablet of dapsone (50 mg)  
Full course: 6 blister packs

PB child blister pack

**MB child treatment (10-14 years):**  
Once a month: Day 1  
- 2 capsules of rifampicin (300 mg+150 mg)  
- 3 capsules of clofazimine (50 mg X 3)  
- 1 tablet of dapsone (50 mg)  
Once a day: Days 2-28  
- 1 capsule of clofazimine every other day (50 mg)  
- 1 tablet of dapsone (50 mg)  
Full course: 12 blister packs

MB child blister pack

treatment with daily dapsons and monthly rifampicin for six months is recommended.[4] While for multibacillary (MB or lepromatous) cases, treatment with daily dapsons and clofazimine along with monthly rifampicin for twelve months is recommended. [5]

- Multidrug therapy (MDT) remains highly effective, and people are no longer infectious after the first monthly dose. It is safe and easy to use under field conditions due to its presentation in calendar blister packs. Relapse rates remain low, and no resistance to the combined drugs is seen.[5]

### ● Leprosy: Indian Perspective [14-16]

- In India, leprosy has been known since ancient times as *Kushtha rog*. The disease has always been stigmatized in India.
- India accounts for about one third of the leprosy cases in the world, and has by far the largest

number of registered cases among individual countries. The states/UTs that have the dubious distinction of a higher than national average are Orissa, Bihar, Jharkhand, West Bengal, Tamil Nadu, Nagaland, Assam, Madhya Pradesh and Daman and Diu.

- The National Leprosy Control Program was launched in 1955. It was later redevise in India in 1983 and called the National Leprosy Eradication Program.
- The causative factor of leprosy according to Ayurveda is the aggravation of all the three Doshas. There are two main divisions of Kushta Roga: Kshudra Kushta is of eleven types and Maha Kushta is of seven types.
- Haldi, Neem leaves, Chandan, Brahmi, Bavchi, Chaulmoogra Taila, Khadiradirishta, Gandhak Rasayan, Pindataila, Kaisoraguggul, Madhusnuhiraasayana, Panchatikthaghrita Guggul, Saribadyasava, Somariji Taila, Suryapaka, Kaseesadyaghrita, Panchanimba Churna and Mahatikta Ghrita are some of the Ayurvedic herbs and formulations useful in various types of leprosy.

## HERBAL REMEDIES FOR LEPROSY



### ● Prevention of Leprosy

- The Bacillus Calmette-Guérin (BCG) vaccine offers a variable amount of protection against leprosy in addition to tuberculosis. It appears to be 26 to 41% effective (based on controlled trials) and about 60% effective based on observational studies with two doses possibly working better than one. Development of a more effective vaccine is ongoing as of 2015.[5]

### ● LEPROSY FACTS

- Leprosy bacterium, *M. leprae* first identified in 1873.
- Treatment for leprosy only appeared in the late 1940's.
- Up to 12 months of MDT needed to cure a leprosy patient.
- WHO supplies drugs free of charge.
- Worst affected countries:- Madagascar, Guinea, Mozambique, Brazil, Nepal, India.

LEPROSY IS **CURABLE**, BUT THE **DISABILITY** AND **STIGMA** IT CAUSES CAN SEVERELY IMPACT MOBILITY, AFFECT MARRIAGE PROSPECTS, EXCLUDE CHILDREN FROM SCHOOL AND MAKE IT DIFFICULT TO GET A JOB.

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