HAGWAN MAHAVEER VIKLANG SAHAYATA SAMITI

a report by **SAMIKA**

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DHIRUBHAI AMBANI INT. SCHOOL GRADE 9C

THE WORLD'S LARGEST ORGANISATION FOR THE HANDICAPPED

Sahayata Samiti

low-cost

ampuleos

WARD

" I wept because I had no shoes until I met a man with no feet."

I wept because

D. R. Mohta, Fpar

intil I met a man

Shri D.R. Mehta

> founder and chief patron

HISTORY

It was founded on 29th Mar, 1975 by Padmabhushan Dr D R Mehta, to create a purely SECULAR centre and FREE OF COST facility provenance for the physically challenged.

It is a non-governmental, non-religious, non political and non sectarian institute.



THE **MISSION** OF JAIPUR FOOT



8 S S S aipur foot aims to help the physically challenged, especially the financially weak and underprivileged in three key ways:

2022

- Physical
- Social
- Economic

Rehabilitation by providing artificial limbs FREE OF COST. The main aspect of Jaipur Foot is to provide and grant:

- Mobility
- Dignity

to the patients, thereby giving them a new aspect of life. India is estimated to have about 10 million people suffering from locomotive disabilities due to farming/traffic accidents, war-zoned areas, or simple birth defects. BMVSS is the World's largest organization that caters to the needs, of the disabled. So far, it has helped over 2 million physically disadvantaged people.

The Coverage



Jaipur Foot is a national organization that had a humble beginning in its early stages in 1975. From around 2012 - to 2022 (the last decade), it has received over 90,000 beneficiaries, with a total of 20 lac patients.

With over 25 branches across the country, 7 international centers (with more than 40 international camps) in poor, developing countries such as Malavi, Congo, Nepal, Syria, and Pakistan, it is surely a world-recognized platform for aid to the physically challenged.



WORLD MAP SHOWING CENTRES

- AFGHANISTAN - INDONESIA - KENYA - LEBANON - SOMALIA - PAKISTAN - VIETNAM - ZAMBIA - TRINIDAD - SRI LANKA

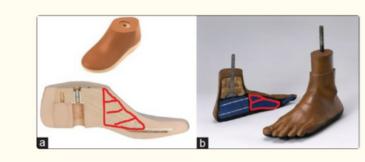


Figure 1

THE MANUFACTURING OF A JAIPUR FOOT

(a) The Solid Ankle, Cushioned Heel Foot and cross-section showing the solid wooden ankle and the keel marked in red-striped area. (b) The Jaipur Foot and cross-section showing the solid wooden ankle but the keel replaced by the red-striped rubber block

Tens of thousands of amputees in the developing world wear an inexpensive prosthetic called the Jaipur Foot. But poor patients who lose a knee joint have few options: a titanium replacement can cost \$ 10,000, and crude models don't work very well. Now a team of Stanford engineering students has designed a knee that's not only dirt cheap—just \$20—but also mimics the natural joint's movements. Developed with the Jaipur Foot group, the Jaipur Knee is made of self-lubricating, oil-fillled nylon and is both flexible and stable, even on irregular terrain. The device is being tested in India; more than 14000 people have been fitted so far.

The Jaipur Knee comprises five pieces of plastic and four nuts and bolts. It requires no special ools and takes just a few hours to manufacture.



RUBBER BLOCK

(a) Cut section diagrammatic representation of Solid Ankle, Cushioned Heel Foot (b) Cut section diagrammatic representation of Jaipur Foot

The Stanford Knee- It consists of 5 pieces of plastic and 4 nuts and bolts, taking only a few hours to manufacture. Source - Feautured in Time Magazine; "Best Ineventions of the Year", 5 things the US can learn from China edition.

Jaipur foot consists of a shank, made of HDPE, which can withstand more than 300Kg per cm^2. Mircocellular rubber is used in it's production too.

Each Jaipur foot is specially customised for each patient.



THE MANUFACTURING OF A JAIPUR FOOT











IMAGES FROM JAIPUR ORTHOPEDIC SOCIETY

How is a Jaipur Foot manufactured? What is the organisation and management?

The main body of BMVSS consists of social workers, medical staff, technicians, and polio doctors.

01.

02.

Stanford University is working on the developed Jaipur Knee which has helped over 25000 patients

MIT is working on the development of a foot piece, knee joint variant and an energy efficient foot.

An open door policy is followed, everything is free of cost for the patients single and not а penny is asked/required. An example shows a tricycle displaying donations by Azim Premji, one of India's biggest philanthrophist.

Being a social institute, it runs on grants and donations, keeping the cost as low as possible while not compromising on the quaility and production which is FREE OF COST AND AVAILABLE TO ALL.

Jaipur foot mainly comprises of 3 main technological advancements:

- 1. Prosthetic Foot
- 2. Knee joint
- 3. Socket and Shank

Jaipur foot is a universal foot, it distinguishes from SACH foot which doesn't allow activities like treking swimming running or squating.







03.

SOME FACTS ABOUT JAIPUR FOOT

01.

Jaipur Foot, the world's largest organisation for the handicapped was formed on 29th March, 1975.

02.

It is a vowed policy of BMVSS to carry out provisions including distribution of artificial limbs, rehabilitation kits and appliances for the restoration of dignity for the physically challenged.

This is totally free of cost because BMVSS believes that the need of the disabled is more important than their capacity ot pay.

03.

So far, BMVSS has helped approximately two million handicapped patients.

In the last annual decade, around 70,000 - 80,000 limbs have been produced and distributed to the patients both nationally and internationally.

04.

BMVSS recieved numerous national awards by the Government of India and other well known institutions. It had received its ISI certification in 2020. 05.

Jaipur Foot has had more than 92 on-the-spot artificial limb fitment camps in over 38 countries including those in asia, africa and Latin america.

06.

A stanford jaipur Knee has been developed to help mimic normal human knee by providing stance phase stability and swing response. it is TOTALLY FREE OF COST.

- **07.** Jaipur foot has an extremely strong R&D with an inhouse testing lab that tests the rubber and the foot.
 - Jaipur Foot has to bear all the costs of the foot. C.K Prahlad states in his book that compared to a USA artificial limb of USD 8000, the Jaipur foot costs USD 30, a much more sustainbale and cheap alternative while not compromising on the quality.
- 09.

08.

BMVSS has 25 branches in Jaipur, and 7 branches internationally.



MY EXPERIENCE IN JAIPUR FOOT

<image>

I understood the manufacturing process, with the different stages of the production of the Jaipur Foot. It was a thoroughly informative experience, in which I understood the materials that went into its making (for example, plaster of pairs used as a 2D mold for the making of the foot. I collected personal testimonies from the patients and understood how the Jaipur foot helps them achieve their dignity, and regain self-respect and mobility, therefore, providing a means to support themselves and their families. I collected over 35 of such testimonies.

MY EXPERIENCE IN JAIPUR FOOT



I looked into the case of a special patient of the day, Arav Verma, the son of a police inspector, Anu Verma. Arav is only seven years old and he is from Dhanhar, Bihar. Having no left hand since birth (a birth defect), he was assisted by Jai[ur Foot and was given a left-hand limb, which will now give him a chance at his childhood once again. As quoted by Patient Verma, "I was not able to drink water or play with the other kids, but now I am able to." Thus, Jaipur foot has helped him gain self respect and a chance to run, trek, swim with other kids and have a new outlook. I am thankful for the wonderful opportunity to carry out my internship at jaipur foot since it gave me an opportunity to use my voice to raíse others'!

JAIPUR F O O T

Samika Jain

Taking interviews and testimonies of the patients