

# Stitch in time restores severed hand

## Doctors Replant Worker's Amputated Limb After 11-Hour Marathon Surgery

Risha Chitlangia | TNN

**New Delhi:** A slight delay would have cost 35-year-old Yamin, who works with a steel-sheet cutting unit at Mehrauli in south Delhi, his right hand. While working Yamin's gloves got stuck in the fast moving machine and within seconds his right hand was amputated just above the wrist. In a rare surgery, doctors at Max Healthcare not only saved his life, also his hand.

Recuperating in the surgical ICU at the hospital, Yamin has no sensation in his right palm and fingers. Doctors say that he is 'lucky' as he was brought to the hospital within an hour after the accident. And his amputated limb was also brought in a good condition. "A slight delay would have left him handicapped for life. He was bleeding profusely and was gradually losing consciousness. We had to take him straight to the operation theatre," said Dr Sunil Choudhary, director, aesthetic and reconstructive plastic surgery, Max Healthcare.

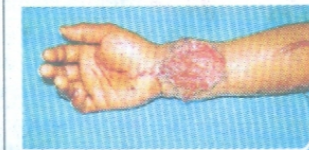
In an 11-hour-long surgery, doctors replanted his amputated limb. Doctors say that they had to be very careful in identifying the tendons which govern the wrist and finger movements. "We first cleaned the amputated limb with saline and identified the blood vessels. This portion acts like a puppet hand. We pulled each blood vessel to identify the associated parts of the hand,"

### RARE SURGERY HELP AT HAND

Doctors at Max Healthcare have replanted the amputated hand of a factory worker. Thirty-five-year-old Yamin's hand accidentally slipped into the steel sheet cutting machine and got amputated just above the wrist. Yamin's hand could be saved as he was brought to the hospital in time

**1 DOCTORS REJOINED** 13 flexor tendons which help in making a fist; 12 extensor tendons that help in straightening of fingers

**2 VEIN GRAFT** (commonly used in heart bypass) from leg was used to join two arteries — ulnar and radial — and four veins besides three nerves — ulnar, median, radial



**6-8 hrs**  
The golden period within which the surgery has to be started

Duration of the surgery **11 hrs**

**75%**  
hand functions will be restored

**6-9 mths**  
The time taken to recover after surgery

said Dr Choudhary, who was assisted by his team — Dr Raghav Mantri, Dr Prateek Arora, Dr Arvind Jain and Dr Mona Khanna (anaesthetist).

The biggest challenge before the doctors was to stitch

close to 36 blood vessels and tendons under microscopic view. Doctors had to trim the blood vessels and bones to remove the damaged portions. A vein graft was used to then connect these blood vessels

which are 1 to 1.5 millimetre in diameter.

"We didn't want to just attach the blood vessels to reconstruct the hand. As the patient was brought to the hospital within an hour after



LUCKY TO SURVIVE: Yamin

the accident, we had ample time to trim the damaged portions. The entire surgery was done under microscopic view, as we had to connect extremely narrow blood vessels and tendons," he said.

To connect the two arteries and four veins, doctors used a vein graft from his leg — often used in heart bypass. Some of the nerves had gone deep inside the hand and doctors had to pull and use the graft to bridge the gap between the hand and forearm.

First the two bones were fixed followed by arteries and veins and then 25 tendons — 13 flexor in the palm side of the hand and 12 extensor at the back of the hand. It will take close to six to nine months for sensation to come in his hand. "His hand will get 75% of its original functions back. Once the swelling subsides and he is comfortable, we will discharge him," said Dr Choudhary. "The success of this surgery is largely dependent on the time when the patient is brought to the hospital. The patient must come within 6-8 hours else the amputated organ dies," he added.