

# LIVER TRANSPLANT







# AB LIVER TRANSPLANT

Liver transplant involves replacement of a patient's diseased liver by a new liver which is derived either from a brain dead but heart beating donor i.e. a cadaver (Cadaveric or Deceased-Donor Liver Transplant or DDLT) or from a living donor (Living Donor Liver Transplant or LDLT). Liver from a cadaver is a complete liver, while that from the living donor is a half or hemiliver. Liver is a unique organ in the human body as it has a special capacity of regeneration. It has been seen that even 70% of a liver can be safely removed without any untoward consequences because of the capacity of regeneration. The remaining liver rapidly grows and restores the full functional capacity required for the normal functioning of the body. Owing to this unique property, a part of the healthy liver can be safely removed from a voluntary donor and can be utilised to replace a diseased liver in a patient without causing any harm to either the donor or the patient. The remaining half of liver in the donor and recipient grows back to achieve full functional recovery within 3-4 weeks.

Fortis is amongst the very few hospitals offering Small Incision Donor Hepatectomy (SIDH) for donors. SIDH minimises the time for recovery and markedly decreases complications relating to surgical wound and scarring by providing a smaller and cosmetically acceptable scar compared to conventional incision used at various other centres. In the quest towards further improving donor safety and its outcome, the department visions to introduce laparoscopy and robotic assisted donor hepatectomy.

## WHY CHOOSE FORTIS TEAM?

Fortis team brings together the best brains in the country who have worked at various centres across the globe under one unit. They also have a rich cumulative experience of working at various successful Transplant centres in India.

- Outcomes: Success rate in high nineties
- Donor safety
- Small Incision Donor Hepatectomy
- Affordable packages
- Experience of performing high number of liver transplants

# FREQUENTLY ASKED QUESTIONS





## WHO REQUIRES A LIVER TRANSPLANT?

Patients of liver cirrhosis with end stage liver failure require a liver transplant. The other condition requiring a liver transplant include acute or fulminant liver failure and liver cancer (Hepatocellular Carcinoma).



## WHAT ARE THE SIGNS OF LIVER FAILURE?

Easy fatigability and lethargy, progressive or persistent jaundice, abdominal distension (Ascites), altered mental functions or sensorium (Hepatic encephalopathy), decreased urine output or renal failure, easy bruisability or recurrent epistaxis (coagulopathy) and/or hematemesis and passage of black colored stools signifies presence of liver failure. Patients of liver cirrhosis with any of these symptoms require evaluation by a specialist regarding requirement of a liver transplant.





# WHAT ARE THE DISEASES THAT CAN LEAD TO END STAGE LIVER FAILURE?

Common ailments leading to end stage liver failure include viral hepatitis (Hepatitis B, Hepatitis C), regular alcohol consumption in excess, autoimmune liver cirrhosis, non-alcoholic fatty liver disease, cryptogenic liver disease (when cause is not known) and cholestatic liver diseases like primary or secondary biliary cirrhosis and primary sclerosing cholangitis. In children, congenital disorders like biliary atresia, Progressive Familial Intrahepatic Cholestatis (PFIC) and Congenital Hepatic Fibrosis can lead to end stage liver failure and requires a liver transplant.

# WHAT IS ACUTE LIVER FAILURE?

Sometimes patients without any evidence of any liver disease or cirrhosis develop liver failure within a short span of time (within 2-6 weeks) and are present with signs of liver failure like deep and progressive jaundice, altered sensorium or liver coma (Hepatic Encephalopathy). This disease is medically called as acute liver failure or fulminant liver failure. Patients of this disease usually don't survive unless an urgent liver transplant is performed.

## WHAT ARE THE CAUSES OF ACUTE OR FULMINANT LIVER FAILURE?

Various causes that can lead to acute liver failure include overuse of drugs (paracetamol) or toxins (herbal or ayurvedic medications), viral hepatitis (Hepatitis A, Hepatitis E and Hepatitis B) and Wilson's disease (an inborn disorder of copper metabolism). Acute or fulminant liver failure as a result of any of these conditions is an emergency and an urgent liver transplant (within hours) has to be performed.

## FROM WHOM CAN A LIVER BE OBTAINED FOR TRANSPLANT?

The new liver can be obtained either from a brain dead heart beating (cadaveric) donor or from a voluntary living liver donor.

## WHAT IS THE POSSIBILITY OF GETTING A CADAVERIC LIVER?

In India, cadaveric liver transplantation is less popular owing to lack of cadaveric organ donation. Awareness regarding sanctity of organ donation is still in its infancy not only in India but in the eastern part of the world making Living Donor Liver Transplant more popular in these areas.

## WHO CAN BE A LIVING DONOR?

Any person above the age of 18 years can legally donate his part of liver. However, in India as per Human Organ Act 1996, liver donation is restricted to family members (brother, sister, father, mother, son, daughter) or close relatives (uncle, aunt, cousin, brother-in-law, sister-in-law, grandparents). Medically, the liver donor should have a compatible blood group (same blood group as patient or O group), should not be more than 55 years of age and should be medically fit and psychologically sound. All voluntary liver donors are evaluated thoroughly to look for medical and surgical fitness.

Healthy Liver



Fatty Liver

**Fibrosis** 

Connective tissue (white) replaces normal tissue

Cirrhosis



Formation of nodular texture surrounded by fibrosis



## WHAT IS THE SUCCESS RATE OF LIVER TRANSPLANT?

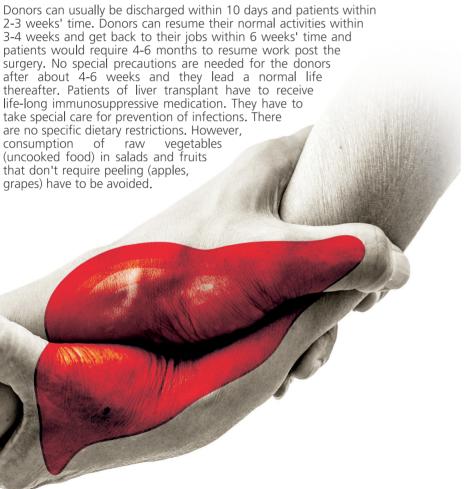
The success rate of liver transplant worldwide is around 85-90%. Most of the patients lead a normal, healthy and productive life following a liver transplant. However, the individual outcome depends on patient factors like cause of the disease, degree of liver failure, patient's general conditions, etc., and cannot be generalised.

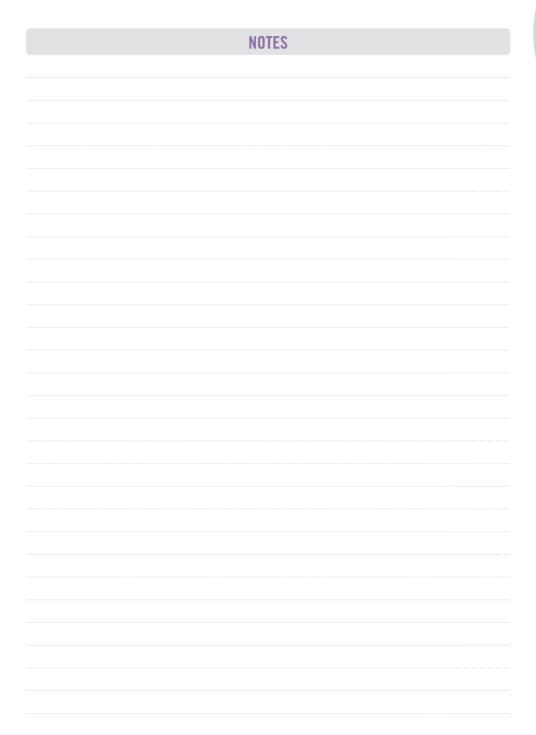


## WHEN CAN THE DONOR AND THE PATIENT RESUME WORK **FOLLOWING A SURGERY?**

Donors can usually be discharged within 10 days and patients within 2-3 weeks' time. Donors can resume their normal activities within 3-4 weeks and get back to their jobs within 6 weeks' time and patients would require 4-6 months to resume work post the surgery. No special precautions are needed for the donors after about 4-6 weeks and they lead a normal life thereafter. Patients of liver transplant have to receive life-long immunosuppressive medication. They have to take special care for prevention of infections. There are no specific dietary restrictions. However, consumption of raw vegetables (uncooked food) in salads and fruits

grapes) have to be avoided.





## THE FORTIS HOSPITAL NETWORK





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