



## ACUTE LIVER FAILURE

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### FAQs on Acute Liver Failure

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# **FREQUENTLY ASKED QUESTIONS (FAQS) ON LIVER DISEASE**

**AN INITIATIVE OF SAASL WOMEN IN HEPATOLOGY FORUM.**

These FAQs were formulated for educating the patients regarding the nature of their liver disease, its symptoms, prognosis, treatment options. Eminent and renowned hepatologists from Bangladesh, India and Pakistan came together under the auspices of SAASL Women in Hepatology Forum to prepare them. Patients with liver disease have also contributed to the FAQs by giving us suggestions and making figures/pictures for the FAQs. The main focus was to provide patients and their families with authentic and easy to understand information on liver disease to alleviate the misconceptions and anxiety that may arise due to accessing information available online which may be biased or irrelevant to local conditions. The aim was to provide information from a South Asian perspective. We hope that these FAQs empower patients with the knowledge about their disease. We appeal to our colleagues to use them freely in their clinical practice, translate them into local languages and give us feedback. We would however request that the source (SAASL Women in Hepatology Forum) be acknowledged.

## **Patient Information FAQs Committee**

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## **Q What is Acute Liver Failure and how is it different from Acute Hepatitis?**

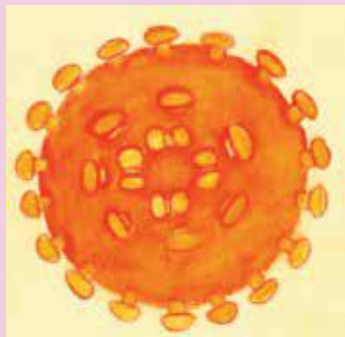
- A**
- Acute liver failure (ALF) is a rare condition where a previously normal liver rapidly loses its ability to function following some injury. The injury could be from infections like viral infections, drug or herb related.
  - The liver rapidly fails and the patient presents with jaundice, bleeding tendency and change in mental status. These patients are not known to have previous liver disease. In contrast, chronic liver failure happens over a long period in patients with a known liver disease.
  - Acute hepatitis is a condition in which there is swelling of the liver without affecting liver function presenting as loss of appetite, jaundice and pain in the belly.

## **Q What are the Causes of Acute Liver Failure?**

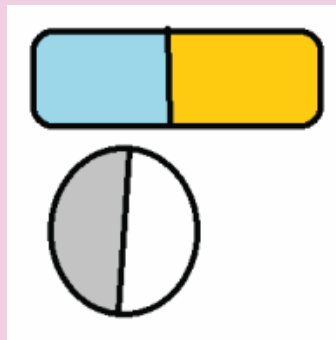
- A**
- Acute liver failure can be caused by viral hepatitis such as Hepatitis A virus (HAV), Hepatitis E virus (HEV), Hepatitis B virus infection (HBV) infection among other infectious agents.
  - It can also be caused by taking medicines such as antitubercular drugs (medicines given to treat tuberculosis), antiepileptic drugs (medicines to treat seizure disorder), etc.
  - Poisons like yellow phosphorus and rodenticide (rat poison) have been reported as a frequent cause of ALF in some parts of India.
  - Autoimmune disease and Wilson's disease (occurs due to excessive copper accumulation in liver due to a genetic defect) can also cause acute liver failure.
  - Some pregnant women who develop acute fatty liver of pregnancy or viral hepatitis can also present as ALF.

In some cases, the cause for the disease is unknown.

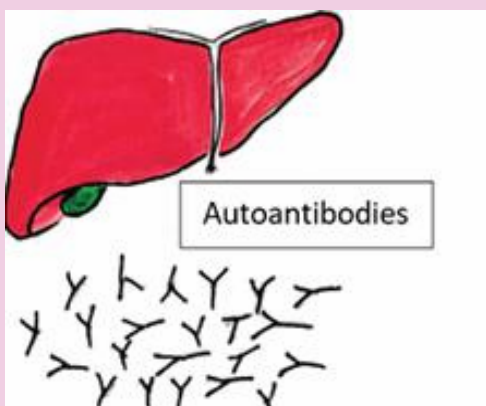
## CAUSES OF ACUTE LIVER FAILURE



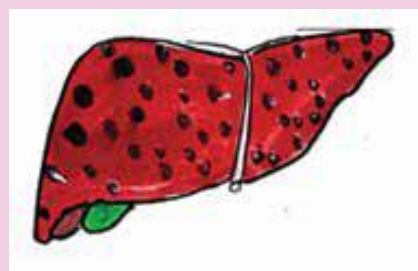
**Hepatitis A,B,E**



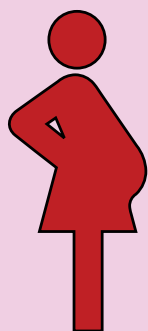
**Medications like  
anti TB drugs,  
antiseizure drugs**



**Autoantibodies**



**Autoimmune hepatitis**



**Acute fatty liver of  
pregnancy**



**Poisons like rat  
poison**

## **Q** What are the symptoms of acute liver failure?

**A** If you have acute liver failure, you may have symptoms such as:

- Discomfort on your right side, just below your ribs
- Fatigue
- Loss of appetite
- Nausea, Vomiting
- Yellow discoloration of eyes and urine (Jaundice)
- Diarrhoea

As the disease gets worse, however, you may also become confused and extremely sleepy by which time you will be admitted in intensive care.

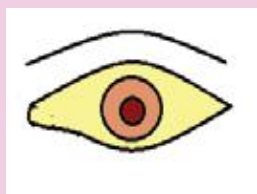
## **CAUSES OF ACUTE LIVER FAILURE**



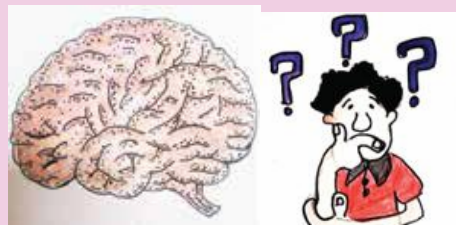
**Pain in abdomen**



**Nausea and vomiting**



**Jaundice**



**confusion, disorientation  
and coma**

## **Q How is acute liver failure diagnosed?**

- A**
- Acute liver failure is diagnosed based on history and examination and certain blood tests.
  - Patients have jaundice, fatigue, and abdominal pain and change in mental alertness from subtle changes to coma.
  - Liver function tests (LFTs) and prothrombin time are important tests of liver function. Prothrombin time measures your blood's ability to thicken (coagulate) and is very prolonged in patients of liver failure.
  - Blood ammonia levels are raised.
  - A CT or MRI of the brain may be done to look for brain swelling and checking the raised pressures in the eyes.

## **Q What are the other conditions which can mimic acute liver failure?**

- A**
- In tropical countries like India, viral hepatitis due to hepatitis A and hepatitis E virus remain top causes for acute liver failure.
  - In addition there are some other conditions which involve the liver and can mimic acute liver failure, but require different treatment.
  - Examples of such diseases are Malaria, Dengue haemorrhagic fever, Leptospirosis, Scrub typhus etc.

Therefore jaundice simply means yellow eyes, urine and skin and there could be several liver diseases which cause jaundice

## **Q How is acute liver failure treated?**

**A** Treatment for ALF depends on the underlying cause.

- If a drug has caused liver failure, it needs to be promptly withdrawn. An antidote called N-acetyl cysteine (NAC) has been used in overdose of paracetamol causing liver failure. It is also sometimes helpful to people with acute liver failure due to other causes.
- If autoimmune hepatitis is causing liver failure, steroids may be used to treat it.
- In general, people with acute liver failure are often treated in the intensive care unit of a hospital in a facility that can perform a liver transplant, if necessary.
- In all cases, supportive care and monitoring are essential for ALF. This may include medication to manage symptoms like low sugars, bleeding, infections, brain swelling etc. Intravenous fluids and nutrition, and vital signs and liver functions are closely monitored until recovery is achieved.

## **Q Are there other specialised treatments in management of ALF?**

- A**
- Plasma exchange, also known as plasmapheresis, is a procedure used in the management of some patients of ALF.
  - It involves the removal of waste products, and substances responsible for causing inflammation. These are responsible for altered function of various organs (Multi-organ dysfunction). Fresh plasma (blood component which contains clotting factors) is used to replace the blood removed.
  - The decision to use plasma exchange in ALF patients is made on a case-by-case basis by a multidisciplinary team of physicians and critical care specialists.
  - Liver transplantation is considered the best treatment option for patients with ALF who fail to respond to medical treatment, with a good success rate.

## **Q When does the patient require a liver transplant?**

- A**
- Liver transplantation is a potential treatment for acute liver failure (ALF) in cases where other medical interventions have failed and chances of survival are low without a transplant
  - A liver transplant can replace the failing liver with a healthy liver from a deceased (a brain dead person) or living donor. In some cases, a living donor may donate a portion of their liver to the recipient, which can grow back to full size in both the donor and recipient over time. It is a complex surgery with risks, but it can be life-saving for those who qualify for the procedure.

## **Q Can acute liver failure be prevented?**

- A**
- You can prevent some of the underlying causes of acute liver failure. To avoid drug overdose, always follow the directions on the label when taking a medication. Talk with your healthcare provider if you have any questions.
  - Avoid over the counter medications like pain killers or excess paracetamol.
  - Avoid self medication with ‘health or fitness supplements’. Read product labels for constituents carefully. Please be careful about ‘liver tonics’ or ‘blood purifiers’, as they may interact with other medications and may not be safe for you.
  - Discuss safety and use of medications like herbal medicines, especially if you are already taking some medications to avoid interactions and inadvertent liver damage.
  - You can reduce your risk of getting hepatitis B and C by ensuring safe practices while receiving injections, tattooing, shaving and following barrier contraception if the partner is infected with hepatitis B or C.
  - Ensuring use of clean water, clean hands and food hygiene can prevent food borne viral hepatitis.

Vaccines are available to prevent hepatitis A and B.