



## Liver Transplant



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# Drugs used after liver transplantation

#### ► Azathioprine

Nutritional side effects tolerated: macrocytic anemia, mouth ulcers, nausea and vomiting, diarrhea, anorexia, sore throat, stomach pain, decreased taste perception

Recommended Nutritional Treatment: Prescribe folate-containing supplements, adjust food and meals if needed, monitor consumption.

## Anti-thymocyte globin and anti-lymphocyte globin

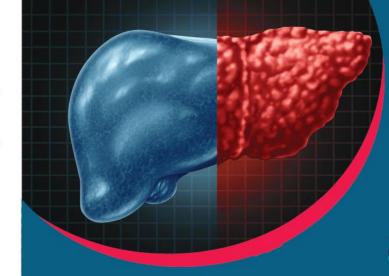
Nutritional side effects tolerated: nausea and vomiting

Suggested Nutritional Therapy: Monitor food intake if necessary.

#### **►** Cyclosporine

Tolerant nutritional side effects: decreased serum magnesium levels, increased blood pressure, nausea and vomiting Suggested Nutritional Therapy: Reduce sodium and potassium intake and reduce fat and simple carbohydrate intake, increase magnesium intake and prescribe supplements, adjust sodium (salt) intake, modify food and meals if necessary, monitor intake.

- Mycophenolate mofetil and mycophenolic acid
- Nutritional side effects tolerated: nausea and vomiting, diarrhea.
  - Suggested Nutritional Therapy: Monitor food intake if necessary.



# Nutrition and medical treatment regimen in liver resection and transplantation

As with any major surgery, the need for protein and energy increases after a liver resection (removal of part of the liver). Antral tube nutrition can be beneficial for liver cell proliferation by providing the necessary nutritional factors.

Malnutrition is also common in patients undergoing liver transplantation. If the patient eats small meals more often, the amount of food intake will increase and oral supplements will be better tolerated.

It is also possible that adding probiotics and fiber to a tube feeding method can reduce surgical infection much better than when tube or fiber feeding alone is used.



#### ➤ What is a liver transplant? <

A liver transplant is a surgery performed on a patient's lost or damaged liver and replaced with all or part of a healthy liver by someone called a donor. Because the liver is the only organ in the body that can reproduce, a transplanted piece of liver can reach its normal size and grow within a few weeks.

## Conditions that make a person need a liver transplant

Among adults in the United States, the most common cause of liver transplantation is liver cholangitis due to chronic hepatitis C, followed by cholangitis due to long-term alcohol abuse. Many other diseases cause cholangitis, including:

Other forms of chronic hepatitis, including hepatitis B and autoimmune hepatitis.

NASH or non-alcoholic hepatitis: A disease caused by the formation of fat in the liver as a result of inflammation and damage to the liver cells.



Some genetic conditions, including Wilson's disease, which causes dangerous levels of copper in the liver, and hemochromatosis, where iron builds up in the liver.

Where did the donated liver come from?

We will discuss liver transplantation in two categories: a dead donor transplant and a living donor transplant.



The liver is prepared for transplantation from a deceased or living donor. Most donated livers

from deceased donors are often the victims of severe head injuries.

These individuals have either arranged to donate the organ in advance, or their families will allow organ donation when brain death is announced.

# Signs and symptoms of graft rejection

- Fever, Headache
  - **▶**Fatigue
  - Nausea
  - Loss of appetite
  - ► Skin itching
  - ▶ Dark urine
- Jaundice (yellowing of the skin and whites of the eyes)
  - Sensitivity and swelling of the abdomen



