

# IMPORTANCE OF HEALTHY NUTRITION IN LIVER DISEASES

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## Abstract

Nutrition plays a critical role in the management and prevention of liver diseases. Adequate intake of macronutrients and micronutrients supports liver function, enhances immune response, and helps in tissue regeneration. Malnutrition or improper dietary habits can exacerbate liver injury, promote inflammation, and accelerate disease progression. This article emphasizes the significance of individualized dietary strategies in patients with liver disorders to improve clinical outcomes and overall quality of life.

**Keywords:** Liver diseases, Healthy nutrition, Diet therapy, Malnutrition, Liver function, Immune support.

## Introduction

The liver is one of the largest parenchymal organs in the human body, playing a central role in metabolism, detoxification, and biosynthesis processes [1]. It is responsible for nutrient assimilation, regulation of carbohydrate, protein, and lipid metabolism, and neutralization of toxins [2]. Therefore, maintaining liver health requires proper and balanced nutrition [3]. Healthy nutrition promotes hepatocyte regeneration, reduces oxidative stress, and prevents inflammatory processes [4,5]. In diseases such as viral hepatitis (B, C) and liver cirrhosis, dietary therapy is an integral part of treatment [6]. Viral hepatitis and cirrhosis lead to liver fibrosis, impaired protein-synthetic function, and micronutrient deficiencies [7]. Protein intake is crucial, but in patients at risk of hepatic encephalopathy, the amount must be carefully monitored [8]. Principles of Healthy Nutrition: protein: in compensated state: 1.2–1.5 g/kg/day; recommended sources: legumes, fish, lean meat [9,15]. Lipids and Carbohydrates: avoid processed fats and trans fats; omega-3 fatty acids from fish and flaxseed are preferred [10]; limitation of sucrose reduces the risk of steatosis and fibrosis [11]. Salt and Fluid Balance: salt < 5 g/day; carbonated beverages restricted; fluid restriction in ascites and hyponatremia [12]. Micronutrients and Vitamins: vitamin D is important for immune regulation and fibrosis reduction [13]; B-complex vitamins support energy metabolism and neurological function [14]; zinc reduces the risk of encephalopathy [15]; selenium and vitamin C provide antioxidant protection [16]. Strictly Prohibited and Limited Foods: Strictly prohibited: alcoholic beverages, smoked meats, sausages [17,18]; Limited: red meat, high-fat dairy products [19,20]. Practical Recommendations for Local Diets: Lean meat with vegetables; more vegetables and greens [21]. Healthy nutrition in viral hepatitis and cirrhosis: prolongs survival; reduces risk of ascites and hepatic encephalopathy; improves metabolic status; slows nutritional deficiencies and fibrosis progression [22]. In patients with liver diseases, nutritional correction is essential. Protein intake should be high to support liver function: 1.2–1.5 g/kg/day in compensated patients, 0.8–1.2





g/kg/day in patients at risk of hepatic encephalopathy. Recommended sources: legumes, fish, lean meat. Lipids should account for 25–35% of total calories, with preference for omega-3 fatty acids and avoidance of trans and processed fats. Carbohydrates should be the main energy source, making up 50–60% of total caloric intake. Daily caloric intake should be tailored to the patient's physical condition and disease severity (30–35 kcal/kg/day). In cases of ascites and hepatic encephalopathy, protein and energy intake should be carefully monitored. Conclusion: In patients with liver diseases, nutrition should include high protein intake, moderate fats, and carbohydrates as the primary energy source. This nutritional strategy supports liver function and reduces the risk of complications.

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