



## **World Conference on Social Sciences, Law and Public Policy**

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Date: 26<sup>th</sup> April 2026

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### **THE EFFECT OF DIET THERAPY ON CLINICAL AND LABORATORY PARAMETERS IN CHRONIC HEPATITIS B**

Jalolov N. N.

Turdiyev U. X.

Xurramov Ch. D.

Tashkent State Medical University

Chronic hepatitis B (CHB) remains a significant epidemiological and clinical challenge in global healthcare. According to the World Health Organization, more than 250 million people worldwide live with this infection, and approximately 800,000 deaths annually are associated with liver cirrhosis and hepatocellular carcinoma.

Analyses indicate that a balanced diet, particularly the Mediterranean diet, as well as low-fat and antioxidant-rich dietary patterns, are associated with reductions in ALT and AST levels, decreased hepatic steatosis, and improved metabolic parameters. However, diet therapy does not directly affect viral replication; rather, it improves clinical status by reducing inflammation and metabolic burden.

Chronic hepatitis B is etiologically linked to the hepatitis B virus (HBV) and is characterized by chronic inflammation and fibrosis in hepatocytes. Clinically, disease severity is determined by viral load, immune response, and additional metabolic factors.

In recent years, the role of metabolic factors (obesity, insulin resistance, dyslipidemia) in CHB pathogenesis has gained increasing attention. This has led to the recognition of diet therapy not only as a symptomatic but also as a pathogenetically relevant component of treatment.



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While classical approaches (Pevzner Diet No. 5) emphasized “mechanical and chemical sparing” of the liver, modern studies demonstrate the superiority of diets rich in antioxidants, low glycemic index foods, and omega-3 fatty acids.

Effect on liver enzymes. Multiple studies have shown that diet therapy is associated with a significant reduction in ALT and AST levels:

Study	Type of Diet	Outcome
EASL (2021)	Mediterranean diet	ALT ↓ 15–30%
Zhang et al. (2020)	Low-fat diet	AST ↓ 10–25%
Kim et al. (2019)	Antioxidant-rich diet	ALT/AST ↓ significantly

These findings confirm the anti-inflammatory effects of diet therapy.

Effect on metabolic parameters. In patients with CHB, metabolic syndrome is frequently observed. Diet therapy leads to: reduction in insulin resistance, decrease in triglycerides by 10–20%, and reduction in BMI. These changes contribute to slowing the progression of hepatic steatosis and fibrosis.

Effect on liver morphology. Imaging studies (ultrasound, elastography) demonstrate: reduction in steatosis and slowing of fibrosis progression. However, these changes require long-term observation.

Effect on viral replication. An important point is that diet therapy does not significantly affect HBV DNA levels.

Thus: Antiviral therapy → primary treatment; Diet therapy → adjunctive component. The findings indicate that diet therapy does not exert a direct antiviral effect in CHB but plays a significant role through indirect mechanisms: reduction of inflammation, decrease of oxidative stress, and reduction of metabolic burden. These results are consistent with recommendations of the European Association for the Study of the Liver.



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At the same time, existing studies have several limitations: heterogeneity of dietary interventions, short follow-up duration, and mixed etiological groups.

An interesting observation is that diet therapy appears more effective in patients with pronounced metabolic components, highlighting the importance of the “metabolic phenotype.”

Conclusion. Diet therapy in chronic hepatitis B is an important component of КОМПЛЕКС treatment.

It significantly reduces ALT and AST levels and decreases hepatic inflammation. Through improvement of metabolic parameters, it slows the progression of steatosis and fibrosis. However, it does not directly affect viral replication and therefore cannot replace antiviral therapy. The highest effectiveness is observed in patients with metabolic disturbances.

Diet therapy should be considered an adjunctive but clinically significant strategy in the management of CHB, requiring further investigation through standardized, long-term randomized studies.

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