

NUTRITIONAL SUPPORT AND DIETARY THERAPY IN THE EARLY AND LATE POSTOPERATIVE PERIODS FOLLOWING CHOLECYSTECTOMY

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Annotation: *This article outlines the core principles and clinical management of dietary therapy and nutritional support for patients following cholecystectomy. It examines the distinct therapeutic strategies required during the early postoperative phase (the first few weeks) versus the late recovery phase (3–6 months and beyond). The pathophysiological mechanisms underlying cholic diarrhea and malabsorption syndrome are detailed, validating a staged dietary intervention layout to prevent post-cholecystectomy syndrome.*

Key words: cholecystectomy, dietary therapy, nutritional support, early postoperative period, cholic diarrhea, medical nutrition.

While cholecystectomy eradicates active focus points of inflammation and gallstone accumulation, it does not fully resolve preexisting metabolic liver impairments. In the absence of a functional gallbladder, bile transit becomes continuous and disconnected from dietary intake intervals. Low concentrations of free bile acids within the small intestine impair optimal fat emulsion and gut motility balance. Without systematic nutritional guidance, these alterations trigger persistent dyspepsia, lipid-soluble vitamin deficiencies, and chronic gastrointestinal distress.

Results and Discussion

1. Early Postoperative Period (Day 1 to Month 1)

The primary clinical priorities during this initial interval involve ensuring functional rest for the biliary tree, avoiding paralytic ileus, and promoting gentle, smooth bile output.

First 24 Hours: Absolute fasting. Frequent, small sips of still water are permitted. In cases presenting with severe baseline nutritional risk (such as malnourished or geriatric cohorts), targeted parenteral nutrition options are initiated.

Days 2–3: Introduction of a modified, easily digestible diet. The menu utilizes strained pureed soups, low-fat cottage cheese, and steamed white meat or fish soufflés. Raw vegetables, whole milk, and simple sugars are entirely restricted to prevent immediate meteorism.

Core Principles During Month 1: A strict fractionated feeding pattern must be enforced—5 to 6 small meals daily (not exceeding 200–250 g per serving). Every single meal behaves as a natural stimulant for prompt biliary transit,

preventing stasis within intrahepatic structures. Total dietary fat intake is limited to 60–70 g daily, prioritizing vegetable lipids and easily absorbable dairy fats. 2. Late Postoperative Period (After 3–6 Months) This phase centers on long-term physiological adaptation (including intestinal metaplasia shifts) of the small intestine's mucosa to unbuffered bile exposure. Patients gradually transition toward a standard, balanced diet. Dietary Expansion: In the absence of clinical complaints, non-fermentable raw vegetables and baked fruits are carefully introduced, and protein sources are progressively diversified. Correcting Nutritional Deficiencies: Due to persistent sub-optimal lipid absorption patterns, a significant subset of patients develops subtle deficiencies in fat-soluble vitamins (A, D, E, K). Targeted nutritional support utilizing structured multi-vitamin regimens and polyunsaturated fatty acids (Omega-3) is indicated. Managing Cholic Diarrhea: Unfiltered, constant trickling of bile acids into the large intestine frequently provokes osmotic (cholic) diarrhea. Dietary management for these individuals must incorporate increased amounts of soluble dietary fiber (such as psyllium or pectin) to safely bind excess free bile acids. When necessary, therapy is augmented with low-bile-content enzyme supplements to relieve pancreatic workload. Conclusion Dietary therapy following gallbladder removal is not a brief restriction profile, but a life-long metabolic management strategy. The early postoperative phase demands rigorous mechanical and chemical shielding of the GI tract through frequent, small meals. In the long term, the clinical focus shifts toward compensating for micronutrient gaps, binding excess bile assets, and supporting a healthy intestinal microbiome. Correctly tailored nutritional support serves as the primary defense against postoperative dyspepsia, guaranteeing superior long-term quality of life for recovering patients.

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