

Gut-Liver Axis Evidence Ladder

Use this evidence ladder to separate useful gut-liver science from overconfident microbiome claims.

Evidence Tier	What Fits Here	How to Talk About It
Strong framework evidence	Bidirectional gut-liver signaling, portal exposure, bile-acid metabolism, gut-barrier pathways, and inflammatory signaling	Treat as a serious disease framework.
Strong disease-association evidence	MASLD associations, dysbiosis patterns in cirrhosis, and microbiome changes in advanced liver disease	Use association-plus-mechanism language.
Moderate translational evidence	Diet quality, fiber diversity as tolerated, microbiome-supportive metabolic habits, and selected microbiome-targeted interventions under study	Present as sensible support or promising research.
Early or still-emerging evidence	Probiotic strain selection for liver disease, fecal-microbiota strategies, microbiome-based HCC biomarkers, and stool-test-driven personalization	Frame as investigational, not routine clinical care.

The Practical Rule

When in doubt, move one rung down the hype ladder.

The gut-liver axis is a useful way to understand how gut microbes, bile acids, barrier integrity, metabolism, and liver inflammation can connect. It is not a reason to replace liver evaluation with detox products, stool testing, or supplement experiments.

What This Means for Readers

- If you are microbiome-curious, start with the framework.
- If you have elevated liver enzymes or known liver disease, start with medical follow-up.
- If you have MASLD or metabolic risk factors, focus on liver-metabolic basics first.
- If you are tempted by a strong microbiome claim, ask whether it is supported by human outcome data, a mechanism study, or early speculation.

This resource is for informational purposes only and is not medical advice. Always work with a qualified healthcare professional for diagnosis, treatment, medication decisions, or liver-disease management.