

LIVER ENZYME REFERENCE CHART

Clinical Reference Guide
Standard Adult Ranges

ENZYME / MARKER	ABBREVIATION	NORMAL RANGE (ADULT)	CLINICAL SIGNIFICANCE
Alanine Aminotransferase	ALT	7 - 55 U/L	Specific indicator of liver inflammation or injury.
Aspartate Aminotransferase	AST	8 - 48 U/L	Found in liver, heart, and muscles; indicates tissue damage.
Alkaline Phosphatase	ALP	40 - 129 U/L	Related to bile ducts and bone metabolism.
Gamma-Glutamyl Transferase	GGT	8 - 61 U/L	Sensitive marker for bile duct injury and alcohol use.
Total Bilirubin	TBIL	0.1 - 1.2 mg/dL	Waste product of RBC breakdown; indicates processing function.
Albumin	ALB	3.5 - 5.0 g/dL	Protein produced by liver; measures synthetic capacity.
Prothrombin Time	PT/INR	1.1 - 1.3 INR	Measures blood clotting speed; reflects liver synthesis.

Clinical Interpretation Notes:

- Ranges may vary slightly depending on the specific laboratory and testing methodology used.
- **De Ritis Ratio (AST/ALT):** A ratio > 2.0 is often suggestive of alcoholic liver disease.
- Elevated ALP with elevated GGT typically confirms a hepatic/biliary origin rather than bone.
- Isolated ALT elevations are most commonly associated with NAFLD (Non-alcoholic fatty liver disease).

This document is a template for informational purposes only. Reference ranges should be verified against specific laboratory reports. Consult a qualified healthcare professional for diagnosis and interpretation.