

Liver Function Test Normal Range Chart

Name: Jack Equine

Sex assigned at birth: Male

Date of test: Sept. 9, 2024

Test	Normal range	Results	Interpretation
Alanine aminotransferase (ALT)	4-36 IU/L	78 IU/L	Elevated ALT indicates liver inflammation or damage, likely due to prolonged alcohol use. The levels suggest moderate liver stress or injury.
Aspartate aminotransferase (AST)	5-30 IU/L	115 IU/L	AST is significantly elevated, often seen in chronic alcohol abuse. High AST compared to ALT suggests alcoholic liver disease.
Alkaline phosphatase (ALP)	30-120 IU/L	135 IU/L	Mildly elevated ALP may suggest bile duct issues or liver inflammation, common in alcoholic liver disease.
Alpha-fetoprotein (AFP)	< 10 to 20 ng/mL or < 10 to 20 mg/L	N/A	
Lactate dehydrogenase (LDH)	50-150 IU/L	N/A	
Gamma-glutamyl transpeptidase (GGT)	6-50 IU/L	160 IU/L	Highly elevated GGT is strongly associated with chronic alcohol use and liver disease, often used to confirm other abnormal liver enzyme levels.
Bilirubin	2-17 micromol/L	29 micromol/L	Elevated bilirubin indicates impaired liver function in processing and clearing bilirubin, commonly seen in advanced liver disease.
Direct bilirubin	0-6 micromol/L	N/A	N/A
Prothrombin time	10.9-12.5 secs	N/A	N/A
Albumin	35-50 g/L	30 g/L	Low albumin suggests liver impairment in protein synthesis, which is often a sign of chronic liver damage from long-term alcohol use.

Disclaimer: Standard ranges may be different for each individual laboratory, and there may be deviances among genders, age groups, and BMIs. Each laboratory should establish its own reference interval based on its methodology.

Additional notes

The results indicate significant liver dysfunction, most likely due to chronic alcohol abuse. The combination of elevated AST, ALT, and GGT levels with low albumin and increased bilirubin points to advanced alcoholic liver disease. A referral to a liver specialist for further management and potential interventions is advised.

References

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- Zhang, J., Chen, G., Zhang, P., Zhang, J., Li, X., Gan, D., Cao, X., Han, M., Du, H., & Ye, Y. (2020). The threshold of alpha-fetoprotein (AFP) for the diagnosis of hepatocellular carcinoma: A systematic review and meta-analysis. *PLOS ONE*, *15*(2), e0228857. <https://doi.org/10.1371/journal.pone.0228857>