



GENERAL HEALTH TESTING

# Alkaline Phosphatase (ALP) Information Sheet

## What is Alkaline Phosphatase (ALP)?

Alkaline phosphatase (ALP) is an enzyme found in several different tissues. It helps break down proteins. More than 80% of the ALP that is detected in blood is from the liver and bones. Other sources include the intestine, pancreas, kidneys, and placenta (during pregnancy) (1).

## What do elevated ALP levels mean?

Up to 75% of individuals with cholestatic liver disease have elevated ALP that is at least 4-fold higher than the normal upper limit. High elevations also occur in bile duct obstruction, infiltrative liver disease, severe alcoholic hepatitis, and drug-induced liver injury. AIDS patients may also have similar ALP elevations, either due to opportunistic infections or tuberculosis complications (2).

Moderate ALP elevations (up to 4-fold increase) can occur in a variety of situations, including cirrhosis of the liver, chronic and viral hepatitis, congestive heart failure, Hodgkin lymphoma, myeloid metaplasia, kidney cancer, and bacterial infection. Bone disorders that cause excessive bone formation can also increase ALP levels in the blood (2).

## What do reduced ALP levels mean?

Lower-than-normal ALP levels are rare, but may occur in cases of malnutrition, or a deficiency in certain vitamins and minerals. Celiac disease is one disorder that can contribute to a malnourished state. Wilson's disease, a disorder of copper overload, can lead to reduced ALP levels due to the displacement of zinc (a cofactor of ALP) by excess copper (3).

## Where can I find more info?

Visit [www.genetrackdiagnostics.com](http://www.genetrackdiagnostics.com) for full test information, including specimen collection requirements

### CONTACT US:

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### NOTE:

This brochure is provided for general information purposes only. It is not intended to replace medical advice from a health professional.

### References:

- (1) Sharma U, Pal D, Prasad R. (2013) Alkaline Phosphatase: An Overview. *Indian J Clin Biochem.* 29, 269-278.
- (2) Lowe, D, Sanvictores, T and John, S. Alkaline Phosphatase. StatPearls (Internet). Treasure Island : StatPearls Publishing , 2020.
- (3) Shaver WA, Bhatt H, Combes B. (1986) Low serum alkaline phosphatase activity in Wilson's disease. *Hepatology*, 6 (5), 859-863.