Alkaline phosphatase (ALP)
Alkaline phosphatase is a hydrolase enzyme responsible for removing phosphate groups from many types of molecules, including nucleotides, proteins, and alkaloids. The process of removing the phosphate group is called dephosphorylation . As the name suggests, alkaline phosphatase is most effective in an alkaline environment. Alkaline phosphatase is found in all body tissues. Tissues with particularly high amounts of ALP include the liver, bile ducts, and bone.

Why the ALP Test is Performed?
This test is done to diagnose liver or bone disease, or to see if treatments for those diseases are effective.

How the Test is Performed and How to Prepare for the Test?
You should not to eat or drink anything for 6 hours before the test. Many drugs affect the level of alkaline phosphatase in the blood. Your health care provider may tell you to stop taking certain drugs before the test. Never stop taking any medicine without first talking to your doctor. Drugs that may affect the ALP level may include:

- Allopurinol
- Antibiotics
- Birth control pills
- Certain diabetes medicines
- Chlorpromazine
- Cortisone
- Male hormones
- Methyldopa
- Narcotic pain medicines
- Nonsteroidal anti-inflammatory drugs (NSAIDs), used for arthritis and pain)
- Propranolol
- Tranquilizers
- Tricyclic antidepressants

To perform the test a blood sample is needed.

What Abnormal Results Mean?
The normal range is 44 to 147 IU/L.
Normal range can vary according to a number of factors, including age and gender.
Higher-than-normal ALP levels may be due to:

- Biliary obstruction
- Bone disease
- Hepatitis
- Hyperparathyroidism
- Liver disease
- Osteoblastic bone tumors
- Osteomalacia
- Paget's disease
- Rickets
- Sarcoidosis

- Leukemia
- Lymphoma

Lower-than-normal ALP levels may be due to:
- Malnutrition
- Protein deficiency
- Wilson's disease

Additional conditions under which the test may be performed:
- Alcoholic liver disease (hepatitis/cirrhosis)
- Alcoholism
- Biliary stricture
- Gallstones
- Giant cell (temporal, cranial) arteritis
- Multiple endocrine neoplasia (MEN) II
- Pancreatitis
- Renal cell carcinoma

Alternative Names
No alternative names

Useful Information
High levels of ALP are normally seen in children undergoing growth spurts and in pregnant women. Eating a fatty meal if you have blood type O or B can also rise ALP. ALP is rising during healing fractures.