

# Elevated Liver Enzymes

## What are liver enzymes?

The liver releases several substances when it is injured. Two of these are enzymes called alanine transaminase (ALT) and aspartate transaminase (AST).

## What causes elevated ALT and AST levels?

There are many causes of mildly elevated ALT and AST levels. About three out of 10 people will have normal levels again if blood tests are repeated in two to four weeks. Medical conditions such as hepatitis (swelling of the liver), nonalcoholic fatty liver disease, the metabolic syndrome, and alcoholic liver disease are the more common causes. Certain medicines can also cause elevated liver enzymes.

## What are some of the symptoms of elevated ALT and AST levels?

People with mild elevations usually do not have any symptoms.

## What will my doctor do?

Your doctor will ask you questions and examine you to try to find out why your enzymes are elevated. He or she may do another blood test

to make sure the results weren't wrong. If these tests are also positive, your doctor will do other tests to find out what is causing the problem.

## How is it treated?

Treatment depends on what is causing your liver enzymes to be elevated. If your doctor thinks you have nonalcoholic fatty liver disease or the metabolic syndrome, you will need to watch your diet, stop drinking alcohol, lose weight, and control your cholesterol.

## What if my liver enzymes stay elevated?

If your liver enzymes are still elevated after six months, your doctor may do more blood tests or an ultrasound. He or she also might want you to see another doctor who specializes in the digestive system. This doctor will check for other causes and may also do a liver biopsy.

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**This handout is provided to you by your family doctor and the American Academy of Family Physicians. Other health-related information is available from the AAFP online at <http://familydoctor.org>.**

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