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Gamma-glutamyl transferase (GGT) blood test

The gamma-glutamyl transferase (GGT) blood test measures the level of the enzyme GGT in the blood.

How the Test is Performed

A blood sample is needed.

How to Prepare for the Test

Your health care provider may tell you to stop taking medicines that can affect the test.

Medicines that can increase GGT level include:

- Acetaminophen
- Alcohol
- Carbamazepine
- Phenytoin
- Phenobarbital

Medicines that can decrease GGT level include:

- Birth control pills
- Clofibrate

How the Test will Feel

When the needle is inserted to draw blood, some people feel moderate pain. Others feel only a prick or stinging. Afterward, there may be some throbbing or a slight bruise. This soon goes away.

Why the Test is Performed

GGT is an enzyme found in high levels in the liver, kidney, pancreas, heart, and brain. It is also found in lesser amount in other tissues. An enzyme is a protein that causes a specific chemical change in the body.

This test is used to detect diseases of the liver or bile ducts. It is also done with other tests (such as the ALT, AST, ALP, and bilirubin tests) to tell the difference between liver or bile duct disorders and bone disease.

It may also be done to screen for, or monitor, alcohol use.

Normal Results

The normal range for adults is 5 to 40 units per liter (U/L) or 0.08 to 0.67 micro-kat/liter ($\mu\text{kat}/\text{L}$).

Normal value ranges may vary slightly among different laboratories. Some labs use different measurements or may test different specimens. Talk to your provider about the meaning of your specific test results.

What Abnormal Results Mean

An increased GGT level may be due to any of the following:

- Alcohol use
- Diabetes
- Flow of bile from the liver is blocked (cholestasis)
- Heart failure
- Lack of blood flow to the liver (liver ischemia)
- Liver tissue death
- Liver cancer or tumor
- Lung disease
- Pancreas disease
- Scarring of the liver (cirrhosis)
- Swollen and inflamed liver (hepatitis)
- Use of medicines and drugs that are toxic to the liver, especially alcohol use

Risks

There is little risk involved with having your blood taken. Veins and arteries vary in size from one person to another and from one side of the body to the other. Taking blood from some people may be more difficult than from others.

Other risks associated with having blood drawn are slight but may include:

- Fainting or feeling lightheaded
- Multiple punctures to locate veins
- Hematoma (blood collecting under the skin)
- Excessive bleeding
- Infection (a slight risk any time the skin is broken)

Alternative Names

Gamma-GT; GGTP; GGT; Gamma-glutamyl transpeptidase

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