

TBG blood test

Definition

The TBG blood test measures the level of a protein that moves thyroid hormone throughout your body. This protein is called thyroxine binding globulin (TBG).

How the Test is Performed

A blood sample is taken and then sent to a laboratory for testing.

How to Prepare for the Test

Certain drugs and medicines can affect test results. Your health care provider may tell you to stop taking a certain medicine for a short time before the test. Never stop taking any medicine without first talking to your provider.

These medicines and drugs can increase TBG level:

- Estrogens, found in birth control pills and estrogen replacement therapy
- Heroin
- Methadone
- Phenothiazines (certain antipsychotic drugs)

The following medicines can decrease TBG levels:

- Depakote or depakene (also called valproic acid)
- Dilantin (also called phenytoin)
- High doses of salicylates, including aspirin
- Male hormones, including androgens and testosterone
- Prednisone

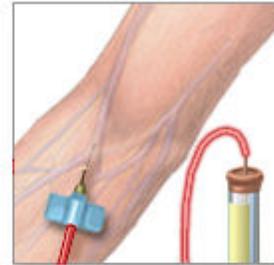
How the Test will Feel

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 slight bruising. This soon goes away.

Why the Test is Performed

This test may be done to diagnose problems with your thyroid.

Tourniquet is applied
and area is disinfected



Needle is introduced
into vein, blood is drawn
into vial and analyzed



ADAM.

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

What Abnormal Results Mean

An increased TBG level may be due to:

- Acute intermittent porphyria (a rare metabolic disorder)
- Hypothyroidism (underactive thyroid)
- Liver disease
- Pregnancy (TBG levels normally increased during pregnancy)

Note: TBG levels are normally high in newborns.

Decreased TBG levels may be due to:

- Acute illness
- Acromegaly (disorder caused by too much growth hormone)
- Hyperthyroidism (overactive thyroid)
- Malnutrition
- Nephrotic syndrome (symptoms that show kidney damage is present)
- Stress from surgery

High or low TBG levels affect the relationship between total T4 and free T4 blood tests. A change in TBG blood levels can alter the appropriate dose of levothyroxine replacement for persons with hypothyroidism.

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. Obtaining a blood sample from some people may be more difficult than from others.

Other risks of having blood drawn are slight, but may include:

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

Alternative Names

Serum thyroxine binding globulin; TBG level; Serum TBG level; Hypothyroidism - TBG; Hyperthyroidism - TBG; Underactive thyroid - TBG; Overactive thyroid - TBG