

— Metabolic & Endocrine Health

The endocrine system is the collection of glands, each of which secretes different types of hormones that regulate metabolism, growth and development, tissue function, sexual function, reproduction, sleep and mood, among other things.

The endocrine system is made of eight major glands, which are groups of cells that produce and secrete chemicals. A gland selects and removes materials from the blood, processes them, and secretes the finished chemical product for use somewhere in the body. Almost every organ and cell in the body is affected by the endocrine system.

A group of glands that signal each other in sequence are usually referred to as an axis. One example is the hypothalamic-pituitary-adrenal axis, which coordinates interactions among the hypothalamus, the pituitary gland and the adrenal, also called "suprarenal" glands, which are small, conical organs on top of the kidneys.

The endocrine system sends signals throughout the body, much like the nervous system, but unlike the immediate responses triggered by the nervous system, the effects can take a few hours or weeks. Hormones released from endocrine tissue into the bloodstream where they travel to target tissue to elicit a response.

Endocrine glands are vascular and generally do not have ducts, using intracellular vacuoles, or granules, to store hormones. They differ from, exocrine glands – salivary glands, sweat glands and glands within the gastrointestinal tract – which have ducts or a hollow lumen.

The endocrine system gets some help from organs such as the kidney, liver, heart and gonads, which have secondary endocrine functions. The kidney, for example, secretes hormones such as erythropoietin and renin.

[Hide](#)

Reproductive Hormones

SEX HORMONE B...

39

(nmol/L)

Range: 10-50

SEX HORMONE BINDING GLOBULIN

(nmol/L)

The sex hormone binding globulin (SHBG) test measures the concentration of SHBG in the blood. SHBG is a protein that is produced by the liver and binds tightly to testosterone, dihydrotestosterone (DHT), ... [See more](#)

50

-2

TESTOSTERONE, ...

95.7

(pg/mL)

Range: 46.0-224.0

TESTOSTERONE, FREE

(pg/mL)

224

-7

TESTOSTERONE, ...
(ng/dL)

196.7

Range: 110.0-575.0

TESTOSTERONE, BIOAVAILABLE

(ng/dL)

575

-29

TESTOSTERONE, ...
(ng/dL)

757

Range: 250-1100

TESTOSTERONE, TOTAL, MS

(ng/dL)

A testosterone test measures the amount of the male hormone, testosterone, in the blood. Both men and women produce this hormone. In males, the testicles produce most of the testosterone in the body. ... [See more](#)

1100

-5

Result Comments

For additional information, please refer to <https://education.questdiagnostics.com/faq/FAQ165>
(This link is being provided for informational/educational purposes only.)
(Note)

This test was developed and its analytical performance characteristics have been determined by medfusion. It has not been cleared or approved by the FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

Liver Function

The liver is one of the largest internal organs and is an important in your health. It is part of the digestive system and is connected to the small intestine by the bile duct. The liver is a multitasking organ, with many functions. Nearly all the blood that leaves the stomach and intestines passes through the liver for processing.

The liver is involved in these a group of body functions that include:

- Production of clotting factors, blood, proteins, bile, and greater than a thousand enzymes.
- Storage of energy from the food to provide fuel for muscles.
- Uses the cholesterol in the blood.
- Regulates the level of blood sugar and hormones in the body.
- Removes poisons such as drugs and alcohol from the blood.

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Liver Enzymes and Function Tests

Liver Enzymes and Function tests are used to see how well your liver is working. Your liver is the largest organ inside your body and it helps your body digest food, store energy, and remove poisons.

There are many kinds of liver diseases. Viruses cause some of them, like hepatitis A, hepatitis B and hepatitis C. Others can be the result of drugs, poisons or drinking too much alcohol. If the liver forms scar tissue because of an illness, it's called cirrhosis. Jaundice, or yellowing of the skin, can be one sign of liver disease. Cancer can also affect the liver. You could also inherit a liver disease such as hemochromatosis.

Hide

ALBUMIN
(g/dL)

4.5

Range: 3.6-5.1

ALBUMIN

(g/dL)

Albumin is a protein made by the liver. A serum albumin test measures the amount of this protein in the clear liquid portion of the blood.

