

— 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.

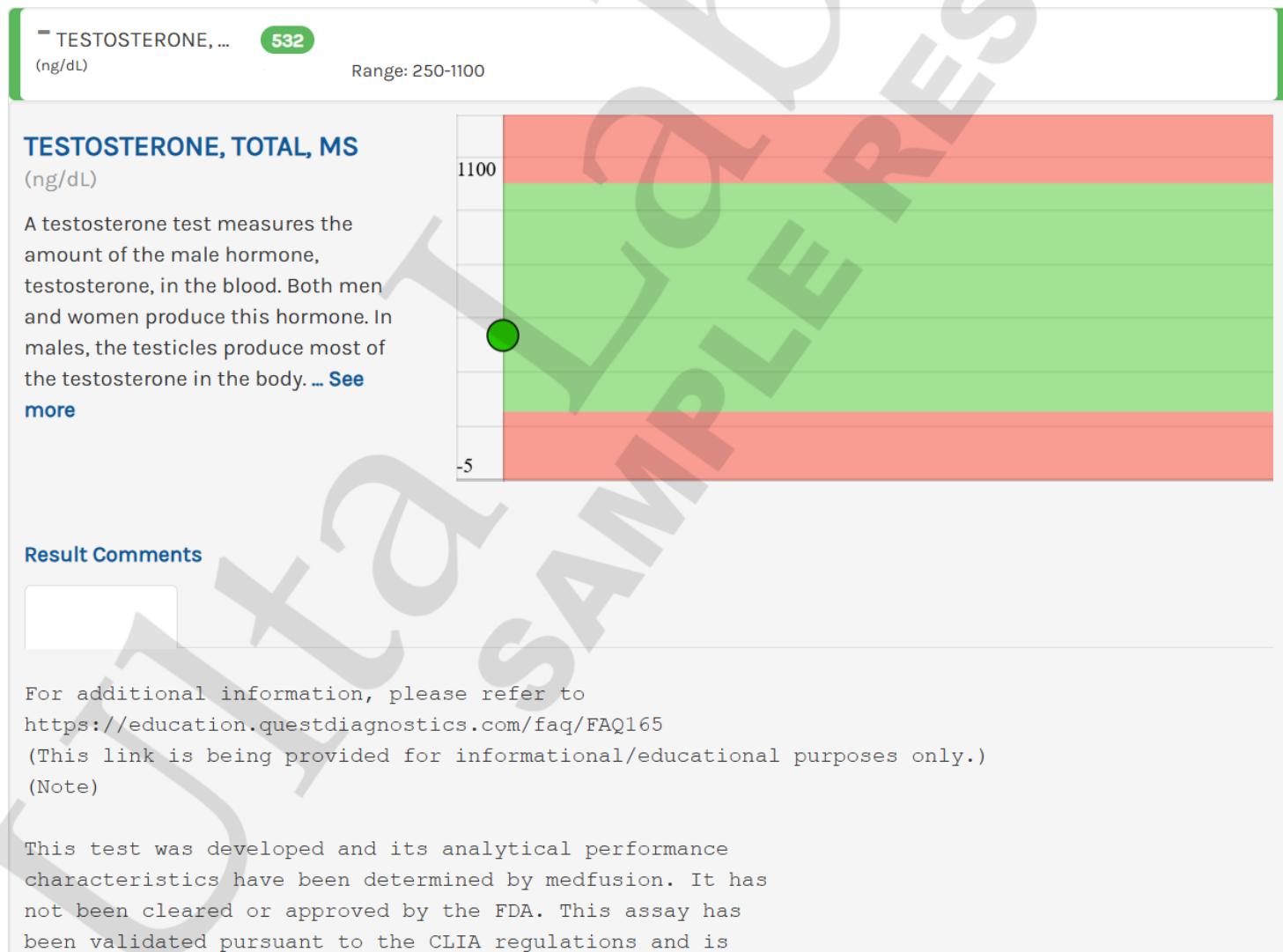
The endocrine system sends signals throughout the body, much like the nervous system, but unlike the immediate responses triggered by the nervous system, the effects can take a few hours or weeks. Hormones released from endocrine tissue into the bloodstream where they travel to target tissue to elicit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



used for clinical purposes.

TESTOSTERONE, TOTAL

(pg/mL)

114.1

Range: 35.0-155.0

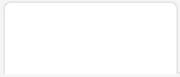
TESTOSTERONE, FREE

(pg/mL)

In many cases, measurement of total testosterone provides the doctor with adequate information. However, in certain cases, for example when the level of SHBG is abnormal, a test for free or bioavailable ... [See more](#)



Result Comments



(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.

SEX HORMONE BOUND

(nmol/L)

26

Range: 22-77

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](#)

