



28 DAY CHALLENGE

BLOOD TESTS RESULTS

Blood test results

Testosterone

Testosterone is a hormone that plays an important role in the development and maintenance of male sex characteristics, as well as in the regulation of many physiological processes in both men and women. It is produced primarily in the testes in men, and in smaller amounts in the ovaries and adrenal glands in women.

Testosterone is responsible for the development of male secondary sex characteristics such as the growth of facial and body hair, deepening of the voice, and increased muscle mass and bone density. It also plays a role in sperm production and sex drive.

In women, testosterone is produced in smaller amounts than in men and is important for maintaining bone density, muscle mass, and libido

Free Testosterone

Free testosterone is the fraction of total testosterone in the blood that is not bound to sex hormone-binding globulin (SHBG) or albumin. Free testosterone is the biologically active form of testosterone, and it is the form that can interact with androgen receptors in target tissues such as muscle and bone.

Total testosterone is a combination of both free and bound testosterone, and it is typically measured in blood tests. However, measuring free testosterone levels can provide a more accurate assessment of androgen status, particularly in individuals with low SHBG levels or other conditions that affect SHBG binding, such as obesity, insulin resistance, or liver disease.

Low levels of free testosterone can be associated with symptoms of androgen deficiency, such as decreased sex drive, erectile dysfunction, and loss of muscle mass and bone density.

DHT

DHT stands for dihydrotestosterone, which is a hormone derived from testosterone through the action of the enzyme 5-alpha-reductase. DHT is a more potent androgen than testosterone and plays an important role in the development and maintenance of male secondary sex characteristics, such as the growth of facial and body hair, deepening of the voice, and development of the prostate gland.

DHEA

DHEA stands for dehydroepiandrosterone, which is a hormone produced by the adrenal glands. DHEA is a precursor to both androgens (such as testosterone and DHT) and estrogens (such as estradiol) and plays an important role in the regulation of many physiological processes in the body.

DHEA levels typically peak in early adulthood and decline with age. DHEA is involved in the regulation of the immune system, metabolism, and the stress response. It has also been implicated in the regulation of mood, cognitive function, and sexual function.

LH

LH stands for luteinizing hormone, which is a hormone produced and released by the pituitary gland. In women, LH plays an important role in the menstrual cycle and ovulation, while in men, it stimulates the production of testosterone in the testes. In men, LH stimulates the Leydig cells in the testes to produce testosterone. Testosterone production is important for the development and maintenance of male secondary sex characteristics, such as muscle mass, bone density, and the growth of facial and body hair.

FSH

FSH stands for follicle-stimulating hormone, which is a hormone produced and released by the pituitary gland.

In men, FSH stimulates the Sertoli cells in the testes to produce and nurture sperm cells. Sperm production is important for male fertility.

Estrogen

In males, estrogen is mainly produced in the testes, adrenal glands, and peripheral tissues. It plays a role in the regulation of bone density, sperm production, and sexual function. However, excessive levels of estrogen in men can cause a condition called gynecomastia, which is the development of breast tissue. High estrogen levels in men can also lead to a decrease in muscle mass, sex drive, and fertility.

Prolactin

Prolactin is a hormone that is primarily associated with lactation in females. However, it is also present in males, although in much smaller amounts. In men, prolactin plays a role in the regulation of reproductive function, including the production of testosterone and sperm. High levels of prolactin in men, also known as hyperprolactinemia, can lead to a decrease in testosterone production, which can result in symptoms such as decreased libido, erectile dysfunction, and infertility. It can also cause breast enlargement, decreased body hair, and reduced muscle mass.

SHBG

SHBG stands for Sex Hormone-Binding Globulin. It is a glycoprotein produced by the liver that binds to sex hormones such as testosterone and estradiol, as well as other steroid hormones like cortisol.

When bound to SHBG, these hormones become biologically inactive and are unable to interact with their target tissues. This binding allows for the transport of these hormones throughout the body, and helps regulate their availability and activity in different tissues. High levels of SHBG can affect the availability and activity of sex hormones such as testosterone and estradiol in the body. When there is an excess of SHBG, it can result in decreased levels of free, biologically active testosterone and estradiol.

In men, this can lead to symptoms of hypogonadism such as decreased libido, erectile dysfunction, fatigue, and muscle weakness. In women, high levels of SHBG may result in menstrual irregularities, infertility, and symptoms of androgen deficiency. High levels of SHBG can also be associated with other health conditions, such as insulin resistance, metabolic syndrome, and non-alcoholic fatty liver disease. Estrogen
Prolactin