



Food to increase testosterone levels

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Abstract. The article discusses the optimal level of testosterone and its effect on the human body. A systematic review of modern specialized literature and relevant scientific data was carried out. Food products are indicated to increase testosterone levels, the scientific basis of nutrition for its increase is considered.

Keywords: testosterone, testosterone boost, healthy foods, recommendations

A slow decrease in the concentration of testosterone in the blood is a normal phenomenon in the aging process, called andropause or male menopause. But a constant diet, overeating and other factors reduce its production to critical levels. To avoid doctor trips and expensive treatments, you need to increase your intake of protein and healthy fats. Such measures will not only improve the hormonal background, but also slow down the aging process.

Low Testosterone: Symptoms and Health Risks

The hormone is synthesized in the testicles from cholesterol stores (in women, in the ovaries) and is produced in small amounts by the adrenal glands. Although cholesterol is the chemical base of androgen, consuming foods high in it is not conducive to hormonal health.

According to the latest data from the American Urological Association, testosterone levels for men are between 300 and 1000 ng/dL. It is important during puberty, for muscle building, fat distribution and plays a key role in sperm formation. The lower its level, the higher the likelihood of the following symptoms: fatigue, erection problems, low libido. Anemia, osteoporosis, hair loss, infertility, confusion, and depression develop less frequently. ^[1,2]

According to Mayo Clinic Laboratories, the normal testosterone level for women is 8–60 ng/dL. It is necessary for the creation of new blood cells, maintenance of other hormones, sex drive and fertility. Deficiency results in persistent fatigue, decreased sex drive, loss of bone density, irregular menstruation, and vaginal dryness. ^[3]

In men, the peak of testosterone production occurs at 18–19 years of age, and after 40 years of age, its synthesis decreases by 1–2% per year. ^[4] This can have negative consequences - studies show a link between low levels of the hormone and obesity, cardiovascular disease, and premature death. ^[5,6]

Causes of low testosterone

Almost 40% of men over 45 years of age experience androgen deficiency syndrome (hypogonadism). It is not aging that leads to it, but other factors:

- sedentary lifestyle;
- regular use of drugs;
- diabetes; ^[7]
- excess weight; ^[eight]
- chronic kidney and liver diseases.

Hormone replacement therapy with drugs is recommended only for men with severe clinical symptoms. It has many side effects - from acne to the growth of prostate adenoma. Changing lifestyle and nutrition is safe, unlike masculinizing injections.

Top 10 Testosterone Boosting Foods

1. Beef

Beef liver is an excellent source of vitamin D and ground beef is an excellent source of zinc. To get the best out of the products, you need to choose lean cuts of beef and not eat it every day, since excessive consumption of red meat causes certain types of cancer. ^[9]

2. Oily fish

Atlantic mackerel, herring, salmon, sardines, trout increase sperm quality and fertility of sperm due to their fatty acid profile. Fish is rich in omega-3s, meets your daily vitamin D needs, and is an excellent source of protein, creatine. ^[10, 11]

3. Oysters

Seafood contains more zinc per serving than any other food. The trace element is necessary during puberty, is important for sperm health and reproductive function. Zinc helps keep male hormones in check throughout adulthood, and its lack in the body can cause impotence. ^[12]

4. Extra virgin olive oil

The oil is rich in monounsaturated fats, antioxidants, vitamin E. The components improve male reproductive health - increase the level of luteinizing hormone, which stimulates testicular cells to produce testosterone. ^[13]

5. Domestic eggs

Egg yolk contains more nutrients than protein - it is an excellent source of vitamin D, carotenoids, amino acids, choline. A healthy person can eat no more than three eggs a day, and it is worth considering that one yolk can contain 60% of the daily cholesterol requirement.

6. Beans

Beans and some legumes (chickpeas, lentils) help those who suffer from erectile dysfunction. These are excellent sources of zinc, magnesium, as well as fiber and vegetable proteins. It can be stewed with vegetables, boiled and added to salads, or mashed to make pate.

7. Indian ginseng

A perennial plant in the nightshade family known as ashwagandha, winter cherry is a natural Viagra. An extract from it increases testosterone levels by 17%, and increases sperm count by 167%. The plant also lowers cortisol by 20-25%. ^[14, 15]

8. Ginger

Ginger root has a positive effect on male sexual energy - it increases hormone production by 17%, increases the chances of fatherhood. ^[16]

9. Pomegranate

Pomegranate juice has a positive effect on potency - it increases testosterone by 24%, protects the prostate gland from diseases and reduces the risk of cancer. It should not be drunk on an empty stomach, but only after a full meal - fructose harms beneficial microorganisms in the intestines. ^[17]

10. Leafy green vegetables

Spinach, cabbage are rich in magnesium - the second most concentrated mineral in the body. They improve the production of male hormone during a sedentary lifestyle. The effect is more obvious in the elderly and those with disabilities. ^[eighteen]

Science-Based Natural Ways to Boost Testosterone

Alcohol, peppermint, baked goods, sugar, trans fats, mega-6 in large quantities are things to avoid in order to maintain hormonal balance. If a blood test has already shown the presence of hypogonadism, you will have to change not only the diet, but the whole lifestyle:

- **Sport.** All exercises are effective, but strength training and high-intensity interval training are the most beneficial for men's health. Taking caffeine and creatine monohydrate as supplements in combination with a training program will improve performance. ^[19]
- **Minimum stress** . An increase in the stress hormone cortisol quickly lowers testosterone levels. Hormones work like a swing - when one rises, the other falls.
- **Vitamin and mineral supplements.** Deficiency of magnesium, zinc, vitamin D can be easily compensated with special supplements. In what forms to take them and at what time of the day, the nutritionist will tell you. ^[twenty]
- **Dream.** At least 7-10 hours of sleep per day is an important factor in health, as is proper nutrition. A five-hour rest is associated with a 15% drop in testosterone levels, while a three-hour rest results in borderline deficiency.
- **Avoidance of estrogen-like chemicals** . Minimize your daily exposure to BPA, parabens, and dangerous chemicals found in some plastics.

Androgen is critical to aspects of sexual health and body composition. It is easier to maintain its concentration regularly than to treat a deficiency with steroids. Key takeaway: Quitting alcohol, exercising, and increasing your protein and fiber intake can help you gain muscle mass, reduce body fat, and boost testosterone in just a few weeks.

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