

Man's Testosterone Problem

Unfortunately, around age 30, testosterone levels start to drop. This is normal, but that doesn't make it easy to deal with. Waning testosterone levels can bring a lot of challenges to a man's life—things like lower energy, reduced sexual drive & performance, a decline in muscle, as well as weight gain. [1] To make matters worse, testosterone is adversely affected by a host of common challenges that affect nearly all modern men, like nutrition, stress, and lack of sleep—to name just a few. These factors combine to produce dramatically decreased testosterone levels for a lot of men.

Trying to treat testosterone problems can be a double-edged sword. Doctors often suggest supplementation or medication to help with the difficulties of low testosterone or to treat testosterone abnormalities. But these conventional solutions lead to unwanted side effects for many patients. Even more challenging, some men who want to increase their testosterone levels are told by physicians that their numbers aren't low enough to warrant treatment. As a result, dealing with low testosterone can feel like a “damned if you do, damned if you don't” situation to a lot of men in their 30s, 40s, and 50s.

So it's no surprise that a lot of men want a more natural option to boost their testosterone, and with it their energy, sex drive, and physical performance. One promising option is light therapy, as **recent medical studies are demonstrating its immense potential for increasing male testosterone**. This has been repeatedly proven in clinical trials on various mammals in the past few decades, but recent studies on human men are giving researchers and endocrinologists even more reasons for optimism.

Clinical Research Shows Light Therapy's Potential for Increasing Testosterone

Medical scientists have been studying the effects of natural light on testosterone production for almost a century. Research over the last decade, and especially the last few years, has been even more illuminating and given the medical community more concrete reasons to believe in light therapy's potential for increasing male testosterone.

Italian Pilot Study: A 2016 randomized, placebo-controlled pilot study conducted by the University of Siena in Italy evaluated 38 men with a diagnosed low sexual desire. Researchers measured their testosterone levels and separated the men into two groups, with one group receiving a clinical dose of light therapy in the early mornings. In addition to higher sexual satisfaction, the men in the group treated with more light saw their T-levels rise significantly. **The control group did not see testosterone rises, but the active light therapy group showed a huge increase from about 2.1 ng/ml to 3.6 ng/ml in just 2 weeks.** [2]

Dr. Andrea Fagiolini, the study's lead researcher, explained the findings: "The increased levels of testosterone explain the greater reported sexual satisfaction. In the Northern hemisphere, the body's testosterone production naturally declines from November through April, and then rises steadily through the spring and summer with a peak in October. You see the effect of this in

reproductive rates, with the month of June showing the highest rate of conception. The use of the [light therapy device] really mimics what nature does.” [3]

Male Fertility: Numerous other studies over the last 5 years have found that increased natural light exposure to a man’s testes and sperm actually increases sperm motility, or how well individual spermatozoa are able to move and swim. Motility is a key measure of male fertility and reproductive health. As a result, many researchers are concluding that light therapy can have a significant effect on treating male infertility. [4,5,6,7]

In addition to noting increased sperm motility, a 2017 study published in *Scientific Reports* found that these treatments were safe, and did not induce any oxidative DNA damage to the sperm or testes. [8]

Previous Laboratory Research on Mammals: Although in-human clinical research on testosterone and light therapy is still in its early stages, and more trials are needed, there’s no doubt it’s very promising. For example, the recently published research on men builds on a larger base of analysis conducted on laboratory mammals and their testosterone levels.

A 2013 study in *Biomedical Research* found that red light therapy at 670 nanometers (nm) increased the serum testosterone levels of lab rats, with no noted side effects. [9] Another 2013 study on testosterone in rats published in the *Nepal Medical College Journal* found that the follicle-stimulating hormone (FSH) and luteinizing hormone (LH), which are connected to the production of testosterone and natural sex steroids, were elevated in rats subjected to light for 70 days. [10] The FSH and LH pathway is essentially the same in humans, and they’re referred to as “gonadotropins” because of their ability to stimulate testicular function

Other studies on the motility of dog and boar sperm have shown the same type of positive results in laboratory settings. [11,12]

How Does Red Light Therapy Boost Testosterone Levels?

Although numerous trials are finding increased male testosterone with light therapy, the precise reasons and biological mechanisms of action aren’t fully understood at this point. In other posts, [we explained how the human body absorbs red and near infrared light](#), which encourages increased cellular chemical energy transportation—otherwise known as adenosine triphosphate (ATP). Just as improved function can be observed throughout various bodily processes from increased ATP energy, many of these studies suggest that **red and near infrared light wavelengths can stimulate the Leydig cells, which are responsible for producing testosterone in the testicles. Its theorized that this enhanced energy production can help naturally increase testosterone hormone.** [6, 9,10]

Leading researchers have posited some other theories, and they’re not mutually exclusive. Some believe that red and near infrared wavelengths stimulate photoreceptive proteins in the testes, resulting in higher testosterone production, as shown in studies as far back at 1939. [13]

Researchers from the aforementioned 2016 University of Siena study suggested that light therapy interacts with the pineal gland in the brain, which plays a major role in human reproduction. [14]

While medical science is still working on identifying the exact mechanisms, it's pretty clear there's a relationship between natural light and male testosterone, both in human men and other mammals. This aligns with the large amount of anecdotal evidence we hear all the time from trainers, athletes, physicians, and health & fitness pros who report major testosterone increases after using our full-body light therapy devices.

An Important Note on Heat & Safety

No man wants to put their sexual health in jeopardy with a risky or unproven treatment. But some men have reported potentially negative effects to their testes when using some forms of energy therapy in the past. However, the key is that those negative effects have come from suboptimal products with excessively long wavelengths of light that produce too much heat.

[The Contour Light devices](#) incorporate clinically-proven red and near infrared wavelengths in the mid-600s & mid-800s nm range, also known as the “therapeutic window” of light therapy. Because wavelengths above 1,000 nm produce much more radiant heat, **it's critical to use a high-quality LED light therapy device that delivers optimal power with proven (and safe) wavelengths.** All of Contour Light's devices were specially designed to meet these vital criteria.

Although not specifically cleared for testosterone treatments, Contour Light's products are registered as class II medical devices by FDA and their entire production process has passed rigorous quality and safety inspections. Beyond regulatory bodies, light therapy with red and near infrared wavelengths has been deemed as very low-risk by scientists too. A 2013 study of light therapy treatments conducted by Harvard and MIT researchers praised its “noninvasive nature and almost complete absence of side effects.” [15]

Conclusion: Light Therapy Could be a Game-Changer for Boosting Natural Male Testosterone

Emerging research on light therapy and its effect on male testosterone, fertility, and sex drive is extremely encouraging. Taken together with previous lab research, and the current experiences of top athletes and trainers using Contour Light, it's clear that light therapy has the potential to be a game-changer for men who are looking for an increase in natural testosterone production.

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Light Therapy Shows Promise for Boosting Sex Drive, Performance, & Treating Male Infertility

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We've written about [light therapy and boosting testosterone](#). This article goes further and breaks down recent research on light therapy and male sexual performance & infertility. The early results are extremely encouraging and show light therapy's potential to be an effective natural treatment for male infertility, low sex drive, and overall sexual performance.

Clinical Research on Light Therapy & Sex

Recent clinical research shows light therapy's immense potential for treating male infertility and problems with sexual performance—in a way that is natural, non-invasive, chemical & drug-free, and doesn't come with a big list of nasty side effects.

Light therapy has been widely studied in clinical trials, and found to deliver health benefits in large part by [stimulating cells to produce more ATP energy](#), leading to improved overall bodily function. While light therapy's positive effects on skin health, joint pain, burns & scars, and muscles are well-established, research into its effects on male testosterone, sexual performance, and fertility is still in a comparatively earlier stage. However, more and more science is emerging, and the early clinical results are extremely encouraging.

More Testosterone: It's normal for testosterone levels to start dropping in your 30s and 40s, and low T is often a root cause of a man's sexual concerns as he gets older. It's clear that more testosterone generally translates to a higher sex drive, more energy, and more sexual satisfaction for men and their partners. Recent published studies are showing that natural light exposure can increase male testosterone levels quite significantly. We wrote this related article about [light therapy & testosterone](#) that dives into that research.

2016 Sexual Satisfaction Study: One of the clinical results we examined in that testosterone article is a 2016 randomized, placebo-controlled University of Siena pilot study that evaluated men with low sexual desire. Researchers found that men treated with light therapy saw significant rises in their T-levels. Beyond just testosterone, **researchers documented a notable increase in patients' sexual satisfaction as well.** [1]

The men indicated their level of sexual desire and satisfaction before the study, and then again afterward. The group that received daily light therapy treatments with a clinical dose saw a big increase in both sexual desire and testosterone, while the control group did not see major increases in either.

Dr. Andrea Fagiolini, the study's lead researcher, summarized the sexual satisfaction results:

"We found fairly significant differences between those who received the active light treatment,

and the controls. Before treatment, both groups averaged a sexual satisfaction score of around 2 out of 10, but after treatment, the group exposed to the bright light was scoring sexual satisfaction scores of around 6.3—a more than 3-fold increase on the scale we used. In contrast, the control group only showed an average score of around 2.7 after treatment.” [2]

This was a relatively small pilot study, and more research is needed on light therapy and sexual health, but the results are very encouraging.

Light Therapy for Male Fertility & Sperm Health

In comparison to testosterone production, there has been much more research conducted on light therapy and its effects on male reproductive health & sperm function. More clinical data is needed, but the existing findings offer optimism for a more natural and effective infertility treatment for guys trying to have children.

1 in 6 couples in the United States deals with infertility, and it’s a complicating factor for 30-50% of couples trying to have their second child. [3,4] So it’s no small problem, and if you’re struggling to get pregnant, you’re far from alone.

Much of the existing research on light therapy is focused on sperm motility, which measures how well individual spermatozoa are able to move and swim. This is central to fertility; as one study puts it: “The ability to successfully fertilize ova relies upon the swimming ability of spermatozoa” [5]

Numerous studies over the last 5 years have found that increased natural light exposure to a man’s testes and sperm increases sperm motility.

A 2015 Slovenian study analyzed 30 infertile men with impaired sperm motility, known medically as asthenozoospermia. Semen samples were treated with different wavelengths of natural light and motility was measured. The study’s authors concluded:

*“In the non-treated semen samples, the average ratio of rapidly progressive sperms was 12% and of immotile sperm 73%. **Treating with LED significantly increased the proportion of rapidly progressive sperm...and significantly decreased the ratio of immotile sperm.** All differences were highly statistically significant. This finding confirmed that photobiomodulation using LED improved the sperm motility in asthenozoospermia regardless of the wavelength.” [6]*

This is consistent with the findings of a recent 2018 study that analyzed light therapy and male reproductive health and concluded: “(light therapy) is recommended as an integral part of the complex treatment of infertility.” [7]

Both Red & Near Infrared Wavelengths are Effective: A 2014 study treated sperm samples with near infrared light in the mid-800 nm range and tested for motility, finding a significant increase. [8] A separate 2017 study treated samples of trapped spermatozoa with red light in the mid-600 nm range and found it drastically improved sperm swimming speed and force. [9] These

red & near infrared wavelengths in the mid-600s and mid-800s nm range are the only ones used in [Contour Light devices](#), because they've been found to be the most clinically effective.

In addition to noting increased sperm motility, a 2017 study published in *Scientific Reports* found that these treatments were safe, and did not induce any oxidative DNA damage to the sperm or testes. [5]