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Healthy Lifestyle

# Men's health

**Aging-related hormone changes in men — sometimes called male menopause — are different from those in women. Understand signs, symptoms and treatment options.**

By Mayo Clinic Staff

Hormone changes are a natural part of aging. Unlike the more dramatic reproductive hormone plunge that occurs in women during menopause, however, sex hormone changes in men occur gradually. Here's what to expect, and what you can do about it.

The term "male menopause" is sometimes used to describe decreasing testosterone levels or a reduction in the bioavailability of testosterone related to aging. Female menopause and so-called male menopause are two different situations, however. In women, ovulation ends and hormone production plummets during a relatively short period of time. In men, hormone production and testosterone bioavailability decline over a period of many years and the consequences aren't necessarily clear.

So what's the best way to refer to so-called male menopause? Many doctors use the term "andropause" to describe aging-related hormone changes in men. Other terms include testosterone deficiency syndrome, androgen deficiency of the aging male and late-onset male hypogonadism.

Testosterone levels vary greatly among men. In general, however, older men tend to have lower testosterone levels than do younger men. Testosterone levels gradually decline throughout adulthood — about 1 percent a year after age 30 on average.

A blood test is the only way to diagnose a low testosterone level or a reduction in the bioavailability of testosterone. Some men have a lower than normal testosterone level without signs or symptoms. In this case, no treatment is needed. For others, low testosterone might cause:

- **Changes in sexual function.** This might include erectile dysfunction, reduced sexual desire, fewer spontaneous erections — such as during sleep — and infertility. Your testes might become smaller as well.

- **Changes in sleep patterns.** Sometimes low testosterone causes sleep disturbances, such as insomnia, or increased sleepiness.
- **Physical changes.** Various physical changes are possible, including increased body fat; reduced muscle bulk and strength; and decreased bone density. Swollen or tender breasts (gynecomastia) and loss of body hair are possible. Rarely, you might experience hot flashes and have less energy.
- **Emotional changes.** Low testosterone might contribute to a decrease in motivation or self-confidence. You might feel sad or depressed, or have trouble concentrating or remembering things.

However, some of these signs and symptoms can be caused by underlying factors other than low testosterone, including medication side effects, thyroid problems, depression and excessive alcohol use. There are also conditions, such as obstructive sleep apnea, that might affect testosterone levels. Once these conditions are identified and treated, testosterone typically will return to a normal level.

If you are experiencing signs and symptoms that might be the result of a low testosterone level, consult your doctor. He or she can evaluate possible causes for the way you feel and explain treatment options.

You can't boost your natural testosterone production, but these steps might help:

- **Be honest with your doctor.** Work with your doctor to identify and treat any health issues that might be causing or contributing to your signs and symptoms — from medication side effects to erectile dysfunction and other sexual issues.
- **Make healthy lifestyle choices.** Eat a healthy diet and include physical activity in your daily routine. Healthy lifestyle choices will help you maintain your strength, energy and lean muscle mass. Regular physical activity can even improve your mood and promote better sleep.
- **Seek help if you feel down.** Depression in men doesn't always mean having the blues. Depression can cause men to suppress their feelings and become more aggressive or irritable. Men also might try to self-medicate by abusing alcohol or other substances.
- **Be wary of herbal supplements.** Herbal supplements haven't been proved safe and effective for aging-related low testosterone. Some supplements might even be dangerous. Long-term use of DHEA, for example, has no proven benefits and might increase the risk of prostate cancer.

Treating aging-related low testosterone with testosterone replacement therapy is controversial. For some men, testosterone therapy relieves bothersome signs and symptoms of testosterone deficiency. For others, however, the benefits aren't clear and there are possible risks. Testosterone replacement therapy might increase the risk of heart attack, prostate cancer or other health problems. If you wonder whether testosterone treatments might be right for you, work with your doctor to weigh the pros and cons.

## References

1. Tostain JL, et al. Testosterone deficiency: A common, unrecognized syndrome. *Nature Clinical Practice Urology*. 2008;5:388.
2. Bhasin S, et al. Testosterone therapy in adult men with androgen deficiency syndromes: An Endocrine Society clinical practice guideline. *The Journal of Clinical Endocrinology & Metabolism*. 2006;91:1995.
3. Amore M, et al. Partial androgen deficiency, depression and testosterone treatment in aging men. *Aging Clinical and Experimental Research*. 2009;21:1.
4. Harman SM. Endocrine changes with aging. <http://www.uptodate.com/home>. Accessed Feb. 13, 2014.
5. Snyder PJ. Overview of testosterone deficiency in elderly men. <http://www.uptodate.com/home>. Accessed Feb. 13, 2014.
6. Baum NH, et al. Testosterone replacement in elderly men. *Geriatrics*. 2007;62:15.
7. Men and depression. National Institute of Mental Health. <http://www.nimh.nih.gov/health/publications/men-and-depression/index.shtml>. Accessed Feb. 13, 2014.
8. 2008 Physical Activity Guidelines for Americans. U.S. Department of Health and Human Services. <http://www.health.gov/PAGUIDELINES/guidelines/default.aspx>. Accessed Feb. 13, 2014.
9. DHEA. Natural Medicines Comprehensive Database. <http://www.naturaldatabase.com>. Accessed Feb. 13, 2014.
10. Wang C, et al. Investigation, treatment and monitoring of late-onset hypogonadism in males. *International Journal of Andrology*. 2009;32:1.
11. Perheentupa A, et al. Aging of the human ovary and testis. *Molecular and Cellular Endocrinology*. 2009;299:2.
12. Nair KS. DHEA in elderly women and DHEA or testosterone in elderly men. *The New England Journal of Medicine*. 2006;355:1647.
13. Yassin AA, et al. Testosterone and erectile dysfunction. *Journal of Andrology*. 2008;29:593.
14. Finkle WD, et al. Increased risk of non-fatal myocardial infarction following testosterone therapy prescription in men. *PLOS One*. 2014;9:1.
15. Depression and men fact sheet. National Alliance on Mental Illness. <http://www.nami.org/Template.cfm?Section=Depression&Template=/ContentManagement/ContentDisplay.cfm&ContentID=88881>. Feb. 14, 2014.

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