

Male Menopause

Chris D. Meletis, N.D.

Aging is associated with progressive alterations in the hormonal environment for both men and women. In men this is called andropause and in women it's called menopause. These changes are readily recognized in women with cessation of menses and often the onset of hot flashes, vaginal dryness and a myriad of other hormone-induced symptoms including anxiety, depression and change in muscle mass. In men, without the overt cessation of a monthly cycle, these changes can be much more difficult to identify. All too often both sexes quietly and unnecessarily accept these changes as "just getting old." Yet, no one should passively accept a decrease in energy, diminished sense of wellness and lack of zeal for life.

With the stresses of modern living, including external hormonal exposures from diet and environmental chemicals, the human body no longer passes into this hormonal state with the ease of past generations. The fact that indigenous cultures around the world do not suffer symptoms of andropause and menopause to the extent that we in industrialized nations do, further support that external hormonal factors are playing a role in this natural transition. Furthermore, many experts propose that those living in western society suffer from a lack of the adrenal gland reserves that sustain optimal wellness after gonadal (ovary/testes) hormone transitions.

Andropause

Over 50 years ago the progressive decline in androgen production was well documented in the medical literature. This decline in testosterone commonly referred to as andropause, actually begins often in the early 30s and eventually hits a crescendo when symptoms are unmistakable. (Table 1.)

United States demographics reflect a growth in the aging population with currently greater than 35 million people over the age of 65 years, and this group will grow to 70 million by the year 2030.¹ Furthermore the average life expectancy is increasing. At age 65, the mean life expectancy for men is 15.2 years and 18.8 years for women.² These numbers reflect the expectancy for the average American without a focus on those individuals actively pursuing health, who should very well expect even greater life expectancy with a higher quality of life.

Progressive decline in hypothalamic/pituitary/gonadal function in men starting at age 30 is well documented with a free testosterone decline of 1 percent per year. After age 60, 25 percent of men are clinically overtly hypogonadal. Overt testosterone deficiency occurs in about 24 percent of men aged 50-60 years and 40 percent in men aged 60-

80.3 Yet it's important to realize that subclinically low testosterone levels are likely prevalent in nearly double these very conservative estimates.

In my clinical practice I recommend that any man age 30 or older with one or more symptoms listed in Table 1 have their testosterone and DHEA levels tested through salivary hormone tests. I routinely also recommend having progesterone and estradiol levels measured in men since these levels can significantly alter the effects and availability of androgen present. Men should measure their hormone levels between 8:00 and 9:00 AM since testosterone levels are at their peak in the morning. Several approaches are routinely taken to increase testosterone levels and they include supplementing with a testosterone prescription. DHEA use is another popular non-prescription approach as is the use of a combination of herbals outlined below, which are designed to increase "free testosterone," the most bioactive form of androgen.

Balancing Male Hormones

The goal is typically two fold: increase androgens while protecting the prostate and other tissues from excess exposure to estrogen that can result from the aromatase activity that increases with aging in men. In particular fat cells are "hot spots" for aromatase activity, where this enzyme converts androgens to estrogen.⁴ In general, male estrogen levels increase with age, at testosterone's expense. Estrogen also tends to decrease testosterone production. Furthermore, SHBG (sex hormone binding globulin) increases with age, binding up more free testosterone.

Eurycoma longifolia jack extract, used in Southeast Asia for centuries, has testosterone-like actions in animal studies, and may increase testosterone levels.^{5,6,7} Clinical response in men using Eurycoma longifolia jack extract have reported laboratory-tested increases in their free testosterone levels of 50 to 300 percent over several to six months' use. Further research documenting this effect shall further elucidate efficacy.

Stinging nettle root extract contains compounds that bind to SHBG, reducing the binding of testosterone to SHBG, and the binding of SHBG to prostate tissue.^{8,9} Beta sitosterol has been shown to inhibit 5 alpha-reductase, which converts testosterone to 5 hydroxytestosterone (5HT) an undesirable metabolite of testosterone associated with benign prostatic hypertrophy.^{10,11,12} Myricetin, a flavonoid related to quercetin, which possesses greater bioavailability than quercetin, has also been shown to inhibit 5 alpha-reductase and 5HT activity. ¹³

Luteolin has been shown in human and animal studies to have excellent absorption and bioavailability, and to exert powerful protective effects, even at low doses. It appears superior to chrysin and other aromatase inhibitors. ^{14,15,16}

Another tool is progesterone, a hormone produced in the male adrenal and testicular tissue that drops with aging. Further exacerbating natural progesterone decline is severe and prolonged stress since the stress hormone cortisol is made from

progesterone as are testosterone, estrogen, aldosterone and other steroid hormones.
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Progesterone inhibits testosterone's conversion to DHT.¹⁸ DHT is a far more potent stimulant of prostate cell growth than testosterone, whereas testosterone and progesterone stimulate the activity of a protective gene called "p53."¹⁸ The products of this gene activation are anti-cancer, and promote healthy apoptosis.¹⁹ Apoptosis is a "programmed cell suicide" that plays a key role in preventing cellular overgrowth (e.g., BPH) and cancer. Estrogen, on the other hand, activates a gene called "bcl2."⁴ Bcl2 products inhibit healthy apoptosis. 19

I share with my male patients that when diagnosed with low testosterone levels, any benefits from either hormonal or nutritional supplementation may take a month or more to manifest. Regardless, retesting testosterone, progesterone and estrogen after initiating a hormonal support regimen ensures that individuals have achieved the proper hormonal balance and that excess estrogen levels are not created as a result of therapy.

Menopause

Menopause is marked officially with the cessation of menses. Estrogen levels diminish by at least 40-60 percent, and progesterone drops precipitously. The median age for onset of perimenopause, when the initial hormonal decline begins, is 47.5 years, yet can occur significantly earlier in some individuals. Full-fledged non-surgical menopause occurs at the average age of 51.4 years in Western women. Symptoms that can accompany menopause include those in Table 2. Noteworthy is that sleep apnea, a severe case of nighttime breathing disturbance that claims 38,000 Americans each year, rises significantly during menopause. Thus it is important to evaluate symptoms of fatigue, restless sleep, heart palpitations, increase in blood pressure and dry mouth in the morning as a potential clue to a sleep apnea diagnosis.

Balancing Female Hormones

The goal of menopausal supplementation is to support estrogen and progesterone levels while minimizing symptoms associated with this phase. In practice there are countless menopausal support approaches, yet the following are routinely associated with favorable clinical response.

Since the mid-1950s, black cohosh has been used by over 1.5 million European women for menopausal problems. Relief of symptoms has been documented to be comparable to that obtained from Hormone Replacement Therapy (HRT), but without the harmful side effects.²⁰ Growing evidence has shown that black cohosh can confer significant relief from common menopausal symptoms such as hot flashes and night sweats. 21

Genistein is the most extensively studied isoflavone phytoestrogen. Studies have shown that genistein may reduce the symptoms of menopause, prevent bone loss, and possibly provide a safe alternative for prescription estrogens. 22

Tribulus has been found to improve libido and alleviate hot flashes, depression and emotional lability. Use of tribulus for several months has been reported to decrease the intensity and occurrences of hot flashes, insomnia, irritability, depression, apathy and loss of sexual interest. Two thirds of the women tested reported increased sex drive after treatment with tribulus. An active preparation is obtained from the above-ground part of the plant that contains steroid saponins (not less than 45 percent). 23,24

With the cessation of progesterone production in the ovaries, estrogen dominance is a serious concern for the menopausal woman. The unopposed estrogen can contribute to weight gain, cancer and changes in sense of psychological wellness. The benefits of progesterone are noted in Table 3. 25,26,27,28,29

Summary

Effectively supporting individuals who are undergoing andropause or menopause requires sustaining healthy hormone levels. At the same time, men and women entering either of these life phases should strive to prevent excess detrimental metabolites—in particular estrogens in both sexes and detrimental testosterone forms in men—in order to achieve healthy aging and maximal quality of life.

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