

Human Growth Hormone: Fountain of Youth or the Same Old Hype?

A BRIEF GUIDE TO HGH ENHANCEMENT SUPPLEMENTS, THE CURRENT RAGE IN ANTI-AGING, LONGEVITY, BUILDING LEAN BODY MASS, AND REJUVENATING SEXUAL POTENCY

John Maher, DC, DCBCN, BCIM

About the author: Dr. Maher is a postgraduate instructor for the New York Academy of Anti-Aging, which prepares doctors for their certification by the American Board of Anti-Aging Health Professionals through A4M. Call 1-888-354-6528 for more information.

What if you had a natural and safe discovery with clinically proven results in the battle against aging? What if you could reverse aging and look, feel and perform 10 or even 20 years younger?

What if you could burn fat without dieting or exercising; increase your muscle mass without exercise; improve your sexual drive and performance; enhance your athletic performance and endurance; have younger, tighter, thicker skin; eliminate cellulite; enjoy truly refreshing deep sleep; build stronger bones; alleviate menopause and male "andropause"; improve your cholesterol and triglyceride profiles; strengthen your heart while lowering blood pressure; improve your hair growth and texture; improve your mood, memory and concentration; strengthen your immune system; and likely add years to your life?

With human growth hormone (HGH) enhancements, you can. Over 28,000 medical studies say you can! Indeed, a 10-year study completed in June 1998 for the National Institute of Aging stated that the results with human growth hormone, also known as HGH, "are too good to be true!"

What is HGH?

Nestled in the center of our brains is the rather tiny but very powerful pituitary gland. HGH is one of seven hormones secreted by the pituitary. Growth hormone, like thyroid hormone, has an effect on almost all our tissues and organs. As the name implies, it enhances the growth of various organs and tissues, especially muscle and bone. Basically, human growth hormone increases protein synthesis. Proteins are the body's major building blocks. Normal secretion of HGH occurs in a daily cycle, like a tide. It varies with exercise, sleep, stress and nutrition.

Why Does HGH Enhancement Help?

As we hit middle age, there is a natural decline in the hormone production of HGH, estrogen, progesterone, DHEA, androstenedione and testosterone. With advancing age, an increase in the incidence of osteoporosis, heart disease, diabetes, mood and memory disorders, loss of libido, etc. occurs. Central obesity also increases and muscles shrink. Scientific studies are demonstrating a

causal relationship between the decline in hormone levels and an increased incidence of the aforementioned conditions. The exciting development is that by replacing these hormones, these developments can be reversed. Hormone replacement for estrogen, thyroid hormone and progesterone are commonplace. Is HGH next?

What's the Downside?

HGH was only used for children with certain growth disorders until the mid 1980s. It was extremely expensive, as the only source was human cadavers! Then recombinant DNA technology made it possible to engineer bacteria to produce HGH, but that was costly: treatment cost between \$200-\$300 per week, and you needed frequent blood tests (\$100 plus each time) to monitor the proper dosage. You also had to give yourself shots twice a day, though these are more inconvenient than painful.

There is some debate as to whether HGH shots might stimulate cancer. Proponents counter that HGH actually builds the immune system, therefore likely helping to prevent cancer. The informed consensus seems to be that those with cancer should not have HGH shots, as it might also stimulate cancer growth.

Another concern is that HGH shots, as with any hormone replacement therapy regularly taken, tend to inhibit our own natural production. If you stop the shots, you could really "crash," having become dependent on an outside source of HGH.

Natural Human Growth Hormone Enhancements: the HGH Secretagogues

Fortunately for anti-aging enthusiasts, there are a variety of natural oral HGH enhancers that are much less expensive. Because they support, not replace, pituitary gland function, they don't "shut down" your own natural production. These are called secretagogues because they coax or support your own glands to secrete their own hormones, not replace them.

Which Secretagogues Are Best?

As the oral HGH enhancers (secretagogues) hit the market, caveat emptor!(buyer beware!) Most marketers will quote study results from HGH injections and then claim them for their own product! Here are some important questions to ask:

- Has the HGH product been independently lab tested to prove that it raises IGF-1 by 50% or more on average? (IGF-1 stands for insulin like growth factor and is the accepted way to measure HGH response to oral supplements and injections.)
- Were the studies conducted by an MD with expert credential in anti-aging?
- Has the HGH anti-aging product been utilized by scores of doctors for several years to insure safety and effectiveness?
- Are there testimonials not only from laypersons, but also by MDs from major universities with credentials in anti-aging medicine?
- Does the HGH enhancing product cost more than \$2 per day? (It shouldn't!)

My general opinion is to avoid legumes or bean-based secretagogues, as they may increase estrogen. Oral recombinant HGH sprays and drops are very effective but too expensive, and it's too early yet to know about their safety. Plus, you don't support your own production with oral recombinant HGH - you are replacing it. Generally, combinations of amino acids like glutamine, arginine, ornithine, lysine, flush free niacin and herbs are best. Pick products that have been used safely for at least several years, have been proven to increase IGF-1 levels by 50% or more, have endorsements from well-credentialed authorities, and cost less than \$60/month.

Do I Need to See a Doctor First?

Anyone serious about anti-aging should have a professional anti-aging health coach. Unfortunately, medical anti-aging clinics with HGH injections cost about \$20,000 per year. Doctors like myself who try to make available more modest longevity programs to fit to the middle-class budget are rare. Generally, however, the more over 40 you look, feel, and perform, the more likely you could probably benefit from high quality, safe and effective HGH secretagogues. Be careful. You don't have too much of an entrepreneur to figure out that "youth in bottle" is a marketer's dream. Buyer beware!

How Can I Enhance My HGH Levels Naturally?

HGH levels are affected by stress, rest patterns, nutrition and exercise. Stressful lifestyles tend to focus the body on producing stress hormones like cortisol and ACTH. Too much stress hormone breaks down muscle tissue, inhibits repair, and interferes with sleep. If a long, vital and happy life is on your busy agenda, then make fun, rest, play, and quiet times a priority!

HGH levels are strongly affected by our nutritional status. In the infirm elderly HGH levels have doubled from admittedly very low levels by supplementing with 20 grams of protein from whey. Correcting suboptimal zinc status in otherwise apparently healthy subjects increased HGH levels by 20%. As human growth hormone's effect is to stimulate growth, it will maximize your results if you supply yourself with the necessary proteins and mineral building blocks through a nutrient dense diet. A high quality multi-vitamin/mineral, rich in antioxidants is also to your health's advantage.

Exercise stimulates HGH by reducing stress and promoting restful sleep. However, weightlifting (and to a lesser extent running wind sprints) directly enhances HGH levels. Heavy weightlifting (such as dead lifts, squats, and bench presses) are the best. Performing three sets (5-8 reps) at maximum effort is best. Unless you're very experienced, be sure to get guidance from a trainer/or doctor at your gym or home.

JANUARY 2000