

Human Growth Hormone—the end of aging?

New discovery eliminates the risks and lowers the cost of this potent anti-aging therapy

Judging from the thousands of books and articles on “youth” hormones like DHEA and melatonin, you might never guess that these supplements are relatively minor players in the emerging field of longevity medicine. In truth, these hormone-replacement strategies, while useful and effective, pale in comparison to the anti-aging power of human growth hormone (HGH).

Benefits of HGH replacement therapy include:

- increased muscle mass
- decreased body fat
- reduced LDL cholesterol
- restored hair growth
- increased endurance
- upgraded immune function
- improved sexual response
- improved skin texture and elasticity

But you won't find bottles of HGH lining the shelves at your local health-food store. Scientists haven't been able to harness the undeniable power of this anti-aging wonder in a way that's both safe and effective—or even affordable—until now.

“Growth hormone may hold the key to slowing and reversing the aging process.”

Scientists at the cutting edge of age-extension research have uncovered new strategies that allow you to enjoy the age-reversing, energy-enhancing, disease-fighting power of human growth hormone, without dangerous side effects and at a fraction of the cost of risky hormone injections.

What is growth hormone?

Human growth hormone, also known as *somatotropin*, is produced by your pituitary gland in response to signals from the hypothalamus gland. High levels of growth hormone stimulate the growth and maintenance of bone tissue and muscle mass. Growth hormone also facilitates the repair of damaged DNA within the cell, as well as proper cell division. In this way, growth hormone may hold the key to slowing

and reversing the aging process.

Most of the beneficial effects of growth hormone are achieved through the actions of a chemical called insulinlike growth factor-1 (IGF-1). IGF-1 is produced throughout the body in response to the presence of growth hormone, and acts to enhance and correct intracellular communications and function.

Are you in somatopause?

As with hormones like testosterone and DHEA, the level of growth hormone in the blood drops dramatically as you age. The decline starts at around age 30, and by the time you are in your 60s or 70s, your growth hormone levels may be practically undetectable, a state sometimes referred to as *somatopause*.

Somatopause corresponds almost exactly with most of the outward manifestations of aging—sagging skin, waning muscles, hair loss, bone loss, reduced energy, poor memory, reduced sex drive, etc.

Scientists have repeatedly shown that therapies that increase the level of circulating growth hormone can reverse the signs of aging that accompany somatopause. The challenge has been to find growth-hormone replacement therapies that are both safe and affordable.

20 years of aging reversed in six months

It all started in 1990, when Dr. Daniel Rudman stunned the world by reporting in *The New England Journal of Medicine* that he had reversed “10 to 20 years of aging” in 12 elderly men by injecting them with human growth hormone.

Dr. Rudman had been injecting his subjects with HGH three times a week for six months. In that time, their body fat was reduced by an average of 14 percent and their lean muscle mass increased by almost 9 percent. Their skin grew measurably thicker and more youthful looking, and they reported more energy and an increased sex drive.

“After seven months of treatment, serious side effects appeared.”

In the seventh month of injections, however, the first warning bells went off. Several subjects developed debilitating carpal tunnel syndrome—the growth hormone was apparently stimulating unregulated growth of the cartilage in the wrist. Others developed severe arthritis, high-blood pressure, congestive heart disease, and diabetic-type conditions. Although the side effects diminished when the drug was discontinued, so did the benefits.

But by that time, there was no stuffing the genie back into the bottle. Rudman’s research unleashed a worldwide furor over growth hormone as the quintessential youth drug.

Subsequent studies verified both the benefits and the risks observed in Rudman’s original study. Supplementing with HGH consistently results in increased muscle mass, decreased body fat, restored hair growth, upgraded immune function, increased endurance, and improved sexual response. It also invariably produces a list of side effects.

Growth-hormone injections might increase your risk of cancer

One of the ways that growth hormone works is to stimulate the turnover of the body’s cells. The fear is that it could also disarm the mechanism by which the body prevents the uncontrolled cell division that allows tumors to form. Some studies have observed an increase in cancerous tumor growth with the use of HGH.

We already know that among children who receive HGH as a treatment for growth disorders (the only FDA-approved use of HGH), the incidence of leukemia is double that of the normal population.

In his 1997 book *Grow Young with HGH*, Ronald Klatz (president of the American Academy of Anti-Aging Medicine) lists some 30 physicians who “specialize” in anti-aging medicine and who will provide growth hormone to those who can afford it—the price tag is about \$1,000 a month. For most people, the costs—in both monetary and health terms—are simply too high.

An all-natural alternative eliminates the risks

And there’s no denying that those with higher levels of growth hormone look and feel younger and healthier. Two years ago, we published a special report outlining ways to naturally increase your growth-hormone levels. (See sidebar page 5.)

And now, we’ve uncovered a brand new product that has been proven to deliver the anti-aging benefits of growth hormone, without the expense and risks of dangerous drug therapies.

Preventing “somatopause”— An all-natural therapy to reverse aging

Many people assume that the body’s *production* of growth hormone slows as we age. But as researchers James Jamieson and L.E. Dorman, D.O. explained in a ground-breaking presentation before the American College for Advancement in Medicine (ACAM) in 1997, your pituitary gland continues to produce human growth hormone well into your 70’s and even into your 80’s (unless you have a pituitary disorder).

But as you age, a number of factors begin to interfere with your body’s ability to *release* its supply of growth hormone into the bloodstream. To make matters worse, the tissues of the body become increasingly insensitive or resistant to what little growth hormone is still circulating.

Jamieson and Dorman have focused their research on substances called *secretagogues*—natural substances that aim to reverse somatopause by stimulating the release (or secretion) of growth hormone. Through painstaking experimentation, they have identified several natural compounds that together appear to greatly enhance the body’s utilization and production of growth hormone.

This unique secretagogue formula is called Symbiotropin Pro-HGH. Symbiotropin contains no human growth hormone—or any other hormone. Instead, it contains safe biological *activators* (including specific amino acids, proteins, and botanical extracts) that, by stimulating certain receptors in the pituitary and hypothalamus glands, help your body release its sequestered stores of growth hormone.

The effect mimics (or exceeds) the benefits of HGH injections: You’ll likely experience a decrease in

body fat, improvement in skin texture, lowered cholesterol levels, sharper vision, improved memory, enhanced sexual performance, and increased energy—in short, all the benefits of growth hormone therapy—but minus the high risk of complications and the \$1,000 price tag.

A potent anti-aging therapy that’s absolutely safe—and proven effective

In a study of 36 people, scientists evaluated the effectiveness of Symbiotropin by measuring the levels of IGF-1, a signal that growth hormone is active in the body. Over 12 weeks, IGF-1 levels increased by an average of 30 percent.

But study participants were already convinced, reporting improved energy, endurance, and body composition after only four weeks. After eight weeks, the subjects reported new hair growth, restoration of hair color, and improved skin texture and tone. No side effects were observed.

Doctors who have been using Symbiotropin in their practices are also reporting phenomenal results. Some indicate that it has been three to four times *more effective* than growth-hormone injections! Part of the reason lies in the fact that Symbiotropin mimics the action of the pituitary gland much more closely than growth-hormone injections.

As we’ve said, HGH works by stimulating the production of IGF-1. But HGH has an extremely short half-life—after being secreted, it is cleared from the blood in as little as 20 minutes! Injections create huge spikes in HGH in the blood, but their effectiveness is limited by the amount of IGF-1 that can be produced in the short window of opportunity before the hormone is metabolized away.

Symbiotropin, in contrast, stimulates smaller, more frequent rises in growth-hormone levels, resulting in steadier elevations in IGF-1. Another significant advantage of Symbiotropin is that it does not suppress the body’s own production of HGH (as hormone injections do). In fact, the formulation actually increases your own natural production of the hormone in addition to facilitating its release into your system.

Here are a few of the case histories we reviewed:

J.M., female, age 71

Lost 3 pounds a week throughout a 12-week period. The patient reported increased energy, along

Benefits of Symbiotropin

Area of Assessment	Improvement after 12 weeks
Endurance & Body Composition	
Muscle Strength	58%
Muscle Size	42%
Fat Reduction	68%
Overall Energy	74%
Exercise Tolerance	58%
Exercise Endurance	68%
Hair & Skin	
Skin Texture	47%
Skin Thickness	32%
Skin Elasticity	26%
Wrinkle Disappearance	37%
New Hair Growth	47%
Healing & Immunity	
Healing of old injuries	26%
Healing of other injuries	21%
Healing Capacity	21%
Back & Joint Flexibility	37%
Resistance to Common Illness	47%
Sexual Function	
Sexual Potency/Frequency	32%
Duration of Penile Erection	44%
Frequency of Nighttime Urination	66%
Mental Function	
Mental Energy & Clarity	53%
Emotional Stability	42%
Attitude Toward Life	37%
Memory	47%

Source: *The Role of Somatotroph-specific Peptides and IGF-1 Intermediates as an Alternative to HGH injections*, by James Jamieson and L.E. Dorman, D.R., as presented for the American College for Advancement in Medicine, Oct. 30, 1997.

with diminished wrinkles and age spots.

L.C., female, age 48

History of severe high blood pressure. With Symbiotropin, she was able to discontinue several medications, including an ACE inhibitor. The patient reports increased energy and an increased sense of well-being.

L.J., male, age 55

The patient was overweight and suffered reduced sexual potency. With Symbiotropin, he lost weight and reports significant improvement in sexual potency.

Symbiotropin Pro-HGH is formulated in effervescent tablets, which can be dissolved in water and taken on an empty stomach, preferably at bedtime, early in the morning, or 1/2 hour prior to exercise, as directed on the label. After each three-month cycle, you should take a two- to four-week break before resuming.

You will optimize the benefit if you maintain a low-carbohydrate diet, which helps keep insulin levels low. Insulin directly suppresses the action of HGH. For the same reason, you should also avoid taking

vanadyl sulfate or chromium supplements (which act similarly to insulin in the body) within two hours of taking Pro-HGH.

Enhancing growth hormone without supplements

Fast for one day every two weeks (only if medically appropriate). The highest levels of growth hormone are released when we sleep and when we fast for at least 24 hours—another good reason to avoid going to bed on a full stomach. Reduced caloric intake has also been associated with an extended life span. Many longevity experts advocate regular fasting (not for longer than 24 hours or more often than every 14 days) as a relatively painless way both to spike growth-hormone release and to reduce calories for life-extension purposes.

Avoid foods high on the glycemic index. Foods like pasta, potatoes, and refined sweets register high on the glycemic index because they cause a rapid increase in your blood sugar, which stimulates the production of insulin. When there's too much insulin in your blood, your body reacts by producing a chemical called somatostatin. Somatostatin suppresses insulin release—but it also suppresses GH release! Foods low on the glycemic index include beans, legumes, nuts, and whole grains. (Nuts and seeds also contain an amino acid combination favorable to the production of growth hormone.)

Exercise on an empty stomach. Regular exercise, including aerobic training and strength training, stimulates your pituitary gland to increase growth-hormones levels. For best results, don't eat for at least two hours before exercising so that the exercise-induced release of growth hormone is not counteracted by high levels of insulin in your blood.

Reduce fat. Dietary fat blocks both the production and the release of growth hormone. Keep fat intake to 20 to 30 percent of your daily calorie intake and try to emphasize healthy oils like olive, grape-seed, and avocado.

Sources: Grow Young with HGH, by Dr. Ronald Klatz, 1997; Fat-burning Aids From the Underground, by the *Health Sciences Institute*, 1997.

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