



DaVinci[®] *Laboratories
of Vermont*

Innovative by nature

COCOA HGH

Be Strong[™]



Dear Practitioner,

As you may have seen in your own practice, many patients are looking for ways to ensure the best possible preventive care. Anyone concerned with aging or the risk of developing a chronic disease later in life may want to consider a supplement to support a healthy aging process. Supplements that support the production of the human growth hormone (HGH) are now being recommended by more and more doctors as a way to support the aging process, along with numerous other benefits.

While some opposition to using HGH as a health supplement has surfaced, it should be noted that the DaVinci® product discussed in this paper does not contain synthetic HGH. Rather, it contains amino acids that promote HGH production in the pituitary gland, which is converted to IGF-1 in the liver. Additionally, supplements containing HGH precursors taken under a doctor's supervision are not used in the same way that some athletes use steroids. HGH's role in the body has been studied and observed for a variety of health benefits, including heart health, tissue repair, weight management, and bone health.

In a chapter from the book, "Life Extension Manual," Jerry Emanuelson speaks of his personal experience with taking supplements that support the normal production of HGH:

I have a strong genetic tendency toward spinal osteoporosis, which the evidence strongly suggests is IGF-1 related (IGF-1 is produced in response to growth hormone)...I spent 6 months without HGH. During this period, I lost 8 percent of the bone mineral density of my L1 vertebrae, more than 10 percent of my L2 vertebrae, and more than 21 percent of the density of my L3 vertebrae...I am quite healthy otherwise...By taking control of my own medical care, I have been able to substantially regain most of my loss of spinal bone mineral density.¹

While this significant shift in Emanuelson's health could be the result of many factors, there is existing evidence that the use of HGH and to IGF-1-related supplements can benefit the body depending on how it is formulated.

*Cocoa HGH by DaVinci® Laboratories contains a special blend of 5 free form amino acids known as secretagogues, which are specifically formulated to support the natural release of the body's own Human Growth Hormone (HGH).**

*Cocoa HGH is available in a convenient, delicious chocolate powdered drink mix that is vegetarian and gluten free. It contains 4,500 mg of cocoa, which is a natural source of flavonoids and polyphenols that provide beneficial antioxidants.**

*Cocoa HGH is formulated to support human growth hormone (HGH) levels within normal ranges, improvement in workout recovery, cardiovascular health, reduction in sugar cravings, and a reduction in body fat.**

To your patients' and your practice's good health,

*Dom Orlandi
President, DaVinci Laboratories*

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.



Introduction

The National Institutes on Aging reports, “about 75 percent of people 65 and older have two or more chronic conditions—such as heart disease, diabetes, chronic lung disease, arthritis, and some cancers—which significantly affect their health and well-being.” Additionally, the Center for Disease Control website states, “Heart disease is the leading cause of death for both men and women.”

While not all diseases are preventable, the risk of developing a chronic disease can be minimized with the right health management plan.

To illustrate this more clearly, here are some statistics and disease prevention facts from the CDC’s “The State of Aging & Health in America” from 2013:

- “Among health care costs for older Americans, 95% are for chronic diseases. The cost of providing health care for one person aged 65 or older is three to five times higher than the cost for someone younger than 65.”²
- “Chronic diseases can affect a person’s ability to perform important and essential activities, both inside and outside the home.”²
- “As functional ability—physical, mental, or both—further declines, people may lose the ability to perform more basic activities, called activities of daily living (ADLs), such as taking care of personal hygiene, feeding themselves, and getting dressed.”²
- “Although the risk of developing chronic diseases increases as a person ages, the root causes of many of these diseases often begin early in life.”²
- “Practicing healthy behaviors from an early age and getting recommended screenings can substantially reduce a person’s risk of developing chronic diseases and associated disabilities.”²

Practicing good health includes speaking with a health care practitioner about what prevention methods are right for each individual. We invite our customers to speak with patients about the benefits of Cocoa HGH as part of a plan of action for preventing conditions caused by the natural aging process and certain lifestyle choices.*

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.



Human Growth Hormone

The human growth hormone is made up of 191 amino acids, and production is at its peak when we are young. HGH affects almost all body tissues. It is one of the most important hormones in the human body because it controls many organ and body functions. HGH is the primary hormone responsible for stimulating tissue repair, cell replacement, brain function and enzyme production.* It affects almost every cell in the body. Perhaps most importantly, its release and circulation stimulates the liver to manufacture IGF-1, which is beneficial for numerous functions in the body.*

About IGF-1

IGF-1 is the active, growth stimulating metabolite associated with the beneficial effects of human growth hormone therapy. Once the human growth hormone is released from the pituitary glands, it circulates to the liver where it is converted to IGF-1, which then stimulates growth in a variety of tissues. The beneficial effects of elevated IGF-1 levels are well documented and are associated with the following:

- Decreased body fat content*
- Enhanced lean body mass*
- Healthy cholesterol levels*
- Efficient cardiac output*
- Increased skin elasticity*
- Improved memory*
- Increased libido*
- Increased energy levels*

The Decline of the Human Growth Hormone Due to Aging:

HGH is responsible for normal growth during childhood; it also supports the repair and regeneration of human tissue throughout our lives. With age, circulating levels of IGF-1 decline, namely due to the inability of the pituitary gland to release the human growth hormone. A hormone called somatostatin down-regulates its production. At age 21, the normal level of circulating HGH is approximately 10 milligrams per deciliter of blood. For most people, this is the age at which HGH levels have peaked.

By the time we reach 30, HGH production has declined by 10%, which means that there is no longer an adequate amount of HGH to repair tissue damage.¹ After 30, HGH levels continue to decline by approximately 15% per decade, while damage caused by aging continues to accelerate.¹ By age 61, HGH concentrations are at about 2 milligrams per deciliter, which is a decrease of 80%.

According to Emanuelson, increasing the levels of HGH can “slow, or even reverse, many of the manifestations of aging. It must be done carefully, though, and under medical supervision.”¹ Emanuelson also says that the ideal age to begin HGH replacement is 30, yet it can also provide benefits at any age over 30.¹

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.



Enter Healthy Alternatives

While natural supplements can provide the extra support certain health needs require, it is important to speak with patients about how a balanced diet and exercise are also a vital part of their overall health. This is part of why it's so important for health practitioners to recommend a comprehensive course of action for total wellness.

The Center for Disease Control notes, "Recommendations from health care providers are among the most influential factors in convincing people to be physically active and join a self-management program." This is why at DaVinci® Laboratories, we always encourage doctors to discuss the benefits of a healthy diet and exercise, along with the benefits of additional support from nutritional supplements.

The Difference Your Patients Are Seeking

Numerous studies on HGH have been conducted since it was discovered in 1912 by Dr. Harvey Cushing. In 1989, Dr. Daniel Rudman conducted a landmark study which, indicated that the signs of aging could be slowed and even that the appearance of certain physical characteristics associated with the aging process could be improved.³

When the specific results of this study were reported in the *New England Journal of Medicine*, the key benefits of HGH were reported to include the reduction of age-related stomach fat, increased muscle mass, and restoration of spinal bone mass.³ Since that landmark study, over 100 reputable studies have been conducted. These studies evaluated and documented the safety and efficacy of using HGH as a therapeutic approach to addressing health concerns related to aging.³

Between 1994 and 1996, another significant study was conducted at the Medical College of Wisconsin, where Dr. Rudman completed his original work.

Participants were given low doses of HGH at high frequency dosages. The results were staggering. Below are some of the notable results of the study:

- 71% reported improvement in skin texture
- 71% reported improvement in skin elasticity
- 51% reported improvement in wrinkle disappearance
- 38% reported improvement in new hair growth
- 84% reported improvement in energy level
- 62% reported improvement in memory³

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.



Fat Metabolism

HGH is involved in the production of both IGF-1 and lipolysis. IGF-1 functions to support the burning of fat by making it available as fuel.* Lipolysis is triggered when the growth hormone binds to fat cell receptors, where it causes a series of enzymatic reactions in the cell resulting in the break down of fat cells.*

The same 1996 study at the Medical College of Wisconsin reported the following results:

- 88% reported improvement in muscle strength
- 81% reported improvement in muscle size
- 71% reported improvement in loss of body fat³

By supplementing amino acids that aid in the release of growth hormones, **Cocoa HGH** supports weight management, metabolism, and lean muscle mass.*

Cardiovascular Health

In addition to supporting the reduction of fat, IGF-1 encourages the movement of cholesterol in a desired direction.* It also supports cardiac cells and helps to improve cardiac function.*

In 1989, a different type of HGH study was conducted at Sahlgrenska Hospital in Sweden. Over three hundred patients with severe growth hormone deficiency were examined for body fat and cardiovascular health. The study concluded that these patients were twice as likely to die from heart disease when compared with healthy people of the same age and gender.⁵

According to the book *Grow Young with HGH*, "The GH-deficient patients had very high levels of the harmful LDL cholesterol and very low levels of productive HDL cholesterol. They also had high levels of the fats known as triglycerides, which are associated with heart disease and diabetes."⁵

The doctors then studied the effects of 26 weeks of GH replacement therapy. They looked at "body composition, metabolic parameters, and well-being in 10 patients with adult-onset GH deficiency (GHD)."⁴ These results demonstrated positive benefits from HGH therapy.

The results show that GH replacement in GHD adults results in marked alterations in body composition, fat distribution, and bone and mineral metabolism and reduces psychiatric symptoms. Finally, we conclude that the observed beneficial effects of replacement therapy with GH are of sufficient magnitude to consider treatment of GHD adults.⁴

Cocoa HGH by DaVinci® was developed based on studies like the one conducted at Sahlgrenska Hospital. By supplying essential amino acids (secretagogues) that are essential in the production of balanced human growth hormone levels, Cocoa HGH supports cardiovascular health.*

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.



What Makes Cocoa HGH from DaVinci® Unique?

While there are other HGH products on the market, **Cocoa HGH** by DaVinci® Laboratories focuses on the release of stored human growth hormone by combining the proper quantities and ratios of L-glutamine, L-arginine, L-ornithine, L-lysine and glycine. Supporting healthy human growth hormone levels, along with the synergistic and individual effects of the free form amino acids, makes this product a unique way to support heart health, fat metabolism, bone health, and a healthy aging process.*

We've also flavored our new drink mix with cocoa to provide powerful antioxidants that combat free radicals.* This delicious chocolate powdered drink mix is vegetarian and gluten free, and it is a convenient way to receive the many benefits of normal HGH production in the body.

We hope that you are as excited about this new product as we are, and we encourage you to educate your patients on the health benefits of combining these important nutrients in an easy to use drink mix.

Supplement Facts

Serving Size 1 Scoop (15.5 grams)

Amount Per Serving

Calories	60
Calories from Fat	5
Total Fat	0.5 g
Total Carbohydrates	2 g
Fiber	1 g
Protein	12 g
Calcium	8 mg
Iron	1 mg
L-Glutamine	6,000 mg
Cocoa Powder	4,500 mg
L-Arginine	1,000 mg
L-Ornithine	1,000 mg
L-Lysine	1,250 mg
Glycine	1,000 mg
Stevia Leaf Extract	57 mg

Other Ingredients: none.

Suggested Use

As a dietary supplement, mix 1 scoop (15.5 g) per day in 8 oz. of water and take on an empty stomach at bedtime or right after strenuous exercise or as directed by your healthcare practitioner.

Warning: Persons with kidney disorders should consult with their healthcare practitioner prior to using this product. If pregnant or nursing, consult your healthcare practitioner before taking this product.

Warning: This product contains lead, a chemical known to the State of California to cause birth defects and other reproductive harm.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

About DaVinci Laboratories

For 40 years, DaVinci® Laboratories has developed and produced leading edge, high quality supplements exclusively for health care professionals. DaVinci® Laboratories is a division of FoodScience® Corporation, which provides the highest quality formulations in the nutritional supplement industry for both human and animal needs.

More than 100 FoodScience® Corporation employees are dedicated to an unmatched commitment of quality and service to meet the diverse needs of our unique customer base. DaVinci® Laboratories holds a current Good Manufacturing Practices (cGMP) certification from the Natural Products Association. They review all elements of the manufacturing process to ensure products meet their established specifications for quality, including identity, purity, potency, composition and contaminants. Our flexible facilities also allow for custom formulations and private labeling for those customers who wish to market their own brand of nutritional products.

DaVinci® Research

DaVinci®'s research focuses on the complex relationships that exist among nutrients and the latest advancements in nutrition to develop and produce some of the most significant products available to holistic practitioners. DaVinci® Laboratories' extensive research into the exciting properties of N,N-Dimethylglycine (DMG) has been unparalleled. The company has been awarded four patents for DMG's beneficial effect in the areas of immune response and cell support.

DaVinci® Specialty Formulations

Ongoing research and development at DaVinci® Laboratories has resulted in the most exclusive line of specialty products, some of which include: pure N,N-Dimethylglycine (Gluconic® DMG); the most complete and powerful multiple vitamin/mineral formulas available (Daily Best™, Kid's Mighty Vites™, Omni™, Omni™ Jr, Spectra™, Spectra™ Man, Spectra™ Senior, Spectra™ Woman, Spectra™ Multi Age, Ultimate Prenatal™); and unique glycosaminoglycan products (Cartilage+™, Disc-Discovery®, Perna® and Perna® Plus). DaVinci® was also the first nutritional supplement company in the United States to introduce Evening Primrose Oil (Gamma-Lin™) to health practitioners in 1980 as well as the first company to offer doctors an efficient and accurate protocol for evaluating the quality of Oil of Evening Primrose.

DaVinci® supports research at the following institutions: University of Southern California Medical School, Los Angeles; Medical University of South Carolina, Charleston; Institute For Child Behavior Research, San Diego; San Diego State University; Northern Kentucky University, Highland Heights; Florida Medical School, Tampa; University of Bridgeport, Bridgeport, Connecticut; Clemson University College of Sciences, Clemson, South Carolina.

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.