

## *Velvet Antler*

*Nature always has the answer....*



Velvet antler IGF-1 growth factor increases physical performance, mental abilities, and physical endurance. It increases lean muscle mass, reduces fat, builds bone mass, and increases wound and injury healing. IGF-1 is critical for the growth and development of nerve cells. IGF-1 is important in cellular communication and in optimizing cellular and physiological functioning. As we age, our level of IGF-1 decreases, while the body's dependence on it increases.

According to Dr. Ronald Klatz, IGF-1 is ten times more potent than Human

Growth Hormone (HGH), so presumably you could get the same anti-aging effects at a much lower dosage. By taking IGF-1 directly, you bypass the pituitary, which may be “burnt out” with aging. So IGF-1 appears even more potent than HGH in its anti-aging action. IGF-1 has also been shown to act in the body in ways that HGH does not. It has similar effects to insulin in body as its full name, insulin-like growth factor, suggests. It improves blood sugar profiles in type 2 diabetic patients. High doses of HGH have been shown to increase insulin resistance, but IGF-1 administration actually normalized the insulin resistance in a group of healthy volunteers.

IGF-1 has also been shown to repair peripheral nerve tissue damage by injury or illness. Dramatic regeneration occurred when IGF-1 was used in combination with other growth factors. In studies of animals and cells in culture, it has increased motor activity in the spinal cord.

IGF is found throughout the body and effects every cell to some degree. It is secreted in the liver in response to stimulation by growth hormone (GH) from the pituitary. IGF-1 is a protein of 70 amino acids which was once called somatomedin because it, not growth hormone, is the immediate stimulus for growth of the body. Many cells have receptors for IGF-1, especially cells in the bone marrow where T-cells for immune responses are formed. Division of cells occurs from the binding of IGF-1 to cells with receptors for it stimulates them to move from G1 of the cell cycle to S-phase and on to mitosis. IGF stimulates ion flux, glucose transport, amino acid uptake, regulates cell proliferation and promotes cell differentiation. Because of its ability to regulate cell growth, IGF is known as a progression factor. IGF helps by enhancing cell specialization.

TGF also regulates cell proliferation activated by other growth factors or hormones. It aids in tissue repair, skin cell formation, immune function, and regulation of inflammatory conditions. TGF aids in differentiation of cells, inhibiting unspecialized cell proliferation such as occurs in tumors. It has been shown to effect libido and mood changes.

Growth Factors have several specific health enhancing effects. Its cardiovascular effects include increased cardiac output. This effect is especially marked on weak hearts or poor circulation. It increases work capacity, improves sleep and appetite, and decreases the rate of muscle fatigue. Growth Factors aid in the homeostatic mechanisms of the body, providing regeneration of tissues and organs, strengthening muscles, and aiding optimum functioning of the immune system.

## DEER ANTLER

Deer Antler has been used in China for over 2,000 years for its powerful health properties. It is collected from male stags without any harm to the deer. The first documented use of deer antler velvet as a health tonic was found on a silk scroll dated at 168 B.C. that described over fifty diseases for which Deer Antler was used. It is

traditionally used to tonify the kidneys and for symptoms such as difficult erections, cold extremities, soreness, lack of strength in the lower back and knees, and frequent, copious clear urination. It is mentioned as benefiting the essence and blood, and strengthens the sinews and bones. (Bensky 1986)

Although widely acclaimed as an aphrodisiac due to its powerful ability to regulate sexual function and tonic effects on the body, this is only one of the wide ranging benefits associated with the use of velvet. For centuries it's been used to effect blood pressure, increase hemoglobin levels, increase lung efficiency, improve recuperation, improve muscle tone and glandular functions, sharpen mental alertness, relieve the inflammation of arthritis and treat stomach ulcers.

It is the prime remedy for promoting endurance, stamina and strength, for combating the symptoms of stress and fatigue and for revitalizing the entire system.

The benefits of Deer Antler have been confirmed in many studies. It is appreciated as a safe and natural treatment for:

- Energy- increased mental and physical stamina
- Sexual Disorders in men
- Rheumatic Pain and Joint Inflammation
- Improved Circulation
- Menstrual and Menopausal Imbalances
- Digestion and Constipation
- Recovery from Injuries
- Improved Vitality and Well Being

Deer Antlers grow at an incredible speed. Deer antler velvet grows each spring on male deer and the fully grown antler is later cast off in winter. Each spring the antler cycle begins anew and the skin around the pedicle regenerates a new antler. The hard antler from the previous season has been cast off and the growth of the new season's velvet crop begins. It is then that the deer antler velvet is harvested for its medicinal and performance qualities. As the antlers reach their final size, the cartilage gradually converts to bone. In the final process, the antler has no blood or nerve supply. Within hours of removal, deer are back outside free to graze on open prairie lands.

In New Zealand, deer antler removal is governed by an industry code of practice. The code emphasizes the reduction of stress in deer through correct handling, and velvet removal techniques that prevent injury, stress, or pain.

Dr. Lindsay Matthews, one of New Zealand's prominent animal behaviorists, has studied the behavior of stags during and after velvetting at the Ruakara Research Center in Hamilton. He found that velvetted stags displayed no more stress or aversion to the velvetting process than unvelvetted stags. In addition there was no discernible difference in heart rates and blood stress levels between velvetted and unvelvetted stags.

## ANTI-AGING PROPERTIES

Deer Antler contains many constituents that contribute to its wide ranging health effects. Growth Factors derived from Deer Antler, promises to be the most important development in the anti-aging medicine field. Growth factors are stimulated by Human Growth Hormone and released by the liver. Deer antler is a natural source of IGF-1, which can improve muscular development, reduce fat, and increase endurance.

Recent studies in New Zealand have found a wide variety of growth factors, including IGF, Transforming Growth Factor (TGF), Androgen Induced Growth Factor (FGF8), Bone Morphogenetic Protein (BMP4), and Neurotrophin (NT3), are present in deer antler. (Francis 1998, Garcia 1997, DeAlwis 1997)

Dr.B.X. Wang, et. al, have found deer antler to have significant anti aging effects because of the presence of phosphatidyl choline, phosphatidyl ethanolamines sphingomyelin, and the nucleotides hypoxanthine and uridine which are potent at reducing MAO activity.

Dr. Wang also provided evidence that deer antler could promote memory and learning functions through the presence of the polyamines spermine, spermidine, and putrescine which stimulate RNA. He demonstrated that antler extract could increase plasma testosterone in male mice, increase liver protein content, increase liver superoxide dismutase activity, and decrease monamine oxidase activity in the brain.

Deer Antler also contains Chondroitin Sulfate A, an extremely powerful anti-inflammatory agent shown by Dr. Lester Morrison to reverse atherosclerosis and dramatically improve circulation. Dr. Morrison conducted a six year study demonstrating that Chondroitin Sulphate A reduces the incidence of fatal heart attacks and strokes by more than 400%

## COMPOSITION OF DEER ANTLER

Deer Antler is composed of 50% amino acids. It also includes chondrocytes, chondroblasts, glucosamine, glycosaminoglycans, erythropoietin, hemotopoietin, trace minerals, chondroitin sulfate A, and anti-inflammatory prostaglandins.

## DEER VELVET LINK WITH ATHLETES

Since the 1930s, Russian scientists have developed and extensively tested the extract from antler velvet known as pantocrin (from the Russian pantui — the whole velvet antler) and clinical testing results show an overwhelming recurring theme — there is no doubt that it has a powerful tonic and revitalising effect on the individual, especially on a person weakened by illness or stress.

## IMPROVED ATHLETIC PERFORMANCE

The success of Russian athletes has been attributed to the use of deer velvet in Olympic training programs, significantly increasing endurance and muscular strength, and attracting the attention of sports doctors and trainers around the world who are seeking safe and natural alternatives to synthetic steroids.

Dr. Arkady Koltun, Chairman of the Medical Committee for the Russian Bodybuilding Federation, is one of the foremost Russian researchers into anabolic agents that can improve the performance of athletes. Working with kayakers, weightlifters, bodybuilders and power lifters, Dr Koltun found that deer velvet actually increases muscular strength — a property which is termed myotropic. He also found that it had potent nerve strengthening, or neurotropic properties and is beneficial in treating infectious diseases, fatigue and hypertension.

Dr. Koltun revealed that Deer Antler has induced significant increases in endurance as well. After using Deer Antler in the pre-Olympic festival in Russia, two of Dr. Koltun's top kayakers and a world-record holder in canoeing achieved remarkable improved results. These sportsman not only stabilized their racing time, but dramatically increased their speed in rowing. All received gold medals and established new world records. These preliminary findings indicate that deer antler velvet may work synergistically with creatine, a popular supplement that builds muscle.

In another study, New Zealand athletes who took deer velvet supplements showed almost twice the improvement of the placebo group in the amount of work they were able to do in a strength test. Twenty-four physical education students participated in a "double-blind" trial, where neither the athletes nor the trial co-ordinator knew which treatment each group was receiving.

The 10-week project was conducted at Otago University and medically supervised by Dr. David Gerrard, sports physician and senior lecturer in sports and medicine, and Dr. Gordon Sleivert, exercise physiologist.

Dr. Gerrard believes, "Now we've developed a scientifically rigorous testing basis. We would like to concentrate on velvet's effect in building endurance and delaying fatigue—a traditional usage of velvet."

The athletes were also tested for changes in body composition using a sophisticated DEXA scanner. Although all students lost body fat as a percentage of their body weight, the group taking deer velvet lost more body fat than the control group.

Deer Antler Extract was tested in athletes running 3,000 meters. 50 men aged 18-23 were compared without any supplement and with 20ml of deer antler extract 30 minutes before the second race. The average time to complete the event was lowered from 14 minutes 48 seconds to 14 minutes 4 seconds. In a second experiment the antler extract was administered for twelve days and the race was rerun. The time to complete the event was reduced in the majority of subjects. Interestingly, improvement in this test was noted in runners who were in the top, middle, and lower categories of the group in terms of initial performance. That is deer antler extract improved the performance of above as well as below average athletes!

New Zealand, Russian and Chinese studies have shown that deer antler velvet may play a valuable role in sports during training, performance, recovery, and in the treatment of injury. Studies indicate that deer velvet supplements may improve athletic performance by increasing strength and endurance, increasing oxygen-carrying capacity of the blood, repairing minor tissue damage from exertion, and boosting the immune system of athletes.

**Top golfer Bob Charles takes deer antler daily. At the British Open two years ago he said along with healthy eating habits and vitamins, deer velvet every day kept him feeling young. "I don't feel a day over 30," he said. "I'm 60, going on 30."**

## STRESS REDUCTION

Experimental research has demonstrated that velvet preparations can protect the body from stress such as heat, cold and electric shock. Russian studies report that patients treated with velvet extract prior to surgery had significantly lower levels of stress indicators in the blood. According to another Russian researcher, Dr Korobkov, velvet extract acts "by accelerating the body's natural restorative processes and by increasing the body's resistance to unfavorable external influence." Recent Chinese research suggests that velvet preparations showed anti-aging effects by reducing signs of senility, very possibly due to its hormonal effects.

## ACCELERATED HEALING EFFECTS IN INJURIES, WOUNDS, AND INFLAMMATION

One of the outstanding properties of antler velvet is its ability to alleviate the pain of inflammation, such as joint pain, swelling and tissue injury. In other studies from Japan, velvet extract has been shown to speed up the healing of damaged nerve tissue, and also aids in the recovery of patients suffering from cervical and whiplash injuries. It has been suggested that the high concentrations of hormone like substances in deer velvet are responsible for the rapid tissue repair after injury, or even the cartilage concentration of the antler itself.

Over 35 years ago Dr John F. Prudden and other researchers discovered such elements in cartilage as N-Acetyl-Glucosamine, glycosaminoglycans and synoviocytes that have all been associated with accelerated wound healing.

## SEXUAL ENHANCEMENT WITH DEER ANTLER

Deer Antler's potent sexual enhancing properties have been valued throughout Asia for centuries. It balances the hormones necessary for healthy sexual functioning and restores the body's reserves of energy depleted by stress or exhaustion. It has the proven ability to increase physical stamina and sexual vitality.

The effects of velvet extract on people with sexual disorders has been widely

documented, especially by Russian clinical researchers, with the result that while ginseng used to be famous for treating sex problems in Russian clinics, now velvet extract has taken over for this purpose. It is regarded as one of the most effective known remedies for impotence, increasing the libido and the general sexual function.

Deer Antler has been shown to normalize hormonal function. It is effective in menstruation and menopausal imbalances, as well as demonstrating androgenic and gonadotrophic effects, meaning it helps regulate the function of the sexual organs.

Velvet antler is rich in amino acids and many other nutrients that are vital to the health and sexual well being of the individual. These include precursors for growth hormone, leutinizing hormone (which stimulates the production of testosterone in the testis) and anti-inflammatory prostaglandins. It naturally boosts testosterone levels in the body.

When velvet extract was given to young male mice, the weight of their sexual glands increased by up to 50%, and it had a measurable effect on mature as well as immature animals.

While the West looks to chemical drugs to treat sexual problems such as erectile dysfunction, velvet is widely used for this purpose in China and has been for centuries. While drugs such as Viagra may be a temporary fix their negative side effects are now becoming more apparent. Shots of testosterone may affect a temporary solution in restoring sexual capacity, but go hand in hand with the possibility of speeding up the decline of the body's own production of sex hormone.

Velvet not only increases sexual desire and capacity, but also reduces tension, anxiety and stress, all of which affect sexual performance. It lowers cholesterol levels and normalizes blood pressure, physical causes which can lead to erectile dysfunction. It also builds the blood and improves muscle tone. In fact, velvet builds endurance on every level.

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