

Bulk Factors™ 1st—The Foundation Formula for All Bodybuilding Programs

Any new body builder, or any bodybuilder for whom cost is a factor will get more bang for the buck from using **Bulk Factors™**. In fact, whether or not finances are a concern, **Bulk Factors™** should be the first product bodybuilders take everyday.

Here are two major reasons why: First, our muscles' insatiable need for *insulin-like growth factor-1* (which starts declining at age 19) and, second, our exposure to too many environmental *xenoestrogens*.

If you want muscle instead of fat and you are over the age of 20, you're probably going to need some help from **insulin-like growth factor-1** (also known as **IGF-1**).

Indeed, one of the prime causes of striking loss of muscle and strength as we age is a diminished supply of circulating IGF-1, notes a researcher from the Department of Anatomy and Human Biology, University of Western Australia in a recent issue of the journal *Biogerontology*. Muscle regeneration is not significantly impaired with age. Instead, as we age our muscles atrophy due to death of the special types of muscle fibers called fast type 2B myofibers.

The death of such muscle fibers is "due to the combined effects of many age-related changes," especially suboptimal nutrition (including lack of vitamin D); decreased hormone levels (e.g. growth hormone, testosterone), reduced physical activity; and use of medical drugs such as corticosteroids, dexamethasone, and cyclosporin. All of these influences, combined, lead to reduced IGF-1 signaling.

Muscles Cry Out for IGF-1

Our aging bodies truly need IGF-1 if we are to maintain youthful muscle mass. **Insulin-like growth factor-1 is a small peptide with a more potent growth effect than any known compound—including all steroids.** It acts as a second messenger for growth hormone, carrying out growth hormone effects. Both growth hormone and its mediator, IGF-1 may actually help treat the blueprint of aging, keeping the cells in as healthy a state as possible. While both growth hormone and IGF-1 are essential to our health,

IGF-1 takes the work of growth hormone one step further and facilitates the transport of nucleic acids into the actual nucleus of the cell where the DNA resides, giving it the raw materials needed to repair damage and initiate healthy cell division.

Clearly, based on experimental research, if we can restore the body's levels of IGF-1 to more youthful times, the body will respond. In the September 1998 issue of the *American Journal of Physiology*, researchers reported increasing IGF-1 levels to more youthful times "resulted in an increased skeletal muscle mass (10-22%) and a 56% increase in IGF-1 stimulated rates of protein synthesis." They concluded that no matter what our chronological age, we can always respond in a healthful manner to youthful levels of IGF-1 and this "may have valuable physiological consequences."

There are many ways to increase IGF-1 levels to more youthful times. Perhaps the best approach is a combination of exercise and supplementation. In this case, scientists at Immune-Tree Group have utilized a method to isolate those fractions of organic bovine colostrum that are rich in insulin-like growth factor-1. In a base of whole first milking colostrum, this specially filtered IGF-1 rich colostrum is now found in **Bulk Factors™** from the Immune-Tree Group. The difference it can make is a remarkable improvement in your appearance.

The Xenoestrogen Dilemma

The second reason why we think **Bulk Factors™** is so important has to do with modern man's overwhelming exposure to xenoestrogenic compounds. Due to



the pervasive exposure of men and women to environmental xenoestrogens—synthetic chemicals that mimic the female hormone estrogen—most of us today, including males, are experiencing estrogen dominance. These chemicals are ubiquitous in the environment and are found in plastics such as those that line canned foods, the plastic water bottles we drink from, as well as on our foods in the guise of widely used pesticides such as methoxychlor and dicofol. Xenoestrogens are even found in men's skin care products. It is almost impossible today for men to escape from exposure to xenoestrogens.

This can have profound influences on male health. For example, testicular cancer, prostate enlargement and reproductive difficulties are both on the rise and associated with xenoestrogen exposures. The problem is even more confounding for bodybuilders who need the influence of testos-

terone, and are seeking to improve their testosterone/estrogen ratio.

If a man is estrogen-dominant, every supplement on the shelf in relationship to bodybuilding will not be as effective as it could be.

In such cases, men's tissues are likely to produce high levels of toxic forms of estrogen (16-alpha-hydroxyestrone ["bad" estrogen metabolites]) and testosterone (dihydrotestosterone), at the expense of more beneficial non-toxic forms of these hormones (2-hydroxyestrone ["good" estrogen metabolites] and "free" testosterone).

Enter **Bulk Factors™**, a foundation supplement for bodybuilders whose synergistic formula also provides **diindolylmethane**, or **DIM** for short, a plant indole with health-promoting properties. DIM and other plant indoles are found in all cruciferous vegetables. Note experts, the use of DIM supplements provides the first safe and effective estrogen-management system for men and women.

Recently, regular use of supplementary DIM and its plant indole relatives has shown that many of its health-promoting effects arise from a beneficial shift in the balance of the sex hormones, estrogen and testosterone, note authors Michael A. Zeligs, M.D., and A. Scott Connelly, M.D., in *All About DIM* (Avery 2000).

Activates Testosterone

DIM also helps to eliminate "bad" estrogen from the male body by promoting its conversion into the "good"

metabolites, note Drs. Zeligs and Connelly. These metabolites have a knack for freeing up testosterone by bumping it off the testosterone-binding proteins circulating in the bloodstream. The end result is a healthier balance of testosterone to estrogen and more "free" testosterone circulating in the body. This provides hormonal signals for muscles to grow by adding more of the structural proteins needed for size, strength, and movement. This metabolic state, favoring muscle growth, is called anabolism. Stronger muscles have a greater capacity to burn fat and maintain a youthful, lean body composition, which helps enhance testosterone activity and thereby supports the desired muscle growth. In scientific studies, high levels of testosterone and low levels of estrogen have been linked to lean body mass, an efficient fat-burning metabolism, and low abdominal obesity. Other benefits from testosterone are improved mood, more interest in sex, and better physical conditioning

In summary, the whole function of DIM is to deal with the estrogen-testosterone ratio. "Improving estrogen metabolism with DIM results in direct and indirect support for more efficient weight training and muscle growth," note Zeligs and Connelly.

Additional Anabolic Boosters

Bulk Factors™ with DIM and IGF-1-rich colostrum also provides **meth-**

oxyisoflavone and **7 isopropoxyisoflavone**, as well as **creatine monohydrate**.

Methoxyisoflavone is a potent, legal anabolic compound first developed by a Hungarian pharmaceutical company to combat wasting conditions associated with cancer and AIDS. Methoxyisoflavone dramatically reduces cortisol levels while significantly increasing protein utilization, synthesis, and nitrogen retention.

Also known as **ipriflavone**, 7 isopropoxyisoflavone was first developed in the 1970s by a European company looking for nutrient partitioning agents that could help shuttle vital muscle building nutrients away from adipose (fat) tissue and toward protein (muscle) tissue. It is also considered an anti-estrogenic compound, aiding the body by reducing exposure to more toxic estrogenic compounds. This compound significantly increases protein synthesis and nitrogen retention while preventing muscle breakdown and greatly enhancing recovery, all without negative effects on the body's endocrine system.

Meanwhile, creatine is a premiere nutrient to improve high intensity exercise performance. Creatine, supplied in generous amounts in **Bulk Factors™**, is critical to bodybuilding success. ❖

REFERENCES

Grounds, M.D. "Reasons for the degeneration of ageing skeletal muscle: a central role for IGF-1 signalling." *Biogerontology*, 2002;3(1-2):19-24.
 Willis, P.E., et al. "Restoration of insulin-like growth factor I action in skeletal muscle of old mice." *Am J Physiol*, 1998;275(3 Pt 1):E525-530.



The Doctors' Prescription

We are all dealing with our estrogen-dominant environment. Most of us are experiencing decreasing circulating levels of IGF-1. **Bulk Factors™** addresses these two key issues.

Our message to bodybuilders is that **Bulk Factors™** may not be the only preferred nutritional supplement but its composition certainly makes it a foundation supplement, one that almost all bodybuilders today will find necessary in order to maximize their other nutritional supplements. For bodybuilders concerned with the high cost of assorted nutritional supplements, **Bulk Factors™**, rich with IGF-1 in a base of whole first milking colostrum, DIM, methoxyisoflavone, 7 isopropoxyisoflavone and creatine monohydrate, represents an all-around, cost-effective bodybuilding supplement that should be the first choice of all bodybuilders—from beginners to competitive professionals.

Dosage—The usual dosage for **Bulk Factors™** is three capsules, twice daily, taken on an empty stomach with water.

Availability—Immune-Tree's **Bulk Factors™** is available at natural health centers and from health professionals. If you have any trouble finding a source for it, call Immune-Tree toll-free at (888) 484-8671. Health professionals can call (800) 916-3681.