

## Clinical Insights



## Whey Protein Benefits & Research

### Why Whey Protein Seems To Be Nature's Perfect Food

Did you know that your body is mainly made of protein?...your hair, nails, blood, bones, muscles, organs, ligaments, immune system and nerves are all made of protein! In the course of everyday living, (not to mention if you have just suffered an injury), these tissues break down, wear out and must be regularly replaced and repaired. To do that job, you must provide your body with a steady supply of high quality protein every single day. (And we're not talking about hamburgers, hot dogs or bacon here!)

The saturated fats from those "less lean sources" of protein such as burgers, sausage, cheese and bacon clog up your arteries, slow down your metabolism and *are not the best* sources of protein for your body! Lean protein sources, such as undenatured whey protein powder drinks, egg whites, skinless chicken and turkey breasts are your best choices for protein consumption. And...undenatured whey protein, such as Dream Protein, is the "SUPERSTAR" of proteins!

### "OK, (You May Ask) But I Eat Really Well...So, Why Do I Still Need Whey Protein?"

It's all about understanding the "Protein Quality" & "Biological Value" (BV) of foods. The **quality of dietary proteins** is a vital factor in determining what proteins are the most beneficial and valuable in terms of how the body breaks down and uses all the essential nutrients. **Biological Value (BV) means that when you consume the protein, more of it is used by the body than is passed out of the body unused.**

The **Biological Value (BV) of Dietary Proteins** shows you that Whey Protein is at the "head of the class" and *no other protein source comes close!*

<u>Protein</u>	<u>Biological Value</u>
<b>Whey Protein</b>	<b>104</b>
Beef	80
Fish	79
Soy	74
Beans	49

### Protein Is The Only "Food Group" That Your Body Doesn't Store!

You may be very aware that your body stores fat and carbohydrates...but you may not know that your body *does not* store protein. So, protein or amino acids, if not supplied to the body on a daily basis, must be "derived from the body". If you don't supply your body with what it needs, especially in times of injury...it breaks down your existing muscle to get the protein it needs to function.

**Muscle is a very expensive "bank account" for the body to draw from!**

## If You're Suffering From An Injury... Undenatured Whey Protein May Be An Essential Ingredient For Recovery

Ligaments and connective tissue are designed to prevent abnormal motion of joints and spinal vertebrae. They are composed of a protein substance called collagen. An injury to a ligament or connective tissue can cause abnormal motion in spinal joints creating local swelling and pain.

If you have suffered an injury in an auto or work accident, have slipped or fallen, experienced a sprain, strain or overexertion, *as soon as possible after injury*, you should increase *dietary protein*, water intake and begin taking a high quality, multivitamin-mineral supplement to aid in the synthesis, repair and regeneration of the various connective tissues involved in the healing process.

### Your Body Goes Through 3 Phases of Healing...

**(1) Inflammatory Phase:** Swelling occurs. This is a necessary protective mechanism for your body and you want this phase to be as short as possible so healing can begin.

**(2) Fibroblastic Phase:** Rebuilding stage that provides strength and a new tissue surface.

**(3) Remodeling Phase:** Strengthening of tissue occurs and normal function returns.

If your diet is lacking in high quality amino acids (protein) during recovery from acute pain, an accident or injury, your *body's ability to heal and repair could be compromised!*

### Research Shows Whey Protein Helps The Body Heal & Repair Injured Tissue

According to published research in *Nutrition Applied to Injury Rehabilitation and Sports Medicine*, 1995; 5:S39-S61, L. Bucci, Ph.D. writes: a protein deficiency during injury delays all aspects of healing, including a lengthening of the inflammatory phase. It's critical that protein and nutrient supplementation occur as soon as possible after damage to connective tissue to prevent the body from attaining a generalized lysis (breakdown) stage. (Lysis is a reserve mechanism the body uses. It literally takes the nutrients it needs from other areas of your body and brings those nutrients to the injured tissue for repair.)

*Better Nutrition Magazine, November 2003*, published an article by Edmund R. Burke, Ph.D., University of Colorado, called "**Whey Protein No Fat – And May Fight Cancer.**" In this article, Dr. Burke goes over 12-15 significant health benefits from using a high quality whey protein powder. **At least 7 of the therapeutic benefits listed dealt directly with soft tissue and ligamentous repair and healing.** The remaining health benefits deal with other important health issues such as energy production, immune enhancement, fighting infection and perhaps as Dr. Burke said, "even fighting cancer."

### Exactly How Can Whey Protein Help Me Heal?

Undenatured Whey Protein, like Dream Protein, contains "Proline". This remarkable substance is a glucogenic amino acid that is an essential component of Collagen. Proline helps to speed up healing of **damaged cartilage**, helps **muscle growth** and **strengthens joints & tendons**. (*Nature*, 194: 555, 1962). All the Branched Chain Amino Acids (BCAA's), Leucine, Isoleucine, Valine along with Arginine & Glycine help to **promote healing of connective tissue, bones, skin and muscle**. Undenatured Whey Protein contains the highest concentrations of BCAA's of any protein found in nature! This BCAA content is important because they are an integral part of muscle development and the Quadra-peptides found in whey protein isolate have even been shown to have **pain- killing effects!**

**Taking Dream Protein during times of injury helps ensure that your body has all the "building blocks" it needs to help repair those injuries.**

Dream Protein is a naturally sweetened, balanced protein formula that includes all the essential and non-essential amino acids, including the sulphur-containing amino acids: proline, lysine and cystine, which are the most important amino acids for the production of collagen.

## Peer-Reviewed Research Shows “Whey Protein” Helps Prevent & Treat Osteoporosis By Activating Osteoblasts

*Peer-Reviewed Professional Journal: Biochem Biophys Res Commun. 223(2): 445-449, 1996; Takada, Y., et al. “Whey protein stimulated the proliferation and differentiation of osteoblastic cells.”*

**OSTEOPOROSIS** is a condition where bones become less dense from osteoclastic versus osteoblastic dominance. 77% of osteoporosis patients are females, with 33% of females and 15% of males experiencing **Hip Fracture** as a result. Female osteoporosis typically commences about 15 years prior to menopause with bone losses occurring at the rate of 1% per year. Individuals with osteoporosis have an increase in **Backache** described as “sharp stabbing pain in the spine,” plus show a greater risk of **Atherosclerosis, Cachexia and Fractures.**

### Health Benefits of Supplemental Dietary Protein for Osteoporosis.

Additional *Peer-Reviewed Professional Journal Research* shows that “Supplemental Dietary Protein of 20 grams per day in addition to normal Protein intake via the diet accelerates the healing of **Fractures** and helps to **Prevent Osteoporotic Fractures.**” (*American Journal of Clinical Nutrition, 69(1): 147-152, 1999.*) & (*Nutrition Review, 56:337-340, 1998.*)

### Protein & Osteoporosis

Excessive consumption of dietary proteins was once (until 1997) thought to increase the risk of Osteoporosis by causing the excretion of calcium from the bones. A study undertaken during 1997 demonstrated that urinary calcium loss was no higher in people consuming 450 grams of Protein per day compared to people consuming 5 grams of Protein per day. In fact the research went on to say, “**This study provides strong evidence for increasing daily protein intake as a means of osteoporosis prevention.**” (*American Journal of Clinical Nutrition. 69:147-152, 1992*) & (*Food Chem News. Nov 7, 1997:9*)

### Power Boost Your Immune System & Help Fight Infection!

Undenatured Whey Protein helps to stimulate the production of something very important to you...Glutathione. It's a tri-peptide that deals with immunity and is also an antioxidant & detoxifying agent! Undenatured whey protein has benefits similar to those of mother's milk and its positive effect in helping to boost the immune system is well documented.

If you are lactose-intolerant...no need to worry! Using a good, undenatured whey protein, such as Dream Protein, that contains less than 1% fat and lactose will help even the most sensitive people to digest this protein and receive all the great benefits!

### Research Suggests Whey Protein May Have Anti-Aging Benefits

Researchers are always looking for the “fountain of youth”... things that help to slow down the aging process! While we can't say that it will prevent you from growing old... research does show that increasing the body's production of Glutathione may inhibit the progression of the aging process since old cells contain 20% to 30% less Glutathione compared to young cells! Here's the evidence... (*Clin Invest Med., 12(6):343-349,1989*)

## Additional Benefits of Whey Protein

- ◆ May help to increase serotonin activity, the body's "anti-depressive" to promote **restful sleep**.
- ◆ May help to decrease **stress** and **reduces cortisol** concentration levels.
- ◆ May help in **enhancing energy** levels.
- ◆ May help to **improve mood** and **memory loss** under stress.
- ◆ May help to **build lean body mass** and **reduce body fat**.
- ◆ May help to keep your **metabolic rate high** and help to **satisfy your appetite!**

### References:

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*American Journal of Clinical Nutrition*; 2002 Jun; 75(6) 1051-1056

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*Calder PC, Yaqoob P. Glutamine and the immune system. Amino Acids* 1999; 227-41

\*All 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. It is a dietary supplement intended solely for nutritional support.