

SPECIAL REPORT

The Benefits of

WHEY PROTEIN

Jonathan Landsman



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Special Report: The Benefits of Whey Protein by Jonathan Landsman

Whey protein, a dietary supplement with an impressive array of health benefits, is comprised of a group of high-quality proteins isolated from whey, the fluid that remains after milk has been curdled in order to make cheese.



But this by-product of cheese manufacturing is no ordinary “leftover” - far from it. In reality, whey protein is a multifunctional superfood, which researchers say can help build lean muscle mass, protect against age-related cognitive decline, and prevent a long list of life-threatening diseases, including cancer. According to emerging data, this remarkable food may also work at the cellular level to prolong your life.

Anti-aging effects (Are you interested in a longer, healthier life?)



In recent animal studies, researchers found that drastically reducing daily caloric intake – but not to the point of malnutrition – can result in significantly longer lifespan. Although the results were promising, researchers say it would be difficult for humans to attain them, as most people simply don’t have the willpower to limit their food intake to the point that they would receive life-prolonging benefits.

However, whey protein may offer a solution. Exceptionally rich in leucine, isoleucine, and valine, a trio of branched chain amino acids, whey protein appears to imitate the way calorie restriction works to inhibit aging and protect against age-related disease.

In a study published in 2010 in *Cell Metabolism*, researchers found that middle-aged mice given these branched chain amino acids experienced a lifespan increase of 12 percent. While this increase might not appear significant at first glance, in human terms it corresponds to almost a decade of additional life – a very substantial gain. And, the fact that whey protein prolonged life in mice that were no longer young seems to indicate that it could be effective even when given in later life.

When the team examined the mechanism by which whey protein combats aging, they found it appears to work in the same way calorie restriction does: by triggering the production of new mitochondria - the “power generators” of cells - stimulating protein synthesis and scavenging destructive free radicals in the body. Researchers are particularly interested in the fact that

they protein increases the expression of sirtuin 1, the gene responsible for longevity in mammals.

The team concluded that whey protein could be classified as a calorie restriction mimetic, a substance that mimics the effects of restriction, without actual reduction in food intake. While earlier studies had previously identified assorted antioxidants such as resveratrol, quercetin and grape seed extract as CR-mimetics, whey protein is the first whole food to meet the description.

Anticancer properties (Defend yourself against cancer cell growth)

In addition to its overall anti-aging effects, whey protein promotes longevity by helping to protect against cancer. Whey protein's cancer-preventive benefits stem from its extraordinarily high levels of the amino acid cysteine, used by the body to produce a natural protective compound called glutathione. Made of three linked amino acids, cysteine, glycine and glutamic acid, glutathione is the body's premier antioxidant, combating oxidative stress while helping to detoxify carcinogens, including environmental pollutants, heavy metals and ultraviolet light.

Glutathione also helps to inhibit the growth of cancer cells and tumors by stepping up production of natural killer cells, helper T cells and cytotoxic T cells – which all function as part of the body's natural defense system to ward off cancer and pathogens.

Lactoferrin, an anti-inflammatory protein also found in breast milk, is another weapon in whey protein's disease-fighting arsenal. Lactoferrin inhibits pathogenic microbes, while supporting the growth of beneficial bacteria. Like glutathione, lactoferrin inhibits cancer cells and enhances immunity.

A healthy way to avoid the threat of diabetes



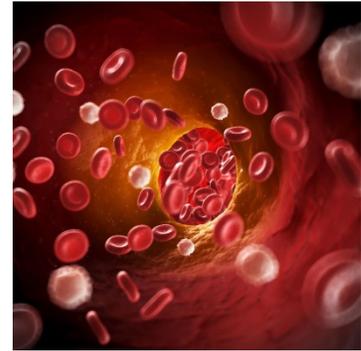
Whey protein also can substantially lower blood sugar, and help prevent the development of type-2 diabetes. In one study, published in 2011 in *Journal of Nutrition*, mice were placed on a high-fat diet for 11 weeks, which would ordinarily set the stage for excessive weight gain, which in turn can trigger the onset of type-2 diabetes and fatty liver disease.

Some of the mice were given whey protein, while mice in the control group received no whey supplementation. The whey protein group had improved glucose tolerance and insulin sensitivity, with higher metabolic rate, lower weight and better percentages of lean body mass than mice in the control group.

And whey protein, which accomplishes the reduction of blood sugar levels without a corresponding rise in insulin secretion, seems to be effective in reducing blood sugar levels even when study participants were insulin-resistant.

Improve your circulation and REVERSE cardiovascular disease naturally

Researchers have been particularly impressed with the way whey protein combats heart disease, the leading cause of death in the Western world. Whey protein reduces both high blood pressure and unhealthy cholesterol, two primary contributors to cardiovascular problems. In fact, researchers have found that it actually inhibits the liver from producing harmful LDL cholesterol, with animal studies indicating that it can decrease cholesterol levels by as much as 30 percent.



And, unlike pharmaceutical medications, whey protein achieves its results safely and without side effects.

It's also worth noting that whey is considered the "healthy" part of milk; another milk constituent, casein, has been linked with promoting cancer and raising levels of unhealthy cholesterol.

Sharpen the mind and STOP age-related cognitive decline



Good news for an ever-growing elderly population, whey counteracts some effects of aging - including declining levels of serotonin, a neurotransmitter that supports stable moods and restful sleep. Whey protein's high concentrations of tryptophan, a serotonin precursor, help boost levels of serotonin, promoting a sense of well-being.

A double-blind study published, in 2002, in the *American Journal of Clinical Nutrition* showed that one whey fraction, alpha-lactalbumin, increases tryptophan blood levels; other clinical studies have supported whey protein's ability to improve memory.

Finally, a 2011 scientific review published in *British Journal of Nutrition* showed that alpha-lactalbumin has a protective effect against age-related decline.

Reduce your risk of inflammatory bowel disease and ulcers

Researchers tell us that people with low levels of glutathione and other antioxidants are more likely to suffer from inflammatory bowel disease (IBD) - a serious gastrointestinal tract disorder. Whey protein's ability to pump up glutathione levels causes an anti-inflammatory effect that inhibits the development of IBD.

Other constituents of whey protein have beneficial effects on the digestive tract as well. Lactose in whey promotes the growth and survival of beneficial bifidobacteria, which in turn support essential digestive health by emitting antimicrobial substances that target pathogens and boost immune response. The alpha-lactalbumin in whey protein protects against gastric injury and the formation of gastric ulcers, while glutamine, an amino acid found abundantly in whey, nourishes epithelial cells that line the small intestine.

Are you looking to maximize immune function?



Animal research has shown that a diet supplemented with whey protein causes increased levels of disease-fighting white blood cells, lymphocytes and cytokines, in turn leading to more efficient immune function and decreasing the severity of infections.

Several studies have demonstrated that whey protein is up to five times more effective than proteins from beef, fish, spirulina maxima, casein, wheat and soy in boosting immune response and creating antibodies.

Whey protein significantly improves adaptive immune reactivity - the very essence of immune system defense.

Whey protein can help you lose excess body weight

Due to its ability to promote fat loss while supporting lean muscle mass, whey protein is commonly used by bodybuilders. But you don't need to be an athlete or weightlifter to benefit from whey protein's fat-reducing abilities.

In a scientific review of previous studies published in 2013 in the *Journal of Nutritional Biochemistry*, the authors concluded that whey's peptides, proteins and branched-chain amino acids enhance the release of hormones that can cause a feeling of fullness, resulting in reduced food intake. The authors also credited whey protein with influencing glucose homeostasis and optimizing lean muscle mass, and noted that it shows promise as a treatment for obesity.



Reverse age-related muscle loss and wasting plus strengthen bones



Age-related muscle loss, also called muscle wasting and sarcopenia, is a potentially debilitating condition that leads to frailty in elderly people, while raising risk of disabling falls and fractures. Sarcopenia develops when aging muscles become resistant to the effects of leucine, the branched chain amino acid which modulates the body's anabolic drive and promotes muscle growth. Whey protein's high levels of leucine help to counteract this deficit and stimulate renewed muscle building activity.

Cachexia, another age-related condition, involves a dramatic overall loss of weight, muscle and strength. Although cachexia is most often seen in aged patients, it can also accompany serious diseases such as cancer and AIDS, and is a primary cause of death.

Whey protein, with its pronounced muscle building effects, can alleviate cachexia and increase muscle mass. In one study of HIV-infected men published in 1993 in *Clinical and Investigative Medicine*, most subjects who were given whey protein returned to ideal body weight.

Whey protein also promotes the formation of strong bones and prevents bone resorption - the breaking down of bone tissue.

With all 18 essential amino acids and an impressive assortment of health-promoting protein fractions, whey protein is close to being a perfect food. It is anti-aging, anti-inflammatory, antimicrobial and protective against a variety of life-threatening diseases; in fact, it is hard to think of a body system or function that whey protein doesn't benefit.

Buyer beware: All whey protein products are NOT created equal

Like anything else, many food manufacturers look to 'cut corners'; save money and maximize profit – at the expense of product integrity and quality. When looking for the best quality, whey protein – here's what I suggest:

1. Grass-fed
2. No added growth hormones
3. No pesticides and chemical-free pastures
4. Non-GMO (genetically modified organisms)
5. Low-heat processed (most whey protein is over-heated and denatured)
6. Look for "whey protein concentrate" – it's the least processed
7. No additives or 'cheap' fillers for obvious reasons.



High quality cow whey will provide all the health benefits above. However, I have found superior whey - that meets all my criteria for the highest quality. LuvByNature.com produces a product called, "Grazing Goat Whey Protein" – which I personally use on a daily basis. (And, I love it!)

According to natural health experts, whey protein derived from goat milk offers the maximum benefits – a consequence of the many advantages of goat milk over cow milk.

Goat whey protein contains some of the highest levels of branched chain amino acids (BCAAs) found in any natural food source. Goat whey protein contains a higher biological value (104+) than any other food on the planet including bovine (cow) whey protein.

Because it comes from all-natural, wholesome goat milk, this protein is more digestible and absorbable than any other whey protein on the market.

Goat milk is less likely to cause allergic reactions

Allergic reactions to milk, which can cause sensitive individuals to experience vomiting, diarrhea and skin rashes, are caused by an allergen known as alpha s1 casein. This is why many natural health experts like whey protein from goat milk because it contains 89 percent less of this allergen than cow milk, making it much less likely to trigger reactions.



In fact, French researchers – in a study of infants allergic to cow milk - found that 93 percent of the infants could drink goat milk with almost no side effects.

Goat milk does NOT need to be homogenized

Commercially-sold milk is homogenized in order to neutralize its tendency to separate into unappetizing-looking layers. Unfortunately, this process releases a harmful free radical called xanthine oxidase - which can damage cell DNA. Goat milk not only contains smaller fat globules than cow milk, it has no separation-causing agglutinin, and therefore no need for the unhealthy commercial homogenization process.

Goat milk has superior digestibility

Smaller fat globules in goat milk, along with more plentiful medium chain fatty acids, make it more digestible than cow milk. The proteins also naturally form a smaller curd in the digestive system than the curd formed by cow's milk - so it is digested more fully.

Goat milk is less likely to trigger lactose intolerance

Lactose intolerance, with symptoms of flatulence, stomach cramping, bloating and diarrhea, is an unpleasant but common condition, as a significant part of the population has inadequate levels of the lactase enzyme that makes digestion of lactose possible.

However, many people who can't drink cow milk can still enjoy goat milk. The fact that goat milk has 10 percent less lactose than cow milk doesn't fully explain why so many lactose-intolerant individuals are able to relish it without uncomfortable side effects. Possibly it is due to the fact that goat milk's superior digestibility makes lactose digestion more efficient and effective, leaving little remaining lactose to "start trouble" in the digestive tract.

Goat milk is biochemically more compatible with human nutrition needs

Goat milk is nutritionally superior to cow's milk, and better suited to nourishing the human body. Goat milk contains more essential fatty acids, including linoleic and arachidonic acids, and is higher in vitamin B-6, niacin and vitamin A. Goat milk is also richer in potassium, which makes it more alkaline within the body than cow's milk. In addition, goat milk is more likely to be free of the antibiotics and growth hormones that are found in commercial cow milk.

To understand why goat milk dovetails so nicely with human requirements, consider an 8-pound baby - designed by nature to grow to a 100 to 200-pound adult - and an 8-pound baby goat, destined to become a 100 to 200-pound billy goat.

Then, visualize a 100-pound calf, which will transform into a massive adult cow weighing between 1200 and 1800 pounds. To achieve this result, cow's milk is by necessity laden with growth hormones and growth factors.

Which milk do you think is more suitable for human consumption and growth? In fact, it is easy to see why natural health experts warn that cow milk may play a large part in the obesity epidemic afflicting the American population.

Grass-fed, free-range, humanely-treated goats are lively, healthy, happy creatures that present a charming sight as they scamper, frolic and graze. Feeding in pastures that are free of pesticides, herbicides and chemicals, themselves free of antibiotics and hormones, they yield milk that is nutritious, flavorful and wholesome, along with a whey protein that is second to none for health benefits.

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