Undenatured whey for health, muscle, and cancer prevention

What is whey, and what’s it good for?

Whey is the fraction of protein from milk that remains liquid when milk is curdled. The curdled portion mostly represents casein – which has its uses, but that’s for another time. Hence whey has traditionally been a byproduct of cheese making, since only the curds are useful for that.

Whey is especially useful in bodybuilding and weightlifting, for a number of reasons. One is that it has a high content of branched-chain amino acids (BCAAs), and these are important as signals that tell muscle to grow. It’s also high in essential amino acids (EAAs), which are the kind the body cannot make for itself. Whey is about 25% BCAAs, and about 50% EAAs. Along the same lines, whey is a “fast” protein, so a whey shake delivers an abundant amount of the right kind of amino acids quickly into the bloodstream, and this is a crucial determinant of the amount of muscle protein synthesis one gets from a workout. Even absent a workout, a dose of protein can help overcome sarcopenia (muscle wasting) in older people, which I wrote about here.

Whey can help cure chronic illnesses

There’s another aspect to whey, which is that properly made, it contains a
number of biologically active peptides, that is, short-chain strings of amino acids. Among these are alpha-lactalbumin, beta-lactoglobulin, and immunoglobulins. The caveat here is “properly made”, since ordinary processing destroys these peptides, breaking them down into their constituent amino acids.

These biologically active peptides can be useful in other contexts besides weightlifting. They promote higher glutathione levels and a better immune response. As such, whey may be useful in cancer prevention. There’s even been a clinical trial on patients with metastatic breast cancer. There’s some evidence that this type of whey can improve cognition. They also may increase endurance performance.

The best whey options

One catch here is that the specific kind of whey used in many of the studies linked above is called Immunocal, and it’s quite expensive at over $130 for a pack of 30 10 gram packets. A serious weightlifter would burn through that in no time.

Another catch is that most whey of the kind sold in nutrition stores and the like is not undenatured. It’s manufactured using whey left from cheese manufacturing and by acid processing, which means that no biologically active peptides remain. This kind will definitely still build muscle, but if you want all the health benefits of whey, you need to look elsewhere.

So the kind I like and use myself is a cold-processed, undenatured whey made by NutraBio. It's got the biologically active peptides, but at around the same price as garden-variety whey. Be sure to get the concentrate, or the isolate, but not the hydrolyzed version, as this will not have those peptides.