

Whey: Health or Hype?

By Denie Hiestand (author of *Electrical Nutrition*)

Whey protein has become somewhat of a cult food among those who desire health and fitness. Its use has particularly grown in the Fitness clubs and body building fraternity. Also, whey protein is found in most Health Food shops and supermarkets, if not alone, then as an additive in various brands of protein powders and health enhancers.

Its widespread use has come about due to an effective and prolonged marketing campaign undertaken by the major food conglomerates distilling its many benefits.

Obviously there are a great many of us who have been convinced of the message contained in this marketing campaign which has taken a little known product of a few years ago, to become a major player in the health food and supplement industry. Not only that, but it is now almost mainstream by its inclusion in many of the snack bars and power bars found at most gas stations, sports resorts, health clubs and school canteens.

Before we explore the promoted health benefits of whey, lets look at where whey comes from and what it really is, so that we can all be more informed and be able to make our own decisions based on reality rather than a marketing campaign.

Whey – where does it come from and what is it?

Lets go back to the dawn of all mammals on earth. All mammals which include the animal kingdom of which our human bodies belong to, have since time began given birth to rather helpless babies. Helpless in the sense that we (and they) were unable to forage, gather or hunt for our food. Yet at birth and in the ensuing months thereafter we (and they) had the greatest requirement for nourishment than at any other time in our lives. Nature in all her incredible wisdom had to figure out how to supply this tremendous burst of ultra powerful, easily accessible life-giving wonder food to all the helpless (but cute) little babes.

Since all nutrition required for life is delivered to our cells via the blood, all nature had to do was to make the mothers blood available to the young. Before birth we lived off the nourishment contained in our mothers blood via our connection to the placenta and hence to our mothers blood supply, and after birth via the mammary glands (these glands are called “udders” on cows and most other animals and breasts on humans) in the form of milk. Nature obviously figured that this was also the best source of food after birth as milk is in essence blood without the red corpuscles in it. After birth we had our own working red corpuscles (they deliver oxygen from our lungs to our cells) so we did not need our mothers.

Accepting that milk is nature’s wonder-food and also that all baby animals can live and indeed thrive on all other animal’s milk, one can only be in awe of natures perfection. This perfection goes even further when we realize that from the time of conception on, the only “food” we actually use or need is protein. Protein is the only thing that builds our bodies. That is why when we were still in our mother’s tummy and immediately after birth, when the greatest demand for nourishment in our lives was required, the only food nature supplied was protein. Nature knew protein was required for every cell to develop, grow strong and be healthy. This protein was supplied in the form

of straight blood before birth and milk after birth. That is why we ended up with mammary glands (breasts) in very convenient places on our bodies.

However, nature has another magic trick to help our newborn in the first seventy-two hours of life, and that is called colostrum. (More on colostrum in a later chapter). Colostrum is sometimes called foremilk, and is the most highly concentrated form of protein containing the most life force we can have in our entire life. It kick-starts all life processes and gives us more energy than any other food. Nature did not get it wrong. After the first seventy-two hours the mothers colostrum turns to milk as we know it.

Milk contains all the growth components that are required to fully nourish us after colostrum's kick-start. Milk is made up of all the protein components that are contained in blood, all the minerals and essential amino and fatty acids, in fact, the complete food. As babies we can be fully nourished and thrive on milk alone for many years. Once again, nature did not get it wrong, we have survived many millions of years feeding ourselves natural foods without the degenerative diseases we are inflicted with today.

The composition of milk is made up of different protein complexes, some are used in the digestive process, others are carrier proteins and some are bonding proteins that bond the amino acids and essential fats to themselves as a delivery system to the cells. Still others have what is called the transfer factor that allows the energy or frequency of the components to become our life force. It is the whole electrical matrix; the complete bonded harmonious WHOLE that allows the energy transfer that becomes us.

Conventional nutrition does not look at or understand this electrical reality (read *Electrical Nutrition* for a greater understanding of the electrical interface of food). It is the whole that nature perfected over millions of years, that is food, and as quantum physics proves, when you dissect the whole, you do not have two or three bits of the whole, but rather you have components that interface and react totally differently with everything. As an example, if you dissected water (H₂O), you do not have three pieces of water, you have two bits that blow up very easily (hydrogen) and one bit that supports combustion...burning (oxygen), two things that water does not do to well.

So what has all this got to do with whey? You ask. O.K. lets proceed. Lets take some nice whole milk and add some extra enzymes and starter bacteria and leave at room temperature overnight. The next day we would find that the milk has somewhat coagulated (congealed), that is, some of the protein had fermented and thickened. The congealed part is called "curd" and the watery part that had not thickened is called "whey". If we then gathered up it all and squeezed it, the whey would run out and the curd would be left in a semi-soft block which if left, would slowly carry on fermenting into cheese. Yes this is how cheese, yogurt, kefir etc, is made. It is a natural lactose fermentation process, the same as what happens in our digestive tract. However, in our digestive tract the part that could not be fermented, the whey, would pass out our bowels and bladder as a waste product.

You see "whey" is the component of all milk that comprises the delivery system of the whole to the body. BUT it is not part of the fermentable protein, even though it is a protein in itself. It is a waste product in cheese making and also a waste product in our fermentation process called digestion. When we drink milk, which is up to 90% water, the whey and water help maintain softness to our bowel motions, that is why babies have such an easy time going (bowel motions) when fed breast or raw milk. The whey also

helps carry some excess toxins that bond to its protein wall out through our kidneys as we pass urine. Happy bowels and happy healthy kidneys, but only if we drink raw unpasteurized milk. It is the whole electrical matrix of milk that the body needs to be able to correctly carry out these functions.

As cheese is only made from the 8 to 10% of fermentable protein in the milk, there must be millions of gallons of whey the cheese plant has to dispose of. This brings us to the question of what happens to all the millions of gallons of whey left over? In the old days the farmers who had mixed farms, that is, some cows, some hogs and other animals, the whey was returned to the farm and fed back to the hogs etc. However, the farmers soon realized that if the whey was fed to any animal, even young hogs, they did not “do”, that is, they got sickly, and if you force fed them too much whey they soon died. In fact if you fed whey to any calf, lamb, piglet or any other animal, including a human, they would all get sickly and die. As farmers we have known this for eighty or more years. Whey is a non-fermenting protein that is toxic when taken in large doses. If it cannot ferment in the cheese making process then it will never ferment in our stomach during the short time digestion takes place. I remember years ago how the farm dogs would look at me in disgust when I tried to feed them whey. The farm cats and dogs will never drink whey, yet they will devour milk, cream and butter and never get sick, in fact they will thrive.

Soon the farmers did not want to take the whey back from the cheese factories (farm boys maybe “farm boys”, but they are not stupid) so the factories had to find other ways of disposal. Some factories just run the whey into the nearest river, that worked until all the fish started to die and that practice became illegal (if you drive around rural New Zealand, you will still see many old disused cheese factories and every one of them will be adjacent to a river – they were built there especially for whey disposal reasons). Next the factories spent millions of dollars and piped the whey out to the farms and used it as irrigation and fertilizer. That worked for some time too, until too much whey in the soil overwhelmed the soil bacteria and they died and the soil turned sour, so instead of growing more grass, less grew. Not good economics there. As the cheese factories grew in size along with increased milk throughput, whey became a very expensive and hard to dispose of toxic waste product. What to do.... what to do indeed.

Cut to a board meeting of a large cheese company.

The directors are all sitting around the board table listening to a report from the plant manager giving the latest update on the cost of piping the whey to another three thousand acres of land to lower the gallons per acre of whey application. The board members are shocked at the proposed costs and a discussion takes place to find a less costly disposal option. It is decided to commission a report from the food technologist to ascertain if there were any other avenues to reduce the cost of disposal, or if any product could be extracted from the liquid whey.

The backroom boys (and girls-we must be politically correct) with their white coats and impressive education went to work.

Cut to wife of white coated, impressively educated backroom boy.

Wife, with cute baby nuzzled against her breast happily sleeping in sling, walks down aisle of local supermarket, spots new product on shelves. Soy Milk-Health drink, said the label, hmmm, said Mum to herself, I wonder how you get milk from a bean?

Wife, not necessarily with impressive education but blessed with uncommon common sense, decides to purchase said “health soy milk” to show husband how the soy industry took a toxic waste protein product from the soy sauce extraction plant called soy protein isolate, and turned it into a so-called health drink. You see, wife knew a thing or two about the soy industry, because before she married, she worked for the soy processing company and knew that soy protein isolate was so toxic, it was never able to be classified as a food. However, she knew that if you greased enough palms you could sell anything to the health food fanatics and blind eyes in the FDA, would be forever blind.

Cut to husband coming home from work, with heavy heart and the weight of the world on his shoulders, as the reporting time to the board is coming closer. As yet his team has not come up with a way to take something nobody wants, liquid whey, and turn it into something that can be disposed of. Darn, even if the company could give it away, it would be better off financially than now, he thought.

Wife arrives home and shows depressed husband the carton of “soy health drink”.

The lightening strikes, the thunder claps and his brain spins and he dances for joy as he sees the answer. He hugs wife and rushes to his computer and spends the hours to dawn writing up the proposal.

Cut to next board meeting.

THE PROPOSAL

.... instead of building more pipe lines to take the whey to irrigate more and more acres, all we need to do is to take the pipe line money and build a milk powder drying plant adjacent to the cheese plant. We can pump the whey straight from the cheese presses to the drying plant and evaporate out the water with high temperature milk powder drying technology that was developed in New Zealand. We run a add campaign along the lines of the soy industry model and we market to the health food industry. We will not have to pay off any health departments or the FDA as whey is a milk product and it will be covered under the “GRAS” (Generally Regarded As Safe) status, something the soy industry did not, and has not got with soy protein isolate.

Also, we can price whey powder way under New Zealand’s high quality whole milk powder and many food manufactures, from ice cream to bread makers, from cookies to chocolate makers, in fact every part of the food industry will substitute some of the much higher priced whole milk powder with the lower priced whey powder....

And so it came to pass, the American cheese companies built huge milk powder drying plants and pumped all their waste liquid whey through them and sold the whey powder (a toxic waste product) very cheaply to the food manufacturing industry in direct competition to the high quality New Zealand whole milk powder (a real food) and created a very successful marketing campaign and sold whey powder to the health food industry at a very healthy profit. The most startling thing about this whole amazing true story, is that the American cheese companies did this with New Zealand’s technology and undercut the price of a wonderful wholesome food with a waste product and nobody in the cities who bought into the marketing campaign and purchased the whey product knew the difference. Oh well, that’s America I suppose.

Hopefully you will now be better informed as to whether “WHEY” is health or hype.