

RE: Protein Powders

1. Protein powders are garbage.
 - a) Most are highly processed soy or milk or pea proteins that are exposed to extreme high temperatures and then desiccated. Many of the amino acids are thus de-natured.
 - b) The "protein" powders generally contain as much or more fructose sugar as protein (and that includes the damaging high fructose content of fruit extracts).
2. Whey is a fragmental food, what is left after the curd is taken from whole milk.
 - a) The amino acid content of whey is terribly imbalanced --- high in leucine, iso-leucine and glutamic acid, and low in the amino acids needed for strong connective tissue and liver function-- glycine and proline.
3. Soy is often included as the source of protein. Soybeans are entirely indigestible. To obtain a somewhat digestible "food," the soy protein is severely de-natured by prolonged exposure to high temperatures, not to mention the oxidation exposure as it is blown into a fine powder. Because of their difficulty of digestion, plus their extremely processed and de-natured qualities, these are a deplorable choice as a source of protein.

Not only is the protein in soy toxic garbage because it is so extremely de-natured, but the soy protein is woefully incomplete as it severely lacks the critical amino acids glycine and cysteine (and that is even before you account for the lysine and glutamine and other amino acids that are destroyed in the processing).

Furthermore, soybeans contain potent enzyme inhibitors which actually block the action of trypsin and other enzymes needed for protein digestion.

Soy also contains iso-flavones that are goitrogenic and inhibit thyroid function. Soy is also one of the highest foods in estrogen.

4. If you have been following the Nutri-Spec letters the past few years, you are aware that we define two distinct aging pathways. One of those we call Endogenous INFLAM-AGING, which is initiated at about age 23 by the activation of biological clocks that are genetically preprogrammed. That aging pathway involves excess activity of mTOR, along with the formation of Senescent Cells. There are several amino acids that have been unequivocally shown to accelerate this aging process, and they should not

be over-emphasized in our diet. Those amino acids are methionine, arginine, glutamic acid, and the 3 branched chain amino acids, leucine, isoleucine, and valine. If you look at the label of most protein powders they are loaded with those amino acids, in many cases actually make a big deal out of how much branch chained amino acids they contain.

5. The other major problem with smoothies is that most people take this denatured protein garbage and mix it with a bunch of fruit. So now they have a combination of dead denatured protein, high in the age-accelerating amino acids, and mix it with fructose (fruit sugar), which is extremely proinflammatory and also accelerates the aging process by its own mechanisms --- including devastation of the gut microbiota.
6. If a person has a legitimate reason to be blending a concoction of some kind that requires protein, the only beneficial protein powder is pure gelatin, and Knox, the brand most easy to obtain (in 1-pound containers) is ideal. Gelatin contains all the amino acids that we tend not to get because we eat almost entirely muscle meats and organ meats and do not get all the connective tissue amino acids as people used to get when they made broth and gravies and soups in which they cooked the bone and other connective tissues in with their foods. So, as a source of glycine, proline, and hydroxyproline, gelatin is the best way to construct a diet that gives a nice balance of all the amino acids.

Rather than make a smoothy, the Knox gelatin can be dissolved in a hot Beverage. An ideal beverage can be made with unsweetened baking cocoa. A 10-ounce mug with 2 rounded tablespoons of baking cocoa and 1 rounded teaspoon of gelatin, with just a bit of organic coconut oil added to it is an amazingly nutritious hot beverage. It can be dressed up with cinnamon or any other flavorings a person likes. For those who believe they cannot survive without sugar, dextrose can be added as well. Dextrose is, of course, just dextrose (also known as glucose = blood sugar and brain sugar --- zero fructose).

7. Even if “protein” powders were a good concentrated source of protein (which they certainly are not), why would anyone want to eat this dead stuff when you can get the same amount of protein by just eating an extra egg or a couple extra bites of meat at the next meal? That protein from meat, fish, poultry, eggs, or cheese is high-quality, and costs a fraction of what these processed products cost.