



Utilizing Total Green Protein drinks for health and detox:

Protein drinks have become popular in our fast-paced society on the go, but aside from **offsetting high carbs** or **saving** time with a shake, what are some of the health benefits to look for in a protein powder, and how can you get your "biggest bang for the buck"? In choosing a protein powder that is right for you, determine your needs, then check the ingredients to make sure it is delivering. The **protein** provided by high-quality mixable powders can provide the amino acids (building blocks) for cell receptors, enzymes, hormones, neurotransmitters, antibodies (immune system), muscle tissue, signaling peptides, cell repair and necessary precursors for tons of biochemical reactions. Liquid protein can provide a convenient and healthy alternative to a high calorie, high fat meal. Some protein powders incorporate the antioxidant and phytochemical power of fruits and vegetables into the formula, which boosts the benefits of the powder. If you're looking for a concentrated wallop of nutrient efficacy, SPROUTS from cruciferous vegetables have up to 50-100 times the amounts of disease-fighting phytochemicals than the actual plants themselves!



Looking for **anti-inflammatory support**? Many protein powders are able to nourish the system while resting the gut and other organ systems, allowing the recovery process to take place. However, there are many nutrients that can add to that effect by being proactive and affecting different biochemical pathways of inflammation, at the same time that resting is having its healing effect. Blending different nutrients synergistically can optimize results.

Looking for **weight support**? Protein powders alone have the ability to attenuate appetite and caloric intake, but how can you optimize that effect? Many nutrients will support appetite, metabolism, calorie burning, etc. and they can be blended into a synergistic formula, along with the protein powder, for maximal results. High fiber content suppresses appetite and blood sugar.

Looking for **bone support**? The beneficial effect of whey protein on **bone metabolism** is shown in adult human subjects, both in building bone and preventing resorption of bone (Kelly O et al. Br J Nutr. 2003 Sep;90(3):557-64; Toba Y et al. Bone. 2000 Sep;27(3):403-8).

Looking for **detox support**? Again, protein powders alone can help facilitate detoxing by reducing caloric load, which mobilizes toxins from the fatty tissues. However, mobilizing without proper nutrient protection to bind and remove those toxins will only result in re-circulation of the toxins to other tissues. Many nutrients, such as those found in fruits and vegetables, are excellent conjugators (bind to toxins), and herbs like milk thistle and yellow dock expedite the removal of the toxins through the 7 detox pathways (liver, bowels, skin, blood, lungs, kidney and lymph). While fasting mobilizes toxins, it's not a good idea to release so quickly that the binding and removal can't keep up; this causes classic "detox symptoms". **Green algae, i.e. spirulina, chlorella, kelp, etc.** are particularly efficient at binding metals. **Fiber** not only **binds** to toxins and metals, it **cleanses and removes** impurities through the bowel detox pathway and **lowers cholesterol**.

Detox Delight:

1 cup rice milk
1/2 banana
1 cup frozen berries
1 serving Total Green Protein*
2-3 capsules Total Systemic Detox*
Empty capsules, blend and serve

Dark colored organic berries are best; they are high in healthful nutrients.

*Total Green Protein is a whey protein powder high in phytochemicals, bioflavonoids and antioxidants; it contains spirulina, chlorella, kelp, enteric-coated probiotics, organic sprouts, milk thistle, yellow dock and high soluble fiber, all of which help accelerate detox processes.

*Total Systemic Detox is a formula containing a wide array of nutrients that can make for a super-charged detox drink. Total Systemic Detox mobilizes, binds, and removes toxins through all seven detox pathways.

Detoxing Boosts the Immune System



Detoxing involves **mobilizing** toxins from the fatty tissues, **binding them**, and then **removing** them through the seven detox pathways of the body (Liver, bowels, skin, blood, lungs, kidney and lymph).

Whey protein supports detoxification, especially metals (Quig D. 1998). Using a whey protein powder drink can help reduce the caloric load to mobilize toxins, and yet provide binding and removing power. Whey protein increases glutathione levels, and glutathione is a major conjugator (binder) of toxins (Bounous G. Whey protein concentrate (WPC) and glutathione modulation in cancer treatment. Anticancer Res. 2000 Nov-Dec;20(6C):4785-92.) This effect is optimized when combined with other immune nutrients.

The phytochemicals and fiber from fruits, vegetables, and particularly **organic sprouts of cruciferous vegetables are potent protectors and facilitators of liver detox processes**, especially binding and removing. Many protein powders contain fruits and vegetables, but as powerful and as protective as the cruciferous vegetables are, the sprouts are even more potent - researchers at Johns Hopkins University reported that **sprouts from cruciferous vegetables can exhibit 10-100 times higher levels of the protective ingredients than the corresponding mature plants!** (Fahey JW, Zhang Y, Talalay P; 1997).

Organic sprouts: The healthful phytochemicals in sprouts include carotenoids, flavonoids, chlorophyll, indoles (indole-3-carbinol; DIM), glucosinolates, dithiols, isothiocyanates, isoflavones, glycosides, phenols, glucoraphanin and sulphoraphane). **"Small quantities of cruciferous sprouts may protect against the risk of cancer as effectively as much larger quantities of mature vegetables of the same variety"**. (Fahey 1997). Cruciferous sprouts include broccoli and cauliflower, which are high in sulforaphane, "one of the key phytochemicals that induces key protective enzymes in tissues, especially the liver, that "enhance an already present capacity to detoxify carcinogens" (Fahey, JW. 2003).

Milk Thistle and **Yellow Dock** are detoxifying and tonifying herbs that have also exhibited antioxidant capabilities (Shalan MG et al. 2005; Kim, JC et al. 2004; Yildirim A et al. 2001) Milk thistle contains silymarin and silybin, powerful cell protectors, especially in the liver. Silymarin increases glutathione levels (a major detoxifying and conjugating nutrient). Yellow dock especially cleanses the skin and the blood, two of the major detox routes in the body.

Fiber, (such as apple pectin and rice bran) binds toxins and normalizes bowel function, another important detox pathway. Pectin also protects against leaky gut by strengthening the mucus layer and significantly inhibiting ulcer formation (Nippon Shokakibyō Gakkai Zasshi 1991).

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