

Health PERSPECTIVES

"Practical Insights Into The World Of Natural Healing."

Breakthroughs in Detox & Purification Green Foods Aid Tissue Cleansing

Make yourself a green drink at least once daily, if you want to help yourself to feel great everyday. It's a healthy detox habit you will never want to give up.

For years, health-conscious consumers have been aware that nature's original vitamin formulas are storehouses of nature's goodness. It just seems to make good sense that kamut, wheat grass, barley greens, oats, alfalfa, spirulina, sea vegetables, chlorella and green vegetables, such as spinach and parsley, are a wonderful avenue for enhancing vital energy. However, recent scientific studies confirm the detoxification and purification properties of green foods.

Many modern industrial pollutants in our food, water and air bioaccumulate in our bodily tissues, increasing our risk for cancer, neurotoxicity, and reproductive effects. There is now a substantial body of evidence that supports such bioaccumulation in the rising incidence of cancer in the industrialized nations.¹

Thus, the pervasive contamination of the environment with organochlorine compounds such as dioxin, dicofol, DDT, heptachlor, benzene hexachloride, polychlorinated biphenyls (PCBs), and other compounds becomes a lifetime burden upon our health.

In Japan, where PCB contamination of the food supply caused a massive outbreak of chemical poisoning, the malady is known as yusho disease; there has never been complete recovery for the victims in part because of the highly persistent nature of organochlorine compounds in bodily tissues.

While purification procedures such as low-heat sauna can be extremely beneficial, recent studies provide critical evidence that bioaccumulation can be prevented when our diet is filled with super green foods. Body burdens of industrial contaminants can be reduced. So once you've learned about the studies, take the next step and get yourself some green super foods powder.

Detox with Green Foods Chlorella

Dr. K. Morita and co-investigators from the Fukuoka Institute of Health and Environmental Sciences, Dazaifu City, Fukuoka, Japan, have studied chlorella for its detoxification properties.² In this September 1999 report from the *Journal of Nutrition*, Dr. Morita's team of researchers investigated the effects of chlorella on dioxin and dibenzofuran contaminants in rats administered in the rice oil that caused Yusho disease. (These are highly toxic

compounds with carcinogenic and endocrinological effects.) One group also received a 10 percent chlorella diet. Excretion of dioxin in the group fed chlorella was up to 12.8 times greater than the control group. The research team concluded, "These findings suggest that the administration of chlorella may be useful in preventing gastrointestinal absorption and for promoting the excretion of dioxin already absorbed into tissues. Moreover, these findings suggest that chlorella might be useful in the treatment of humans exposed to dioxin."

A second study confirms that chlorella may also prevent tissue contamination of another organochlorine compound, chlordecone. Chlorella was shown to have "accelerated the detoxification of chlordecone poisoned rats, decreasing the half-life of the toxin from 40 to 19 days. The ingested algae passed through the gastrointestinal tract unharmed, interrupted the enteric recirculation of the persistent insecticide, and subsequently eliminated the bound chlordecone with the feces. The detoxification was similar to that obtained with cholestyramine."³

The researchers say that the cell wall components of chlorella, including sporopollenin (a member of the carotenoid family with limited natural occurrence among microorganisms and plants) together with the algal cell walls retained the therapeutic activity of the whole cells. "The cells and cell walls have potential as detoxifying drugs for animals poisoned by chlordecone and other xenobiotic compounds with similar properties."

Spirulina (Blue-Green Microalgae)

All of us are exposed to low-level radiation. One of the symptoms of radiation poisoning is immune dysfunction,



including high prevalence of allergic reactions characterized by high levels of Immunoglobulin E (IgE) in the blood. Such is the case for the children of Chernobyl. Those residing in highly radioactive areas have IgE levels greatly above normal.

Spirulina has demonstrated important detoxification and protective properties to combat this. Studies with 270 children show that consuming about five grams per day of spirulina tablets normalized IgE within 6 weeks.* Children not consuming spirulina did not experience changed IgE levels. Spirulina lowers the amount of IgE in the blood, which in turn also normalizes and reduces allergies in the body.

But there's so much more to learn about the detoxification properties of spirulina. We also know that radiation damages bone marrow cells. Thus, in another study, the radioprotective effect of an extract of spirulina was studied for its ability to protect bone marrow cells. The extract caused a significant reduction of gamma radiation-induced damaged.*

In a study from the Czech Republic it was found that spirulina reduced urine radioactivity levels by 50 percent in only 20 days.⁴ This result was achieved after giving five grams a day to children at the Institute of Radiation Medicine in Minsk, Belarus.

The Institute so believes in the purification and detoxification powers of spirulina, it has developed a program to treat 100 children every 20 days. The authors of the 1993 report conclude: "Use of spirulina decreases [radiation] dose load received from food contaminated with radionuclides, Cesium-137 and Strontium-90. Spirulina is favorable for normalizing the [adaptive] potential of children's bodies in conditions of long-lived low dose radiation."

Heavy metals and pharmaceutical drugs are toxic to the kidney. Thankfully, spirulina's detoxification properties extend to heavy metal and drug-induced toxicity.

Experimental renal (kidney) toxicity caused by mercury was suppressed by feeding a water soluble extract of spirulina, containing phycocyanin, the algae's natural blue pigment.⁵ The researchers also discovered that kidney toxicity caused by ingestion of para-aminophenol (a pain reliever) and Cisplatin (a cancer chemotherapeutic agent) was significantly reduced by the phycocyanin extract of spirulina. Researchers concluded that phycocyanin plays a major role in the protective effect of spirulina against renal failure caused by mercury and pharmaceutical drugs, and that spirulina might be applicable to the reduction of general renal dysfunction.

In an earlier study, the effects of spirulina on acute nephritis caused by inorganic mercury and pharmaceutical drugs were examined.⁶ High mercury dosage caused nephrotoxicity in rats, measured by rising blood urea nitrogen (BUN), serum creatinine, and the urinary enzymes alkaline phosphatase (ALP) and glutamic oxaloacetic transaminase (GOT).

But when rats were fed a diet of thirty percent spirulina, these factors significantly decreased, showing kidney detoxification. Three groups of rats were given pharmaceutical drugs used by humans: para-aminophenol, Gentamicin (an antibiotic) and Cisplatin. Once again rats improved.

Both studies suggest spirulina may have a beneficial effect for humans suffering from heavy metal poisoning and that kidney side effects may decrease when spirulina is taken with the administration of drugs. Side effects limit the dosage of drugs and slow down recovery, so shorter recovery times may be possible.

Alfalfa

Zearalenone is a fungal toxin occasionally found in the food supply. It is highly carcinogenic, causing experimental tumors of the pituitary and liver.⁷ Experimental evidence shows that dietary alfalfa can protect against zearalenone toxicity.⁸ Though alfalfa is rich in many phytochemicals, in this case it is "the fiber fraction of alfalfa [that] protects against zearalenone toxicity."

Seaweeds

"There is no family of foods more protective against radiation and environmental pollutants than sea vegetables," says noted author Stephen R. Schecter, N.D., author of the classic work, *Fighting Radiation & Chemical Pollutants with Foods, Herbs, & Vitamins* (Vitality Ink 1988). Sodium alginate is thought to be one of the chemical agents in sea vegetables responsible for inhibition of uptake of environmental radiation and other pollutants. In 1965, it was shown that ingestion of small amounts of kelp on a daily basis was highly effective in prevention of absorption of radioactive strontium and other environmental pollutants.⁹

More recently, at the Institute of Radiation Medicine, Beijing, China, it was once again shown that sodium alginate from laminaria species of kelp and sargassum species of algae are highly protective.¹⁰ Strontium absorption in human subjects was reduced by 78 percent and ingestion completely suppressed increases of serum strontium. It was concluded that alginate preparations derived from both species are "a suitable antidote against radiostrontium absorption on a long-term basis."

At the Department of Pathology, Kitasato University School of Hygienic Sciences, Kanagawa, Japan, Drs. Maruyama and Yamamoto conducted an experiment to determine how dietary seaweeds rich in iodine and dietary fibers suppress radioactive iodine uptake by the thyroid.¹¹ The degree of the suppression was observed to depend on the amount of iodine in the diet. Thus, they concluded, dietary seaweeds such as kelp that are rich in iodine and other minerals, vitamins, and beta-carotene, "may be effective in prevention of internal radiation injury of the thyroid."

Rice Bran

At Kobe Pharmaceutical University, it has been found that rice bran is as efficient at removal of common impurities in drinking water as activated carbon filtration



Reasons for Cleansing

Dr. Elson Haas, one of the nations leading advocates of detoxification, notes the following reasons for cleansing, tissue purification and detoxification:

<u>Prevent Disease:</u>	<u>To Be More:</u>
Reduce Symptoms	Organized
Treat Disease	Creative
Cleanse Body	Motivated
Rest Organs	Productive
Purification	Relaxed
Rejuvenation	Energetic
Weight Loss	Clear
Clear Skin	Conscious
Slow Aging	Inwardly Atuned
Improve Flexibility	Spiritual
Improve Fertility	Environmentally Atuned
Enhance The Senses	Relationship Focused

and at an extremely wide range of pH.¹² What this means is that regularly consuming rice bran is a way of helping to purify your body from organic contaminants in our drinking water. It does so by absorbing organic contaminants and transporting them from the body much as activated carbon is also used as a dietary supplement for removal of impurities from the gut.

Green Tea

Green tea is another potent protector against chemical assaults on bodily tissues. Green tea (*Camellia sinensis*) is consumed daily between the meals or after meals in Japan and other Asian countries. In recent years, green tea and it's major polyphenols have been demonstrated to prevent chemically induced tumors in a variety of experimental studies and clinical trials. The exact mechanism of it's anticarcinogenic activity remains to be elucidated, but green tea polyphenols have demonstrated antimutagenic, anticarcinogenic, antioxidant, and antipromotional effects.

Chemopreventive effects of green tea and coffee among cigarette smokers were examined in 52 clinically healthy male subjects between twenty and fifty-one years of age. Blood specimens were obtained from non-smokers, smokers, smokers consuming green tea, and smoker/coffee drinkers.¹³ The frequency or chromosomal damage was significantly elevated in smokers compared to non-smokers; however, the frequency of chromosomal damage in smokers who consumed green tea was comparable to that of non-smokers, implying that green tea can block the cigarette-induced increase in chromosomal damage.

Also be sure to include in your green drink:

- **Flax Lignans.**
The lignans in flax are highly protective against

chemically induced cancers, especially those of the breast, prostate, colon and skin.

➤ **Astragalus**

The highly esteemed Asian herb astragalus is a gentle immune enhancer, thus affording our bodies with greater inherent protection against chemical and biological toxins.

➤ **Mixed Carotenoids**

The carotenoid family offers many protective compounds, besides commonly known beta-carotene. Thus, it is a very smart health habit to insure high intake of mixed carotenoids.

➤ **Acerola Juice**

Perhaps the richest source of vitamin C in the natural world, acerola juice offers important protection against chemically induced cancers.

➤ **Curcumin**

A highly protective against oral cancers, besides those of the breast, curcumin is found in turmeric and is an anticancer, nutritional super star, also being documented as a COX-II inhibitors which may aid the body's fight against inflammation.

Prescription for Healthy Living

Be sure to enjoy a super green drink everyday. It is not only great for a mid-afternoon pick-me-up, it's detoxification powers will help your body to cleanse itself daily of potentially dangerous pollutants and toxins. You will literally feel the difference within minutes.

Smart Shopping Tips for Selecting a Quality Green Formula

Beware Of Products That Overuse Fillers.

Fillers are ingredients in formulas that are used to either save on expense or help the product blend in liquids. Lecithin, derived from soy, is one of the most commonly used emulsifying agents and one of the most common fillers we have found in inferior green foods. To be sure, lecithin is a great nutrient with plenty of phospholipids integral to the structure of brain cells; it is a cholesterol buster and brain booster but, in the context of a green super food formula, it should never be the number one ingredient.

The problem with fillers is they can make-up far too much of a formula, crowding out more beneficial green foods. Read labels carefully or you may end up with a product that is more filler than anything else.

Besides lecithin, other ingredients that are used as fillers and that you do not want as predominant ingredients in your formula include apple pectin, apple fiber, brown rice germ, barley malt, bacterial cultures, and fructooligosaccharides. Brands listing too many of these as primary ingredients clearly are not formulas you would want as your first choice.

Be Sure To Purchase Quality Concentrates.

Cereal grasses used in green formulas are typically supplied in a 5:1 concentration, meaning five grams of



raw material are required for one gram of final powdered extract. But that concentration is too low for maximum health benefits. Be sure the first listed ingredient is a green mixture of at least a 10:1 concentration, preferably containing organically grown (without pesticides) kamut, barley, oats and alfalfa. Relative to other brands that employ 5:1 extracts, that's twice as many concentrated greens. It's hard to argue with that kind of quality and value.

☑ Seek a wide range of greens.

Besides a patented 10:1 cereal grass juice concentrate, look for green formulas that supply blue-green algae; Icelandic kelp and Nova Scotia dulse; chlorella; and organic green vegetables such as spinach and parsley.

You may also find quality formulas with green antioxidants including rosemary, green tea and curcumin extract with mixed carotenoids, acerola juice, natural vitamin E, and plant enzymes.

☑ Beware the number of ingredients.

Do big ingredient lists on dietary supplement labels impress you? They don't impress us. Quality is an expensive proposition and to receive a therapeutic benefit from a single ingredient often requires that the overall ingredients in the formula be limited, focusing only on a few. Additionally, you don't want to limit your greens to simply one green food. Each cereal grass (kamut, oat, barley, alfalfa), algae, land and sea vegetable brings your body the goodness of different antioxidants and other phytonutrients. A mix of all of these is best.

Many green formulas base their advertising on the total number of ingredients listed on the label. One company even claims to provide more than 40 biologically active ingredients. Because of this, consumers may believe they are receiving more for their money. We don't. Small fractions of many different ingredients may look good on the label, but none of these ingredients are being provided in a high enough dosage to be of therapeutic value; there's no point in consuming a trivial amount bilberry, bee pollen, royal jelly, ginseng or ginkgo. These trace amounts are approximately thirty to forty times or more below therapeutic dosages. Optimal potency of a few select ingredients produces optimal results. Keep in mind, the purpose of a purchasing a green food is to get your greens!

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