

by James F. Balch, M.D.

No, this article is not going to tell you to eat your spinach, your broccoli, and your asparagus, all of which are green, tasty and nutritious. Instead, it will present some of the green foods you normally don't read of, green foods that can save your life. These are the cereal grasses, like wheat and barley. Although they are rarely mentioned as natural therapies, they remain among the most important preventives of both breast and prostate cancer. In fact, laboratory studies have shown that both prevention and treatment of such dreaded illnesses as prostate and breast cancer can be achieved through barley grass.

Chlorophyll

If you or your children are fans of the Muppets, you may know the song "It's Not Easy Being Green." Kermit the frog sings the tune about racism, prejudice and self-acceptance. But this song could also be sung about chlorophyll, the green liquid that is essential for health and is also potentially dangerous.

If you know the term "chlorophyll," chances are you learned it through the advertisements of toothpaste that were popular more than 30 years ago. Television commercials showed handsome young men and beautiful young women brushing their teeth with a toothpaste that boasted chlorophyll as one of its major ingredients. Then these great-looking people would go to work or engage in some form of recreation and smile at each other during a chance encounter. Suddenly, as though chlorophyll were Cupid's aphrodisiac, they were in love, soon to be partnered for life. The toothpaste had cleaned their teeth, the chlorophyll had cleaned their breath and this marvelous form of oral hygiene guaranteed that they would live happily ever after.

Not that the idea was an advertiser's fantasy. A decade earlier the *Journal of American Medical Association* discussed research indicating that chlorophyll derivatives held the promise of stopping internal body odors, a fact that would lead to more pleasant personal encounters. It was the first time that chlorophyll and romance had been linked, though the serious medical journal did not promote that link the way the toothpaste manufacturers did.

Romance is alive and well, but you don't hear much about chlorophyll today. Now different ingredients are hyped to sell toothpaste, mouthwash and other oral hygiene products. For although chlorophyll remains a powerful germicide and an effective anti-inflammatory that protects the internal organs of people suffering from gastritis or peptic ulcers, it has been found to be unstable—a fact that makes it potentially dangerous.

Chlorophyll has been compared with the human blood by some researchers. They refer to chlorophyll as the "blood" of plants and the analogy is quite appropriate when you consider the chemical composition of each. Hemoglobin (blood) and chlorophyll are indeed similar; just about the only difference is that hemoglobin contains iron bonded in its structure and chlorophyll contains magnesium.

The chlorophyll introduced as an additive to toothpaste and other products was not in its natural state because natural chlorophyll, when heated, oxidized, or placed in an acidic environment, will break down to little more than green pigment and lose its therapeutic value. Therefore it was mixed with copper chlorophyllin sodium, a substance consisting of copper ion bound to decomposed natural chlorophyll. It is stable, water soluble and does not lose its color when exposed to sunlight. It also cannot be absorbed in the body except in amounts too minute as to have no effect whatever, an important health factor. The artificial chlorophyll is actually as deadly as natural chlorophyll becomes when oxidized. It creates a by-product called pheophorbide. Above a certain concentration, pheophorbide can be fatal. The creation of pheophorbide makes it imperative that chlorophyll used for human consumption in any form must not be oxidized.

Japan is one country that takes the problem of pheophorbide so seriously that it regulates the amount of pheophorbide-causing chlorophyll a product may have. The amount of pheophorbide is determined by the distance between harvesting and processing and the method of processing such as cooking or freeze-drying. There is also concern about an imbalance caused when acidic elements such

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as alcohol are added in the processing. Only when such matters are known and when the pheophorbide has been measured can one determine whether a chlorophyll supplement is safe. For the time being, you should not use chlorophyll as a supplement; you should obtain it indirectly through other foods, particularly cereal grasses.

Cereal Grasses

Long green cereal grasses are the early stages of barley, oats, rye, wheat and other cereal plants. Unlike the grains, they eventually become, though, the grasses have more in common with leafy green vegetables. In fact, a person with an allergy to wheat would probably have no problem eating wheat grass, the plant's earlier stage of development.

Our technologically-advanced society has led us to deplete foodstuffs of most of their nutritional value. This is the outgrowth of processing and preserving almost all that we eat, instead of ingesting it raw. Of all the preservation methods, freezing is the least destructive, yet it has been recently been found that frozen food has lost many of the nutrients essential for health. This is one of the reasons that cereal grasses are so important. They supply nutrients that are lost through food processing.

Note: I am often criticized for sounding like an alarmist. I have heard people say that food can't be the problem I say it is. After all, the methods for preserving and shipping food have helped to alleviate hunger and to encourage the growth of cities where people can't grow their own food. That is, they have contributed to the betterment of the world.

Yes, there's much truth to these claims. But what is not noted is that by "improving" the food we eat, we create problems that never existed. It is only since we have become an urban society and stopped living off the land that we've been plagued by immune-deficiency disorders, arteriosclerosis, hypertension, heart disease, atherosclerosis and a dramatic rise in the incidence of cancer. We may be taller than we were in the past but that doesn't mean we're stronger. We

may indeed be endangering ourselves through improper diet.

Barley Grass

While barley grass is not the single answer to our health problems, it is the most complete preventive medicine available. There's growing evidence that it helps in fighting such ailments as a dangerously low level of potassium in the blood (hypokalemia), heart problems, cancer, arthritis and other inflammatory ailments. Its nutrient value serves to reduce or eliminate ailments caused by malnutrition, among the most widespread health problems of the population, especially among teenagers. (Malnutrition does not mean that you're hungry. You may even be eating in such quantities as to become obese. But volume of food, even the type of food, is no guarantee of nutritive value.)

Many people consume the juice of the green barley leaves, often in the form of a tablet or powder to be mixed with water. The leaves, or their powered form, contain calcium, chlorophyll, copper, magnesium, manganese, organic iron, phosphorus, potassium, zinc and the enzyme superoxide dismutase.

And that is just what we know for certain. We continue to discover previously unknown health benefits all the time. There is, for example, an antioxidant that inhibits lipid peroxidation. This is a technical way of saying that it fights the buildup of hydrogen peroxide in fat cells and tissues, where it can be extremely destructive. This antioxidant, with the tongue-twisting name of 2-O-Glycosyl Isovitexin, or 2-O-GIV, is one of the most potent you can take and it is found in barley leaves. Researchers dealing with arthritis and other inflammatory diseases are also finding that patients can gain measurable and quick relief by consuming green barley, as do people with pancreatitis and disorders of the colon, duodenum and stomach.

Green barley enzymes neutralize cancer-causing substances like tobacco tar and in laboratory tests the green barley extract has been found to destroy prostate cancer cells. It improves the circulatory system and

strengthens the immune system—and this is just what we know now. Green barley research is in its infancy so we may soon learn of even more benefits to be obtained from it.

As you can see, it is surely fair to believe that green barley may be nature's one-stop answer to a huge number of health problems and illnesses plaguing people all over the world.

Phytochemicals

You might think that if you maintain a proper diet you would have no reason to take a supplement. After all, if whole foods are flash-frozen or prepared in some manner that preserves them soon after they've been harvested, why do we need to worry about these grains and grasses? This seems especially true for people who try to do everything "right," like using one of the popular home breadmakers and eating organically-grown vegetables.

This logic is excellent but recently scientists have identified a specific group of natural chemicals that deteriorate when subjected to processing. These are the phytochemicals, that is, plant chemicals like carotenoids, flavonoids, phenolic acids and tocopherols—all excellent antioxidants. The problems caused by the loss of these chemicals can be minimized if you supplement your diet with green grasses and by eating more fruits and vegetables.

This article has been adapted from Dr. Balch's book *10 Natural Remedies That Can Save Your Life* published by Doubleday.

Dr. Balch empowers readers to take action and protect their own health. He provides them with a better understanding of how the healthy mind and body function and suggests natural remedies for some of the most serious medical problems that face Americans today. Dr. Balch also offers a 25-point exam that isolates the biological stresses in our every day lives and helps us to eliminate them so we can experience a higher standard of wellness than ever before.