

## WHEATGRASS JUICE...

Increases red blood-cell count and lowers blood pressure. It cleanses the blood, organs and gastrointestinal tract of debris. Wheatgrass also stimulates metabolism and the body's enzyme systems by enriching the blood. It also aids in reducing blood pressure by dilating the blood pathways throughout the body.

Stimulates the thyroid gland, correcting obesity, indigestion, and a host of other complaints.

Restores alkalinity to the blood. The juice's abundance of alkaline minerals helps reduce over-acidity in the blood. It can be used to relieve many internal pains, and has been used successfully to treat peptic ulcers, ulcerative colitis, constipation, diarrhea, and other complaints of the gastrointestinal tract.

Is a powerful detoxifier, and liver and blood protector. The enzymes and amino acids found in wheatgrass can protect us from carcinogens like no other food or medicine. It strengthens our cells, detoxifies the liver and bloodstream, and chemically neutralizes environmental pollutants.

Fights tumors and neutralizes toxins. Recent studies show that wheatgrass juice has a powerful ability to fight tumors without the usual toxicity of drugs that also inhibit cell-destroying agents. The many active compounds found in grass juice cleanse the blood and neutralize and digest toxins in our cells.

Contains beneficial enzymes. Whether you have a cut finger you want to heal or you desire to lose five pounds...enzymes must do the actual work. The life and abilities of the enzymes found naturally in our bodies can be extended if we help them from the outside by adding exogenous enzymes, like the ones found in wheatgrass juice. Don't cook it. We can only get the benefits of the many enzymes found in grass by eating it uncooked. Cooking destroys 100 percent of the enzymes in food.

Has remarkable similarity to our own blood. The second important nutritional aspect of chlorophyll is its remarkable similarity to hemoglobin, the compound that carries oxygen in the blood. Dr. Yoshihide Hagiwara, president of the Hagiwara Institute of Health in Japan, is a leading advocate for the use of grass as food and medicine. He reasons that since chlorophyll is soluble in fat particles, and fat particles are absorbed directly into the blood via the lymphatic system, that chlorophyll can also be absorbed in this way. In other words, when the "blood" of plants is absorbed in humans it is transformed into human blood, which transports nutrients to every cell of the body.

When used as a rectal implant, reverses damage from inside the lower bowel. An implant is a small amount of juice held in the lower bowel for about 20 minutes. In the case of illness, wheatgrass implants stimulate a rapid cleansing of the lower bowel and draw out accumulations of debris.

Externally applied to the skin can help eliminate itching almost immediately.

Will soothe sunburned skin and act as a disinfectant. Rubbed into the scalp before a shampoo, it will help mend damaged hair and alleviate itchy, scaly, scalp conditions.

Is soothing and healing for cuts, burns, scrapes, rashes, poison ivy, athlete's foot, insect bites, boils, sores, open ulcers, tumors, and so on. Use as a poultice and replace every two to four hours.

Works as a sleep aide. Merely place a tray of living wheatgrass near the head of your bed. It will enhance the oxygen in the air and generate healthful negative ions to help you sleep more soundly.

Enhances your bath. Add some to your bath water and settle in for a nice, long soak.

Sweetens the breath and firms up and tightens gums. Just gargle with the juice.

Neutralizes toxic substances like cadmium, nicotine, strontium, mercury, and polyvinyl chloride.

Offers the benefits of a liquid oxygen transfusion since the juice contains liquid oxygen. Oxygen is vital to many body processes: it stimulates digestion (the oxidation of food), promotes clearer thinking (the brain utilizes 25% of the body's oxygen supply), and protects the blood against anaerobic bacteria. Cancer cells cannot exist in the presence of oxygen.

Turns gray hair to its natural color again and greatly increases energy levels when consumed daily.

Is a beauty treatment that slows down the aging process when the juice is consumed. Wheatgrass will cleanse your blood and help rejuvenate aging cells, slowing the aging process way down, making you feel more alive right away. It will help tighten loose and sagging skin.

Lessens the effects of radiation. One enzyme found in wheatgrass, SOD, lessens the effects of radiation and acts as an anti-inflammatory compound that may prevent cellular damage following heart attacks or exposure to irritants.

Restores fertility and promotes youthfulness.

Can double your red blood cell count just by soaking in it. Renowned nutritionist Dr. Bernard Jensen found that no other blood builders are superior to green juices and wheatgrass. In his book Health Magic Through Chlorophyll from Living Plant Life he mentions several cases where he was able to double the red blood cell count in a matter of days merely by having patients soak in a chlorophyll-water bath. Blood building results occur even more rapidly when patients drink green juices and wheatgrass regularly.

Everything you need to know about this wonder plant and its miracle cures. Including why it works, where to get it and where to go for help. How to grow it, juice it, take it and create a total health restoration program. Nutrition, research, healing retreats, detoxification, history, chlorophyll, cancer, real stories by real people. Wheat, barley and kamut grasses.

"Wheatgrass juice is the nectar of rejuvenation, the plasma of youth, the blood of all life. The elements that are missing in your body's cells-especially enzymes, vitamins, hormones, and nucleic acids can be obtained through this daily green sunlight transfusion."

- Rev. Viktoras Kulvinskis, MS, author Survival into the 21st Century.

"I see people go through this therapy everyday and I can tell you, miracles happen." -Brian Clement, Director Hippocrates Health Institute, West Palm Beach, Florida

"Why take these young grasses? Because you'll be giving yourself a health elixir unlike anything you've ever experienced! The effect these highly nutritious green drinks are having on all my patients, especially my arthritis patients, is nothing short of amazing."

- Julian Whitaker, MD. editor Health and Healing Newsletter

"Gary's platelet count rose every day for 7 days from 61,000 to 141,000 and the only thing we did differently was administer wheatgrass. That's absolutely phenomenal and it's fully documented on the hospital record."

- Leonard Smith, MD., Cancer Surgeon

"Barley grass leaf extract dramatically inhibits the growth of human prostatic cancer cells grown in tissue culture. ...It may provide a new nutritional approach to the treatment of prostate cancer."

- Dr. Allan L. Goldstein, Ph.D, George Washington Univ. Medical Center

"I believe a leaf of grass is no less than the journey-work of the stars."

- Walt Whitman

- Never Underestimate the Power of Nature

Based on comprehensive scientific evidence and my own numerous clinical observations, wheatgrass and other cereal grasses appear to be capable of stimulating the activity of human growth factors. This leads to facilitation of the body's natural healing processes that assist wound and fracture healing, inflammation, various skin disorders and many other conditions.

This link provides comprehensive information about many of the therapeutic benefits of a wheatgrass extract I have used extensively and successfully in medical practice since 1995. There are clearly many biologically active factors at work.

Dr. Chris Reynolds. M.B.,B.S.  
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A Selection of 27 Summaries From Medical and Scientific Journal Articles Supportive of Clinical Effectiveness of Wheatgrass | P.1 | P.2 |

1. Tamura. 1959. The effect on experimental anemia of radioactive Co60 chlorophyllin  
Co-chlorophyllin increased the leucocyte count and hemoglobin content in rats and directly or indirectly stimulated hematopoiesis (blood formation). In cases of malignant tumor treated with irradiation the increase in hemoglobin content, erythrocyte and leucocyte counts was more marked than in the uninjected group.

2. Lam & Brush. 1950. Chlorophyll and wound healing  
Chlorophyll was used in an experiment with cutaneous wounds in guinea pigs, and in treating dermatome donor sites, clinical burns and surgical wounds and ulcers in human patients. Wound healing in guinea pigs showed acceleration in only 30% of cases, and did not enhance healing time for dermatome grafts. In clinical burns cases the chlorophyll ointment was a "satisfactory dressing" but did not appear to contribute to wound healing.

3. Randle, Sober, Kohler. 1940. The distribution of the "grass juice factor" in plant and animal materials.  
Guinea pigs were fed on winter milk plus various supplements. Those fed on a supplement rich in the grass juice factor (rye grass) showed strong growth.

Various plants were assayed for the grass juice factor. Based on average weight gain in guinea pigs the best sources of this growth promoting substance were dehydrated cereal grass (cerophyl), rye grass, young white clover, peas, pea shells, cabbage, spinach. Cereal grasses are an excellent source of the factor but the amount present varies with the age of the plant.

4. Kohler et al. 1939. The grass juice factor  
The grass juice "factor" was precipitated from grass juice or dehydrated grass by using acetone. It is necessary for the normal growth of rats and guinea pigs. Guinea pigs fed a rationed diet died in 3 to 10 weeks but when dehydrated grass was included in the same diet they grew normally.

5. Kohler et al. 1936. Growth stimulating properties of grass juice  
Growth of rats is greater on a diet of summer milk than winter milk. When grass juice was added to the winter milk diet, growth increased from 2 to 4 grams a day. It was concluded that there are important water-soluble substances in the juice that affect the nutritive value of summer milk.

6. Kohler. 1944. The effect of stage of growth on the chemistry of the grasses.  
Younger grass tends to be richer in protein, soluble carbohydrates, carotene, vitamin C, thiamine and riboflavin. Using oats, Kohler found that several of the vitamins, protein, crude fat and chlorophyll reached peak concentrations at or near the jointing stage, hence the nutritive value of grass is likely to be optimal at this point.

7. Ohtake et al. 1985a. Studies on the constituents of green juice from young barley leaves. Effect on dietarily induced hypercholesterolemia in rats  
Substances extracted from barley leaf juice lowered plasma cholesterol (after 9 days) of rats fed on a high cholesterol diet.

8. Ohtake et al. 1985b. Studies on the constituents of green juice from young barley leaves. Antiulcer activity of fractions from barley juice  
Green juice and fractions from green juice of young barley leaves containing water soluble proteins and water soluble organic compounds showed anti-stomach ulcer activity in stressed rats.

9. Peryt et al. 1992. Mechanism of antimutagenicity of wheat sprout extracts  
A supernatant extract from wheat grass reduced the production of carcinogenic aromatic hydrocarbon (benzopyrene) derivatives. Inhibition of benzopyrene mutagenicity with non-chlorophyll containing wheat sprout extract suggests that chlorophyll is not the main compound responsible.

10. Ben-Ayre et al. 2002. Wheat grass juice in the treatment of active distal ulcerative colitis  
A randomized, double-blind, placebo trial was undertaken with 23 patients in Israel. Treatment with wheatgrass (100 cc a day for one month) reduced the overall disease activity and severity of rectal bleeding in patients with active distal ulcerative colitis. No serious side effects were found. The authors concluded that "wheat grass juice appeared effective and safe as a single or adjuvant treatment of active distal ulcerative colitis".

11. Carpenter. 1949. Clinical experiences with chlorophyll preparations  
A clinical study using chlorophyll preparations to treat chronic osteomyelitis, osteomyelitis secondary to compound fractures and chronically infected wounds and ulcers. The study included many patients that had been resistant to other forms of therapy. The author considered chlorophyll preparations not necessarily a cure, but was interested to find "such rapid eradication of infection and healing of wounds". Photos show epithelialization and

healing of lesions, chronic ulcers and a 'grossly infected amputation stump'. In many of the wound healing and ulcer cases there was no evidence of recurrence of infection or of breakdown at 18 months.

12. Smith & Livingston. 1943. Chlorophyll. An experimental study of its water soluble derivatives in wound healing  
Wound healing involves an inflammatory (exudative) phase and a proliferative tissue growth and repair phase that presumably involves growth stimulating factors. This study tested various water soluble chlorophyll preparations and other agents including vitamin ointments and sulfathiazole on wounds created by excising portions of skin from rats, guinea pigs, rabbits and dogs. Response in rate of healing tended to be greater for chlorophyll than with other agents tested (the data is summarized in several tables not reproducible here).

Conclusion: 'On the basis of these observations it is suggested that chlorophyll preparations should be used much more extensively in the treatment of wounds and burns.'

13. Bowers. 1947. Chlorophyll in wound healing and suppurative disease

Lieutenant Colonel Bowers of the US Army reports on the use of water-soluble derivatives of chlorophyll in over 400 cases over a period of nine months. He (and colleagues) noted several major effects, notably: loss of odour associated with infected wounds; a stimulating effect on tissue formation (granulation tissue) when used as a dressing particularly for burns; and a drying effect in the case of abscesses, sinus tracts, surface lesions and osteomyelitis. Mention is made of chlorophyll efficacy in treatment of cyst wounds, fistula-in-ano (6 cases), sarcoma/carcinoma (4 cases), ulcerative colitis (1 case), thoracic empyema (several cases, 2 particularly effective), gunshot wound sinus tracts (17 cases), decubitis ulcer (4 cases) and burns (4 patients). In 119 cases of compound fractures to limbs chlorophyll reduced odour and enhanced healing, in some cases with exceptional results, e.g. legs saved from seemingly inevitable amputation. Numerous other cases and conditions are mentioned. Chlorophyll was comfortable as a wet dressing and was easily tolerated by patients. The author 'is convinced that chlorophyll is the best agent known for use in the treatment of suppurative diseases, indolent ulcers or wherever stimulation of tissue repair is desired..' although it is not presented as a cure-all.

14. Smith. 1944. Chlorophyll: An experimental study of its water soluble derivatives

Reviews the chemistry of chlorophyll, including the structural formula ( $C_{55}H_{72}O_5N_4Mg$ ) and provides a list of references. Chlorophyll can be obtained from leaves by extraction with acetone. Chlorophyll is similar to hemoglobin, but in hemoglobin iron is substituted for magnesium, globin is substituted for the phytol radical, and at Carbon 4 there is an allyl instead of an ethyl residue. Water-soluble chlorophyll is more preferable in clinical use than the oil-soluble form. This study examined the toxic effects of chlorophyll on rabbits with the solution being administered by mouth, intravenously, intraperitoneally and subcutaneously. There was a total absence of toxic effects. Chlorophyll is thought to produce an unfavourable environment for bacterial growth resulting in a bacteriostatic effect. It is important in the treatment of infected surface wounds and appears to contribute to rapid tissue repair.

15. Egner et al. 2001. Chlorophyllin intervention reduces aflatoxin-DNA adducts in individuals at high risk for liver cancer ( Qidong , China )

Residents of the area are at risk of developing hepatocellular carcinoma (liver cancer) partly as a result of ingesting aflatoxin. Chlorophyllin was shown to be an inhibitor of aflatoxin carcinogenesis in animals, so this trial was carried out with 180 adult patients. Levels of aflatoxin-guanine in urine (associated with increased risk of liver cancer) were found to decrease 55% over a four month period in comparison to placebo. No adverse events were reported.

16. Kohler, Elvehjem & Hart. 1938. The relation of the 'grass juice factor' to guinea pig nutrition

Guinea pigs were fed on winter milk or milk plus supplement. The winter milk was deficient in one or more essential factors necessary for normal development, and the animals faded away. When dried barley or wheat grass was given as a supplement, growth was normal. The growth stimulating factor of grass is essential for maintenance and growth of guinea pigs. The active principle is soluble in plant juices and activity falls at room temperature.

17. Peryt et al. 1988. Antimutagenic effects of several subfractions of extract from wheat sprout

An aqueous extract from wheat sprout appears to contain two antimutagenic factors as assayed in laboratory bacteriological tests. One compound is of low molecular weight and another of high molecular weight.

18. Brush & Lamb. 1942. The effect of the topical application of several substances on the healing of experimental cutaneous wounds  
Wounds made on the abdominal wall of guinea pigs were treated with various substances, including chloramines, urea crystals and chlorophyll ointment. None were found to consistently exert an accelerating effect on wound healing. In the chlorophyll group 4 animals showed accelerated healing and 7 displayed no effect.

19. Osborn. 1943. On the occurrence of antibacterial substances in green plants

A range of plants were tested for their antibacterial properties. Of the over 2000 species tested, extracts of 63 demonstrated inhibition of bacterial growth.

20. Zdzienicka et al. 1982. Antimutagenic action of some plant factors Extracts from wheat, maize and pea sprouts inhibited mutagenic activity as assayed using bacterial strains. The activity affected activation of pro-mutagens but not direct mutagens.

21. Lai et al. 1980. Antimutagenic activities of common vegetables and their chlorophyll content Extractions from vegetables (carrots, lettuce, cabbage, parsley, spinach, broccoli) inhibited mutagenic activity in standard assays. Inhibitory activity was correlated with chlorophyll content.

22. Breinholt et al. 1995. Mechanisms of chlorophyllin anticarcinogenesis against aflatoxin B-1 Chlorophyllin inhibits carcinogenesis due to aflatoxin. This study reports a noncovalent complex with aflatoxin which may be involved in anticarcinogenic activity.

23. Chernomorsky & Segelman. 1988. Review Article: Biological activities of chlorophyll derivatives The authors review the anti-inflammatory, wound healing and odor reducing capabilities of chlorophyllin. Chlorophyllin has bacteriostatic properties aiding in wound healing, and stimulates the production of hemoglobin and erythrocytes in anemic animals. It has been used to treat various kinds of skin lesions, burns and ulcers where it acts as a wound healing agent, stimulating granulation tissue and epithelization. In some cases chronic ulcers failed to respond but use of novel preparations has aided in these cases. The mode of action is not well understood but the authors suggest it may involve the formation of complexes with proteins. Treatment with chlorophyll has been neglected in the past few decades as the use of steroids and antimicrobial products became more prevalent. New areas of application are suggested.

24. Marwaha et al. 2004. Wheat grass juice reduces transfusion requirements in patients with thalassemia major: a pilot study

Patients with thalassemia consuming wheat grass juice on a daily basis reduced on average their requirements for blood transfusion. Families raised and prepared the wheat grass at home and a comparison was made with the requirements of the patient in the preceding year. In nearly all patients the mean interval between visits increased and the blood transfused decreased during the wheat grass period. The mechanism involved is unknown.

25. Goldberg. 1943. The use of water soluble chlorophyll in oral sepsis Water soluble chlorophyll was used to treat mouth infections and following "dramatic and satisfactory" early results, over 300 cases of Vincent's stomatitis and pyorrhea have been treated. In pyorrhea the use of chlorophyll resulted in cessation of bleeding from gums and growth of new tissue, and in Vincent's stomatitis chlorophyll regularly brought about complete recovery and more promptly than with other agents. The non-toxic nature and soothing effect of chlorophyll is also beneficial.

26. Gahan, Kline & Finkle. 1943. Chlorophyll in the treatment of ulcers Provides some historical information concerning the isolation of chlorophyll and its use in stimulating tissue growth. Ulcers of the skin were treated topically with chlorophyll ointment and aqueous solution. 19 of 25 patients responded favourably to the treatment, with development of granulation tissue.

27. Lakhanpal et al. 1966. Evidence for an unidentified growth factor(s) from alfalfa and other plant sources Factor(s) important for growth in guinea pigs were found in alfalfa, broccoli and grass clippings. They may or may not be related to the "grass juice factor", but are organic in nature since they are not found in ash.