

Wheatgrass

Wheatgrass powder or caps. is used in the Kessler clinic for several reasons:

It is providing the ideal mineral composition to rebuild the structure of our tissue. Since the minerals are responsible for our electromagnetic field structure.

The electromagnetic field is the matrix of any organic structure (tissue) of our body. The astounding successful use of ONDAMED in painful osteoporosis is based on re-tuning our electromagnetic fields which then will take care of any tissue repair.

Wheatgrass is an excellent source for Lutein. Lutein is an ingredient of wheat grass. It is akin to beta-carotin and neutralizes free radicals.

It is of benefit for the eyes and the vision since Lutein is deposited in the retina in large amounts. The macula lutea (yellow spot) – our most important vision area - in our retina is yellow because of Lutein.

Other benefits of wheat grass may be studied below.

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For other uses, see [Wheatgrass \(disambiguation\)](#).



Indoor grown wheatgrass grows from 8-14 days before it is harvested.

Wheatgrass refers to the young grass of the common wheat plant, *Triticum aestivum*, that is freshly juiced or dried into powder for animal and human consumption. Both provide [chlorophyll](#), [amino acids](#), [minerals](#), [vitamins](#), and [enzymes](#). Claims about wheatgrass' health benefits range from providing supplemental nutrition to having unique curative properties. Some consumers grow and juice wheatgrass in their homes. It is often available in juice bars, alone or in mixed fruit and/or vegetable drinks. It is also available in many health food stores as fresh produce, tablets, frozen juice and powder.

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[\[edit\]](#) History

The consumption of wheatgrass in the [Western world](#) began in the 1930s as a result of experiments by [Charles F. Schnabel](#) and his attempts to popularize the plant.^[1]

Schnabel, an agricultural chemist, conducted his first experiments with young grasses in 1930, when he used fresh cut grass in an attempt to nurse dying hens back to health. The hens not only recovered, but they produced eggs at a higher rate than healthy hens. Encouraged by his results, he began drying and powdering grass for his family and neighbors to supplement their diets. The following year, Schnabel reproduced his experiment and achieved the same results. Hens consuming rations supplemented with grass doubled their egg production. Schnabel started promoting his discovery to feed mills, chemists and the food industry. Two large corporations, Quaker Oats and American Diaries Inc., invested millions of dollars in further research, development and production of products for animals and humans. By 1940, cans of Schnabel's powdered grass were on sale in major drug stores throughout the United States and Canada.^[2]



 Extracting wheatgrass juice with a manual juicing machine.

[\[edit\]](#) Cultivation



Outdoor grown wheat grass grows slowly through the winter in a climate like that of Kansas in the United States.

Schnabel's research was conducted with wheatgrass grown outdoors in Kansas. His wheatgrass required 200 days of slow growth, through the winter and early spring, when it was harvested at the [jointing](#) or reproductive stage. It was at this stage that the plant reached its peak nutritional potential; after jointing, concentrations of chlorophyll, protein, and vitamin decline sharply. [\[1\]](#) Harvested grass was dehydrated and made into powders and tablets for human and animal consumption. Wheatgrass grown indoors in trays for ten days contains similar nutritional content. Wheatgrass grown outdoors is harvested, dehydrated at a low temperature and sold in tablet and powdered forms. Wheat grass juice powder (fresh squeezed with the water removed) is also available either spray-dried or freeze-dried.

[\[edit\]](#) Usage

The average dosage taken by consumers of wheatgrass is 3.5 grams (powder or tablets). Some also have a fresh-squeezed 30 ml shot once daily or for more therapeutic benefits a higher dose up to 2–4 oz taken 1-3 times per day on an empty stomach and before meals. For detoxification, some users may increase their intake to 3–4 times per day. It should be noted that consumers with a poor diet may experience nausea on high dosages of wheatgrass. Outdoor wheatgrass is harvested for a few days each year from plants grown in the "bread basket" regions of the US and Canada. Winter wheat requires more than 200 days of slow growth in cold temperatures to reach the peak nutritional content. Even after that length of time, the plant is only 7 to 10 inches high.

[\[edit\]](#) Health claims

Table 1. Nutrient comparison of 1 oz (28.35 g) [\[dubious - discuss\]](#) of wheatgrass juice, broccoli and spinach.

<i>Nutrient</i>	<i>Wheatgrass Juice</i>	<i>Broccoli</i>	<i>Spinach</i>
Protein	860 mg	800 mg	810 mg
Beta carotene	120 IU	177 IU	2658 IU
Vitamin E	880 mcg	220 mcg	580 mcg
Vitamin C	1 mg	25.3 mg	8 mg
Vitamin B₁₂	0.30 mcg	0 mcg	0 mcg
Phosphorus	21 mg	19 mg	14 mg
Magnesium	8 mg	6 mg	22 mg

Calcium	7.2 mg	13 mg	28 mg
Iron	0.66 mg	0.21 mg	0.77 mg
Potassium	42 mg	90 mg	158 mg

Data on broccoli and spinach from USDA database.^[3] **Data on Wheatgrass juice from indoor grown wheatgrass.**^[2]

Proponents of wheatgrass claim regular ingestion of the plant can

- improve the digestive system
- prevent cancer, diabetes and heart disease
- cure constipation
- detoxify heavy metals from the bloodstream
- help make [menopause](#) more manageable
- promote general well-being.

While none of these claims have been substantiated in the scientific literature,^[1] there is limited evidence in support of some of these claims.^{[4][5][6]}

[\[edit\]](#) **Wheatgrass juice vs. common vegetables**

One of the most popular claims about wheatgrass, and one that is frequently made by both supporters and retailers, is that 1 ounce of wheatgrass juice is as nutritionally valuable as 1 kg (2.2 lb) of green [vegetables](#), a ratio of 1:35. The available vitamin and mineral data of wheatgrass juice, broccoli and spinach does not support this claim (see table 1). In fact, the vitamin and mineral content of 1 ounce of wheatgrass juice is roughly equivalent to the vitamin and mineral content of 1 ounce of fresh vegetables. This conclusion does not include [phyto-nutrient](#) comparisons of these foods.^[original research?]

Another commonly repeated claim, originally made by [Schnabel](#) in the 1940's, is that "fifteen pounds of wheatgrass is equal in overall nutritional value to 350 pounds of ordinary garden vegetables",^[2] a ratio of 1:23. Schnabel statement doesn't specify the form of wheatgrass, however, Schnabel used dried wheatgrass for his own consumption, in his research and later in his nutritional supplements;^[2] One area in which wheatgrass is thought to be superior to other vegetables is in its content of [Vitamin B₁₂](#), a vital nutrient. B₁₂, it turns out, is not a vitamin contained within wheatgrass or any plant but rather a byproduct of the microorganisms living on the plant.^[7] Therefore, there are no reliable plant sources of [Vitamin B₁₂](#).

[\[edit\]](#) **Detoxification**

Another common claim for wheatgrass is that it promotes [detoxification](#). The limited data in support of that claim applies to most green vegetables.^[8]

[\[edit\]](#) **Chlorophyll**

As the [chlorophyll](#) molecule is structurally similar to [hemoglobin](#), it has been argued that wheatgrass helps blood flow, digestion and general [detoxification](#) of the body. These claims have not been substantiated. Some research however exists that relates diets high in

chlorophyll, present in higher concentrations in green leafy vegetables, with lower rates of colon cancer. ^[5]

[edit] References

- [^] ^a ^b Murphy, Sean (2002-10-13). "[Wheatgrass, healthy for the body and the bank account](http://www.abc.net.au/landline/stories/s689970.htm)". *ABC Landline*. <http://www.abc.net.au/landline/stories/s689970.htm>. Retrieved on 2006-10-06.
- [^] ^a ^b ^c Meyerowitz, Steve (April 1999). "Nutrition in Grass". *Wheatgrass Nature's Finest Medicine: The Complete Guide to Using Grass Foods & Juices to Revitalize Your Health* (6th Edition ed.). Book Publishing Company. pp. 53. ISBN 1878736973.
- [^] "[USDA Nutrient Database](http://www.nal.usda.gov/fnic/foodcomp/search/)". <http://www.nal.usda.gov/fnic/foodcomp/search/>. Retrieved on 2007-11-06.
- [^] Ben-Arye, E; Goldin, E (2002 Apr), "[Wheat grass juice in the treatment of active distal ulcerative colitis: a randomized double-blind placebo-controlled trial](http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=ShowDetailView&TermToSearch=11989836&ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum)", *Scand J Gastroenterol* (Norway) **Volume 37** (Issue 4): Pages 444–9, http://www.ncbi.nlm.nih.gov/sites/entrez?Db=pubmed&Cmd=ShowDetailView&TermToSearch=11989836&ordinalpos=2&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
- [^] ^a ^b de Vogel, Johan; Denise S. M. L. Jonker-Termont, Martijn B. Katan, and Roelof van der Meer (August 2005). "[Natural Chlorophyll but Not Chlorophyllin Prevents Heme-Induced Cytotoxic and Hyperproliferative Effects in Rat Colon](http://jn.nutrition.org/cgi/content/full/135/8/1995)". *J. Nutr.* (The American Society for Nutritional Sciences) **135**: 1995–2000. PMID 16046728. <http://jn.nutrition.org/cgi/content/full/135/8/1995>.
- [^] Ferruzzia, Mario G.; Blakesleeb, Joshua (January 2007), "[Digestion, absorption, and cancer preventative activity of dietary chlorophyll derivatives](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6TB1-4MY8BNY-1&_user=10&_coverDate=01%2F31%2F2007&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=484af3aa699168edc7456f5ec4aed6b6)", *Nutrition Research* **Volume 27** (Issue 1): Pages 1–12, doi:10.1016/j.nutres.2006.12.003, http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6TB1-4MY8BNY-1&_user=10&_coverDate=01%2F31%2F2007&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=484af3aa699168edc7456f5ec4aed6b6
- [^] Melina, Vesanto, MS, RD & Davis, Brenda, RD: "The New Becoming Vegetarian", page 186-187. Healthy Living Publications, 2003.
- [^] Fahey, Jed W.; Katherine K. Stephenson, Albena T. Dinkova-Kostova, Patricia A. Egner, Thomas W. Kensler and Paul Talalay (2005). "[Chlorophyll, chlorophyllin and related tetrapyrroles are significant inducers of mammalian phase 2 cytoprotective genes](http://carcin.oxfordjournals.org/cgi/content/full/26/7/1247)". *Carcinogenesis* (Oxford University Press) **26** (7): 1247–1255. doi:10.1093/carcin/bgi068. PMID 15774490. <http://carcin.oxfordjournals.org/cgi/content/full/26/7/1247>.

[edit] External links

- [A Skeptical Analysis of Wheatgrass Juice](#). Brian Dunning. November 09, 2006
- [Wheatgrass Juice](#)

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