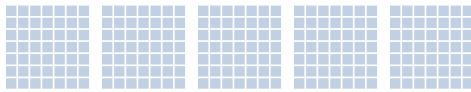


INTEGRATIVE INTERVENTIONS®



ADHD/ASD

ANTIAGING

CARDIOVASCULAR

CHRONIC FATIGUE

DETOXIFICATION

DIGESTION

IMMUNE HEALTH

METABOLISM

MENS HEALTH

MUSCULOSKELETAL

PODIATRY

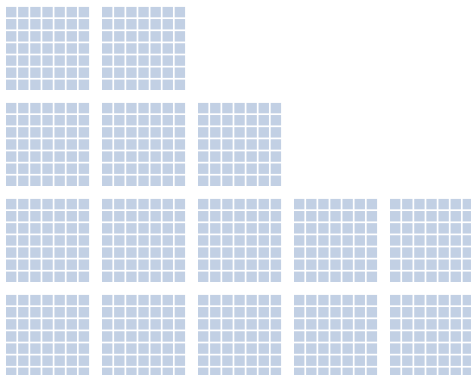
NEUROLOGICAL

SEXUAL HEALTH

WOMEN'S HEALTH

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Green Drinks – A Great Way to Get Your Greens

- Decker Weiss, NMD, AACVPR

So far, Green Drink Mixes (GDMs) have enjoyed a fairly narrow niche of fans. Those who like them, cite the incredible ounce-for-ounce nutritional value GDMs can provide, the convenience, and the feeling they are doing something superior for their health when they drink one of these products. GDM loyalists also like the connection to the earth, when they drink something so basic and close to Nature. Those who don't, simply cite GDM's Yuck Factor (some powdered Green Drink mixes feature a strong taste, unpalatable texture, and uncertain ingredients) as reason enough to stay away.

However, good food doesn't have to taste bad. Admittedly, the taste of some GDMs is a bit, well... *earthy*. Fortunately, there *are* high-quality powdered Green Drink mixes available with great flavors and plentiful nutrients without the "full of chlorophyll" taste.

This *Integrative Interventions* is going to tell you everything you need to know when buying a powdered Green Drink mix product: what to look for on the label, how to determine the nutritional values provided, and how to steer clear of those products filled with empty promises. And maybe we'll even make a few GDM lovers out of skeptics!

Q. Why are GDMs so popular?

A. You just can't deny the convenience of getting a large part of your vitamins and minerals in the form that Nature intended – as a *complete food* – with the ease of a daily drink. Even the most devoted vegetarian can find it hard some days to get the recommended 5 to 9 servings of fruits and vegetables.

In fact, the National Cancer Institute (NCI) recently determined that,

- 87% of US families
- 78% of singles
- 73% of American empty-nesters and
- 61% of our nation's elderly,

don't get the fruits and vegetables we need to stay healthy.¹

When it comes to fiber, we are really failing to get what our body needs. Most Americans only consume 15 grams of fiber per day, less than half the 35 grams that health and nutrition experts, including the NCI, know we need to prevent heart disease, diabetes, and cancer.¹ The most nutritious GDMs contain almost 6 grams of fiber in one single serving.

Q. But, I've heard that most GDMs don't really contain fiber. Some have as little as one gram per serving. Why can't GDMs contain adequate fiber?

A. They can! However, making juice/liquid out of greens removes most of their fibers, and as a result, most GDMs are low in this nutrient.²

The highest quality GDMs contain *inulin and oligofructose (OF)* two soluble dietary fibers packed with nutritional goodness. Inulin (not to be confused with insulin) and OF are naturally occurring dietary fibers that come from chicory root. Like all fibers, they cannot be absorbed. So they stay in the colon until they are excreted out with stool. While they're hanging out in the colon, they are busy doing all sorts of healthful activities, like increasing the numbers of friendly bacteria, (the normal intestinal flora that are vital to our health) by providing the nutrients they need to multiply, scrubbing your intestinal walls of unwanted waste, and soaking up toxins.³

Both fibers have a unique partnership with calcium, too, making them even more beneficial. While some fibers inhibit mineral absorption, inulin and OF actually improve the ability of calcium to be absorbed. Our bones are constantly forming and breaking down. Ideally, these two processes should balance each other or perhaps favor bone production. Inulin and OF slow the rate of bone breakdown and slightly increase the rate of bone formation.³

Q. Why do GDM's contain grasses? I thought humans couldn't eat grass?

A. Humans can indeed eat grass, just as we can eat lettuce, spinach, or other greens. However, we cannot *fully* digest grass because we can't digest the compounds that grasses and other plants use to maintain their structure – fibers.

Almost all GDMs contain grasses because they are super-rich in antioxidants, nutrients that scavenge free radicals. Damage from free radicals is considered the number-one cause of aging and may lead to heart disease and cancer. The antioxidants in barley, wheat, and oat grass are known to have anti-cancer activities.²

Barley grass (*Horedum vulgare*) contains several antioxidants that may help us fight cancer and boost our immunity. It's also the epitome of the phrase **nutrient-dense**. For example, GDMs that contain organic barley grass provide the equivalent of about 2 servings of leafy green vegetables – just from this single ingredient!^{4,5} Another common GDM ingredient is radish sprouts (*Raphanus sativus*). Compared to eight other common food vegetables, radish sprouts have superior antioxidant action. They also contain vitamins A and C, folate, calcium, and potassium. It's almost a little hard to believe that all this nutrition comes from a tiny radish sprout!⁶

But, probably the best reason grasses are the backbone of GDMs is chlorophyll, the green pigment of plants.

Q. Why is chlorophyll important?

A. Chlorophyll takes sunshine and through the "magic" of photosynthesis turns it into chemical energy that drives the biochemical reactions in nearly all living organisms. Carbon dioxide in the air is absorbed through small holes (stomates) in the plant's leaves, while the plant's roots absorb water from the soil. Sunlight strikes the surface of the leaf where chlorophyll traps its energy. Some of the water is changed to hydrogen and oxygen. The hydrogen joins with the carbon dioxide to make food for the plant. And the oxygen gas is released from the plant through the stomates. Chlorophyll is the key to the antioxidants, vitamins, minerals, and fiber in superior GDM products. It's the connection between the Earth's greens and human health.⁷

All grasses, spinach, and other greens are high in chlorophyll. And because the center of the chlorophyll molecule contains magnesium, these plants are also very high in this mighty mineral. Magnesium is vital for muscle contraction and the conduction of nerves. It's crucial in maintaining heart and blood pressure health.⁷ Since 70 to 80% of all American adults don't get the amount of green vegetables they need, most of us probably aren't getting the magnesium we need, either.

Q. If a powdered GDM contains wheat grass does it also contain gluten?

A. No, wheat grass is gluten free. It's also full of valuable nutrients, including beta-carotene, riboflavin, folic acid and the amino acids tyrosine, aspartic and glutamic acid.¹

Q. OK, then what nutrients, greens, and vegetables should be in a high quality GDM product that's made by a reputable and honest company?

A. Good question! Start by looking for the grasses we talked about. Make sure it also contains vegetables (broccoli, cabbage, carrot, etc), leafy greens (spinach and kale) and other nutrients like blue green algae.

Q. Who do you think can benefit the most from GDM?

A. Green Drinks can give anyone an energy boost. But I have found that people with the following illnesses really benefit from including Green Drinks as part of their daily diet:

Leaky gut syndrome – The vitamins and minerals in greens are

naturally metabolized, which makes them perfect for people with leaky gut syndrome. Typically, individuals with this condition are deficient in essential vitamins, minerals and enzymes because of the permeability of the gut wall. GDM's are a soothing, natural way to introduce these vitamins and minerals back into the system, plus, the vegetable enzymes in the barley, oat and wheat grasses are suited for a wide variety of pH levels.

Autoimmune diseases – Some of the ingredients in high quality GDM's have vegetables rich in carotenoids. Supplemental use of these vegetables, such as carrots with beta-carotene and tomatoes with lycopene, show encouraging results for immuno-modulating effects in recent research.^{8,9}

Cancer – GDM's have plenty of cancer-fighting whole foods, including cabbage, inulin and oligofructose, radish, tomato and kelp.

Research shows that cabbage contains cancer-inhibiting compounds.¹⁰ Kelp may have anti-tumor and anticoagulant activities, making it beneficial for anyone with cardiovascular problems as well.^{11,12} Inulin and oligofructose, so beneficial for proper digestion, may inhibit colon cancer and tumor cell growth.¹³ And, scientific studies show that the spicy Daikon radish may have properties that help ward off cancer.¹⁴

One nutrient that is "hot" right now is the carotenoid, *lycopene*, and with good reason. Clinical studies show it may reduce risk of prostate tumor cell growth. In one clinical study, PSA (prostate specific antigen – a marker for prostate cancer) levels decreased by 18% in the lycopene group. Clinical studies also show that high intakes of lycopene and tomato products are associated with a 30% - 40% reduced risk of prostate cancer.¹⁶

Heart disease – Many of the whole foods components in a high quality powdered GDM such as green tea, broccoli, cabbage and carrots have cardioprotective effects. For instance, green tea, which is well known for its antioxidant abilities, is associated with lower rates of coronary artery disease.¹⁷

Broccoli, and its close cousin, cabbage, have many compounds associated with good health. A randomized, double-blind clinical study found that a broccoli and cabbage combination reduced LDL cholesterol by 8.5% in participants after 9 weeks of use.¹⁸ However, many people just can't stomach the taste or smell of either of these foods—another case for a good tasting, high quality GDM.

Carrots, long associated with beneficial effects for eye health, have cardiovascular protecting abilities too, as a great source of beta-carotene. In a scientific study, beta-carotene decreased

cholesterol levels in the liver by 44% and reduced liver triglycerides by 40%.¹⁹

Osteoporosis – most people think of dairy products when they think about calcium and bone health. Proving that it's never too late to start eating right, clinical studies show that diets rich in vegetables containing bone-building calcium, magnesium and potassium help keep bones strong – even in older individuals.^{20,21}

Of course, one of the best ways to avoid osteoporosis is by ensuring a healthy calcium intake *right now*. Calcium isn't the only important nutrient for helping prevent osteoporosis. Getting enough magnesium and potassium is vitally important for healthy bones, too. Plus, the fiber found in high quality GDMs helps the body better absorb calcium and magnesium as well.

So, when you choose a powdered GDM, make sure it's one that has appreciable amounts of fiber to help the good bone-building minerals inherent in the veggies truly "sink in."^{22,23}

Q. How can someone who hates the taste of those vegetables and leafy greens become a GDM lover?

A. Well, you're right to ask – some GDMs actually taste more intense than plain old vegetables. However, there are high quality GDMs, with natural, fresh-tasting, fruit (and even mint) flavors, that will remove the doubts from most peoples' minds. Plus, the benefit of drinking your greens is the almost instant intake of chlorophyll, magnesium, antioxidants, plant enzymes and fiber.

Q. What does the research state about the nutrition GDMs provide?

A. Besides the antioxidants in barley grass and radish sprouts, there are numerous nutrients in GDM vegetables with significant health benefits. As mentioned earlier, the "hot" nutrient in the world of research is lycopene, the pigment that makes tomatoes red. Lycopene is a carotenoid—a plant-based antioxidant compound that may protect against cancer and heart disease. Lycopene is more powerful than beta-carotene, the best-known carotenoid.²⁴

More than 70 studies have examined the link between lycopene and cancer. So far, there is strong evidence that lycopene can protect against prostate, lung, and stomach cancers. There is some support that lycopene also affords protection against cancers of the cervix, colon, rectum, esophagus, mouth, and pancreas. Lycopene may fight heart disease, prevent congestive heart failure, and lower levels of artery-clogging LDL cholesterol.^{24,25}

A National Eye Institute (NEI) supported study found that people who ate collard greens, kale, and spinach had much less age-related

macular degeneration (AMD). This eye disease affects the macula, the part of the eye that allows you to see fine detail. AMD blurs the sharp, central vision you need for "straight-ahead" activities such as reading, sewing, and driving.²⁶

Q. Are powdered GDM's good for pH balancing?

A. As a naturopath, I wholeheartedly believe that increased intake of processed foods has led to an imbalance of acid in the body system, and that alkalizing foods like those found in GDM's can make a huge difference! While the research is still limited on this, it seems certain that some foods have alkalizing effects in the body.

For example, although citrus fruits such as lemons or grapefruit are considered acidic foods, it is the action in the body that determines whether or not they are beneficial. In fact, lemons are considered an alkalizing food. Many researchers believe that a typical Western diet has led to a state of chronic, low-grade acidosis (too much acid in the body.)²⁷⁻³⁰ This is where regular use of a premium powdered GDM can help.

Alkalizing foods may also support bone health as well. Whole foods such as fruits and vegetables tend to be high in potassium and magnesium, two minerals that are often depleted by ingesting large amounts of acid-producing foods. In one clinical study, potassium and magnesium from whole foods improved bone mineral density (BMD) for older individuals.³¹

*In fact, for anyone concerned about acid/alkaline balance, many of the whole foods found in quality green mixes should include: spinach, broccoli, cabbage, collard greens, mustard greens, blue-green algae, kelp, alfalfa, barley and wheat grasses – all considered "alkaline-producing" foods for better acid/alkaline balance in the body.*³²

Q. How can someone who hates eating their vegetables enjoy these drinks?

A. It's easy – flavor! While some GDM's have a rather "intense" taste, there are high-quality Green Drink Mixes available with natural, fresh-tasting fruit and mint flavors that will turn the most ardent veggie avoider into a fan! Plus, when they realize that they're combining good taste with an almost instant intake of chlorophyll, magnesium, antioxidants, plant enzymes and fiber, it makes the value and convenience of GDM's obvious.

Conclusion

High Quality Powdered Greens Drink Mixes can provide a great-tasting, ultra-pure, whole-food way to get the essential nutrients you need to prevent cancer, heart disease, and diabetes. They can enhance your energy, support digestion, and boost your immune system.

For those of you who are devoted GD users, you know how amazing a simple glass of water can become when mixed with Earth's green goodness. And for those of you who are willing to give GDM's a try – congratulations! You are on your way to superior and great-tasting health!⁶

Green Drinks are recommended for:

- Autoimmune disease
- Osteoporosis
- Bone spurs
- Cancer
- Heart disease
- Leaky gut
- Irritable bowel, Ulcerative colitis/Crohn's disease
(Start with small amounts and build up slowly to avoid diarrhea.)
- Chronic fatigue/fibromyalgia
- Anyone who wants better nutrition and more energy

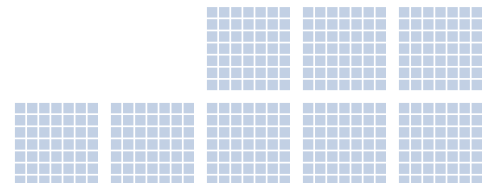
Decker Weiss, NMD, AACVPR

Dr. Weiss is a member of both the Enzymatic Therapy and PhytoPharmica Scientific Advisory Boards and is considered an expert in integrative cardiology.



Dr. Weiss performed many hours of internship, and a cardiology residency at the Arizona Heart Institute. Dr.

Weiss continues his work in cardiology becoming one of the first Naturopathic physicians to have hospital privileges in a conventional medical facility by being assigned to the Department of Medicine in 1998 as a consulting staff physician at the Arizona Heart Hospital. Dr. Weiss continues his work by maintaining his hospital privileges and by seeing patients and training interns and residents at the Southwest College of Naturopathic Medicine. Dr. Weiss is adjunct faculty of the Canadian College of Naturopathic Medicine.



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