

What Is



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A True Super-food?

In today's world, our bodies have an increased need for protection from the environment plus the vigorous energy levels that are required to live life to its fullest.

To attain these goals, many people have adopted more natural lifestyles, complete with nutritional supplementation, organic or raw-food diets, and detoxification and cleansing. While these are certainly positive steps, they may not be enough to do the job. The explanation is three-fold.

- **The physiological demands that we make on our bodies are higher now than ever.** Consider this: Each day, the body must defend itself against toxic substances in the environment: chemicals, natural hazards, pathogens and other pollutants. Mounting this defense demands energy and creates additional physical stress on the normal functions of the body.
- **Secondly, the rapid-fire pace of life** – work, family, finances, urban commuting and even recreational activities – often leaves us in the fright, flight or fight mode, causing both **physical and emotional** stress.
- **Coupled with lifestyle, the third impediment to optimum health and homeostasis**, or healthy balance, is the **quality of the American diet**. By quality, we don't mean only food choices. The **food supply** has actually lost some of its nutritional quality due to a combination of factors, including changes in economic and social geography.

Food loses substantial quantities of its original nutritional value by the time we consume it. The nutritional value of any food decreases rapidly after harvesting, not to mention the impact of how we prepare food: microwave, boiling, etc.

Unfortunately, the number of farms remains in decline, meaning most of us live farther from them and making the journey from field to table a much longer one.

Fewer farms can also mean soil on the remaining farms is nutrient-stripped from over-planting, and the remaining nutrient content is further compromised by over-processing and the addition of chemicals to extend shelf life or enhance flavors. Pesticides or other environmental pollutants can also contaminate foods.

In the end, this compromise to optimal health can also be viewed as a quantity-to-quality issue. Raw foods are excellent sources of clean nutrients and calories. Their benefits are not in dispute. But how much food would you actually need to consume and in what combinations in order to take in the full range of supporting, complementary nutrients required to achieve optimal health? **Quite a lot.**

All these factors lead us to an undeniable paradox: *Most Americans are both overfed and undernourished at the same time because our foods, themselves are nutritionally deficient.*

So how do we get the nutrients we need if it's not in our food or diets?

Super-food Supplementation Is The Key

Considering all these factors, it becomes clear why almost anyone could benefit from the additional nutritional support of concentrated, nutrient-dense, super-food supplementation, especially when it is infused with organically grown ingredients.

Most Americans are both overfed and undernourished at the same time because our foods are nutritionally deficient.



A good super-food blend should be highly concentrated and nutrient-dense to include a scientifically based blend of greens (from the sea and land), vegetables, fruits, probiotics, mushrooms and items for digestive support. In one daily serving, they should deliver concentrated nutrition to support the diet and promote optimal health, perhaps overcoming some key impediments to optimal health.

Michael's® Super Defense Food™ takes whole-food supplementation to the next level, going beyond the usual whole-food, fruits-and-greens blend. **Super Defense Food™** also includes many super-foods, which are naturally grown, uncontaminated and minimally processed foodstuffs that have a high or complex nutrient profile and are readily absorbable.

Super Defense Food™ includes land-grown plants such as **organic barley grass**, and **oat grass**, all in juice form rather than as grass fillers. It also includes those out of the sea: **seaweed, chlorella, spirulina, kelp** and **dulse**. These sea greens are some of the richest sources of concentrated minerals on the planet. Minerals are needed for everything the body does, from muscle contractions to supporting the thyroid to detoxifying the body.

Because of their tremendous nutrient concentrations, a small amount of **Super Defense Food™** goes a long way. Two teaspoons provide increased energy without leaving you feeling bloated or "heavy." This is ideal for people on the go, from the stay-at-home mom to the busy professional to growing children – in essence, everyone.

Michael's® Super Defense Food's™ unique combination of nutrients and other ingredients like **Aktivated Barley®** and **antioxidants** provide balanced nutritional support to the body at the **cellular level**.

This is crucial because keeping cells well nourished and healthy is the key to maintaining homeostasis (balance and harmony): aging occurs as the body has to work harder to do what is considered normal and perfunctory, on a cellular level.

Therefore, regardless of how sophisticated the formula, if a product's nutrients don't reach the cells, the product will not have the full, intended effect in the body.

Super Defense Food™ feeds the body for optimum performance of body systems in these important ways: supports a strong, defensive immune system; heightens energy and metabolism; provides strong support for liver-cleansing functions; assists the natural detoxification processes, provides antioxidant support; contributes to ageless vitality; and supports enhanced nutrient absorption. It also supports overall health of the digestive system.

To appreciate the crucial need **Super Defense Food™** can fill in your daily regimen, it's important to understand the critical link between your immune, digestive, and detoxification and cleansing systems.

IMMUNE SYSTEM SUPPORT

Substantial numbers of our immune cells are concentrated along the digestive tract, indicating that defense of the body by way of a healthy digestive tract is of paramount importance.

Why would so many immune-system cells be located here? It's because this is where your body "takes in the world," so to speak, and any solid or liquid substance that enters the body via the mouth may be a source of toxins or other impurities.

The immune system automatically "cleans" ingested food and liquids to remove any toxic or unwholesome matter. The amount of cleaning required can be greatly influenced by the nature of your diet, lifestyle and nutritional supplementation.

As keystones in the body's first line of defense, the immune system and liver are working constantly to protect the body from the effects of toxins, not only from our food and water but also from the air we breathe and from toxins absorbed through the skin. Vim, vigor and vitality can be affected by exposure of our cells to these toxins.

Visualize your immune cells standing guard, defending against any enemies and allowing only healthy nutrients to enter. The more toxins and impurities there are entering through any ingress, the greater the amount of energy (nutrients) that the immune system will require to nullify their effects. This, in turn, will diminish the amount of nutrients available for use by other systems and in other processes, thus possibly diminishing their efficacy.

An inadequate supply of nutrients within the body could create a compromised immune response, possibly setting the stage for fatigue or illness.

Many of the ingredients in Michael's® Super Defense Food™ have been traditionally used for their beneficial health properties by healers. In China, for example, practitioners have long included **cordyceps**, and **shiitake** and **maitake mushrooms** in their **prohomeostatic** formulas – those that support the body's healthy, normal balance.

These ingredients contain beta-D-glucans, usually referred to as beta-glucans, a class of non-digestible polysaccharides, which are a type of complex carbohydrates found in the cell walls of plants such as oats, barley, yeast, bacteria, algae and mushrooms. Beta-glucans are thought to enhance the activity of the immune system's main sentries, the macrophages, which are white blood cells that attack microbes.

Macrophages also include a specialized white blood cell called the natural killer (NK) cells that contain enzymes capable of destroying abnormal cells as well as microbial cells. These NK cells have the capacity to identify and eliminate so-called "missing-self" cells, which do not display a normal cellular essence, perhaps due to the effects of a toxin or a microbe.¹

ENERGY SUPPORT

The body depletes significant reserves of energy and nutrients as it processes foreign matter. If you are under any additional stress, your adrenal glands will become taxed, as well. There is less energy for the self-defense immune process and less energy for responding to life's other stresses. Over time and without adequate nutritional intervention and support, both responses will spiral downward.

This brings us to Aktivated Barley®, one of the most unique ingredients in **Super Defense Food™** and one of the most critical in terms of its support for the adrenal glands and nutrient absorption.

A form of pre-sprouted barley with a patented activating-process, Aktivated Barley® assists the body in coping with stress and its deleterious effects on the adrenals.

Earlier in the text, we mentioned beta-glucans's probable link to immune health. Well, the special activating-process used in **Aktivated Barley®** makes it rich in one particular type of beta-glucans called beta-1, 4. The name refers to the way its glucose molecules link together. Their structure and linkages help them to support more efficient use of insulin in the body, which in turn supports the adrenals and pancreas. Beta-1, 4 glucans thus supports the energy facet of the defense system.

**Michael's®
Super Defense Food™
greens, veggies,
fruits, berries, herbs,
mushrooms,
antioxidants, no added
sugars, probiotics and
digestive enzymes,
all in one.**

The **beta-glucans in Aktivated Barley®** form a polysaccharide gel which helps the other ingredients in **Super Defense Food™** to attach to the wall of the small intestine, allowing nutrients to pass through the intestinal wall into the bloodstream.

What this means is that once digested, other essential nutrients can be assimilated more efficiently for utilization toward overall better health.

Michael's® Super Defense Food™ is formulated using many ingredients recognized for their support of ageless vitality. "Greens" comprise only one category. Here, we have included **cabbage, broccoli, kale and parsley** to form a **cruciferous-vegetable blend** that provides the protective substances chlorophyll and sulfur. Sulfur is essential for the body in making antioxidants such as glutathione. A free-radical scavenger, glutathione is one of the most potent antioxidants created within the body and is also noted for its liver support.

Much research has focused on the health-benefiting properties of phytochemicals found in these **cruciferous vegetables**. Of particular interest are indole-3-carbinol (I3C), indoles and sulforaphanes.

These last two compounds help activate and stabilize the body's antioxidant and detoxification mechanisms. Sulforaphanes, which are formed when cruciferous vegetables are chopped or chewed, trigger the liver to produce enzymes that detoxify chemicals.

There are other "green" foods like broken cell-wall chlorella which provides the highest amount of chlorophyll per gram of any plant. Chlorophyll is useful as a natural "**purifier**" because of its ability to bond with certain chemicals found in tobacco smoke,² cooked meats³ and aflatoxin-B1⁴ (a group of toxic compounds produced by certain molds that contaminate stored food-supplies). The tight binding of chlorophyll to these potential troublemakers may block absorption into the gastrointestinal tract and reduce the amount that reaches susceptible tissues.

Dulse and Atlantic kelp both contain iodine for the production of thyroid hormones. Both of these sea vegetables are also both rich sources of pigments and micronutrients because their growing environment contains absorbable micro trace elements, which are required for normal growth and reproduction but needed only in low concentrations.

Chlorella has the additional property of helping the body to detoxify from heavy metals such as mercury. Cilantro has the same type of detoxifying attributes.

Super Defense Food™ also contains several "juices." Organic barley-grass and oat-grass juices contain significant amounts of chlorophyll. Juice is highly preferable to dried grasses because juice already contains concentrated nutrients. Significantly greater amounts of dried grasses would be required to contribute the same amount of nutrients in a formula.

Organic beet juice contains betaine, which helps the body to deactivate homocysteine. Most homocysteine is bound to plasma and considered inactive. However, unhealthy changes in the body's biochemistry may cause it to be released into the bloodstream as free homocysteine, which acts like a free radical and has a potentially negative effect on the cardiovascular system's arteries and veins. The betaine in organic beet juice acts to squelch the effects of this free radical.

Free radicals act like the cue ball on "the break" in a game of pool. They scatter all the other balls causing them to bounce into one another. Each ball changes the position of the balls it touches. It is the same thing with free radicals. They alter the molecules with which they come into contact, which can affect DNA and cell receptors. Free radicals cause aging and other problems.

Beets also help to increase the activity of two antioxidant enzymes in the liver, glutathione peroxidase and glutathione-S-transferase. These two enzymes are the bodyguards for liver cells, protecting them from free radical attack so they can continue to protect us.

Beet juice, like most juices, provides "prebiotics" which are found in fruits and vegetables. These elements, such as fructo-oligosaccharides and polysaccharides, are soluble fibers that can become food for the friendly flora (called probiotics) in our intestinal tract. They help lactobacillus acidophilus and the other friendly intestinal microorganisms to colonize the intestinal tract. Remember the critical factor: your digestive system is directly linked to your immune system.

Additionally, these greens offer other vital nutrients such as iron, folate and calcium. They also have vitamin C, which significantly improves iron and calcium absorption.

Other elements beneficial for the entire body, immune system and the intestinal tract can be found in the fruit-blend portion of **Super Defense Food.™**

This blend, which consists of 15 fruits including **apple, grape, grapefruit, orange, pineapple and mango,** provides fibers, phenol compounds and pigments.

The pigments, generally orange beta-carotene but also blue and purple anthocyanadins, create the colors that we find in fruits.

Beta-carotene is the precursor to the formation of vitamin A.

The phenol compounds are elements that participate in their becoming antioxidants. Antioxidants are vital to good health because they help to protect DNA within the cells.

DNA is the blueprint for each cell, telling it how to perform and what it should look like. When DNA is attacked by free radicals, it breaks apart the DNA strands, thus speeding up the aging process.

It is estimated that each day there are over 10,000 oxidative hits to the DNA of each cell in the human body.

This is why we have included ingredients that will help your body manufacture antioxidants.

Apples, oranges, grapefruits and lemons contain flavonoids. Flavonoids are a large family of compounds synthesized by plants that have a common chemical structure.⁵ They are considered another source of antioxidants in fruits, and they work synergistically with vitamin C for integrity and strength of tissues.

PROBIOTIC SUPPORT

Michael's® Super Defense Food™ also has the very popular Kyo-Dophilus.™ This trademarked ingredient contains live cells of the friendly flora trio: L. acidophilus, B. bifidum and B. longum.

Flora in the intestinal tract comprises the main source of internally manufactured, essential B-vitamins, necessary for excellent health. A digestive system high in healthy bacteria (acidophilus) is better able to fight infection.

All of these nutrients and ingredients help to nourish the intestinal tract and ensure good immune health within.

*...keeping cells well
nourished and healthy
is the key to maintaining
homeostasis (balance and
harmony) in the body.*

DETOXIFICATION SUPPORT

To support the body's ongoing, natural detoxification processes, we include milk thistle, astragalus and dandelion root for the liver, and for the bloodstream, red clover flower.

Goji berry is another wonderful addition to this comprehensive formula. Sometimes called wolfberries, goji berries are perhaps the most nutritionally rich fruit on the planet. Goji berries contain up to 21 trace minerals; 18 kinds of amino acids, including the eight essential amino acids; and also tryptophan.

They contain the minerals zinc, iron, copper, calcium, germanium, selenium and phosphorus. Goji berries also have vitamins B-1, B-2, B-6, C and E.

A COMPREHENSIVE FORMULA

So there you have it: greens, veggies, fruits, berries, herbs, mushrooms, antioxidants, no added sugars, probiotics and digestive enzymes, all in one.

While it may be impossible to live in a totally clean environment and eat perfectly, to sleep well or to avoid stress, it is possible to support your overall health by making Michael's® Super Defense Food™ part of a daily supplementation regimen for you and those you love.

Super Defense Food™ is also the perfect complement to Michael's® Ultimate Detox and Cleanse.™ People often wonder what kind of nutritional supplementation to take while detoxing and cleansing. Michael's® Super Defense Food™ is the best choice. Once you have completed the Ultimate Detox and Cleanse.™ Super Defense Food™ will extend the benefits of the cleanse, supporting overall better health.

Super Defense Food™ is truly the ideal, take-everyday-for-the-rest-of-your life foundational, nutritional supplement.

Try Michael's® Super Defense Food™ with your Michael's® Ultimate Detox & Cleanse™ program. They're the perfect pairing to support optimal health.

Who should take Super Defense Food?

Anyone who is looking for:

- improved digestion
- a cleaner, less-toxic body
- increased immune support and stress resistance
- more energy and metabolism support
- overall better health
- a healthier diet

Can children take Super Defense Food?

Super Defense Food is appropriate for every age, adding to the diet concentrated, "clean" nutrients to support excellent health.

When and how often should I take Super Defense Food?

Take it once daily at the time that is most convenient for you. It need not be taken with meals, and it is not intended as a meal replacement.

Should I continue taking my usual daily supplements with my Super Defense Food?

By all means. Super Defense Food will enhance your current supplement regimen.

What should I mix it with?

It's largely a matter of personal preference. We recommend you mix it with your favorite chilled juices or flavored waters. Some choose to mix it in chilled bottled water or soymilk. You can even sprinkle it on your favorite salad or raw veggies. The only requirement is that the liquid or food be chilled: heat will destroy the probiotics. Stir rapidly. Use a shaker cup or capped bottle to obtain maximum blending and suspension of the ingredients.

How about the taste?

Super Defense Food concentrate has a pleasant, slightly sweet and malt taste.



Supplement Facts

Serving Size: 5.7 Grams
(2 Teaspoons) or One (1) Scoop

Amount Per Serving	% Daily Value
Total Calories:	20 *
Calories From Fat:	0 *
Total Fat:	0 0%
Saturated Fat:	0 0%
Cholesterol:	0 0%
Sodium:	21 mg 1%**
Total Carbohydrates:	4 g 1%**
Dietary Fiber:	1 g 5%**
Sugars:	1 g *
Protein:	1 g *

Proprietary Blend	5.7 g (5695 mg)*
Fruit Blend (Apple, Grape, Grapefruit, Orange, Pineapple, Lemon, Lime, Cherry, Watermelon, Pear, Mango, Strawberry, Papaya, Tangerine, Apricot)	
Organic Beet Juice Powder	*
Organic Oat Grass Juice Powder	*
Organic Aktivated Barley [®] **	*
Hawaiian Spirulina	*
Cruciferous Blend (Cabbage, Broccoli, Kale, Parsley)	*
Acerola Berry Extract	*
Chlorella (Broken Cell Wall)	*
Kyo-Dophilus [®] ** (1 billion/serving)	*
Astragalus Root	*
Cilantro Herb	*
Milk Thistle Seed	*

Organic Barley Grass Juice Powder	*
Vanilla Bean Extract	*
Inulin Fructooligosaccharides	*
Atlantic Kelp	*
Organic Dulse	*
Pfaffia Root	*
DigeZyme [®] ***** (Digestive Enzymes)	*
Lo Han Kuo	*
Acacia Gum Fiber	*
Shiitake Mushroom	*
Dandelion Leaf	*
Eleuthero Root	*
Red Clover Flower	*
Goji Berry (Lycium barbarum)	*
Activin [®] ***** (Grapeseed Extract)	*
Alpha Lipoic Acid	*
Organic Cordyceps	*
Maitake Mushroom	*

*Daily value not established
**Percent daily values based on a 2,000 calorie diet

***Aktivated® Barley is a Trademark of Nutritional Technologies Int'l.

****Kyo-Dophilus™ is a Trademark of Wakunaga of America, Ltd.

*****DigeZyme® is a Trademark of Sabinsa Corporation.

*****Activin® is a Trademark of Dry Creek Nutrition, Inc.

Made in a GMP facility that processes milk, soy, tree nut & wheat products.

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