

25 Superfoods For Super Health

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INTRODUCTION

In 2003 I was living in Chiang Mai, Thailand, and putting the finishing touches on a travel book I was preparing to publish. I was focused solely on that task; so much so that I hardly noticed a sudden and unexplained loss of weight, combined with some strange digestive issues.

At the time I was eating a lot of delicious and healthy Thai food. But I was also energizing myself with a few cans of Coca Cola each day, and scarfing down cinnamon rolls from my new favorite bakery around the corner. And, of course, indulging in a lot of incredible, freshly-baked bread from that same bakery. I mean, what is life without bread?!

I had no idea what it meant to be healthy, what it meant to eat healthy. Going back a few more years to the late 90s, I recall eating nothing but processed sliced turkey on white bread for several weeks. Neither contained any fat. So I thought THAT must be healthy. Though it *was* probably better than my standard Taco Bell diet during that period. And when you're in your 20s, you can get away with a lot.

Back to 2003. I was exercising each morning, as my apartment complex had a nice fitness center on the ground floor. But still, I wasn't working out that hard, and certainly not hard enough to account for a weight loss of 45 pounds in 2 months. I've always been thin, even when carrying a bit of extra weight, so 45 pounds was much more than I could afford to lose. And those digestive issues continued to worsen.

My uncle died of colon cancer at a young age, so at my mother's insistence I finally went to my friendly neighborhood Thai hospital for a barium enema. It

should go without saying that this was an unpleasant experience. And, according to my Thai doctor, it yielded no clues about my condition, as he found nothing in the X-ray of my colon that he considered alarming. However, by this time, I knew something was seriously wrong.

I flew back to the U.S., with my X-ray in tow, and scheduled an appointment with an American doctor who could surely help me. Ironically, my American doctor was *Thai* American. He took one look at my X-ray, then looked back at me and said, "Your colon is so inflamed it's nearly closed." He contorted his index finger and thumb into a circle to demonstrate the opening of a healthy colon. Then he closed that opening almost entirely to demonstrate the condition of my colon. And then he diagnosed me with Crohn's disease.

He told me there's no cure for Crohn's disease. He also told me that no one knows how you get Crohn's disease. Then he told me I'd have to go on prednisone, a steroid, and remain on it for the rest of my life. He also said there was a very good chance my condition would require surgery. In short, he (along with the entire medical profession) knew nothing at all about my wonderful new disease, but he felt very confident on how to treat it. That was the first and last time I saw that doctor. Or any doctor, for that matter.

His recommendation sounded normal, of course, when you grow up in a society dependent on modern medicine for your health and survival. But instinctually, in a place I couldn't quite pinpoint, I felt there had to be another way. Though I had no idea what that way would be or look like. So I decided to investigate.

I became a voracious researcher and reader. I learned so much in those first few months following my diagnosis, then spent years refining that knowledge and building upon a base that seemed all-too simple yet profoundly logical. And intuitively, it felt right in a way that steroids and surgery never did.

A funny side note: One of my sister's friends at that time was a doctor. When she heard that I decided to treat my Crohn's disease with food and herbs, rather than

take a more "modern" approach, she told my sister, "Well, your brother's an idiot!"

As it turned out, I felt pretty darn smart. And I felt pretty good physically as well, after making a few simple dietary changes. One thing was for certain – I was hooked! I wanted to know more, learn more, share it all with family and friends, and spread the word that there existed a better way. A more natural way.

There were three books that I remember reading early on that helped me tremendously, and each in a different way. The first was Dr. Joseph Mercola's *Total Health*, (though I'd now recommend his more recent book – *Effortless Healing*.) It made so much sense that I felt dumb for never coming to those conclusions on my own. And although I cannot remember how I stumbled upon it, that book literally saved my life, as it started me down this long and winding natural health road.

Another book, one that helped me realize the almost magical connection between mind and body, is *Spontaneous Healing* by Dr. Andrew Weil. It explores the incredible power that the mind has on our physiology, and the role it plays in keeping us healthy.

The third book I recall from those early days is <u>The Metabolic Typing Diet</u> by William Wolcott. Of course, there are things all of us should avoid like sugar and processed foods. However, as individuals with individual biological needs, I felt like there could be some fine tuning to account for this. And that's what this book delves into. Because one size never does fit all.

At this time I'd like to mention a few things. First off, this book attempts to rank the best superfoods, which even now feels a bit ridiculous for various reasons. I could have put them into alphabetical order, however, I do feel that some are better than others, and while some of that is subjective, much of it is also based on hundreds of hours spent pouring over research studies and clinical trials. So

those superfoods at the top of the list, I do believe are the *superest* of all superfoods.

You may notice that some superfoods are missing. I wrote in-depth articles on 70 superfoods, then whittled that down to 25. But even those original 70 didn't account for some very healthy foods that I consume on a regular, if not daily, basis. In other words, this ebook is not the definitive word on all superfoods. There are obvious omissions like coconut oil, goji berries, flax seeds, ginseng, and many others. This list, more than anything else, represents my favorite superfoods based on my research.

Also, reading through thousands of research studies and clinical trials meant learning a new language — one called science. I tried to simplify and explain in English as best I could, however, I didn't want to dumb it down so much as to make it unsubstantial. There's nothing I dislike more than finding a webpage saying blueberries are good for brain health without giving any substantial reasons why. I've also included links to numerous studies and trials, because, well ... I love proof that something works. I hope you do, too. All links, by the way, worked at the time of publishing, but the online world is always changing. My apologies if any of the links no longer work by the time you read this.

Secondly, while incorporating superfoods into your life will no doubt have profound changes on your health, there are other aspects of natural health I want to quickly mention. What you add to your diet is probably less important than what you eliminate. Not sure what those foods are, begin where I did by reading *Total Health* or *Effortless Healing*. But obviously, replacing processed foods with organic whole foods is a great place to begin.

Exercise is another component to being as healthy as possible, and as far as I'm concerned (and many others) high intensity interval training, also called Peak 8, should be the cornerstone of any cardio exercise program. I would also add in some yoga or stretching for flexibility, and some resistance exercise to build stronger muscles, ligaments, tendons, joints, and bones.

Also, you can't be healthy without finding natural ways to relieve stress. In that regard, my two favorites are meditation and EFT. Meditation was impossible for me, until I discovered <u>Brain Sync</u>, which combines guided meditation and/or subliminal messages with brainwave audio technology. It's a game-changer. And if you haven't heard of <u>EFT</u>, it's the goofiest and most effective way to manage your emotions in the absolute shortest amount of time possible. It's truly miraculous. And it's free!

And finally, how natural is your lifestyle? What toxins are you exposed to on a regular basis, and what can you do to eliminate those? Some toxins you won't be able to do anything about, as we now live in a very toxic world. But some, like you'll find in household cleaning supplies, personal hygiene products, and cookware, can easily be eliminated. Many of the articles in It's Only Natural will provide healthier, Do-It-Yourself options for many of the products you currently use.

The third and last thing I want to mention is that all of the recommendations I make I do so because these products, or books, or programs have worked for me. These are products I believe to be of the highest quality from companies I trust. These are the same recommendations I make to my parents and other family members.

One last thing I want to add is how important it is to Doctor Yourself. What I mean by that, is take responsibility for your own health. Do some research. Spend the time. Take the initiative. After all, what is more important than your health? Those of you struggling with a disease or health condition know exactly what I'm talking about. Those of you who aren't, I urge you to be proactive. Don't wait until your health is compromised like I did.

And remember, you can't have natural health, without the Natural. So if ever in doubt or conflicted about something, just ask yourself – Is this as nature intended?

Wishing you Super Health,

Nick Mistretta

1 CHLORELLA



Chlorella

Chlorella is a single-cell green algae in the Chlorellaceae family. Its name comes from Latin, where *chloros* means "green" and *ella* means "small". Chlorella multiplies rapidly in nature, needing just carbon dioxide, water, sunlight, and a minute amount of minerals to reproduce.

Chlorella contains the green photosynthetic pigments known as chlorophyll-a and chlorophyll-b. By weight, it is 45% protein, 20% fat, 20% carbohydrates, 10% vitamins and minerals, and 5% fiber.

Chlorella Benefits

The two biggest benefits of chlorella stem from its high chlorophyll content, and its ability to detoxify the body. There are a few ways to remove toxins from the body, and these include the use of infrared saunas, vigorous exercise, eating right, and reducing stored body fat. This last one is important as toxins are stored in fat cells 100 times more than in the blood.

When it comes to diet, the number one food to aid the removal of toxins is chlorella, as it binds to heavy metals, pesticides, and chemicals, drawing them from our tissues, and excreting them from our bodies. Chlorella, however, won't bind to the beneficial minerals in our bodies, only the metals that don't belong there in the first place. Somehow, it seems to know the difference.

As our world has become more toxic, it's impossible to insulate ourselves even when doing everything properly. So detoxification will always be important.

The other benefit of consuming chlorella comes from its ridiculously high chlorophyll content, easily more than any other plant. Chlorophyll is the green pigment found in plants and nearly identical to the molecular structure of our hemoglobin. Besides being a powerful antioxidant and detoxifier, it helps the body process more oxygen, aids in the growth and repair of tissues and cells, and alkalizes the body, all of which greatly improve our chances of preventing and treating disease.

Chlorophyll's role in benefiting health cannot be overstated, and it's the oxygen component that is most beneficial. Healthy cells equals a healthy body. And cells with more oxygen are healthier. While cells with less oxygen decay and die, or even worse, mutate.

Chlorella's benefits are numerous and include ...

Boosting immune response

- Improving digestion
- Improving focus and concentration
- Increasing energy levels
- Balancing pH levels
- Normalizing blood sugar
- Normalizing blood pressure
- Reducing the risk of cancer
- Fresher breath
- Detoxification
- Repairing damaged tissues
- Promoting cell reproduction
- Increasing hemoglobin levels
- Normalizing cholesterol levels
- Promoting longevity

Chlorella is high in both nucleic acids, and a very special complex known as chlorella growth factor. Chlorella growth factor is produced from intense photosynthesis, and chlorella is the only source of it. It is a direct result of how fast chlorella reproduces. Under the right conditions, chlorella algae can quadruple in size every 24 hours.

Chlorella growth factor benefits include an increase in the rate of tissue growth and repair, an increase in the growth of beneficial bacteria, and an enhancement of our entire immune system.

Nucleic acids (RNA and DNA) have similar effects on our body's regenerative abilities, and chlorella has the highest concentration by weight of any food source. Nucleic acids control cellular function, allow the body to repair itself, enhance the body's ability to absorb nutrients, and slow the aging process. In short, both chlorella growth factor and nucleic acids promote rejuvenation. Which equates to a healthier, longer life.

The pH scale ranges from 0 to 14, with 7 considered neutral. Anything above 7 is alkaline, anything under is acidic. Our ideal pH is between 7.3 and 7.5, so slightly alkaline. Most of us find ourselves on the wrong side of 7, which is to say - way too acidic. The problems with this are numerous and include digestive disorders,

heart disease, poor immune function, and respiratory problems where oxygen transport is limited. And you now know about the importance of oxygen, don't you?

Chlorella benefits pH by being incredibly alkaline, which in turn helps our bodies become more alkaline. Which improves our bodies' chances of preventing disease. In fact, it's even been said that cancer cannot live in an alkaline environment.[1] Imagine eliminating that entire risk by simply becoming more alkaline.

Speaking of cancer, this 2013 study on the anti-cancer potential of chlorella showed that it stopped tumors from growing their own blood vessels and reproducing, a process known as angiogenesis.[2] The same study also found chlorella to be an excellent source of carotenoids.

Another 2013 study also discovered an abundance of carotenoids in chlorella, particularly lutein.[3] This clinical trial involved 12 subjects who were given 9 grams of chlorella per day. After just one month, their lutein levels increased 4-fold. This special carotenoid is particularly important as we age, as it greatly benefits eye health, among other things.

Chlorella's benefits are widespread and may even include dementia. The ability to prevent it, not cause it, that is. This (again) 2013 study involving senior Japanese subjects, who were given 8 grams of chlorella per day for two months, showed a reduction in senile dementia.[4] This research suggests that chlorella could provide some hope for those suffering from Alzheimer's disease.

Another 2013 study (the Year of Chlorella!) examined the effects of chlorella supplementation in adults with chronic hepatitis C.[5] Eighteen adults were given chlorella every day for 12 weeks. Results showed that 85% improved significantly, and none of the subjects showed any side effects. Prescription drugs everywhere are weeping.

Chlorella Uses

You have two options here. Capsules or powder. I prefer the capsules, as I tend to take 10-12 grams daily, which would be an insane amount of powder. But you can opt for the powder and mix it into any beverage of your choice. The source of your chlorella is far more important than its form.

<u>Check out this video</u> for a bit more information on this amazing gift from Mother Nature. It really is something, with more health benefits perhaps than any other superfood. In fact, I'd be hard-pressed to find a superfood that ranks higher than chlorella.

One of my favorite companies, Starwest Botanicals, has <u>chlorella in both capsule</u> <u>and powder form</u>, and I'd feel good about recommending either. The capsules contain their organic chlorella powder, but you'll have to dig around the Product Q&A to get that info.

If going with another supplier, you want to make sure that your chlorella has had the cell wall cracked. Otherwise, you won't be able to digest it. It will simply pass right through you.

2 SHILAJIT



Shilajit

Shilajit is a sticky, tar-like substance found most notably in the Himalaya and Hindu Kush ranges in central Asia. It is usually dark brown to black in color, with black being the most potent.

Shilajit is heralded in Ayurvedic medicine for being a miracle worker and vitality enhancer. It contains over 80 trace minerals, triterpenes, humic acid, and fulvic acid. It is also known as *mineral oil*, *rock sweat*, and *stone oil*.

Shilajit in Sanskrit (*Shilajatu*) literally means "rock invincible" or "conqueror of mountains". It is created by the decomposition of plant material mixing with water, soil, and other microorganisms, plus years of geothermal pressure. It takes centuries to form, and oozes from in-between rocks in the summer months when heated by the sun.

Shilajit Benefits

The health benefits of consuming shilajit have been well known in Asia for more than 3000 years. Traditionally it was consumed with raw, fermented milk. It also mixes easily in water, and has a somewhat earthy taste.

Shilajit benefits health in many ways. Firstly, it's considered an adaptogen. To put it simply, adaptogens are a unique class of plant/herb that helps your body adapt to stress, whether it's physical, mental, emotional, or environmental.

Adaptogenic herbs can "adapt" their function based on your body's specific needs. Which is why adaptogens can simultaneously give you an energy boost, and calm your body. I don't know about you, but that sounds pretty special to me.

Secondly, it contains heavy amounts of humic and fulvic acids, which aid in transporting nutrients into the cells, (as well as numerous other benefits you'll see below). And as many of us have absorption issues, this becomes even more vitality important.

Shilajit also has the ability to ...

- Enhance immune function
- Improve male sexual function
- Stabilize blood sugar levels
- Reduce inflammation
- Resolve digestive issues
- Improve urinary tract health
- Increase cognitive function
- Detoxify the body
- Enhance energy levels

- Prolong cell life
- Slow the aging process
- Rejuvenate the body

There have been numerous studies done on shilajit, including one that concluded that it has the potential to "prevent several diseases", particularly Alzheimer's.[6] According to the study, shilajit's curative properties can be attributed to significant levels of fulvic and humic acids, which have strong antioxidant and anti-inflammatory capabilities.

Humic acid is essentially created, or released, as organic matter decomposes. It is the main componenent of humic substances (humus) found in soil, peat, rock sediments, and even in streams, lakes, and ocean water.

Fulvic acids are simply humic acids of lower molecular weight and higher oxygen content, which allows them to penetrate cell walls more easily. But both support the body in numerous ways, including digestion, cellular health, and brain health. And both contain an abundance of minerals in ionic form, which make them much more bioavailable (easily absorbed) than most other vitamins and minerals.

Fulvic acids are internal cleansers and detoxifiers, binding to and breaking down toxins in the body. Fulvic acids slow the aging process, protect brain function, and improve gut health (as it's both a prebiotic and a probiotic), while encouraging the good bacteria in your body to repopulate. And without proper gut health, you'll never be healthy; it's that simple.

Fulvic acids improve immune function, reduce inflammation, and help alkalize the body, all of which are extremely important for preventing and fighting disease. Fulvic acids also improve energy levels, as they are natural electrolytes, which, according to research conducted by Doctors Across Borders, activate almost every biological process in the body.[7]

One thing to keep in mind here: healthy cells equals a healthy body. So anything that provides support to, and benefits for, cellular health, will benefit your entire body.

This 2012 study showed that Shilajit is an effective treatment for chronic fatigue syndrome.[8] The study cited the high fulvic acid content in shilajit as a significant and contributing factor.

One of the benefits to supplementing with shilajit appears to be in the area of male sexual function. One such study showed improvements in both sperm count and testosterone levels after 90 days of shilajit supplementation.[9]

The main reason shilajit is so high on my superfood list is because it supplies things that no other superfood can, kind of like chlorella. While many other superfoods are more interchangeable. And, because of that, I really struggled as to which would occupy the number one space in this book.

Shilajit Uses

Unless you live in the high reaches of the Himalaya range, you're probably not harvesting your own shilajit. And even if you do live there, you're still probably not. Which leaves very little in the way of do-it-yourself possibilities. So your goal here, and your only goal, is to find a reputable source. Easier said than done sometimes.

Once you find a reputable product, usually in powder form, you'll want to consume it in a liquid. Like I mentioned earlier, traditionally it was taken mixed in raw milk, which is also very healthy. So if you have access to raw milk, try that. You can also mix it into smoothies. It has very little taste, but it will turn the beverage quite dark.

I recommend mixing it into a darker smoothie, like a <u>raw cacao and maca blend</u>, so the color isn't as off-putting. Or you can simply mix it into a glass of water, which is quick and my usual go-to method. And lately, I've been taking my wide array of morning supplements with a large glass of water and shilajit, because of it's ability to aid absorption.

Shilajit is without a doubt one of my favorite superfoods, and, along with chlorella, one I consume every day. However, start with a small dose, as with any new superfood. It's quite potent, and you'll likely feel its effects immediately.

For a bit more information on shilajit, <u>watch this video</u> made by the folks at Complete Wellness. In particular, it's really interesting how people living in the Himalaya region first became aware of shilajit and its health benefits. I'll give you a hint: Monkey see, monkey do!

I use Lost Empire Herbs for many superfood products, including shilajit. They have it in powder and resin. I have only taken the powder, though I recently ordered their resin (though haven't tried it yet), as it's less processed and better value. Also on their shilajit page is more information on this extremely unusual Ayurvedic "herb".

3 CHAGA



Chaga

Chaga, *Inonotus obliquus*, is a fungus in the Hymenochaetaceae family that grows as a parasite from the trunks of trees, mostly birch. As you can see from the photo above, chaga has a burnt look and strongly resembles charcoal or charred wood. This is due to high levels of melanin in the mushroom.

Chaga, also known as Tinder fungus, usually takes several years to fully mature, and only grows in cold, northern regions of the world. It has been used as a

medicinal mushroom in Russia since at least the 16th century, and perhaps much longer.

Chaga was traditionally ground into a fine powder and brewed into tea. Research suggests that many of its bio-active compounds are found in indigestible parts of the mushroom, and are difficult for humans to digest unless properly extracted.

Besides high levels of melanin, chaga also contains an assortment of flavonoids, B vitamins, phenolic compounds, superoxide dismutase, triterpenes, pantothenic acid, betulinic acid and Beta-glucans. It has strong antioxidant and anti-inflammatory properties as well. However, cultivated chaga mushrooms have far fewer beneficial compounds than those crafted by Mother Nature. But that shouldn't come as a surprise.

Chaga Benefits

The Chinese call chaga the "King of Plants" which is impressive considering their long and storied history using herbs and plants in traditional medicine. There are numerous beneficial compounds in chaga that deserve attention, in fact, too many. But let's start with betulinic acid.

Betulinic acid is a powerful antiviral, antimalarial, anti-inflammatory, antioxidant, and it has anti-cancer properties as well. The betulinic acid in chaga is derived from the bark of the host birch tree, which is home to the fungi for several years and responsible for much of its adaptogenic powers. Betulinic acid has been shown to combat melanoma, malignant brain tumors, ovarian cancer, leukemia, and breast cancer.

This 2010 study on betulinic acid's effect on cancer showed it to be "effective against a wide variety of cancer cells."[10] While researchers involved in a 2004 study discovered that betulinic acid had potent anti-HIV activity.[11] They concluded that:

"BETULINIC ACID IS A VERY PROMISING NEW CHEMOTHERAPEUTIC AGENT FOR THE TREATMENT OF HIV INFECTION AND CANCER." The Memorial Sloan Kettering Cancer Center has numerous studies on chaga, which delve into the betulinic acid properties, as well as a host of other active constituents of this super mushroom, and the numerous beneficial effects these have on the body.[12]

Chaga benefits are practically endless and include ...

- Immune system activation
- Treatment for psoriasis
- Potent antioxidant properties
- Promotion of longevity and vitality
- Improved skin health
- Improved energy and stamina
- Anti-cancer properties
- Stress reduction
- Improved digestion
- Cardiovascular support
- Improved cognitive health

Chaga is a strong adaptogen, meaning it eliminates the effects of all kinds of stress, providing the support and balance that the body needs in any way it needs it. Because chaga grows for years in harsh climates, and because it receives nutrients from trees that live hundreds, even thousands of years, it is perhaps the greatest adaptogen on the planet. It's the ability to survive in harsh climates that gives adaptogens their power.

To learn more about how the modern world bombards us with stress, and how chaga combats that due to its strong adaptogenic abilities, check out this video. In the video, Brandon will tell you all the reasons why you want to incorporate this "Gift from the Gods" into your health and diet plan. Chaga is truly a wonder of nature, and, along with chlorella and shilajit, one of the greatest superfoods on earth.

Another beneficial property in chaga is an enzyme called superoxide dismutase. This special antioxidant combats a free radical called singlet oxygen, which does great damage to our tissues and causes premature aging. Tests have shown that one gram of chaga contains between 10,000 and 20,000 units of this enzyme,

which is the highest amount from any known food source. Getting this enzyme through food is important because levels of it decline quickly with age.

Chaga is an abundant source of numerous antioxidants. This 2007 study involving subjects with inflammatory bowel disease led researchers to conclude that chaga is a "valuable supplement to inhibit oxidative stress."[13] Another study, also conducted in 2007, on the antioxidant polyphenols in chaga showed "significant scavenging activity."[14] In other words, the powerful antioxidants in chaga successfully reduced the effects of oxidative stress caused by free radicals in our body.

Improved skin health is a benefit of consuming chaga due to its high levels of melanin, which contributes to a healthier complexion. Plus the betulinic acid in chaga improves skin tone and clarity. Together they stimulate the production of collagen, which makes skin more elastic and reduces wrinkles. In fact, many cosmetic products contain birch tree extracts.

And then there's the beta-glucan content in chaga. Beta-glucans are natural fiber molecules known as polysaccharides. They help activate the immune system, and in essence, make it smarter. Beta-glucans don't stimulate the immune system the way many herbs and plants do, which actually can have a negative effect, especially for people who have an autoimmune disease. What beta-glucans do is help the immune system operate exactly the way it's supposed to.

Beta-glucans are a type of immunomodulator found mostly in yeast, seaweed, and certain mushrooms. And their immune-enhancing benefits can be the difference between ill health and great health. This 2009 study on the effects of beta-glucans on human immunity and cancer cells concluded that not only are they significant, but that the source of the beta-glucans is equally significant.[15] And it turns out that those found in several species of fungi, including chaga, may be the most powerful of all.

Chaga Uses

Chaga isn't a culinary mushroom, as it's nearly as hard as rock. So you can either buy it in small chunks, powder form, or as an extract. The chunks and powder can

both be made into tea. The chunks can be reused at least once without losing too much potency or flavor, unless left to simmer the proper length of time.

An extract may be your most beneficial option. As stated earlier, many nutritional properties in chaga mushrooms are indigestible unless made into an extract. However, I always advocate a whole foods approach. So if you have the inclination, the time, and the patience, I'd recommend making your own tea. But it must be done correctly to be most beneficial.

That said, the most important thing is getting your chaga (in any form) from a natural, wild-crafted source from super harsh climates, like those found in Siberia and northern Canada. This is how you get the most beneficial adaptogenic properties. Now, back to your tea preparation ...

Add pieces of chaga to a crock pot along with some water and put it on a setting that allows a constant temperature between 150 and 180 degrees. Let the chaga simmer for 4 or 5 days. After that you can refrigerate it and heat it before drinking, or consume it cold. You may need to add some additional water, and you may want to add a sweetener like honey or yacon syrup. Consult with Google for more information.

Interested in trying out this super adaptogen? Head over to <u>Lost Empire Herbs for</u> their chaga extract.

Or if you want to make tea from whole chaga pieces, check out Starwest Botanicals.

4

RHODIOLA



Rhodiola

Rhodiola rosea, also known as golden root, rose root, Arctic root, and king's crown, is a perennial flowering plant in the Crassulaceae family. It grows in colder climates around the world, such as the Arctic, the mountains of Central Asia and Europe, Siberia, Scandinavia, Iceland, and northeastern North America.

Rhodiola is a short plant, growing to a maximum height of around 16 inches. Its flowers are yellow to greenish-yellow with occasional red tips.

Rhodiola has been used in Russia and Scandinavia for centuries to cope with the cold climate and the stress associated with that. Rhodiola tea is popular in Tibet, where 30 different species can be found. In Siberia, couples often receive rhodiola roots as a good-luck gift prior to their wedding.

Rhodiola is well known for improving both mental and physical stamina and performance. Over 100 chemical compounds have been identified in its roots, including phenols, organic acids, terpenoids, flavonoids, and alkaloids.

Rhodiola Benefits

The greatest benefits that rhodiola provides is due mostly to its adaptogenic powers. An adaptogen, if you've been paying attention, regulates our neurological and physiological responses to all kinds of stress, including environmental, social, physical, emotional, and mental. And it increases our resistance to toxins, sleep deprivation, and even exposure to extreme temperatures.

Adaptogens like rhodiola balance our entire biological system safely and without side effects. The term "adaptogen" was coined by Russian scientist N.V. Lazarev in 1947. Which is appropriate since rhodiola hid behind the soviet curtain until a couple of decades ago.

During the cold war, rhodiola was secretly used to benefit Russian military officers, political leaders, cosmonauts, and Olympic athletes. They were well aware of the benefits it provided. You may recall the Soviets' dominance at the Olympics during this cold war period.

Besides being a powerful adaptogen, rhodiola benefits include ...

- Increased energy and endurance
- Reduction in stress
- Increased vitality
- Weight loss
- Natural treatment for ADHD
- Enhanced cognitive function

- Improved immune function
- Anxiety relief
- Blood sugar stabilization
- Enhanced nervous system health

Rhodiola helps to reduce stress by reducing cortisol, known as the stress hormone. Cortisol is produced by the adrenal gland and released in response to stress or fear, triggering our fight-or-flight mechanism. However, many of us live in this constant state, which is extremely unhealthy. Elevated cortisol levels increase our risk for mental illness, depression, while also lowering our life expectancy.

One of the ways rhodiola increases energy and endurance is by increasing the oxygen-carrying capacity of our red blood cells. This 2013 study on the effects of rhodiola on endurance and exercise performance showed a decrease in heart rate, improved endurance, and a decrease in the perception of effort of the 18 male subjects who participated.[16]

Another study on the effects of rhodiola on sports performance showed similar results.[17] Fourteen male athletes were given a rhodiola supplement for 4 weeks, while 14 others received a placebo. The study concluded that rhodiola supplementation reduced both lactate levels and muscle damage after an exhaustive exercise session, and increased the adaptogenic ability to physical exercise.

Rhodiola helps the body use fat stored in abdominal cells by activating the enzyme known as hormone-sensitive lipase. And a 2010 study on rhodiola's effect on binge eating concluded that:

"RESULTS INDICATE THAT R. ROSEA EXTRACTS MAY HAVE THERAPEUTIC

PROPERTIES IN BINGEING-RELATED EATING DISORDERS AND THAT SALIDROSIDE IS

THE ACTIVE PRINCIPLE RESPONSIBLE FOR THIS EFFECT."[18]

Two of the primary active compounds in rhodiola are salidroside and rosavin. Salidroside helps protect neuron cells from oxidative stress, while rosavin (a

glycoside compound) has powerful anti-depressant effects. This 2010 study on the adaptogenic and central nervous system effects of the two showed that they significantly induced anti-depressant, adaptogenic, and stimulating effects.[19] And they did so after just a single dose.

The therapeutic effects of rhodiola on subjects with life-stress symptoms was the subject of this 2012 study.[20] One hundred subjects were given 400 mg of rhodiola each day for 4 weeks. They were then reassessed based on seven questionnaires. And the results? "All tests showed clinically relevant improvements with regard to stress symptoms, disability, functional impairment and overall therapeutic effect." And perhaps most impressive, improvements were noted after just three days of supplementation.

Rhodiola Uses

Unless you're living in an area where you can grow rhodiola, you'll likely be reduced to purchasing dried roots, powder, tinctures, or capsules. I always recommend opting for the most natural approach, and with rhodiola it would be the dried roots. In which case, tea is you're best and (perhaps) only option.

Having said that, the most important thing when purchasing rhodiola is the presence of certain compounds like rosavin and salidroside, both of which are important for the adaptogenic properties that make rhodiola special. And apparently, where it's grown is the key, as the harsher the climate, the more adaptogenic properties the plant must develop for its own survival. Which is why, above all else, I recommend Siberian or Tibetan rhodiola. How you choose to take it is a secondary concern.

My go-to source for rhodiola is Lost Empire Herbs. They have a Tibetan rhodiola powdered extract with high amounts of rosavin, salidroside, plus a couple other crucial compounds.

<u>Check out this video</u>, where medicine hunter Chris Kilham takes you to the mountains of northern Asia and tells you about his favorite medicinal plant. I'll give you a hint, it rhymes with *chodiola*.

5 CORDYCEPS



Cordyceps

Cordyceps is a genus of ascomycete fungi, which includes around 400 species. Most of these are native to Asia, and can be found in the continent's tropical forests. Some species have impressive pharmacological properties, along with a long history of medicinal use in Tibet and China.

All species of Cordyceps are endoparasitoids, meaning they develop inside the body of its host, usually insects. The Cordyceps fungus attacks the host, then the

mycelium (thread-like vegetative part) replaces the host's tissue. Some species of Cordyceps can even affect the host's behavior (did someone say *zombie*?), causing them to relocate, or climb a tree for instance. Anything that ensures a more optimal environment to grow in.

The two most common species are C. sinensis and C. militaris. However, after further analysis, C. sinensis was reclassified as belonging to the Ophiocordyceps genus, thus becoming O. sinensis. I certainly don't blame you if your head is spinning at this point, what with the combination of a zombie fungi and too much geek speak. But now that the science (and science fiction) portion of this chapter is finished, we can continue with the incredible benefits of Cordyceps. (And Ophiocordyceps, if you've been paying attention.)

Cordyceps Benefits

In 1993, a team of Chinese runners obliterated world records at an important competition. When asked about it afterward, the coach attributed their successful performance to the consumption of Cordyceps. Cordyceps is still popular today among athletes to boost performance and increase stamina.

However, you don't have to be an athlete to benefit from Cordyceps supplementation. It's a wildly popular supplement with China's aging population, as it restores vigor and vitality, and helps relieve fatigue.

This 2010 study examined the effects of Cordyceps sinensis on exercise performance in healthy elderly subjects.[21] The double-blind, placebo-controlled study consisted of 20 volunteers age 50-75, who were given a 333 mg dose of C. sinensis three times a day for 12 weeks. As a group, their anaerobic threshold increased on average 10.5%, while their ventilatory threshold increased 8.5%. No changes were shown in the placebo group.

Cordyceps benefits are numerous and include ...

- Inflammation reduction
- Heart protection
- Improved respiratory function

- Normalization of cholesterol levels
- Improved immune function
- Anti-aging effects
- Reduction in fatigue
- Increased energy and stamina
- Improved athletic performance
- Treatment for sexual dysfunction
- Improvement in brain function

One extremely important Cordyceps benefit is its ability to improve respiratory function, which helps deliver more oxygen to cells and tissues. A 2013 study on Cordyceps ability to activate human lung epithelial cells discovered that this fungi increased antioxidant genes and antioxidant enzymes.[22] Both of which helped to facilitate better oxygenation, oxygen delivery, and glucose transport. And oxygen is vitally important for cellular health, and perhaps the number one key to overall health.

Continuing with lung health, one recent study looked at the effects of Cordyceps sinensis on lung cancer.[23] Researchers discovered that an extract of C. sinensis limited cancer cell proliferation and even induced cancer cell death. Studies involving Cordyceps effects on other types of cancers have reported similar results.

Cordyceps benefits the immune system by increasing natural killer cell activity. Natural killer cells provide rapid response to viral-infected cells and tumor formation. They can recognize stressed cells and provide a fast immune reaction.

This 2010 study confirms Cordyceps role in this by concluding that Cordyceps positively stimulated activation of natural killer cells.[24] Researchers also recommended it as an effective treatment for autoimmune diseases, of which there are around 80.

Numerous studies have been done Cordyceps role in treating sexual dysfunction, as it's had a long history of use in this area. Cordyceps militaris effect on sperm production in rats has shown improvement in both sperm quality and quantity.[25] While studies have shown that Cordyceps sinensis significantly increased testosterone levels.[26]

If there's anything worse than getting old, it's getting prematurely old. So perhaps the greatest benefit of Cordyceps can be found in its anti-aging effects, which numerous studies support.[27] One such study on these effects conducted on (you guessed it ... rats!) showed improvements in brain function, antioxidant enzyme activity, and sexual function.

I will conclude with a quote from one of my favorite natural health writers and practitioners, and author of a book (<u>Spontaneous Health</u>) that opened my eyes to an entirely new way of thinking about health.

CORDYCEPS IS ONE OF MY FAVORITE TREATMENTS FOR A NATURAL ENERGY BOOST AND I HIGHLY RECOMMEND IT TO MY PATIENTS WHO STRUGGLE WITH LOW MOOD AND COMPROMISED OVERALL VITALITY.

DR. ANDREW WEIL

Cordyceps Uses

Unless you really want to grow cordyceps, and there's a huge shortage of reliable information on that, you'll want to instead focus on finding a quality supplement, either in pill or powder form. Just be sure you're getting either C. sinensis (also now known as O. sinensis, remember?) or C. militaris.

<u>Check out this video</u>, as John Houser, a certified natural health professional and herb specialist, talks about two of his favorite super herbs. Cordyceps is obviously one of them. But the other is rhodiola, which may be even more amazing than cordyceps. The video is only about four minutes, so you'll learn a little about each in a short amount of time.

If interested in trying cordyceps, <u>Lost Empire Herbs has it in powder form</u>. And, of course, they have a lot more information on this super mushroom.

6 REISHI



Reishi

The reishi mushroom, also known as *Lingzhi*, is a species of the genus Ganoderma, which is renown in East Asia for being a supernatural mushroom. In fact, it's been a medicinal mushroom in China for over 2000 years, where they are regarded as the king of herbs. In Chinese, *Ling* means sacred, divine, and miraculous, while *Zhi* translates as "plant of longevity". In Japan, they are known as an immortality plant.

The reishi mushroom is a polypore, meaning that it releases its spores through tiny pores rather than through gills on its underside. It is soft when fresh, flat, kidney shaped, and reddish brown in color. And it grows at the base of deciduous trees in temperate and tropical regions around the world.

Reishi Benefits

Reishi mushrooms benefit health in numerous ways, mostly due to their powerful variety of antioxidants that combat the oxidative stress which causes healthy cells to die.

Reishi mushrooms have an extremely unique blend of these powerful antioxidants. [28] First, they contain polysaccharides in the form of beta-glucans, which are a strong immune system builder. These complex sugars are also responsible for normalizing body weight and cholesterol levels.

Reishi mushrooms are also an abundant source of triterpenes. Triterpenes improve the body's ability to supply oxygen to cells, while also improving immune function. Studies also support their ability to kill tumors and inhibit the effects of HIV.[29]

And lastly, these special fungi contain the Ganoderma lucidum peptide, which is a unique protein and strong antioxidant. Studies show that this peptide can help rid the body of disease by reducing the free radical-scavenging compounds that cause disease.[30]

The reishi mushroom benefits health by also ...

- Lowering blood pressure and cholesterol
- Treating fatigue
- Protecting against heart disease and stroke
- Building respiratory capacity
- Stimulating the immune system
- Promoting longevity
- Increasing strength
- Improving urinary flow in men

Reducing inflammation

The Memorial Sloan Kettering Cancer Center supports the reishi's ability to strengthen the immune system, while also stopping the spread and growth of cancer cells, among many other benefits.[31] Follow the link above to their website where they publish more than two dozen studies to support their conclusions. Click on the "Clinical Summary" tab for a detailed look at all the reishi benefits they list.

Western science is now beginning to discover what East Asian traditional medicine has known for some time. Numerous studies show that reishi mushrooms have special anti-tumor and anti-inflammatory effects.[32] As well as promoting overall health and longevity, as this study concluded. Researchers' concluding remarks included this:

"WITH ITS GROWING POPULARITY, MANY STUDIES ON G.

LUCIDUM COMPOSITION, CULTIVATION, AND REPUTED EFFECTS ARE BEING

CARRIED OUT, AND THERE ARE DATA THAT SUPPORT ITS POSITIVE HEALTH

BENEFITS, INCLUDING ANTICANCER EFFECTS; BLOOD GLUCOSE REGULATION;

ANTIOXIDANT, ANTIBACTERIAL, AND ANTIVIRAL EFFECTS; AND PROTECTION

AGAINST LIVER AND GASTRIC INJURY." [33]

Reishi Uses

If you've been paying attention thus far, you probably realize that I always advocate a whole foods approach to natural health. Which obviously places the emphasis on *natural*. However, sometimes this is difficult to do, as is the situation with many exotic superfoods where a supplement or powder will have to suffice.

In the case of reishi mushrooms, I firstly recommend to do as Suzy Cohen does <u>in</u> <u>this video</u>, which is to make tea from dried reishi mushrooms. But don't worry; it's super easy to do. She also briefly talks about the health benefits of this super fungi, many of which I've already detailed above. If interested in getting your reishi this way, check out Starwest Botanical's dried reishi slices.

However, I also realize that people are busy, myself included, which is why I sometimes take the simpler route, which involves consuming a good reishi extract or tincture, like this product I trust from Lost Empire Herbs.

The problem with superfood supplements is you never know what you're getting. Lost Empire Herbs has this word of caution regarding reishi mushroom products:

"Most medicinal mushrooms sold in the US are mycelium grown on grain. These have been tested to have far less active components, like beta-glucans, triterpenes and more, than real mushroom fruiting bodies. In fact, most of what is sold to you from other companies is just starch from the grain that it is grown on.

Further the mushrooms cannot produce the same components when grown on grain as on their natural environment, aka wood. Reishi needs to grow on wood to produce triterpenes which provide its bitter flavor, not to mention many benefits.

Our reishi extract is made exclusively from the fruiting bodies grown on wood, commonly known as the mushrooms, of reishi and nothing else. No grain, starch or fillers of any kind."

One of the reasons I love Lost Empire Herbs is because their wealth of information, including podcasts and videos, indicates to me that their business is more a labor of love than it is about profit. But the number one reason will always be the quality of their superfoods.

/ SCHISANDRA



Schisandra

Schisandra chinensis is a deciduous woody vine native to northern China and Siberia. The Chinese name is wu wei zi, which means "five-flavor berry", which is appropriate considering that its fruit has all five basic flavors - salty, sweet, sour, bitter, and pungent.

Schisandra grows best in moderate sun and humidity, and in soil that is moist but well drained. In North America it will grow in USDA zone 4, which means if you live in the northern areas of the continent, you can consider it for your garden.

The bulk of the benefits are found in the berries, so let's just assume that when I say "schisandra," I'm referring to the fruit.

Schisandra is extremely popular in Russia, and can be found in juice, wine, sweets, and extracts. In 1998, Russia even commemorated these bright red berries by putting them on a postage stamp.

Russian scientists have been studying schisandra for years, after discovering that the Nanai people in Siberia used it to improve night vision for hunting, and to reduce hunger, thirst, and exhaustion.

Animal testing has confirmed that schisandra has powerful adaptogenic properties, as it builds resiliency against all types of physical stress.

Schisandra has also been a valued herb in Traditional Chinese Medicine for over 2000 years, and is one of the 50 fundamental herbs in TCM. It is said to support healthy lungs, kidneys, and the heart, while also helping to calm the spirit.

Schisandra Benefits

Schisandra's greatest benefit lies in its adaptogenic properties. As you now know, an adaptogen is any food or herb that reduces the effects of all kinds of stress placed on the body, including not only physical, but also mental and emotional.

Adaptogens pretty much do everything, as they support the body in whatever way the body needs, including improved concentration, energy, stamina, and endurance. Adaptogens improve immune function, liver health, and the cardiovascular system.

Schisandra is considered one of the most powerful adaptogenic herbs on the planet, as it contributes to a healthier and longer life. The natural health industry often uses words like *longevity* and *anti-aging*, but when using them to describe this super berry, it appears justified.

Schisandra increases energy and stamina by stimulating the central nervous system, and by boosting nitric oxide levels in the body, which improves the flow of blood and oxygen. This in turn decreases exercise-induced lactic acid buildup, which reduces fatigue during exercise, and recovery time after.

And though it seems contradictory, schisandra can also calm the nervous systems in times of stress, which is what an adaptogen does, making this herb a powerful weapon for stress reduction.

Schisandra benefits the body in numerous ways, including ...

- Improved mental function
- Stress reduction
- Increased energy and stamina
- Skin beautification
- Improved liver health
- Treatment for ADHD
- Improved concentration and memory
- Lower blood pressure
- Anti-cancer properties
- Treatment for erectile dysfunction
- Improved circulation
- Stronger immune system
- Cardiovascular benefits

Schisandra benefits heart health in a number of ways, including a reduction in lipid oxidation, and an increase in nitric oxide production. Nitric oxide relaxes blood vessels, which lowers blood pressure. It combats the formation of arterial plaque by reducing the production of superoxide radicals. And it reduces LDL cholesterol. All of which significantly improve cardiovascular health.

This 2008 study of schisandra found that it exhibits strong antioxidant activities.[34] Researchers noted that, "Schizandra increases endurance and accuracy of movement, mental performance and working capacity, and generates alterations in the basal levels of nitric oxide."

Because nitric oxide helps to increase circulation, it can also aid erectile dysfunction.

Schisandra increases the production of glutathione, a powerful antioxidant with cognitive benefits. This 2014 study found that the lignans in schisandra significantly improved learning and memory in mice induced with neurodegeneration.[35] Researchers also discovered an increase in superoxide dismutase (the antioxidant capable of eliminating superoxide radicals), and improved levels of glutathione.

In this article for the Huffington Post, Dr. Mark Hyman calls glutathione the mother of all antioxidants.[36] He says:

"In treating chronically ill patients with Functional Medicine for more than 10 years, I have discovered that glutathione deficiency is found in nearly all very ill patients."

This 2013 study on the cognitive-enhancing effects of schisandra discovered several powerful lignans believed to be responsible for brain health, including schizandrin and gomisin N.[37] Oral administration of schisandra increased production of glutathione in mice and improved cognition, leading researchers to conclude, "Schisandra chinensis fruits rich with dibenzocyclooctadiene lignans may be useful in the prevention and treatment of Alzheimer's disease."

Cancer is probably the most studied disease on the planet, and for good reason, as incidences of it continue to rise. Numerous studies have shown that schisandra exhibits anti-cancer activity on many human cancer cells, including renal cell carcinoma, colon cancer cells, and breast cancer cells.[38][39][40]

I believe superfoods, especially adaptogens like schisandra, chaga, shilajit, and rhodiola, hold the key to superior health and wellbeing. The more of these you can substitute for unhealthy food choices in your diet, the better you're going to feel and look.

Schisandra Uses

How you use schisandra will depend on whether you buy the berries in dried or powder form. Dried berries are far more versatile as they can be used the way you would any dried berries - added to smoothies, oatmeal, cottage cheese, yogurt, salads, or as an ingredient in homemade trail mix by combining it with other superfoods like hemp seeds, raw cacao nibs, coconut, bee pollen, goji berries, and your favorite raw nuts.

One of the traditional uses of schisandra was to make tea from the berries. Therefore, you could always try combining them with a few other super herbs to create a powerful health-promoting beverage. You can also chill it in the refrigerator after brewing for a refreshing cold beverage.

Though slightly more work, loose leaf tea is generally higher quality than what you'll find in tea bags. Often, much higher quality. And at a much better price. Seems like a no-brainer, no?

If working with powdered schisandra, try mixing it into your favorite beverage or a smoothie. Even water will work fine. Check out this Pinterest page for more schisandra recipe ideas. And check out this video, as medicine hunter Chris Kilham will tell you a bit more about this powerful herb.

Lost Empire Herbs is my source for Schisandra. Their schisandra powdered extract is produced from organic berries grown in the northern U.S. Ideally, I would like to get it from Siberia or a similarly harsh climate, as the adaptogenic properties are usually enhanced. However, I trust their quality more than the risk of getting ripped off elsewhere while looking for the perfect schisandra product.

If you're interested in making tea or an infused cold beverage using dried schisandra berries, check out the <u>schisandra berries at Starwest Botanicals</u>. Their berries are organic and come from China. However, I'd certainly contact them first to inquire where exactly in China they come from. Again, the harsher the climate, the more powerful the adaptogenic properties will be. Therefore, if it comes from Tibet, you probably can't go wrong.

8 TRIPHALA



Triphala

Triphala is an herbal rasayana formula consisting of three fruits - Amalaki, Bibhitaki, and Haritaka. Amalaki, *Phyllanthus emblica*, which also goes by the names Amla or Indian Gooseberry, produces a sour and fibrous fruit. It supports digestive health, purifies the blood, and rejuvenates the liver.

Bibhitaki, *Terminalia bellirica*, produces seeds or kernels called bedda nuts. The pulp of the fruit has astringent and laxative qualities. It helps balance the body, strengthens the lungs, and improves immune function.

Haritaki, *Terminalia chebula*, produces nut-like fruits containing triterpenes, gallic acids, and phenolic compounds. The seeds have long been used in Ayurvedic and Traditional Tibetan medicine for a number of health promoting benefits, including its ability to reduce oxidative stress.

All three fruits are used in equal parts to produce triphala. Triphala has numerous antioxidant properties and immunostimulatory effects on cellular response, particularly cytotoxic T cells and natural killer cells. Both are types of white blood cells that respond rapidly to viral-infected cells and tumor formation.

In short, these special white blood cells kill cancer cells. One of the active ingredients in triphala - chebulinic acid - also has anti-tumor capabilities, making triphala a potent weapon against one of the leading causes of death in the modern world.

Triphala Benefits

One of the benefits of triphala is its potential to aid weight loss. It does this by increasing lean body mass, controlling blood sugar, and by getting rid of excess fat in your cells. Check out this video, as Dr. Oz discusses the fat fighting capabilities of this super fruit with Dr. Kulreet Chaudhary.

On a side note, you'll notice Dr. Oz grimace after drinking the triphala mix. However, I've been consuming greater amounts of triphala mixed alone in water for months, and it's not that bad. A bit astringent and sour, to be sure, but definitely tolerable.

Triphala benefits the body in a number of ways, including ...

- Improving organ function
- Detoxifying the body
- Improving colon and digestive health
- Strengthening the immune system

- Improving nutrient absorption
- Maintaining healthy liver function
- Strengthening the lungs and heart
- Improving the urinary tract
- Stopping the growth of cancer cells

That last one has a lot of folks studying triphala, which means you can easily find clinical trials touting its benefits as a cancer fighter. This 2005 study focused on breast and prostate cancer (two of the more commons cancers) and concluded that triphala showed a significant cytotoxic (toxic to cells) effect on cancer cells.[41] Researchers also state that it suppresses the growth of cancer cells due in large part to the gallic acid content in triphala.

Another study came to the same conclusion, stating that triphala possesses the ability to induce cytotoxicity in tumor cells but spared the healthy cells.[42] And this 2011 study on triphala and gallic acid concluded that "gallic acid appears to have promising anti-cancer activity."[43]

Triphala's effect on pancreatic cancer was the focus of this 2008 clinical trial.[44] The results of it showed that triphala is effective at inhibiting the growth of human pancreatic cancer cells. That's four studies on three different types of cancer and one general conclusion: triphala is a potent cancer fighter.

Another study tested triphala against several bacterial isolates from HIV patients with very positive results, leading researchers to conclude that this Ayurvedic herb is a potent antibacterial. [45] They also reasoned that this is due, in part, to several strong phytochemicals present in triphala, such as flavonoids and carotenoids.

If you watch the video, you'll hear Dr. Chaudhary say that this is one herb that all of us should include in our diet, and I would have to agree. Which is why I've included it in the top 10. But let's not forget; it's actually three super herbs in one convenient package!

Triphala Uses

As Dr. Chaudhary states in the video, the powder form of triphala is best, and I concur. It's the closest you'll come to finding it in its most natural form. And what's natural health without the *natural*.

Also in the video, Dr. Chaudhary mixes triphala together with psyllium husk and ground flax seed. This is an excellent idea for those looking to slim down, as the presence of the psyllium and flax will also aid fat loss. Both contain a ton of fiber and will trick your body into thinking you're more full than you really are.

If that mix is off-putting in any way, you can try mixing triphala in a glass of warm milk (at least organic and preferably raw) with some freshly squeezed lemon juice and a bit of raw honey. This will undoubtedly taste better. But if you're time crunched and you simply want the benefits of triphala minus the hassles, just mix it into water and slug it down. Trust me, it's not that bad.

<u>Starwest Botanicals has a high quality, low-cost triphala powder</u> that I use and would definitely recommend.

9 CURCUMA



Curcuma

Turmeric, or *Curcuma longa*, is a perennial herb in the Zingiberaceae (or ginger) family. Curcuma is native to South India and grows well in hot and humid climates. It is the rhizomes, or root system, of the plant that is most often used.

Turmeric reaches a height of around 3 feet. Its roots are yellowish-orange in color, and have been used in Asia for thousands of years as both food and medicine.

Turmeric is often used in curries in Asian cuisine. And it's added to mustard, which is why mustard is yellow.

Where turmeric is grown locally, the roots are often used fresh like ginger root. The leaves are also sometimes used to wrap and cook food in. Besides Asia, turmeric is popular in the Middle East, and South Africa, where it is often added to white rice giving it a nice golden color.

The main active ingredient in turmeric, and that which is responsible for its bright yellow color, is called curcumin. Curcumin, along with several other active compounds, is responsible for turmeric's anti-inflammatory, antioxidant, anti-tumor, antibacterial, and antiviral properties.

Curcuma Benefits

There have been thousands of studies done on the effects of Turmeric, specifically the Curcuma longa variety. However, many of its benefits stem from one powerful ability. And that is its ability to reduce inflammation.

Chronic inflammation exists when the body initiates an immune response even when there's no threat, which causes an excess of inflammation. Chronic inflammation has been linked to many diseases, including the 80 or so autoimmune diseases, heart disease, and cancer.

One problem with chronic inflammation is that it can exist in the body for years undetected. Until suddenly your body is in a serious state of disease. And if you think anti-inflammatory drugs solve the problem, they don't. They merely mask it. And they cause other problems (side effects, they call them) requiring more prescription drugs.

One 2014 study on the effect of curcuminoids in turmeric on systemic inflammation found significant improvements across the board. [46] Eighty subjects were given self-assessments on their quality of life, as well as several tests which examined inflammation levels in the body. The result was a "significantly greater improvement in quality of life scores compared with the

placebo group." As well as significant improvements on test scores measuring inflammation.

The curcumin and essential oils in turmeric have demonstrated some pretty powerful anti-inflammatory protection. And without the risk of side effects. Check out this video, as Dr. Weil will tell you about two powerful anti-inflammatories. One is turmeric and the other is ... guess you have to watch the video.

Turmeric benefits also include ...

- Improved lung health
- Alzheimer's protection
- Improved liver function
- Cardiovascular protection
- Cancer prevention
- Rheumatoid arthritis relief
- Treatment for inflammatory bowel disease
- Cystic fibrosis treatment
- Treatment and prevention of autoimmune diseases

Cancer is perhaps the most studied disease on the planet. Combine that with one of the most studied herbs on the planet (curcuma or turmeric) and you've got a wealth of clinical trials providing some pretty persuasive data.

This 2014 study looked at curcumin's ability to prevent invasion and metastasis of liver cancer.[47] Tests showed that cancer cell proliferation, migration, and invasiveness were "eliminated by curcumin." Not reduced. Eliminated!

Another study on the potential of curcumin for cancer prevention showed that this special herb proved very effective in the management of cancers. [48] All cancers! Apparently, there is something special about turmeric that allows it to modulate molecular pathways in the body. This quote by Dr. Joseph Mercola may help shed more light on that.

Once it gets into a cell, it affects more than 100 different molecular pathways. And, as explained by Dr. LaValley, whether the curcumin

MOLECULE CAUSES AN INCREASE IN ACTIVITY OF A PARTICULAR MOLECULAR TARGET, OR DECREASE/INHIBITION OF ACTIVITY, STUDIES REPEATEDLY SHOW THAT THE END RESULT IS A POTENT ANTI-CANCER ACTIVITY.

Dr. Mercola goes on to say "curcumin is unique in that it appears to be universally useful for just about every type of cancer."

The antioxidants in turmeric have shown the ability to specifically protect colon cells. Cell turnover in the colon is rapid and occurs about every three days, which can result in cancerous cells multiplying very quickly. These antioxidants inhibit synthesis of a protein that is instrumental in tumor formation, providing one more way that turmeric helps prevent cancer.

Studies have shown that the active ingredients in turmeric can help prevent the oxidation of cholesterol. This oxidation is responsible for damaging blood vessels, and causing plaque build-up, both of which contribute to greater risks of heart disease and stroke.

Turmeric also has high amounts of B6 which helps to reduce the risk of heart disease due to its effect on lowering homocysteine levels. High levels of this amino acid also causes blood vessel damage and artherosclerotic plaque build-up. And finally, turmeric lowers LDL cholesterol by increasing the production of messenger proteins that help create LDL receptors. These receptors allow the liver to rid the body of more LDL cholesterol. All of which greatly benefit cardiovascular health.

For any of you interested in improving your complexion, turmeric can also help with that. In this video, Promise Phan will show you how to make a turmeric face mask for more radiant and youthful-looking skin. Just remember, what you put into your body will always be more beneficial, even for your skin, than what you put on your body.

Curcuma Uses

You probably wouldn't think you could find a number of ways to incorporate curcuma into your diet. But you'd be wrong. It can easily be added to rice dishes, potatoes, sautéed vegetables, and one of my favorite ways, soups and stews. You won't notice much difference in flavor. And if making homemade chicken soup, it gives the broth a nice yellowy hue.

Dr. Weil, in the video link above, even talks about using turmeric in soups and stews, and how little you'll notice a flavor difference. You could always make curry, and who doesn't love a good curry. Or you could simply do as I do: mix one heaping tablespoon into a glass of water and drink it down. It really has little flavor. And the benefits are tremendous. But as always, start out small, and see how your body reacts.

Check out this Pinterest page on <u>turmeric recipes</u>, where you'll find everything from curcuma egg salad to turmeric milk (hmmm)! You could always try to encapsulate organic turmeric yourself, but you'll likely realize what a bad idea that is after you stain your fingers, your clothes, and your kitchen counter.

I'd recommend adding curcuma to a lot of different dishes in small amounts until you feel comfortable adding more. But if you really want to maximize the benefits, go with my simple solution of mixing it into water, as heating it will likely diminish the value of its nutrients.

And as this is a totally natural food, you can increase the dosage when needed. I will sometimes take several tablespoons spread throughout the day if feel sick, or experience some pain in my muscles and joints. I'm always surprised by how fast it works. And it's also one of the cheapest superfoods you will find.

You can probably find organic turmeric in the spice aisle of your local supermarket. However, that amount won't last long. Which is why I buy organic turmeric in bulk through Starwest Botanicals. One pound for \$13.08 is ridiculously low for such a powerful superfood.

10

ASHWAGANDHA



Ashwagandha Plant

Withania Somnifera, more commonly known as Ashwagandha, is a plant in the nightshade family, and a popular herb used in Ayurvedic medicine. In fact, it is widely considered the most highly prized Ayurvedic herb. The name somnifera means "sleep inducing" in Latin. And medicinal use of its roots dates back more than 3000 years.

Ashwagandha is cultivated in the drier regions of India, Nepal, North Africa, and the Middle East. It is a strong plant needing little attention, growing in harsh dry climates that inspire other such plants to wilt and die.

The Ashwagandha plant is actually a small shrub. It has slender green leaves, small 5-petaled flowers that bloom all year, and red seeds or berries. It takes one full year of growth to reach maturity.

In Ayurveda, the roots are used in traditional medicine to combat a variety of symptoms and conditions, while the leaves and small red berries are applied externally to ulcers and tumors. The Ashwagandha plant is an esteemed plant regarded as a rejuvenator and life extender.

Ashwagandha Benefits

In Ayurvedic medicine, Ashwagandha is considered a powerful herb for its many restorative benefits. Besides being an amazing mood booster, it can also ...

- Improve resistance to stress
- Increase energy and reduce fatigue
- Reduce depression and anxiety
- Reduce muscle loss and wrinkles
- Slow the aging process
- Reduce cognitive impairment
- Improve learning and memory
- Strengthen the immune system
- Improve concentration
- Stabilize blood sugar
- Lower cholesterol
- Stimulate sexual potency

Studies show that Ashwagandha benefits the entire body with its anti-tumor, anti-inflammatory and anti-fungal properties.[49] It also has a reputation as being an anti-cancer herb because of its ability to disrupt the reproduction of cancer cells, essentially halting the disease, as this study concluded.[50]

Ashwagandha benefits brain health as well, and is a natural ally in the fight against Alzheimer's by reducing cognitive decline. In fact, studies show that Ashwagandha can also reverse Alzheimer's disease.[51]

Alzheimer's disease affects more than 5 million Americans and is the sixth leading cause of death. It destroys memory, thinking, and general cognitive function. This 2014 study using 20 male participants concluded that Ashwagandha "can improve cognitive and psychomotor performance and may, therefore, be a valuable adjunct in the treatment of diseases associated with cognitive impairment."[52]

Ashwagandha is a true superfood herb with innumerable antioxidant properties capable of destroying the free radicals that cause disease. But perhaps the greatest Ashwagandha benefit, due to its adaptogenic properties, is its ability to reduce stress and anxiety.

Stress speeds up the aging process, increases the production of wrinkles, and contributes to muscle loss. But most importantly, a body in a state of stress, is a body ripe for disease. This double-blind, placebo-controlled Ashwagandha study came to this conclusion:

"The findings of this study suggest that a high-concentration fullspectrum Ashwagandha root extract safely and effectively improves an individual's resistance towards stress and thereby improves selfassessed quality of life." [53]

Ashwagandha benefits health in so many different ways. And in today's modern world with all its economic stress, environmental stress, and biological stress, we need these superfood herbs now more than ever. They provide a simple solution to serious problems.

In a world so dependent on expensive prescription drugs with so many adverse side effects, could a simple yet powerful little herb really be the key to reducing stress while improving one's quality of life?

Ashwagandha Uses

Ashwagandha can be grown from seed, for all you gardeners out there. It prefers full sun, drier conditions and needs little to moderate amounts of water. However, you'll still need to dry and pound the roots into a powder, as this is the best way to reap its benefits.

The easiest way to consume Ashawagandha is to find a good supplement, whether it comes in capsules or bulk powder form. Check out this video, as Ashawagandha Annie shares her advice about growing the herb, her favorite delicious and healthy tonic using it, and some more information on the benefits of Ashwagandha.

If you're interested in purchasing Ashwagandha, The folks over at <u>Lost Empire</u> Herbs have a high quality tincture.

11

WHEATGRASS



Wheatgrass

Wheatgrass is the young sprout of the wheat plant, *Triticum aestivum*. Due to the cellulose in wheatgrass, it must be juiced to make it digestible for humans. One of the interesting things about wheatgrass is that it's gluten free at the sprout stage of its growth cycle. And oh so healthy!

People have been consuming wheatgrass for over 5000 years, going all the way back to ancient Egypt, and even further to early Mesopotamian civilizations. Even then, wheatgrass was prized for its effects on health and vitality.

It wasn't until the 1930s that it became popular in the U.S. Then a couple decades later, Ann Wigmore, co-founder of the Hippocrates Health Institute and author, would further popularize the use of wheatgrass, and raw food diets in general.

Wheatgrass is extremely high in chlorophyll, amino acids, antioxidants, enzymes, and more than 70 vitamins and minerals. It can be grown outdoors, indoors, in soil or other growing mediums, or in nothing other than a plastic tray, as Daniela will show you in this video.

Wheatgrass Benefits

Wheatgrass contains an impressive assortment of nutrients, but it's the chlorophyll content that is perhaps most beneficial. Chlorophyll is the green pigment found in plants, and also considered their lifeblood. Which is appropriate considering that its molecular makeup so closely resembles our own hemoglobin, the protein molecule in red blood cells that transports oxygen from the lungs to the rest of the body.

Chlorophyll helps the body process more oxygen, promotes the growth and repair of tissues and cells, and cleanses the blood. It also alkalizes the body, which is key to reducing the risk of disease, and removes toxins from the body, something that the modern world unfortunately provides an abundance of.

Besides the strong antioxidant properties in chlorophyll, it's the oxygen producing capabilities that are most beneficial. Cells with proper oxygenation are healthy cells. Cells with low oxygen levels decay, mutate, and die. When this happens the body is prone to diseases like cancer. There is even evidence to suggest that cancer cannot live in a body that is properly oxygenated.

Most of the benefits of consuming wheatgrass revolve around this chlorophyll/oxygen component and include ...

Stimulation of metabolism

- Increased energy
- Anti-aging capabilities
- Cancer-fighting properties
- Reduction in blood pressure
- Improved digestion
- Detoxification
- Improved alkalinity
- Stimulation of thyroid function
- Cleansing of blood and organs

One recent study looked closely at the clinical applications of wheatgrass and discovered a number of potential benefits.[54] Among those listed were its ability to treat rheumatoid arthritis, ulcerative colitis, diabetes, obesity, and cancer. Researchers also noted benefits to the immune system, and chlorophyll's effect on combating oxidative stress.

A 2014 study analyzing the antioxidant properties in wheatgrass found a variety of health-promoting compounds.[55] Researchers concluded that "wheatgrass proved to be an effective radical scavenger in all antioxidant assays. The gas chromatography-mass spectrometry analysis confirmed the presence of a diverse category of bioactive compounds."

Wheatgrass has the potential to treat diabetes, and without the nasty side effects of prescription medication, as this recent study concluded.[56] The study showed that wheatgrass has hypoglycemic effects, including a reduction in both insulin levels and liver glycogen.

As discussed earlier, oxygen may be one key to preventing and treating cancer. And numerous studies seem capable of backing that up. According to one such study, wheatgrass's effect on cancer of the larynx showed an inhibition of cancer proliferation, along with a significant reduction of larynx cancer cells.[57] So not only did it stop the spread, it eliminated many of the toxic cells.

A 2011 clinical study on the cytotoxic effects of wheatgrass on leukemia cells discovered similar results.[58] In vitro tests showed that a wheatgrass concentration killed cancer cells without harming healthy cells. Something that traditional treatments like chemotherapy could never boast.

Wheatgrass Uses

The best way to consume wheatgrass is to juice it immediately after harvesting it (unless you're buying it), and slam it down like a shot of whiskey. But if you want to get fancy about it, and why wouldn't you, there are numerous ways to get your wheatgrass fix. But you still have to juice it; there's no way around that.

When it comes to juicers, you can opt for the old hand crank manual wheatgrass juicers with few moving parts that can break. However, these usually only juice wheatgrass. Or you can opt for an electric juicer that will juice just about anything you can jam down its shaft. Whatever you choose, just make sure it's able to juice grass, because many do not. Another option is a high-powered blender, but only top-of-the-line models seem capable of breaking down grasses.

For recipes that use wheatgrass, check out this <u>Pinterest page</u>. There are a number of different tonic and smoothie recipes, along with more information on growing wheatgrass. Another great source is this <u>Natitas Naturals wheatgrass</u> <u>recipes page</u>, where you'll find recipes ranging from the usual, to the sublime. Green gluten free pancakes, anyone?

Don't forget to check out the video link above, and see for yourself how ridiculously easy it is to grow wheatgrass.

If growing wheatgrass from seed, I recommend Sproutman – my go-to source for all sprouting seeds and supplies. However, if you're time crunched, or just lazy (we've all been there; I am now!), give this Navitas Naturals Wheatgrass from iHerb a try. You may be able to find it at your local grocery store. But probably not as inexpensively as you will at iHerb. By following any of my iHerb links, you will automatically receive \$5 off your first order. Plus, iHerb donates \$5 to charity. That's what I call a win-win!

12

MATCHA GREEN TEA



Matcha Green Tea

Green tea is made from the leaves of the *Camellia sinensis* plant. Green tea is prolific in several Asian countries, and its consumption goes back nearly 4000 years. There is even evidence suggesting it was the first herbal beverage.

Matcha green tea is a bit different from normal green tea. First, the tea plants are covered with shade cloths the last few weeks prior to harvesting. This slows the growth, and stimulates an increase in chlorophyll and amino acid production.

Second, the tea buds are hand-picked, and the stems and veins are usually removed.

And third, with matcha green tea, you're consuming everything, rather than simply steeping and discarding the tea leaves. And for those accustomed to more caffeinated beverages like coffee, you'll be happy to know that matcha green tea contains around three times the caffeine as normal green tea.

Another substance you get more of with matcha green tea (compared to normal green tea) is the amino acid L-theanine. Studies show that when this amino acid is combined with caffeine, levels of serotonin, dopamine, and GABA increase in the brain, which leads to improved cognitive function, a boost in mood, and a reduction in mental and physical stress.

Matcha Green Tea Benefits

You can tell just by looking at the intense color of matcha green tea that it has significantly greater benefits than normal green tea, especially the typical store bought packets most of us know as green tea. And what exactly is responsible for that deep color? A little something called chlorophyll.

Chlorophyll is the green pigment found in plants and nearly identical to the molecular structure of our hemoglobin. Besides being a powerful antioxidant and detoxifier, it helps the body process more oxygen, aids in the growth and repair of tissues and cells, and alkalizes the body, all of which greatly improve our chances of preventing and treating disease.

Chlorophyll's role in benefiting health cannot be overstated, and it's the oxygen component that is most beneficial. Healthy cells equal a healthy body. And cells with more oxygen are healthier. While cells with less oxygen decay and die, or even worse, mutate.

In terms of pH, anything that alkalizes the body is beneficial. The pH scale runs from 0 to 14, with 7 being neutral. Our ideal pH is around 7.4, so slightly alkaline. However, most of us find ourselves on the wrong side of 7, which is to say way too acidic. The problems with this are numerous and include digestive disorders,

heart disease, poor immune function, and respiratory problems where oxygen transport is limited.

So by consuming matcha green tea, you get loads of health promoting chlorophyll, and you balance your pH levels. Both of which aid in providing oxygen to tissues and cells. Both of which are responsible for creating an environment where disease is far less likely to occur. It has even been surmised that cancer cannot live in an alkaline, oxygen rich environment.[59] How's that for beneficial?

There are numerous benefits of consuming matcha green tea, which include ...

- Lower blood pressure
- Weight loss
- Stress reduction
- Normalization of cholesterol
- Stronger immune system
- Detoxification
- Metabolism stimulation
- Increase in energy and stamina
- Improved mood
- Anti-cancer effects
- Cardiovascular benefits
- High levels of antioxidants
- Improved cognitive function

Matcha green tea contains numerous other antioxidants besides chlorophyll. Polyphenol compounds called catechins are prolific in green tea in general, but even more so in matcha. And the most abundant of all the catechins is epigallocatechin gallate, which is all but impossible to pronounce without sounding drunk.

However, it is extremely beneficial, and responsible for around 60% of the catechin content in matcha green tea. EGCG, as it's also thankfully known, is a potent cancer fighter, and one that has been studied relentlessly over the years.

This very recent 2015 study found that the EGCG in green tea induced cancer cell death in bile duct cancer cell lines.[60] This powerful catechin significantly

reduced the number of cancer cells, and showed a variety of other anti-cancer effects.

In some studies, matcha was shown to possess 100 times more EGCGs than other kinds of tea. But that's just one of many antioxidants in this special type of green tea. ORAC testing has shown that matcha green tea contains 60 times the antioxidants found in spinach, and 7 times the antioxidants found in raw cacao, another powerful superfood I've included in this book.

The amino acid L-theanine, briefly mentioned above, has antioxidant properties as well. It can also improve memory and concentration, induce relaxation, and increase alpha wave activity in the brain. And for some reason, it has a potent synergistic effect when combined with caffeine.

This 2008 study examined the combined effects of L-theanine and caffeine on cognitive performance.[61] Patients were divided into two groups - one getting caffeine only, and the other getting caffeine and L-theanine. Those receiving both showed more improved speed, accuracy, and memory when completing assigned tasks, and reduced levels of distraction.

Another study involving 91 subjects age 47 to 67 with mild cognitive impairment discovered similar results.[62] The treatment group received a combination of green tea extract and L-theanine for 16 weeks. The results, compared to the placebo group, were an improvement in memory, attention, and an increase in theta brain waves.

Matcha green tea can also benefit your physical appearance, by stimulating metabolism, burning stored body fat, and promoting more fat burning during exercise. All without an uncomfortable and dangerous increase in heart rate and blood pressure.

This 2013 study looked at the effects of green tea consumption and resistance training on body composition. [63] Subjects were divided into four groups: Group 1 consumed green tea, Group 2 consumed a placebo, Group 3 consumed green tea plus resistance training, and Group 4 consumed a placebo plus resistance training. And the results?

Group 2 showed no changes. Group 1 showed pretty good improvements. As did Group 4. However, Group 3 (the green tea plus resistance training group) showed significant improvements in weight loss, body mass index, muscle strength, and waist circumference. Which leaves me with an important point to make ...

Superfoods are not magic pills. Beneficial, yes! But not miracle workers on their own. Optimal health is about ALL your diet choices, along with strenuous exercise, a reduction in stress, and minimizing environmental toxins. It's a four-pronged approach.

Matcha Green Tea Uses

Since matcha green tea is a fine powder, you can use it in all sort of recipes. Check out this Pinterest page for numerous <u>matcha green tea recipes</u>. You'll find a wild assortment, including matcha green tea popsicles, smoothies, lattes, ice cream, frappuccino, cupcakes, muffins, cookies, and even matcha green tea pudding.

For a super simple matcha green tea latte recipe, <u>check out this video</u> by Namiko Chen. And remember that matcha contains about the same amount of caffeine as coffee, so it works nicely as a substitute. Though I really love my morning coffee, and couldn't dream of any worthy substitutes. If only coffee was a superfood.

I just started drinking green tea again, after really getting burned out on it after living in East Asia for years. And the reason I'm back on the bandwagon, is all the health benefits of matcha you read about above. My source is Body Ecology, who I also use for fermented products and culture starters. And if you're not eating fermented foods, you really should be.

13 KOMBU



Kombu

Kombu is a type of brown seaweed, species *Saccharina japonica*, in the Laminariaceae family. It is widely used in Asian cuisine. And it also goes by the names *dashima* (Korean) and *haidai* (Chinese).

Kombu is cultivated on ropes in the seas around Japan and Korea, with the waters around the big island of Hokkaido in Japan providing the bulk of kombu cultivation.

Kombu is usually sold dried in sheets or pickled in vinegar. It is used in Japan to make dashi, a popular stock for soup. It is also commonly cooked with beans to add flavor and nutrients, and to make the beans more digestible, which allows greater absorption of those nutrients.

Kombu is also sometimes used to make a seaweed tea and can be used as a seasoning for rice. It's a great source of glutamic acid, iodine, fiber, and numerous enzymes which are important for digestion.

Kombu Benefits

The nutrient content of kombu is pretty ridiculous. It's high in fiber, calcium, iron, and vitamins A and C. And the vitamin C increases the bioavailability of the iron. It's also high in iodine, which most of us are deficient in, and which also helps transport oxygen to our cells - also a common deficiency. And it contains a little known mineral called vanadium.

As mentioned above, kombu contains numerous enzymes, one of which - haloperoxidase - helps to regulate blood sugar, and thus normalize body weight. Kombu is abundant in antioxidants like flavonoids and carotenoids, but also in more elusive alkaloids not found in other foods.

Kombu also contains a sulfated polysaccharide called fucoidan, which is a powerful anti-inflammatory, anticoagulant, and anti-thrombotic, all of which provide cardiovascular benefits.

Besides its super healthy nutritional profile, kombu is able to ...

- Provide radiation protection
- Lower LDL (bad) cholesterol
- Raise HDL (good) cholesterol
- Reduce hypertension
- Improve digestion
- Purify the blood
- Detoxify the body
- Stimulate weight loss

- Improve prostate function
- · Optimize brain health
- Alkalize the body
- Fight cancer

This 2005 study shows kombu's ability to help detoxify the body and "contribute to longevity" by removing cancer-causing environmental carcinogens.[64] Another study, which focused on the fucoidan content in kombu (Saccharina), concluded that it exhibited anticoagulant activity, displayed strong anti-thrombotic activity, and strongly blocked breast carcinoma.[65]

This 2013 study corroborated the results of the above study by concluding that brown seaweeds are cytotoxic (toxic to living cells) against breast cancer cell lines.[66] Another study, also conducted in 2013, concluded that the fucoidan content in brown seaweeds have anti-cancer effects and have "shown to induce cytotoxicity of various cancer cells."[67]

There is no shortage of studies done on the cancer fighting capabilities of kombu and other brown seaweeds, and it seems that fucoidan's anti-tumor actions are responsible for much of it.[68] As was the case in this 2012 study where fucoidan from seaweed was shown to exhibit anti-metastatic effects on lung cancer cells.[69]

For centuries we silly humans have searched for some mythical fountain of youth. This last study on kombu's beneficial cellular effects, including slowing the aging process, may offer hope that the key to longevity doesn't exist in some fairy tale fountain, but rather in a vast and circulating system of water known as the earth's oceans.[70]

Kombu Uses

If you're interested in making a healthy and tasty seaweed salad (and why wouldn't you be?) check out this video, as Amanda walks you through the process step by step. Don't be too put off by the seaweed. It's actually quite delicious. And did I mention that it's healthy?

Or how about an <u>authentic miso soup recipe</u> using kombu? Miso is a seasoning made from fermented soybeans, and all of us could use more fermented foods in our diet. So besides being delicious, this miso soup is also very healthy as well.

You can add kombu to most one-pot meals while cooking, and then simply remove before serving. All those wonderful nutrients will remain. For those of you familiar with the health benefits of bone broth from naturally raised animals, kombu can add an even greater nutritional punch. If you're not familiar with bone broth, here is a wonderful recipe, along with numerous reasons why it's so healthy.

For more ideas on how to use kombu, check out these <u>kombu recipes on</u>

<u>Pinterest</u>. And if you're having trouble finding kombu in your local grocery stores, you can purchase this <u>Maine Coast Sea Vegetables brand from iHerb</u>. And as I mentioned earlier in the book, by following any of my iHerb links, you'll receive \$5 off your first order, and iHerb will donate \$5 to charity.

And you can always try other sea vegetables like nori (sushi, anyone?) or dulse. They all have similar benefits. And they all work well in bone broth, and other soup recipes.

14 CACAO NIBS



Cacao Nibs

Often described as "nature's chocolate chips," cacao nibs are peeled and crumbled cacao beans, which are the dried, fatty seed of *Theobroma cacao*. The beans come from the fruit pod of cacao trees native to the Americas, mostly in the foothill basins of the Andes mountain range in South America.

Cacao trees grow in a limited geographical zone that ranges from 20 degrees south of the equator to 20 degrees north of it. There are three varieties -

Forastero, which is the most widely cultivated, weighing in at around 95% of worldwide production.

Criollo cacao trees produce a lower yield, but are the highest in quality and considered a delicacy. And finally Trinitario, which is a hybrid of the other two. The African nation of Cote d'Ivoire leads the world in cacao production at 33% of total yield, or 1.65 million tons annually as per 2012 statistics.

Cacao seeds, or beans, are somewhat soft, ranging in color from a light lavender to purple. However, they become a dark brown through a natural fermentation process. Cacao was considered the food of the gods for its flavor and nutritional properties in Mesoamerica for thousands of years.

Cacao still retains that legendary status today, both in terms of nutrition, and for the tasty treats it helps create. Cacao nibs are a rich source of antioxidants such as procyanidins and flavonoids. And its stimulant activity comes from the compound theobromine.

Cacao Nibs Benefits

If there were any doubt to cacao's health benefits, the incredible health of the Kuna people in Panama serves as a wonderful reminder why cacao is a top superfood.[71] These indigenous people living on small islands off the mainland are heavy consumers of cacao. They also have significantly lower rates of both cancer and heart disease, the top two causes of death in the modern world.

Per 100,000 people, the mainland of Panama experiences 83 deaths to cardiovascular disease and 68 to cancer. By comparison, the Kuna experience just 9 deaths to cardiovascular disease, and only 4 to cancer.

Cacao contains a number of beneficial nutrients, many of which become damaged when heated. So naturally, raw cacao will be more beneficial than processed cacao.

Cacao contains a wealth of antioxidants such as procyanidins, resveratrol, catechin, epicatechin, and various flavonoids. It's high in vitamin C, tryptophan,

and neurotransmitters like dopamine, serotonin, and phenethylamine - a potent mood enhancer. As well as the compound theobromine.

The theobromine content in cacao has been shown to kill a strain of bacteria that causes tooth decay, thus preventing cavities. Rather than causing them, like sweetened milk chocolate. Benefits of consuming cacao and cacao nibs include ...

- Regulating blood sugar
- Improving cardiovascular health
- Preventing cancer
- Lowering blood pressure
- Reducing stress
- Improving cognitive function
- Boosting immunity
- Reducing inflammation
- Improving mood & increasing wellbeing

A recent study on cacao flavanol consumption in elderly subjects discovered that consuming cacao reduces age-related cognitive dysfunction.[72] High flavanol dark chocolate consumption has also been shown to enhance the widening of blood vessels which increases blood flow, and thus decreases blood pressure.[73]

A 2014 study on the antioxidant and anti-inflammatory effects of cacao consumption found that HDL (good) cholesterol increased, while glucose levels decreased, both of which contribute to improved cardiovascular health.[74]

The polyphenol antioxidants in cacao are responsible for many of its benefits, including (wait for it) contentment. In this 2013 study, 72 participants received a dark chocolate drink mix for 30 days in varying doses.[75] The highest dose group reported, "significantly increased self-rated calmness and contentedness relative to placebo."

But perhaps the greatest endorsement for cacao consumption comes from Jeanne Louise Calment, who lived to the age of 122 (longest "confirmed" human lifespan).[76] She smoked cigarettes till the age of 117, which isn't advisable. But she also ate 2 pounds of dark chocolate every week. By contrast,

those large bars you try not to devour in one sitting are only 3.5 ounces, or 1/9 her weekly consumption.

Cacao Nibs Uses

What can't you do with cacao nibs, cacao powder, and cacao butter? You're truly only limited by your own imagination. Though it helps to have internet. And this Pinterest page of <u>cacao recipes</u> will make you want to dive into a large vat of melted dark chocolate head first. <u>Chocolate pasta</u>, anyone?

Cacao nibs can be used as an ingredient in a superfood trail mix (like my simple blend of cacao nibs, gogi berries, bilberries, and pumpkin seeds), blended into smoothies, used in baking (nature's chocolate chips, remember?) or sprinkled on just about anything your heart desires.

Check out this <u>video recipe for a healthy chocolate fudge</u> courtesy of nutritional cook <u>Susan Jane White</u>. Let me warn you of two things, though. First, click on the link above for the recipe, and make sure you have all the ingredients to make this fudge. Cause trust me, you'll want (or need) to make it right away. And second, a large bib will be required. Cause you're going to drool all over yourself.

If you want to make the recipe even healthier, try substituting yacon syrup for the date syrup, or perhaps a combination of the two. Yacon is a wonderful superfood in its own right, and a supreme natural sweetener.

You may be able to get Navitas Naturals cacao nibs at your local supermarket. If not, you can order them through iHerb (which is usually cheaper), and get \$5 off in the process simply by following that link. If choosing another brand, make sure you're purchasing raw and organic.

15

MUCUNA PRURIENS



Mucuna Pruriens

Mucuna pruriens is a tropical legume in the Fabaceae family that is native to Asia and Africa where it grows wild. English names for mucuna include velvet bean, cowage, cowitch, and Lyon bean.

Mucuna is a shrub with long vines, pointy leaves, and white, purple, or lavender flowers. Its seed pods are around four inches long, and contain up to seven black or brown seeds, also called beans.

The plant, and particularly the seeds, have long been used in Ayurvedic medicine to treat anxiety, arthritis, snake bites, scorpion stings, and Parkinson's disease. The shoots and beans can both be cooked and eaten. And the beans are sometimes used as a coffee substitute, which sounds like something resembling blasphemy.

What makes mucuna pruriens special is its high levels of the amino acid L-DOPA, a precursor to dopamine. L-DOPA is converted to dopamine in the brain through a process called decarboxylation. People suffering from Parkinson's disease have low levels of this hormone, which is why mucuna is used to treat the disease. L-DOPA is also a precursor to other hormones like norepinephrine, serotonin, melatonin, and HGH (human growth hormone).

Mucuna Pruriens Benefits

Mucuna pruriens isn't just a good source of L-DOPA, it's the highest natural source of it. And as stated above, it leads to the production of dopamine - a neurotransmitter that helps our bodies better handle stress. Dopamine is essential for emotional health, cognitive function, muscle coordination, and motor skills.

Dopamine is depleted by stimulants (including nicotine and caffeine), alcohol, and stress, which means most of us could probably use more of it. If you ever feel restless and jittery, you can bet you need more dopamine.

Mucuna pruriens is also rich in tryptophan, an amino acid that helps our bodies produce serotonin, a neurotransmitter that regulates mood, sleep, and appetite. It's also known for having antidepressant and cognitive qualities, including the enhancement of learning and memory.

Mucuna has a long history in Ayurvedic medicine as being an aphrodisiac. It's also been known to promote fertility in men and women, increase sperm count, regulate ovulation cycles, and enhance the production of hormones like testosterone and HGH.

A 2009 study, involving 75 men suffering from infertility issues, examined mucuna pruriens effect on male fertility and found that it significantly improved levels of dopamine, sperm count, and testosterone.[77] There have also been countless studies done on mucuna's effect on sexual behavior that are promising.

One study conducted on healthy rats found that a mucuna supplement "significantly increased the mounting frequency, intromission frequency and ejaculation latency."[78] Another done on diabetic rats (as sexual problems are often a complication of the disease) found similar results, including "significant improvement in sexual behavior, libido and potency, and sperm parameters."[79]

Besides treating sexual dysfunction, mucuna pruriens benefits also include ...

- Promotion of restful sleep
- Treatment for Parkinson's disease
- Relief from stress and anxiety
- Improved memory and brain health
- Restoration of kidney and adrenal functions
- Reduction in addictive cravings
- Neurological benefits
- Mood improvement
- Calming effect on the nervous system

Many of these benefits are dopamine related, along with the production of hormones like serotonin and melatonin. However, the HGH production capabilities of mucuna cannot be overstated. HGH is primarily produced by the pituitary gland, however after the age of 50 our bodies produce very little of it, or even none at all.

Considering HGH's impact on vitality and longevity, anything that we can do to promote the production of more it (by natural means) is extremely beneficial. HGH can help increase exercise capacity, bone density and muscle mass, while also decreasing body fat. Some people have even gone so far as to declare it the biological equivalent to a fountain of youth.

There are other ways to increase HGH (again, naturally), including high intensity interval training. To learn more about this powerful approach to exercise, also known as Peak 8, read this extremely <u>detailed article by Dr. Joseph Mercola</u>.

Mucuna pruriens' impact on Parkinson's disease has been studied at length. In fact, you can now get straight L-DOPA as a prescription drug. However, studies have shown that maybe that's not such a good idea. This 2012 study found that "a whole extract of M. pruriens seeds could be superior to pure L-dopa with regard to the treatment of Parkinson's."[80] They also concluded that synthetic L-DOPA often presents complications after several years of use.

Another study on mucuna's effect on Parkinson's came to the same conclusion.[81] Researchers stated that mucuna had "shown anti-Parkinson and neuroprotective effects in animal models of Parkinson's disease that is superior to synthetic Levodopa (L-DOPA)." Mother Nature cannot be outsmarted, which is why the best approach will always be the most natural.

And since depression is so pervasive in our modern world, I'll leave you with one last study, in which an ...

"EXTRACT OF MPE (MUCUNA PRURIENS SEEDS) PRODUCED A SPECIFIC ANTIDEPRESSANT-LIKE EFFECT IN ACUTE AND CHRONIC MODELS OF DEPRESSION."[82]

Mucuna Pruriens Uses

I recommend purchasing a quality mucuna pruriens powder containing at least 15% L-DOPA. You can add the powder to beverages like fruit and vegetable juices, water, and smoothies. It mixes particularly well with cacao. A half to full teaspoon of mucuna powder seems to be an average dose, and should be a nice addition to any of those smoothies.

But as always, start out with a small dose and see how your body reacts. We all respond to superfoods differently. If interested in trying mucuna, check out <u>Lost</u> Empire Herb's organic full spectrum extract containing 15.76% L-DOPA.

<u>Check out this video</u> to hear Dr. Bob McCauley's thoughts on mucuna pruriens. He's a big fan of this powerful superfood, and he'll tell you why. Something to do with HGH and longevity. Unless you don't want to live a longer, healthier life. But that would be silly.

16 MORINGA



Moringa

Moringa, *Moringa oleifera*, is a species of genus Moringa in the Moringaceae family. It is a fast-growing, drought-resistant tree native to the foothills of the Himalaya in Northwestern India. However, it is now cultivated in many tropical and subtropical regions around the world.

Moringa grows to a height of 32-40 feet. Its bark is grayish white, while its fivepetaled flowers are yellow and white, and grow on slender branches. It contains long, hanging fruit pods that contain several dark brown seeds. Moringa also goes by the names drumstick tree, horseradish tree, and benzoil tree.

Moringa trees love the sun and heat and grow in drier conditions that other plants and trees cannot survive in. According to the USDA, it grows in hardiness zones 9 and 10 in the U.S.

Parts of the moringa tree that are used for food include its seed pods, leaves, mature seeds, oil pressed from the seeds, and its roots. However, the leaves are the most nutritious part, and are often cooked, eaten raw, or dried and ground into a powder.

Moringa Benefits

Moringa contains high amounts of vitamins A, C & K, iron, magnesium, protein, and several B vitamins. It contains 18 amino acids and all 9 essential amino acids, making moringa a wonderful source of complete protein for vegetarians. And it contains an abundance of antioxidants that contribute to cellular health by combating the damaged caused by oxidative stress.

One of the things that makes moringa special is that it contains high amounts of numerous vitamins and minerals, rather than just one or two, which is generally the case. It has ...

- 4 times more vitamin A than carrots
- 4 times more potassium than bananas
- 4 times more calcium than milk
- 25 times more iron than spinach
- 36 times more magnesium than eggs
- 50 times more vitamin B3 than peanuts

The combination of high levels of calcium and magnesium are important, as magnesium is needed to help the body absorb the calcium. Plus magnesium is one nutrient most of us are deficient in.

Moringa is a potent antifungal, antibacterial, anti-inflammatory, and it has antidiabetic effects, as it helps to balance blood sugar by reducing blood glucose levels. Moringa also has anti-tumor and anti-cancer properties, in part because of a compound called niaziminin, which studies have also shown to be a potential treatment for the Epstein-Barr virus.[83]

It seems science is catching up to traditional medicine regarding the health benefits of moringa. Benefits that include ...

- Increasing energy levels
- Improving focus and concentration
- Lowering blood pressure
- Improving digestive health
- Balancing cholesterol levels
- Improving cardiovascular health
- Improving liver function
- Enhancing the health of skin and hair
- Protecting against neurodegenerative diseases
- Improving bone health

This seems to be merely the tip of the iceberg when it comes to moringa benefits. And a lot of these benefits come from the superior nutrient density of this superfood, as this 2014 study discovered.[84] It lists a wide range of vital antioxidants, vitamins, and minerals as reasons for this superiority.

Another 2014 study on the nutritional makeup of moringa found much of the same, including "profound antimicrobial, hypoglycemic and anti-tubercular activities." [85] They also concluded that moringa improved cardiovascular health by normalizing blood glucose and cholesterol levels.

A 2013 clinical study assessing the anti-ulcer potential of moringa concluded that, "moringa significantly reduced the free acidity, total acidity and ulcer index," and that "moringa possesses valuable anti-ulcer, anti-secretory, and cytoprotective activity." [86]

But perhaps moringa's greatest use will be as a treatment for cancer, as the following three studies have shown. This 2014 study showed that moringa inhibited tumor cell growth and significantly reduced cancer cell proliferation.[87]

Another showed similar results, concluding that moringa was a promising treatment for lung cancer.[88]

And a third study on pancreatic cancer (a particularly deadly type of cancer) showed that moringa leaf extract inhibited the growth of pancreatic cancer cells.[89] Which was particularly important considering the best course of action thus far, chemotherapy, became less valuable over time as the tumors developed resistance to it.

I love when traditional medicine and science can support each other and come to the same conclusions, as is the case here. Check out this short, 10-minute

Discovery Channel documentary for more information on this magical tree.

Moringa Uses

Keep in mind that unless you live in an area that produces moringa, you'll likely be using it in powder form. However, moringa powder is extremely versatile. You can add it to soups, stews, rice dishes, or casseroles. Just be aware that high temperatures destroy vital nutrients, so I recommend adding moringa powder to already cooked food.

You can put moringa powder into a shaker, and use it the same way you do salt and pepper.

Moringa powder can also be made into an herbal tea, either alone or with other dried or fresh herbs. It can be an ingredient in smoothies, salad dressings, sauces, homemade mayonnaise, or added to beverages.

You can encapsulate the fine powder yourself. I used to mix it in water and drink it down, but it tasted like lawn shavings. And it didn't mix well at all. Making it probably the first superfood I've had trouble taking in this way, out of several dozen.

However, if you want to be as natural as possible, <u>Starwest Botanicals has both</u> <u>moringa powder and moringa leaves</u>. I'd opt for the leaves and mix it with other tea herbs. Whenever I decide to get some more moringa, I may go that route.

Don't forget to check out the video link above. It's short and relevant, as most of us are deficient in so many important nutrients that moringa provides.

17 BEE POLLEN



Bee Pollen

Bee pollen is a ball of pollen (male seed of a flower) that is collected and packed into cells by worker bees, which are always female. When a worker bee lands on a flower, she scrapes the pollen off of it with her legs and jaw and presses it into a pollen basket.

The pollen basket is actually a part of the bee located on her hind legs. When the basket is full, it contains a single granule that is transported back to the hive and packed into a honeycomb cell with a bit of honey so it won't spoil.

The chemical composition of bee pollen is always different depending on whatever plants and flowers the pollen was collected from. One teaspoon of bee pollen contains over 2.5 billion grains of flower pollen, and takes one bee an entire month working eight hour days to collect.

Bee pollen, along with other bee products like honey, propolis, and royal jelly, have been consumed for centuries, dating back to 2735 BC and perhaps beyond. There is mention of bee products in the texts of ancient Rome and Greece, and in books like the Bible, Torah, and Koran.

It has been said that bee pollen is the most nutritionally complete food found in nature, as it contains all the essential nutrients capable of sustaining life all by itself.

Bee Pollen Benefits

Bee pollen contains an abundance of enzymes, which play an important role in everything from cellular health to digestion. Bee pollen is rich in antioxidants that protect our cells from oxidation. Bee pollen also contains more protein by weight than any animal source, making it ideal for vegetarians. And bee pollen is a strong anti-inflammatory.

Inflammation is extremely detrimental to the human body, as it provides a kind of foundation on which disease can build. It has even been hypothesized that without inflammation there can be no disease. Bee pollen has been effective in treating benign prostate hyperplasia, also known as enlarged prostate, which is just one symptom of inflammation.

Bee pollen is also a powerful antibacterial, antimicrobial, and antiviral, which means it helps prevent infectious diseases like the common cold and flu, to more serious conditions. Bee pollen benefits are numerous and include ...

Increasing energy levels

- Treating allergies
- Improving lung health
- Aiding digestion
- Boosting immune function
- Improving cardiovascular health
- Increasing strength and vitality
- Normalizing cholesterol levels
- Improving prostate health
- Increasing endurance
- Promoting longevity
- Improving skin complexion
- Reducing food cravings
- Normalizing weight

Bee pollen aids weight loss by stimulating the metabolic process. Bee pollen is also a low calorie food, as two tablespoons contain just 90 calories. And it contains phenylalanine, an amino acid that acts as an appetite suppressant.[90] According to the National Center for Biotechnology Information, Phenylalanine is also effective at treating ADHD, as it improves mental alertness. And it helps treat depression by normalizing levels of both norepinephrine and dopamine.

By the way, phenylalanine is just one of 22 amino acids found in bee pollen, which also includes all 9 essential amino acids necessary to sustain human life.

Bee pollen contains high amounts of rutin, a bioflavonoid that helps strengthen capillaries and blood vessels, improves circulation, reduces arterial clotting, and normalizes cholesterol.[91]

Bee pollen seems equally adept at treating cancer, as this 2007 study demonstrated. A bee pollen extract induced cytotoxicity in prostate cancer cells, and was shown to be a "promising candidate for the treatment of advanced prostate cancer." [92] A more recent study also concluded that bee pollen contained polysaccharides that exhibited anti-tumor activity. [93]

A 2015 clinical study on the chemical composition and therapeutic applications of bee pollen discovered that it was a powerful antifungal, antimicrobial, antiviral, anti-inflammatory, anti-cancer, antibiotic, analgesic, along with containing

numerous antioxidants and immunostimulating properties. [94] All of which improve immune function, combat cancer and other diseases, improve brain function, and increase longevity.

Sadly, there haven't been that many studies done on bee pollen. Could it be due to the fact that it cannot be synthesized in a laboratory? Or could it be because it's difficult to make a drug out of something so complex and still not completely understood?

Bee Pollen Uses

Bee pollen is extremely versatile and can be sprinkled on foods, used as an ingredient in recipes, or even eaten by itself. You can use it as a topping for yogurt, oatmeal, salads, homemade ice cream, cottage cheese. and other similar foods. Or you can add it to smoothies for an extra energy kick, which is my preference.

You can also use bee pollen as an ingredient in raw desserts, like homemade fudge and energy bars. For more ideas, check out this Pinterest page on <u>bee pollen recipes</u>. The photos are mouth-watering good.

Keep in mind that to preserve the incredible nutrients in bee pollen, you'll want to avoid cooking or heating it, much like other superfoods. But you'll have no trouble finding raw ways to use it.

You may be able to find bee pollen locally. However, if you're like me, and living in the middle of nowhere, check out <u>YS Eco Bee Farms Bee Pollen from iHerb</u>. They also have a <u>royal jelly product</u> that I take every morning for a nice energy boost. The royal jelly I consume also contains bee pollen, propolis, ginseng, and eleuthero, all of which are powerful superfoods. Both the bee pollen and royal jelly are very reasonably priced, which isn't always the case with superfoods.

18

BACOPA MONNIERI



Bacopa Monnieri

Bacopa monnieri is a perennial creeping herb in the Plantaginaceae family. It's native to south India, where it has been used as a medicinal herb in Ayurvedic medicine for centuries. It possesses thick, oblong leaves and small white flowers. It can be found in marshy areas throughout south Asia and the southern U.S.

Bacopa monnieri goes by several names, including water hyssop and thymeleafed gratiola. In India, it's known as *brahmi*, named after the Hindu god of creation - Brahma.

Bacopa monnieri was first mentioned in several Indian medicinal texts during the 6th century, where it was believed to have been used by Vedic scholars to help them memorize lengthy hymns, poems and scripture passages.

In Ayurveda, it has a reputation as an herb that can sharpen intellect and overcome poor cognition. It has also been highly regarded for its antioxidant and tranquilizing properties, and is considered a strong adaptogen.

Bacopa Monnieri Benefits

Adaptogenic plants and herbs have the unique ability to provide the body with whatever it needs to survive and thrive. These special plants help the body adapt to stressful situations, whether they are environmental, physical, mental, or emotional. They also return the body to a state of homeostasis, or balance.

This 2003 study on the adaptogenic effects of bacopa concluded that "B. monniera possesses potent adaptogenic activity." [95]

Bacopa monnieri also has an impressive antioxidant profile, as it possesses a number of sterols, flavonoids, and saponin bacosides. It's the bacosides unique to bacopa that are responsible for many of its health benefits, particularly brain health.

Bacosides are a powerful antioxidant for the brain - an organ that uses 20% of the body's oxygen. Because of this, it is prone to more free radical damage than other organs. And if you don't already know, antioxidants are important for reducing the effects of free radical damage, which can cause numerous diseases. To put it simply, these special antioxidants in bacopa protect brain cells.

Bacosides also improve nerve conduction, and aid in the repair of damaged neurons. They improve memory, recall ability, learning, and concentration. They prevent dementia and Alzheimer's disease. In short, they help prevent age-related cognitive decline.

This 2010 double-blind, placebo-controlled study showed a beneficial connection between bacopa monnieri supplementation and memory.[96] The participants, age 55 and older, were divided into two groups - one consumed 300 mg/day of a bacopa extract, while the other received a placebo.

In the words of the researchers ...

"BACOPA SIGNIFICANTLY IMPROVED VERBAL LEARNING, MEMORY ACQUISITION,
AND DELAYED RECALL."

To learn more about bacopa's impressive contribution to brain health, check out this <u>video by Dr. James Meschino</u>, as he explains why bacopa monnieri is such a special herb for the improvement of all conditions brain related. He is definitely one of my favorite authorities on super herbs.

Benefits of supplementing with bacopa monnieri are numerous and include ...

- Improved liver health
- Reduction in anxiety
- Reduction in depression
- Reduction in stress
- Improved cognitive ability
- Improved mood
- Treatment for ADD and ADHD
- Treatment for ulcers
- Treatment for allergies and asthma
- Improved gastrointestinal health

Bacopa monnieri improves gastrointestinal health by helping to relax the intestinal muscles. It also supports the production of beneficial mucus in the gastrointestinal tract. This mucus layer protects the digestive tract from the acidic environment required to break down food.

Bacopa also aids in the absorption of nutrients. And without proper absorption, it matters little how well you eat, or what superfoods you consume.

Bacopa monnieri helps to reduce inflammation in the bronchioles - the passageways by which air passes through the nose and mouth to the alveoli of the lungs. It also relaxes the muscles that control blood vessels and airway passages. All of which help to improve respiratory conditions like asthma and allergies.

This 2012 study on the effects of a bacopa monnieri extract on guinea pig trachea found improvements to the "smooth muscles that may rationalize its relaxant action on guinea-pig trachea and its traditional use in respiratory disorders."[97]

Bacopa monnieri boosts the effects of certain neurotransmitters, such as serotonin, acetylcholine, and GABA. All of which help to reduce anxiety, depression, and stress, while also improving mood.

A 2008 study on the effects of bacopa monnieri on cognition, anxiety and depression showed significant improvements in cognitive performance for the 24 participants in the bacopa group.[98] Participants with an average age of 74 were divided into two groups - one receiving 300 mg/day of a bacopa extract, and the other a placebo.

Depression scores for the placebo group were actually higher at the end of the study, while the opposite was true for the bacopa group. The bacopa group also showed a decline in anxiety levels, along with substantial improvements in the areas of memory and concentration.

I'm not a huge fan of Dr. Oz, but I'll conclude with a quote from him anyway concerning the super herb bacopa.

BACOPA MONNIERI WILL MAKE YOU SMARTER, ENHANCE YOUR MEMORY, AND HELP YOU FOCUS BETTER.

Bacopa Monnieri Uses

Bacopa monnieri is one herb that you'll have to use more as a supplement than a food. You should easily be able to find it in powder or capsule form, so focus more on a high quality source than the form you're taking it.

Two other things to keep in mind - bacopa can sometimes upset the stomach, so it's advisable to take it with food. And also, like some other herbs, it takes time for the benefits to be fully realized. Give it a couple of months, rather than a couple of weeks.

According to Examine.com, bacopa monnieri is fat soluble and requires a lipoid transporter to be absorbed, which gives you another reason to take it alongside a meal. Preferably one with some fat in it.

To learn more about bacopa monnieri and its benefits, don't forget to check out Dr. Meschino's video.

If interested in giving bacopa a try, <u>Lost Empire Herbs has a wonderful bacopa</u> extract that I recommend.

19 MACA ROOT



Maca Root

Maca, *Lepidium meyenii*, is a herbaceous biennial plant in the Cruciferae family. It's native to the high Andes in Peru, which is why it is sometimes referred to as Peruvian Ginseng.

Maca is grown for its taproot, which is about the size of a radish. The green plant above the soil is short with thin leaves, white flowers, and fruit that contain two

small seeds. Roots can be red, purple, black, blue, green, or cream color, and each have slightly different nutritional properties.

Cream colored is the most common, and considered the standard maca. However, black and red are also very popular. Which color you choose depends on what you want to gain from consuming maca. You can read about the benefits of each at the end of this section.

Maca is grown primarily for its taproot, which is used as a vegetable, a medicinal herb, and an aphrodisiac. It contains a chemical called p-methoxybenzyl isothiocyanate which is reputed to be responsible for its aphrodisiac properties.

Maca contains high amounts of protein, calcium, potassium, iron, copper, manganese, magnesium, selenium, and zinc, plus 19 amino acids. It's also rich in fatty acids - linolenic, palmitic, and oleic - as well as polysaccharides.

Maca Root Benefits

Maca root is one of the more studied herbs that we Westerners have labeled as a superfood. And for very good reason. It has shown the ability to ...

- Balance hormone levels
- Increase energy and stamina
- Enhance immune function
- Elevate mood
- Reduce anxiety and depression
- Increase fertility rates and libido
- Reduce menopausal symptoms
- Improve mental clarity and focus
- Improve circulation
- Reduce effects of chronic fatigue syndrome

Maca is considered an adaptogenic herb, meaning that is possesses the unique ability to normalize the entire biological system. It increases the body's ability to naturally adapt to environmental factors such as stress and toxins, while increasing our resistance to disease.

A 2011 clinical study concluded that maca has "great potential as an adaptogen." [99] That same study showed significant improvement in 40km cycling time for the participants after 14 days of supplementation. And it showed that black maca, in particular, improved learning and memory.

Maca has gained much acclaim in the areas of sexual wellbeing. Clinical trials have shown maca's ability to improve sexual desire in healthy men, improve female libido, and treat mild erectile dysfunction.[100][101][102] Maca's hormonal, emotional, and physical benefits are difficult to overstate.

And lastly, a 2008 clinical trial involving 14 postmenopausal women who received 3.5 grams of maca powder daily for six weeks, showed a reduction in anxiety, depression, and sexual dysfunction.[103]

For those of you looking for a healthy plant based source of protein, maca weighs in at 24% protein. Whether you're a vegetarian looking for an alternative, or an athlete looking for an edge, maca provides 4 grams of high quality protein in just one tablespoon. And, of course, all the other benefits that come with adding maca powder to your diet.

Maca was once eaten by Inca warriors prior to battle. It supposedly gave them extraordinary strength, and fueled them for the tasks that lay ahead of them. So while you're probably not riding into battle anytime soon, maca should provide the energy you need to power you through that morning commute.

Maca Root Uses

The traditional way to consume maca was to cook the root like a vegetable. However, unless you have access to the whole roots, you're kind of out of luck there. Most likely your access will be limited to maca powder, but there are still numerous ways to incorporate the powder into your diet.

Cooking destroys vital nutrients, so I don't recommend using maca powder in recipes for baked goods. However, it's super easy to add maca powder to beverages, oatmeal, yogurt, and especially smoothies. Try this <u>Maca Green</u>

<u>Smoothie</u> for energy and libido enhancing effects. And, of course, a simple Google search will produce more maca powder recipes than you'll know what to do with.

<u>Check out this video</u>, as Kristina Jackson shows you how to make a raw chocolate dream smoothie using four amazing superfoods: maca powder, raw cacao, coconut oil, and hemp seeds.

There are three main types of maca you can choose from: cream (considered the standard), red, and black. Red is highest in phytonutrients and good for energy, stamina, muscle building, along with female fertility, libido, and to relieve menopausal symptoms. Black is good for male sexual wellbeing - libido, sperm count, erectile dysfunction, and for cognitive improvement.

I use the standard cream variety of maca, and mostly add it to smoothies, as it adds a nice subtle nutty flavor. If going with the standard maca powder, I would once again recommend Navitas Naturals through iHerb. It's a high quality product, and at a pretty good price. Red and black will be harder to come by. If choosing either of those, use due diligence, and make sure you're getting what you pay for.

20 CAMU CAMU



Camu Camu

Camu camu, *Myrciaria dubia*, is a small, bushy tree that grows in swampy areas of the Amazon basin in Colombia, Ecuador, Bolivia, Peru, and Brazil. The plant grows to heights ranging from 10 to 16 feet. It produces small, sweet-smelling white flowers and reddish-purple berries the size of cherries.

The camu camu plant begins to bear fruit from the age of three, and grows best in hot, damp tropical climates. It requires a ton of water, and is able to withstand

flooding for 4 to 5 months at a time with its roots completely submerged. In fact, the fruit is harvested at the peak of the rainy season, which must be accomplished by boat.

On average, one plant will produce around 26 pounds of fruit per year. Camu camu berries are very acidic, so the pulp has traditionally been mixed in milk or water with a little sugar added for taste. Today you can find camu camu in ice cream, sweets, and fruit drinks all over the Amazon region.

Camu Camu Benefits

Camu camu is a substantive source of minerals, such as potassium, sodium, zinc, magnesium, calcium, manganese, and copper. It also contains a wide range of amino acids, organic acids (like citric and malic acids), and fatty acids, such as linoleic and oleic acids.

Camu camu is a major source of bioactive compounds like polyphenols, which include flavonoids, phenolic acids, tannins, and lignans. But the main nutrient in camu camu that gets the most attention is vitamin C.

Camu camu has so much vitamin C (around 2-3% of its weight) that it's hard to fathom. In fact, it has 50-60 times more than oranges, which are famous for their vitamin C content. Camu camu is the highest known source of this important nutrient, containing over 1000% of our daily recommended value in just one teaspoon of its powder.

Vitamin C is a powerful antioxidant, which sometimes gets lost in the never ending list of more obscure, and more in-vogue, antioxidants. And if you've forgotten, antioxidants are important disease fighters, as they reduce the oxidative damage caused by free radicals that would otherwise run amok in our bodies.

Vitamin C is also a strong anti-inflammatory, and if you know anything about inflammation, having less of it means less chance for disease. In fact, some believe that disease cannot exist without inflammation, and vice versa. The

presence of so much vitamin C in camu camu equates to superior eye health, along with lower rates of cancer and heart disease.

Few studies have been conducted on camu camu, as it's still one of the new kids on the superfood block. However, purported benefits based on nutrient content, and a handful of studies, include ...

- Cancer prevention
- Improved eye health
- Enhancement of cognitive function
- Improved mood
- Improved immune function
- Prevention of bacterial and viral infections
- Treatment for depression
- Prevention of gum disease
- Reduction in wrinkles
- Treatment for diabetes
- Better cardiovascular health
- Treatment for arthritis

One of the benefits of camu camu may be as a treatment for diabetes. A substance prolific in this Amazonian super fruit called ellagic acid has been shown to possess antidiabetic effects, as this 2012 study concluded.[104]

Because of its high vitamin C content, camu camu is excellent for the skin. Vitamin C is vital for healthier, more youthful looking skin, as it's an important building block for collagen, which gives skin its elasticity. And it's the breakdown of collagen that causes wrinkles. This in-depth article from Oregon State University details that vital connection between vitamin C and healthy skin.[105]

This 2015 clinical trial studied the antioxidative and anti-inflammatory properties of camu camu.[106] The trial consisted of 20 male smokers with an accelerated oxidative stress state. One group was given 1050 mg of vitamin C, while the other was given an amount of camu camu containing the exact same amount of vitamin C.

After just 7 days, all participants in the camu camu group showed significant reductions in oxidative stress markers, serum total reactive oxygen species levels, and several inflammatory markers. While the participants in the vitamin C group showed absolutely no changes. Which is exactly why it's so important to get nutrients the way nature intended, rather than isolating them.

This 2013 study investigated the anti-obesity action of camu camu.[107] After 12 weeks of camu camu supplementation, the mousy subjects showed a reduction in weight, glucose levels, triglycerides, LDL cholesterol, and blood insulin levels. While HDL (good cholesterol) actually increased. And while the subjects of the study were rats, it's still an impressive list of results.

Camu Camu Uses

Most likely you'll be using the powder form of camu camu, which will be far superior to any store bought juice. However, there are still numerous possibilities for incorporating it into your diet. You can add it to smoothies, yogurt, oatmeal, homemade ice cream, or other frozen desserts.

You can use camu camu as an ingredient in homemade salad dressing, sauces, homemade energy bars, and other raw treats. And because it's so acidic, you can even use it to marinade meat. Check out this video, where chef Julie Morris will tell you a bit more about camu camu, and the various ways you can use it.

And of course the internet is littered with recipes. Check out this <u>camu camu</u> recipes page on Pinterest.

My go-to source for camu camu powder is Navitas Naturals. You may be able to find it at a local grocery store. But if not, you can <u>order it online though iHerb</u> for probably less. Especially considering you'll get \$5 off if you follow the link above.

21

BILBERRY



Bilberry Plant

Bilberry, or *Vaccinium myrtillus*, is a low-growing shrub in the Ericaceae family. There are several different species in the Vaccinium genus, with myrtillus being the most common. The bilberry plant is native to northern Europe, and is closely related to its North American cousin, the blueberry.

Other names for bilberry include whortleberry, winberry, and myrtle blueberry. Bilberry grows in poor, acidic soil in temperate and subarctic regions around the

world. It is extremely difficult to cultivate, therefore bilberries are usually wildharvested.

Bilberries are purplish-black, and softer, smaller, and juicier than blueberries. Their dark color is a result of a high concentration of anthocyanins found in the berries. Anthocyanins are a powerful type of flavonoid antioxidant that gives certain fruits their blue, red and purple pigments.

In Finland, bilberries can be found in jams and pies. In Poland, where they are called *jagody*, they are a popular filling for sweet buns. And in France and Italy, bilberries are sometimes used as a base for liqueurs and to make sorbets.

Bilberry Benefits

During World War II, British fighter pilots ate bilberry jam prior to missions to improve their night vision. And, presumably, because it was also quite delicious.

The anthocyanins in bilberry have a positive effect on eye health by helping to prevent and combat retinopathy (retina damage), glaucoma, cataracts, and macular degeneration - the most common cause of blindness in people over age 55. Anthocyanins benefit the eyes in three ways.

First, they improve the delivery of oxygen and blood to the eyes. Second, they provide powerful antioxidant protection against free radical damage from ultraviolet light. And third, they stabilize the blood vessel wall in the macular region, thereby reducing the detrimental effects of blood leaking into this area of the retina.

This 2010 study examined the protective effects of a bilberry extract on human corneal epithelial cells.[108] After treatment, the number of cells significantly increased, leading researchers to conclude that a "bilberry extract may be beneficial for the physiological renewal and homeostasis of corneal epithelial cells."

Two other recent studies on the effects of bilberry produced similar results. One 2007 study showed that a bilberry extract reduced the effects of oxidative stress, and stimulated genes associated with eye health.[109] While another

study conducted in 2012 discovered that a bilberry extract reduced inflammation in the retina, leading researchers to conclude, "Our findings indicate that anthocyanin-rich bilberry extract has a protective effect on visual function."[110]

While many of bilberry's eye benefits stem from its high concentration of anthocyanins, two carotenoids, known as lutein and zeaxanthin, also provide a ridiculous array of health benefits for your eyes.

Bilberry benefits extend beyond eye health and include ...

- Strengthening blood vessels
- Stabilizing collagen tissue
- Lowering blood pressure
- Improving circulation
- Improving cardiovascular health
- Reducing varicose veins
- Anti-aging effects
- Improving gastrointestinal health
- Treating type 2 diabetes
- Lowering blood sugar
- Normalizing cholesterol levels
- Anti-cancer effects
- Anti-ulcer effects

This 2010 study examined bilberry's effect on hyperglycemia and insulin sensitivity in type 2 diabetic mice, and discovered that, "Dietary BBE (bilberry extract) significantly reduced the blood glucose concentration and enhanced insulin sensitivity." [111] Which led researchers to conclude that bilberry has the potential to treat and prevent type 2 diabetes.

Any food or supplement that improves circulation, lowers blood pressure, normalizes cholesterol, and strengthens blood vessels is going to be good for heart health. And bilberry is no exception.

The anthocyanins in bilberry are responsible for many of its cardiovascular benefits, including the ability to prevent blood platelets from clumping together,

which reduces the risk of blood clots. And blood clotting can often lead to stroke and heart disease.

In addition to the powerful antioxidants present in bilberry, it also possesses antimicrobial, antibacterial, and anti-inflammatory properties. While providing the body with more antioxidants is key to fighting disease, eliminating chronic inflammation is key to *preventing* disease. Chronic inflammation is rampant in our modern world, and has been linked to heart disease, cancer, and auto-immune diseases, of which there are around 80.

Let's conclude with this quote from a clinical review on the health benefits of bilberry, conducted in 2010.[112] It's a good reminder that food really is the best medicine.

"In addition to their antioxidant effects, anthocyanins have been reported to stabilize DNA, modify adipocyte gene expression, improve insulin secretion and sensitivity, and have antiapoptotic, anti-inflammatory, and antibacterial effects. These numerous and potentially highly beneficial effects of anthocyanins make foods rich in these compounds, such as bilberry, potential candidates as "functional foods" and phytotherapeutics."

Bilberry Uses

How you choose to use bilberry will depend on your goals, and whether you get it fresh, dried or as an extract. If your main concern is eye health, you may want an extract. Check out this <u>video by Dr. James Meschino</u>, as he briefly talks about the amazing eye health benefits of bilberry, and why an extract may be your best choice. And if you want to learn more about the benefits of bilberry, check out Dr. Meschino's <u>Guide to Bilberry</u> that he references in the video.

However, if you're going with either dried or fresh bilberries, you can use them as you would any other dried or fresh berry. You can add them to smoothies, yogurt, cottage cheese, oatmeal, salads, or just eat them alone. You can also create your

own superfood trail mix by combining them with other dried super fruits, super seeds, along with some bee pollen, raw coconut, and raw cacao nibs for an outstandingly healthy snack.

Check out this <u>bilberry recipe page</u> on Pinterest for more delectable ideas. And as bilberries are basically blueberries on steroids, you can substitute them easily in recipes. Bilberry pancakes, bilberry muffins ... you get the idea!

My original source for dried bilberries is no longer in business, and they may be difficult to find locally. If you're having trouble locating organic bilberries, check out the <u>dried bilberries at Starwest Botanicals</u>. I've been getting my loose-leaf tea blends from them for a while, and just recently discovered a number of other healthy superfood products.

22 CHIA SEEDS



Chia Seeds

Chia, salvia hispanica, is a species of flowering plant in the Lamiaceae family. This annual herb is native to Central America, and was cultivated by the Aztec and Mayan civilizations during pre-Columbian times.

Chia grows to a maximum height of around 5 feet, and produces white or purplish-blue flowers. It is grown commercially for its seeds, and can be grown in

USDA hardiness zones 9 through 12. The seeds are speckled and contain shades of white, black, brown, and gray.

Chia seeds are rich in omega 3 fatty acids and a number of B vitamins and minerals. Per 100 gram serving, chia seeds contain the following vitamins and minerals, along with their corresponding recommended daily value percentage.

- Manganese 110%
- Magnesium 94%
- Phosphorus 77%
- Copper 69%
- Calcium 67%
- Thiamine (B1) 53%
- Iron 45%
- Niacin (B3) 43%

Chia seeds also contain trace amounts of other vitamins and minerals, as well as an assortment of healthy fats, fiber, and protein. In fact, per 100 gram serving, chia seeds contain 151% of our recommended daily value of fiber, and 31% of our daily value of protein.

Chia Seeds Benefits

The name *chia* comes from the Mayan language and means "strength". Which is no coincidence, as this is one of the benefits of consuming this tiny, but super, seed. In fact, Aztec warriors used to consume chia seeds prior to heading into battle.

Chia seeds are a fantastic source of antioxidants. Antioxidants are essential for proper health, as they reduce the effects of oxidative stress caused by free radicals in the body. Oxidation causes damage to DNA and other cell structures and has been linked to over 60 diseases.

Antioxidants combat the effects of oxidation by donating an electron to free radicals, which in turn stabilizes them. Antioxidants minimize the harmful effects of toxins and pollutants. They stimulate genes that increase the body's defense

system. They slow the aging process. And they stop and prevent the spread of disease. So yah, they're pretty important.

This 2014 study looked at the phytochemical and nutraceutical potential of chia seeds.[113] Researchers found a number of phenolic compounds and isoflavones that contribute to their antioxidant activity, and concluded that "chia could be considered a seed with high antioxidant capacity."

Chia seeds are also one of the highest sources of protein in the plant kingdom, which is extremely beneficial if you're a vegetarian. Chia seeds are also high in omega 3 fatty acids, surpassing even the mighty flax seed. And they're ridiculously high in fiber. In fact, by weight they are an insane 40% fiber.

This combination of protein and fiber in chia seeds make them an ideal weight loss food. The protein aids weight loss by reducing appetite, and both help by giving the body a feeling of being fuller for a longer period of time. And then there's the gelling action of chia seeds, which really helps you feel fuller longer. Check out this video, as chef Julie Morris talks about this special benefit of chia.

One recent study discovered that chia seeds have diabetic benefits, which in turn can also aid weight loss.[114] Researchers found that chia seeds improved insulin sensitivity and glucose tolerance, while also reducing liver and cardiac inflammation. Diabetics suffer from insulin resistance, which means they require more of it. And insulin resistance has been known to increase belly fat.

Chia seeds have numerous benefits that include ...

- Reduced blood pressure
- Improved cardiovascular health
- Lower risk of diabetes
- Cholesterol and blood sugar normalization
- Relief from inflammatory bowel disease
- Stronger teeth and bones
- Improved liver health
- Increased strength and stamina
- Aiding weight loss

A 2014 study discovered that chia flour reduced blood pressure in hypertensive adults.[115] Subjects were given 35 grams of chia flour each day or a placebo. The chia group showed a reduction in both ambulatory and systolic blood pressure, reaffirming chia's impact on heart health.

Another study on the effects of chia seeds on lipid content and fatty acid composition further substantiated its cardiovascular benefits.[116] Results showed that chia seeds significantly increased fatty acid composition in rats, which can aid in the prevention of coronary heart disease.

For those of you sensitive to gluten, or those of you just trying to eat healthier, this 2014 study examined the nutritional differences between bread made with wheat versus bread made with chia seed flour and tartary buckwheat.[117] The gluten-free bread made with chia flour contained 20% more protein, 67% more alpha-linolenic acid (a type of omega 3 fatty acid), and a whopping 74% more fiber.

Chia Seeds Uses

Chia seeds are extremely versatile, and can easily be sprinkled on top of salads, yogurt, and oatmeal. You can add chia seeds to smoothies, use them in homemade energy bars, or baked goods. You can even make chia seed pudding. You're only limited by your imagination ... and your internet availability.

This new-fangled invention is a fantastic source for recipes, and my favorite is Pinterest. Check out their <u>chia seed recipes</u> page for more mouth-watering (really, wear a bib!) ideas than you thought possible.

I get all my chia seeds from Navitas Naturals. You can probably find them in your local grocery store, but if not, you can definitely <u>purchase them through iHerb</u>. I choose iHerb instead of the Navitas Naturals website because they are lower in price, which is a good thing. No? And, again, if you follow that iHerb link, you'll get an additional \$5 off your first order. Which means you'll probably spend about half as much as you would at the grocery store. I just love saving money!

23

HEMP SEEDS



Hemp Seeds

Hemp seeds come from the plant of the same name in the *Cannabis* family. Hemp has a sketchy reputation because it's a distant cousin of another more popular variety of plant in the same family - marijuana. However, it's vastly undeserved as it contains less than 0.03% THC, the psychoactive compound in marijuana responsible for that popularity.

To say that hemp has been around a long time is to understate that fact. People have been using hemp to make paper as far back as the Han Dynasty in China some 2000 years ago. Hemp is also used to make wax, rope, pulp, cloth, fuel, textiles, biodegradable plastics, building materials, and more. And oh yah, the seeds are edible. And extremely healthy!

Hemp seeds can be eaten raw, ground into a meal, sprouted, or made into hemp milk. Ground hemp seeds can also be used in baked goods. And you can press the seeds to make hemp oil, which is another great way to incorporate the health benefits of hemp seeds into your diet.

Hemp Seeds Benefits

Hemp seeds are the king of the jungle when it comes to plant based protein, as they contain a whopping 73% of our Daily Recommended Intake in just 100 grams. Also high are magnesium (160%), zinc (77%), and iron (53%). And hemp seeds are considered a complete food, as they contain all nine essential amino acids that are not made by the body.

Hemp seeds contain a high volume of essential fatty acids, as well, such as polyunsaturated, linoleic, and alpha linolenic. In addition, hemp seed benefits include the ability to ...

- Strengthen the immune system
- Rid the body of toxins
- Lower cholesterol and blood pressure
- Improve memory and cognition
- Reduce anxiety and depression
- Improve condition of skin and hair
- Maintain a healthy digestive tract
- Reduce inflammation
- Induce weight loss

Hemp seeds are extremely high in antioxidants (such as carotene, chlorophyll, and vitamin E) and phytonutrients that are important for our blood, tissues, cells, and

organs. Hemp seeds also contain 20 amino acids. And they provide a perfect 3 to 1 ratio of omega 6 fatty acids to omega 3 fatty acids.

One recent study looked at the cardiovascular effects of supplementing with hemp seeds, based mostly on the abundance of essential fatty acids that the seeds contain.[118] Their conclusion was that hemp seeds are a particular benefit to heart health. Another study concluded that a hemp seed enriched diet could help prevent strokes and heart attacks by reducing platelet aggregation, which in turn reduces arterial clotting.[119]

This study on the nutritional profile of hemp seeds shows some remarkable health-promoting properties.[120] But aside from the inner benefits of consuming hemp seeds, the outer body seems equally affected. Benefits of the oil, in particular, include stronger nails, improved skin quality, and thicker hair. Even those patients suffering from eczema showed improvements in skin quality.

A 2012 clinical trial studied the effects of a hemp seed rich diet for feeding hens.[121] Yes, chickens! What they discovered were much higher amounts of essential fatty acids in the eggs laid by these hens. This is important as a reminder: you are definitely what you eat. But when consuming dairy, meat, and eggs, you're also what *those animals ate*. Think about that the next time you drive by a commercial feedlot!

Super seeds like hemp, chia, and flax are all well deserving of their superfood status, and I recommend incorporating all three into your diet. However, each is unique in the health benefits that it provides. <u>Check out this video</u>, as Abra Pappa explains the differences (and similarities) between the three.

Hemp Seeds Uses

There are numerous ways to consume hemp seeds. You can eat them alone, or mix them into yogurt or smoothies. Or you can combine them with other seeds and nuts, coconut, raw cacao, and a few other super fruits like bilberries and goji berries in a super healthy trail mix. You can also make your own hemp milk, which is very easy to do and provides a nice base for superfood smoothies.

Hemp seeds can be added to salads. And the oil can be used to make homemade mayo, pesto, and salad dressing. You probably won't find a more versatile seed. Check out this Pinterest page on hemp seed recipes for a bunch of ideas sure to make you salivate.

Navitas Naturals, once again, is my go-to source for hemp seeds. If you cannot find them in your local supermarket, you can definitely <u>purchase them through iHerb</u>. And remember, not only will they be cheaper at iHerb, compared to most other sources, if you follow the link above you'll get \$5 off your first order.

24

MICROGREENS



Microgreens

Microgreens are simply tiny plants. Smaller than baby greens and larger than sprouts. Microgreens come in many flavors. Some of the more popular are arugula, broccoli, buckwheat lettuce, clover, kale, mustard greens, pea shoots, and sunflower greens.

Microgreens are typically 2-3 inches tall with a single stem and fully developed cotyledon leaves at the top. The average grow time varies between 10 to 14 days. If you let them grow longer, they'll start to develop true leaves. People usually harvest them either just before, or just after, the true leaves appear.

Microgreens are usually grown in soil, often in a plastic tray, and harvested just above the soil line. However, you can also grow them in a soil-less medium in something resembling a blanket or piece of fabric. They are simple to grow and super nutritious. And very cheap. Which means more superfood bang for your buck.

Microgreens Benefits

Turns out that size does matter. At least according to researchers at the USDA Agricultural Research Service who performed several studies on the nutritional profiles of microgreens.

They discovered that microgreens contain considerably higher levels of vitamins and carotenoids—about five times greater—than their mature plant counterparts. And if you're growing them yourself, you'll know that they're fresh, which also maximizes nutrient content.

First off, growing microgreens is hardly what I'd call difficult. And second, this estimate may even be on the low side. According to the Department of Nutrition and Food Science at the University of Maryland, microgreens can contain up to 40 times the nutrients of their full grown compadres.

Benefits of microgreens, compared to full grown veggies, include ...

- More enzymes
- Better nutrient absorption
- More vitamins and minerals
- More bio-available nutrients
- More essential fatty acids
- More disease-fighting antioxidants
- Richer in oxygen

- More alkalizing
- Better cell regeneration
- Much more protein
- Locally grown & super fresh
- Always organic
- Very inexpensive

Of course, we all know that raw and organic vegetables are good for you, particularly greens, or in this case - microgreens. According to Mercola.com ...

"RESEARCHERS AT WALTER AND ELIZA HALL INSTITUTE'S MOLECULAR
IMMUNOLOGY DIVISION HAVE DISCOVERED THAT A GENE, CALLED T-BET, WHICH IS
ESSENTIAL FOR PRODUCING CRITICAL IMMUNE CELLS IN YOUR GUT, RESPONDS TO
THE FOOD YOU EAT—SPECIFICALLY LEAFY GREEN VEGETABLES.

THE CELLS THIS GENE PRODUCES ARE CALLED INNATE LYMPHOID CELLS. THEY ARE FOUND IN THE LINING OF YOUR DIGESTIVE SYSTEM. THEY PROTECT THE BODY FROM BAD BACTERIA, INFLAMMATORY DISEASES, EVEN CERTAIN TYPES OF CANCER. AND THEY PROMOTE THE GROWTH OF BENEFICIAL BACTERIA."

Inflammatory diseases, which include heart disease, cancer, and 80 or so autoimmune diseases, are the result of chronic inflammation. Reducing or eliminating chronic inflammation significantly lowers your risk for many of these diseases. And while normal greens like spinach and kale are very beneficial, microgreens are a turbo-charged version capable of delivering exponentially more nutrients and health benefits.

According to a 2010 study conducted by the American Society for Horticultural Science, lettuce seedlings 7 days after germination provided the greatest amount of antioxidants compared to any other stage of its growth cycle. And imagine how many microgreens you can consume, compared to the full grown vegetable.

This 2012 study assessing the vitamin and carotenoid concentrations in edible microgreens found that, "In comparison with nutritional concentrations in mature

leaves, the microgreen cotyledon leaves possessed higher nutritional densities."[122] They listed red cabbage, cilantro, garnet amaranth, and green daikon radish as having the highest concentrations of vitamins C and E, carotenoids (such as beta-carotene, lutein and zeaxanthin) and other various phytonutrients.

Antioxidants are vitally important for fighting disease, getting healthy, and staying healthy. Adding microgreens to your diet, which contain significantly more antioxidants than full grown vegetables, plus are super fresh, super cheap, and super easy to grow ... well, this is what I like to call a no-brainer.

Microgreens Uses

There are a lot of ways you can eat microgreens. My favorites include salads, sandwiches, alone by the handful, and you can always include them in cooked foods. They make a wonderful addition to omelets and other egg dishes, stir frys, soups, and are especially good in anything with goat cheese. (I really love cheese!) And now for the obligatory Pinterest page - behold, microgreen recipes!

Now for the how. <u>In this video</u>, Laura from Garden Answer will show you just how easy it is to grow microgreens. There are multiple ways to do this, of course. You can use soil, as she does, or a soil-less medium, of which there are several. If going for maximum nutrition, opt for a good organic potting soil, as it will supply your microgreens with many more nutrients.

You can also plant the seeds straight away, as Laura does in the video, or you can sprout them first for two or three days, which I find easier. To do this, simply soak your seeds for 12 hours then drain them. Rinse and drain every 12 hours till they begin to sprout. Make sure drainage is good, and you can even purchase actual sprouters to handle this. Once your microgreens have sprouted, spread them out on your soil (or soil-less medium), and spray them at least 2 to 3 times a day with water.

They don't require a ton of sunlight, so anywhere receiving a good amount of natural light will work. Of course, considering the value of chlorophyll that sunlight provides, more will always be better.

Harvest after 7-14 days, by cutting them just above the soil line before the first set of true leaves appear. Or right after. You'll notice that these come in about half-way down the stalk or stem. Store them in your refrigerator, or gobble them down as you harvest. Once you get into a routine, you'll know when to start new batches and how much to grow, to ensure a steady (and fresh) supply.

I've purchased sprouting seeds from a few different places over the years, but recently have become a fan (and customer) of Sproutman. Check out their seed supply and see what you think.

You can't go wrong with sunflower greens, and that is definitely where I would begin. And where I did begin. As for which sprouter you want to use, that will depend on whether or not you want to use soil. Soil enhances nutrients, but it will be more work, and provide a steeper learning curve initially. Sproutman has a few different options, from a tray set-up requiring soil and care, to an automatic watering system requiring nothing more than simply spreading some seeds out.

25 SPROUTS



Sprouts

If microgreens are considered tiny plants, then sprouts would have to be *tinier* plants. And they grow fast! Depending on the type of seed you're sprouting, they can take as little as two to three days. Alfalfa sprouts are the most famous, but many of the foods we eat begin as sprouts, so there is quite a variety. Common types include greens, microgreens, grains, nuts, seeds, brassicas, grasses, and legumes.

Sprouts can be grown in soil, however most people grow them in glass jars or actual sprouters that have been designed for such things. Advantages of using sprouters include better drainage and air flow, which will prevent the development of mold.

I'm sure you know by now the advantage of eating a diet rich in organic fruits and vegetables. However, one common complaint to getting more of these is affordability. Which is why growing your own sprouts is what I call a *no-brainer*.

You see, plants at the sprout stage of their life cycle have exponentially more nutrients than their fully-grown selves. And at a fraction of the cost. Providing you a super high quality food source and a super low price. And did I mention how ridiculously easy it is to grow sprouts? No? Well, it is. So no excuses!

Sprouts Benefits

Each type of sprout you grow will come with its own set of benefits. For instance, alfalfa sprouts are a great source of vitamins A, C, D, E, K, along with many of the B vitamins. While broccoli sprouts are also nutritionally dense, and have specific anti-cancer benefits. According to researchers at Johns Hopkins University, 5 grams of broccoli sprouts contain the same amount of glucoraphanin found in 150 grams of mature broccoli.

Glucoraphanin is a glucosinolate found in broccoli and cauliflower, particularly in the young sprouts. Enzymes transform glucoraphanin into sulforaphane, which has anti-cancer properties. The point to take away here is that by consuming the sprouts instead of mature broccoli, you get 30 times the amount of this cancerfighting compound. But this is normal.

Sprouts and microgreens can contain as much as 40 times the nutrient density of fully grown plants. And they can contain up to 100 times more enzymes, making them much easier to digest, while also significantly improving nutrient absorption. Imagine that. Exponentially more nutrients in a form that our bodies can better absorb.

Getting back to the anti-cancer effects of broccoli sprouts, this 2010 study found that the sulforaphane in broccoli sprouts was able to inhibit breast cancer stem cells.[123] While this 2011 study discovered that, "The bioavailability of sulforaphane and erucin is dramatically lower when subjects consume broccoli supplements compared to fresh broccoli sprouts."[124] Proof that food will always be your best medicine. Especially superfoods.

Compared to fully-matured vegetables, sprouts benefits include ...

- Very inexpensive
- Always organic (if using organic seeds)
- Locally grown & super fresh
- Much more (and better) protein
- More alkalizing
- Richer in oxygen & chlorophyll
- More essential fatty acids
- More bio-available nutrients
- More vitamins and minerals
- Better nutrient absorption
- Many more enzymes
- More disease-fighting antioxidants

Many of the nutrients in our fruits and vegetables are considered antioxidants. Some of the more familiar antioxidants are vitamins C and E, along with carotenoids like beta carotene, lutein, and zeaxanthin. The greatest benefit of including fresh sprouts in your diet is getting these antioxidants in very high concentrations and in a more bio-available (digestible) form. This really cannot be overstated.

Antioxidants are essential for proper health, as they reduce the effects of oxidation in the body. Oxidation is what causes cars to rust, apples to turn brown when you slice into them, and it causes your cells to die and tissues to degrade. Oxidation has been linked to over 60 diseases, which is why antioxidants (which combat oxidation) are known as disease fighters.

The science behind it can be a bit complicated, but just know this: antioxidants are molecules that inhibit the oxidation of other molecules. Your body produces

some, but this declines with age. So getting them through food becomes more important. Oxidation causes rapid aging. Antioxidants slows the aging process. They also minimize the effects of toxins and pollutants. They detoxify the body. They stimulate genes, repair damaged DNA, and stop (and prevent) the spread of cancer and other diseases.

You may have heard the expression, work smart, not hard. That pretty much sums up sprouting. Getting more nutrients into your diet is crucial for optimal health. And sprouts and microgreens do that in bulk, and with less strain on your finances.

Sprouts Uses

What you do with your sprouts is your business, but I suggest eating them. More beneficial that way. And if you've been reading this ebook cover to cover, you already know how much I love throwing Pinterest recipe pages your way. So without further ado ... <u>alfalfa sprouts recipes</u>. Keep in mind you can substitute any sprouts for alfalfa sprouts. And some of my favorites are mixes that include several different seeds, and even different types of seeds.

Popular ways to use sprouts include salads, sandwiches, and wraps. You can even eat them alone. Or add them to cooked foods. They are particularly good in omelets, stir frys, and soups. You can add them to smoothies or even juice them. And for some reason, they mix really well with melted cheese. But I really love cheese, which means anything mixes well with cheese. Like more cheese!

You can always buy sprouts at the grocery store, but that makes little sense, as the two main reasons to eat them is because A) they are very nutritious (especially when freshly harvested) and B) they are ridiculously cheap and easy to grow. So let's just assume you understand these two points and are ready to begin growing some sprouts.

<u>In this video</u>, Kim will show you how she grows sprouts in glass jars. The process is the same whether you're using glass jars or sprouters, however as I mentioned above, I prefer sprouters. They allow you to rinse your sprouts much easier and

more thoroughly, and they provide a lot more air flow in-between rinsings, which makes them more resistant to mold.

<u>Sproutman is my source for sprouting seeds</u>, and everything else sprout-related, including the wealth of information you will find. They have a lot of different seeds and mixes, along with sprouters, juicers, dehydrators, blenders, etc.

I've had my set of sprouters for a long time now, but if I had to do it all over again I would purchase the <u>Freshlife 3000 Automatic Sprouter</u>. It's only slightly more expensive than the set of 6 individual sprouters I use, but infinitely easier, and requiring much less space. I'm absolutely in love with this beast, and by the time you read this, chances are I'll already be enjoying my own.

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