

Clinical Indications of Supreme Nutrition Products



For professional reference only.
(Revised Jan 2024)

Table of Contents

3	Introduction	79	Lu Rong
7	Acerola	84	Manjistha
9	Alaria	86	Melia
12	Albizia	88	Mimosa
15	American Ginseng	91	Morinda
17	Andrographis	96	MT Supreme
19	Artemisia	99	Mucuna
21	Ashwagandha	102	Olive Leaf
24	Astragalus	104	Oral Supreme
27	Bacopa	106	Reishi
29	BFB-1 & BFB-2	109	Rosemary
33	Black Walnut	113	Schisandra
35	Body Guard	115	Scutellaria
38	Camu	118	Shatavari
41	Cat's Claw	121	Smilax
44	Chaste Tree	124	St. John's Wort
47	Cissus	128	Takesumi
49	Dan Shen	131	Thera
52	Elderberry	135	Tulsi
54	Endo	137	Usnea
56	Glypho-X	139	Uva Ursi
58	Golden Thread	142	Vidanga
61	Grass Fed Sheep Testicle	144	Vital Guard
62	Grass Fed Sheep Thymus	147	Wild Greens
64	Hawthorn	150	Woad
66	Hemo Guard	152	Pregnancy & Breastfeeding Safety
70	Houttuynia		
72	Illicium		
74	Japanese Knotweed	153-157	Key Indications
77	Lectin Protect	158-160	Suggested Use

*All references noted in text may be viewed on the
Supreme Nutrition Product website:
www.supremenutritionproducts.com

Michael Lebowitz D.C.

Jan 2024

Dear Colleagues,

Thank you for your interest in Supreme Nutrition Products. As one of a half dozen or so product developers for Supreme Nutrition as well as being involved with quality control I wanted to give you a little bit of history and philosophy of the company. Back in 2006 and even before that, I found that many of my patients suffered from subclinical infections of various fungi, parasites, virus, bacteria, etc. We had been treating these type issues since the 1980's but more recently had found that they were becoming harder and harder to eradicate and that previously used natural methods and products were not as successful as they once had been. Vacationing on Kauai that year and being exposed to leptospirosis and various fungi I found that eating noni that was picked a little green and then dried proved successful in preventing these infections in myself (I was quite prone especially to the fungi, so it was surprising it worked so well). When I returned home to Colorado I bought many noni products that were available on the market both liquid and pills but unfortunately from an applied kinesiological standpoint, they did not test helpful to my patients and didn't test as well as what I had found on Kauai. With much searching I found a supplier that did harvest some that tested well and on experimentation found it performed very effectively. I was unable to find a company interested in marketing this. I went to my friends at Mid-American Marketing who manufactured magnets we used in our testing and they said they would give it a try. Being a purist and perfectionist it took much searching to find an encapsulator to meet our needs. 98% of the encapsulators appear to add either fillers, binders, flow agents, etc. to the encapsulation process. These agents speed up the process to make it more cost effective, fill up the capsules tighter, etc.

4

We had found though that in many cases they decreased absorption or added unwanted materials to the product rendering it less effective in our opinion. Some encapsulators didn't have the expertise to do it without these agents, while others didn't want to slow the encapsulation process that much.

Finding an encapsulator we began with Morinda Supreme and the market was doctors who utilized applied kinesiology since they could test it as we did and find that kinesiologically it most often tested superior to other brands of similar products. This small 2 family business slowly started adding more antimicrobials and other products that filled niches I needed in my practice. Agents that chelated chemicals and metals, endocrine adaptogens, more antimicrobials, nutrient dense foods, herbs with anti-coagulant properties, etc. etc. Adding products has been a slow process as it is hard to find suppliers who have raw materials that pass our inspection process.

In the US, products are routinely tested for mold count, metals, etc. to protect the public from contaminated material and they are processed in GMP facilities. This is a very valuable and effective process. Supreme goes a step further and when we get raw materials in, we try to get as many samples as we can from as many companies as we deal with. We then blindly test them on a random group of patients and others with applied kinesiology. Often we find a sample even if labeled organically grown doesn't pass our tests. Be it chemical contamination, or microbial contamination with substances not checked for by GMP, or it was harvested at the wrong time, or had improper storage, was old and lost potency, etc. it is hard to discern. But if it doesn't pass our tests we reject it. Cost is not a factor in making the determination. As a result many herbs that looked promising as products that have passed lab tests, we have never come out with as they failed our tests. When we run out of a given product and need a new supply we go through the exact same process again as suppliers often change sources.

We would rather run out of supply than make a batch that failed our tests. On the average I would say that I reject about 60-70% of the samples I test. We feel that by adding this testing to raw material selection, the product will be of superior quality and perform on patients better. Literally hundreds of doctors have agreed with us.

With the main demographic being physicians who practice applied kinesiology, other AK teachers have offered ideas and come up with products we were able to produce and we welcome your ideas. We have recently found many of the Lyme literate medical doctors have been adding our products to their protocols also.

So what in our opinion makes Supreme different?

1) Raw material selection must also pass applied kinesiological evaluation as do the capsules, etc.

2) No fillers, binders, etc. added. This gets harder and harder and even many raw materials are diluting their "natural, organic" products with maltodextrin to prevent caking. As a result we had to drop a few raw materials from our products.

3) We supply free test kits for new wholesale customers with their first order over \$100 upon request. Also every time a product comes from a new batch we supply a new test vial to replace the old one so you are testing what you have in stock. This is incredibly important and I do not think most companies do that.

4) Most of our products only have one ingredient as that way we are not doing a shotgun approach but supplying the ingredient that will be most effective. For instance in killing a parasite, it is in our opinion better to give the one herb that tests effective as opposed to a product with many ingredients some of which may be effective and some not effective. Thus there may not be enough of the effective ingredients to make a real change with the patient.

6

5) We do not use standardized herbs that have undergone processing (often unnatural) to alter the ratios that naturally occur in the product but keep our products as natural as possible.

6) Most of our products are organic and/or wildcrafted but occasionally one that is not certified will out test and outperform ones that are so again our testing is the bottom line

7) No vitamins, minerals, amino acids, alcohol, etc. are used in our products.

Again feel free to give any feedback or ask any questions, or recommend potential new products.

Email: info@SupremeNutritionProducts.com

To set up an account or place an order,
call 800-922-1744

In health,
Michael Lebowitz DC

Acerola

Key Indications: High vitamin C and immune boosting

Acerola (*Malpighia emarginata* DC.) is one of the richest natural sources of ascorbic acid in the plant kingdom. It is also a significant source of flavonoids, carotenoids phenolics, anthocyanins, pectin etc. By weight it contains up to 100 times more ascorbic acid than citrus fruit (up to 4500 mg per 100 g which is slightly less than camu but with a much more pleasant taste) (1). It is also a source of malic acid (2).

Besides just being a great source of ascorbic acid, it has the following therapeutic effects:

- a) Anti hyperglycemic (3)
- b) Anti-bacterial against *Staph aureus* (4)
- c) Hepatoprotective (5)
- d) Radioprotective (6)
- e) May help with dyslipidemia (7)
- f) Help with hyperpigmentation (8)

For children or adults who cannot swallow pills like Camu Supreme we decided to come out with a freeze-dried concentrated juice extract. Freeze drying optimizes the nutritional value found in acerola fruit. Most juice powders have maltodextrin, silicon dioxide, or other anti-caking agents, and these often do not need to be listed on the label. As always, these are things we never use or allow any of these in our products.

8

Acerola Supreme is in a glycerine base and one dropperful contains the 100% of the RDA for Vitamin C for a child 4-8 years old (25mg) or 167% of the RDA for children 1-3 years old.

There are no known contraindications.

Recommended dose is 1 dropperful per day.

This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

Alaria Supreme™

Key Indications: trace mineral supplement especially iodine, anti-inflammatory, antiviral, anti-radiation, metal and chemical chelation

Alaria Supreme™ is a certified organic, wild crafted seaweed that tests free of both mercury and cadmium. Seaweed has many healthy properties, but many people aren't able to tolerate it well due to mercury or other heavy metal and toxic chemical contamination. Each batch of our alaria is tested to make sure no contamination issues exist.

Alaria has a great nutrient profile. Two capsules will give you your RDA of organic iodine as well as smaller but significant amounts of most vitamins and minerals. It has the most significant amounts of calcium, magnesium and B-vitamins of any edible seaweed. Being a whole food ground into a powder it has all the co-factors, phyto-nutrients, etc. you would expect to find in a "superfood" without the downside of the algae, grass juices, alfalfa, etc. which are common allergens.

Coming from the sea, Alaria is a rich source of organic trace minerals in a form that is very easily assimilated. No land plant can compare. Iodine deficiency is commonplace and land plants typically do not supply the amount of iodine needed to meet our needs. Inorganic iodine added to table salt is not an ideal form.

Alaria, as do most seaweeds, inhibit cancer cell growth in animal studies. It is considered anti-mutagenic, and anti-tumor [1]. It is postulated that the low rate of breast cancer and lung cancer in Japan (despite the high rate of smoking) is due to seaweed consumption [2]. Seaweeds can lower serum cholesterol levels as well as blood pressure and help remove arterial plaque as well as decrease platelet stickiness [3]. Alaria and certain other seaweeds can also lower raised uric acid levels

and can be anti-bacterial, anti-fungal, and anti-viral [4].

Alaria can be very effective in preventing damage due to radiation exposure from power plants, nuclear tests etc. (This radiation can virtually travel around the globe in small amounts and effect our health.) Nuclear facilities release radioactive Iodine 131 into the atmosphere. Iodine 131 (which can be inhaled) is heavier than natural iodine 127 and is implicated in the increasing rates we see today of thyroid cancer and other thyroid disorders [5]. The only thing that protects our bodies from this radioactive isotope (Iodine 131) is having adequate amounts of iodine 127 (naturally found in seaweed).

Besides protecting against radioactive iodine, testing has shown that seaweeds also help remove radioactive strontium from the body [6]. Following this line of thinking, it may also be very valuable in people undergoing radiation therapy, as it may decrease side effects and increase recovery speed.

Estrogen levels are rising higher and higher in individuals due to higher levels of xenoestrogens from ones diet and chemical exposure. Alaria has been shown to favorably alter both estrogen and phytoestrogen levels in the body. [8] In addition to helping return hormone levels to normal, it could also play a role in helping to prevent breast cancer in post menopausal women. Any women or men with increased estrogen levels or altered hormonal balance should consider taking Alaria.

Let's look at two very important components of alaria: algin and fucoidan.

Algin is a great binder of heavy metals from the GI tract [9]. We don't find it as effective as Takesumi supreme as an all round systemic detoxification agent (except in cases of radiation toxicity, for which it is superior) but it can complement Takesumi in removing toxic metals and chemicals (those well versed in applied kinesiology can

use testing to determine which product is a priority in a given patient). While it isn't as strong a detoxification product as Takesumi, it does have a higher nutrient profile, and many patients will benefit from taking both.

Fucoidan is an anti-inflammatory component of alaria. It is an immune stimulant [10], but more important, it can speed up the healing response after physical traumas (and surgery) [11]. Fucoidan breaks down into fucose, a natural sugar found to have receptor sites on human cells, suggesting it is an essential nutrient.

Brown seaweeds such as alaria also have been shown in studies in Japan to help us excrete dioxins and PCB's more effectively [12]. Alaria can help prevent reabsorption of toxins (metal and chemical) in patients with "leaky guts".

To summarize: Alaria is a superb source of nutrients, especially organic iodine and trace minerals, but other nutrients as well. It is moderately anti-microbial, an excellent protector against subclinical (as well as acute) radiation poisoning, as well as metal and chemical toxicity. It has some anti-cancer properties as well as being anti-inflammatory. Anyone suffering from low Thyroid stimulating hormone, or simply low thyroid hormone should consider taking Alaria. It also should be considered when trying to restore hormonal balance in men and women. Being a "superfood" there are many more intangible benefits that may be realized beyond the scope of this short article.

Recommended dosage:
3 caps daily as a trace mineral source.

For detoxification, metal and chemical chelation, and radiation protection, 4-6 caps daily are recommended. It is well tolerated by sensitive patients, and is (in our opinion) the best source of micro minerals for these type patients.

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Albizia Supreme™

Key Indications: anxiety & depression, insomnia, immune boosting

Albizia Bark (Albizia julibrissin)

Habitat and intro:

Albizia (Albizia julibrissin) is a beautiful tree native to China, Korea, and Japan whose flowers and bark have long been valued as an exceptional medicine that was reputed to bring joy to the heart. In Chinese Medicine the energy of Albizia was considered to enter the heart and liver meridians and functions to release suppressed emotion and calm the heart and mind¹.

Chemical Constituents:

Albizia bark contains albitocin, b-sitosterol, amyirin, 3,4,7-trihydroxyflavone, spinasterylglucoside, machaerinic acid, lactone, methyl ester, acaci acid, hehuanoside A, and lactones²³. Albizia also contains three novel saponins: julibrosides I-III⁴.

Historical Use:

Some of its Chinese names translate to 'happiness herb' or 'happiness bark'⁵. Albizia has been used to help relieve stress, anxiety, support mood. It is considered to be a calming spirit herb and has even been used to treat difficult mental emotional conditions like depression and grief. Albizia has also been historically used to treat insomnia, poor memory, irritability, and anger from suppressed emotions. The bark has also been highly valued to help healing of external wounds and bone fractures. Ancient Chinese texts refer to its ability to help grow flesh and muscle, and reconnect sinew and bone. Albizia was reputed to nourish the five yin organs of the body: heart, liver, spleen, lungs, kidney, and pericardium. According to the Divine Husbandman's Classic of the Materia Medica, Albizia bark "quiets the five yin organs, focuses the mind, and makes people happy without care.

Long-term consumption will lighten the body, brighten the eyes and allow people to achieve their desires.” Albizia has also been used historically to treat abscesses and boils.⁶

Several of the flavonol glycosides from Albizia including quercetrin and isoquercetrin have shown to have sedative activity⁷.

A significant anti-depressant effect of Albizia extract has been demonstrated, likely via the serotonin 5-HT_{1A} receptor system⁸ and GABA receptor system⁹.

Albizia stem extracts have been shown to have potent antioxidant scavenging ability, up to 6 times stronger than vitamin C¹⁰. It has potent neuroprotective effects and has been shown to enhance mitochondrial function¹¹.

Some authors consider Albizia bark could be an anti-anxiety drug candidate¹².

Albizia bark has been shown to suppress tumor growth and angiogenesis¹³¹⁴¹⁵.

Saponin fractions of Albizia have been shown to stimulate immune function¹⁶.

Extracts of Albizia have been shown to be strongly anti-inflammatory via TNF- α -and NF- κ B inhibition¹⁷.

Clinical use: I find this herb to be deeply nourishing for the nervous system and can help stabilize and uplift mood. Many patients suffering from depression, anxiety, insomnia, excess anger or grief may find incredible relief with taking Albizia. It tends to be calming more than sedating and helps to ease a busy mind. It is a very uplifting herb compared to other herbs of its class like Ashwaganda and tends to significantly improve mood.

14

Whereas Ashwaganda is calming but helps restore energy at the same time, Albizia tends to have a stronger relaxing, uplifting effect on the mood. Albizia can be a very useful herb in those suffering from insomnia secondary to grief or short temper.

Suggested dose:

Albizia bark is very safe and has been dosed up to 15g daily¹⁸. For many people 2-3 caps twice daily is adequate to achieve a positive effect.

Contraindications: Avoid in pregnancy as this herb has been shown to stimulate contractions of the uterus and also while breastfeeding.

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American Ginseng Supreme

Key Indications: adrenal support, cognitive enhancement, cold & flu prevention, blood sugar regulation

American Ginseng (*Panax quinquefolius*) is a medicinal herb traditionally used by Native Americans and is native to North America. Traditionally it is used as an adrenal adaptogen and to help balance one's immune system. The main active components are Ginsenosides, which are neuroprotective as well as containing antioxidant properties (1). They have also been shown to help support mitochondrial health and improve energy metabolism (2). Research has shown American Ginseng can help control brain inflammation and could be beneficial for those with Parkinson's Disease, Huntington's Disease, or other disorders affecting the central nervous system (3).

American Ginseng can help alleviate many different types of fatigue. A study in those with rheumatoid arthritis associated fatigue showed no improvement after 4 weeks but significant improvement in fatigue levels after 8 weeks of consuming American Ginseng (4). It also has been shown to help with cancer related fatigue (5), as well as contain anticoagulant properties.

In addition to adrenal/energy support American Ginseng may improve cognitive function (6). One study with 52 young adults showed enhanced working memory, calmness, and mood when taking American Ginseng (7). A unique saponin found in American Ginseng could reduce anxiety, depression, and memory deficits when going through drug withdrawal (8). It also showed ability to increase cell survival by extending neurite growth and rescuing neurons from death (8).

16

When given for 8-16 weeks American Ginseng has been shown to be effective in shortening the duration of colds and acute respiratory infections. Colds were reduced 25% and the duration was shortened by 6.2 days on average (9). It also showed antimicrobial properties include those against bacteria that are commonly associated with halitosis, *Fusobacterium nucleatum*, *Clostridium perfringens*, and *Porphyromonas gingivalis* (10). Ingestion of *Panax quinquefolius* was shown to lower renal titers of *Candida Albicans* and significantly lower inflammatory cytokine levels (11).

When given before a glucose tolerance test American Ginseng has been shown to help regulate blood sugar levels after eating, for those with Type II diabetes as well as for those without (12, 13).

Suggested Dosage: 2 capsules 1-2x per day.

Contraindications: Do not take while pregnant or breast-feeding. Do not take if on a prescription blood thinner.

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Andrographis

Key Indications: antimicrobial, libido, liver support

Andrographis paniculate is an herb that is indigenous to many Asian countries (India, Malaysia, Thailand, China, etc). It has a long history of being used for colds, sore throat, influenza, respiratory infections, sinusitis, UTI's, diarrhea etc. Much pharmaceutical research has been done on one of its major active components, Andrographolide.

Like many herbs, Andrographis has shown a large range of therapeutic activities. These include being antiviral (1), antibacterial (2), antimalarial (3), hepatoprotective (4), anti-inflammatory (5), platelet aggregation inhibiting (6,7), anti-HIV, anti-allergic (8).

More specifically:

1. Andrographis paniculata significantly increases the activities of antioxidant defense enzymes such as catalase, superoxide dismutase, and glutathione-S-transferase and reduced glutathione content. (9). It also proves to be a potent free radical scavenger (10).
2. It exhibits anti-histaminic properties and suppresses IL-2 (11, 12) and IL-12 (13).
3. As a hepatoprotective agent, it has been shown as, or even more, effective than silymarin (active component of milk thistle) [14] in reference to damage by ethanol and hepatitis B(15)
4. A. paniculata has been reported to work against Salmonella, Shigella, E. coli, gram A streptococci, and Staphylococcus aureus (2).
5. Andrographis has shown strong antiviral activity against Epstein Barr Virus (EBV) (16) and HIV.

18

6. It has proven to be renal protective against damage due to ingestion of certain antibiotics (17).

7. It was reported that the effect of andrographolide or *A. paniculata* on sex hormones in patients with an impaired testosterone level, might be able to return hormone levels to normal and treat decreased libido and decreased mental and physical sexual activity (18).

8 *A. paniculata* resolved 88.3% of acute bacillary dysentery and 91.3% of acute gastroenteritis cases (19).

Dosage 1-2 capsules 3x daily

Warnings and contraindications: Do not take if pregnant or breastfeeding. Consult your doctor before taking if you have an autoimmune condition, bleeding disorder, or low blood pressure.

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Artemisia Supreme

Key Indications: antimicrobial (broad spectrum), Anti Malaria, Anti Babesia, Immune Modulating

Artemisia annua leaf has been an important therapeutic herb over the past 2,000 years in both Europe and Asia and is also recognized by the World Health Organization as an effective antimalarial “drug”. It has become the subject of intensive research following the discovery of its antimalarial component artemisinin (1). Phytochemical analysis has identified various compounds including steroids, coumarins, phenolics, flavonoids, purines, triterpenoids, lipids, and aliphatic compounds, monoterpenoids, essential oils, alkaloid, and glycoside (2, 3). *Artemisia* has been used in the alternative medicine community for 20+ years mainly due to its strong broad spectrum antiparasitic properties. It is though, as you can see, much more broad spectrum.

Therapeutics: Studies have been carried out to look at the antimicrobial potential of the essential oils obtained from *Artemisia annua*. These studies revealed that the essential oil showed antimicrobial potential against wide range of Gram-negative bacteria, Gram-positive bacteria, and fungi. Significant inhibitory activity of the oil was found against bacterial strains, including *Staphylococcus aureus*, *Escherichia coli*, and *Enterococcus hirae*. *Artemisia annua* extracts possess remarkable antibiotic potential against fungi particularly *Saccharomyces cerevisiae* and *Candida albicans* (4,5).

Antiparasitic Activity

Research studies suggest that artemisinin drugs have good antiparasitic potential for *Leishmania*, *Trypanosoma Babesia*, *Eimeria* or coccidiosis, trematodal blood fluke, *Schistosoma* spp.

(*Schistosoma japonicum*, *Schistosoma mansoni*, and *Schistosoma haematobium*). (6,7).

Artemisia also Suppresses Th17 and thus may be helpful in autoimmune conditions. Ethanol extract of the plant showed immunosuppressive effects on autoimmune diseases such as lupus erythematosus and rheumatoid arthritis (8). In established arthritis, an artemisinin compound profoundly inhibited disease progression, reduced IL-17A, and ROR γ t mRNA expression and suppressed pro-inflammatory mediator expression in arthritic joints (9).

One studied how the dried Leaf is actually preferred to an extract (12). Mice needed 45-fold more artemisinin (mixed with mouse chow) than artemisinin consumed via dried leaf in order for artemisinin to be detected in the serum, thus the dried leaf was more bioavailable than the extract. (10).

Many studies have been conducted in Africa comparing dried artemisia leaf, arteminism and artemisia leaf tea. Reviewing all these studies researchers conclude delivery via tea is therapeutically not very efficacious. Mice fed dried Artemisia annual leaves showed better therapeutic results than the tea. Results of pharmacokinetic studies using dried leaf delivery in mice are also consistent with the antimalarial success of the human trial. The promising results of the studies using oral consumption of dried leaf *A. annua* may offer a more sustainable treatment for malaria, especially in low-income developing countries. This will eventually lead to improved understanding of how the whole plant therapy works better than the pure drug (11).

Besides its antimicrobial activities studies have showed artemisia to be useful for the following: anemia, asthma, diarrhea, fever reduction, dengue, lupus, athletes foot, chagas, viral hepatitis, and various skin diseases (11, 13).

Dosage: 1 pill 3x per day for adults

***Do not take if pregnant or breastfeeding**

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Ashwagandha Supreme™

Key Indications: fatigue, stress, sleep aid (gaba like), antioxidant, adrenals, mood enhancer

Ashwagandha (*Withania somnifera*) is an adaptogen working on the endocrine system and the Hypo-Pituitary-Axis (HPA). The Sanskrit implies it gives the user the strength and stamina of a horse- with some doctors saying that taking it in the morning will allow you to run 20 miles while taking it at night will allow you to sleep like a baby. I am sure that is an exaggeration (at least in my case), but you get the idea.

It is most well known to decrease fatigue [1], allow you to handle stress more effectively, increase strength and stamina, increase libido, improve memory and clarity [2], and produce restful sleep when needed [3]. The various conditions it has been used for include arthritis (it is anti-inflammatory) [4, 5], chronic lung condition, [6] immune deficiency [7], hypertension [8], autoimmune problems [9], hypothyroidism [10], and many others.

With ashwagandha being an adaptogen, it is said to be an extremely effective anti-stress herb. Research on mice has shown it to increase both endurance and speed while swimming, and increase muscle mass. This study shows ashwagandha may be used for both anti-stress activity as well as anabolic muscle growth [1]. By inhibiting NFκB cells, ashwagandha can lower stress and help those suffering from cystic fibrosis [6].

For patients on immunosuppressive drugs ashwagandha may act as an adjunct to minimize the side effects and increase ones immune response when needed. Studies show patients on ashwagandha while on immunosuppressive drugs showed decreased myelosuppression, and an increase in hemoglobin concentration, red blood cell count, white blood cell count, platelet count, and body weight.

An immuno-stimulatory effect was also observed [7].

Animal studies have shown it may be useful in treating drug-induced dyskinesia [11]. In one animal study, ashwagandha increased brain levels of superoxide dismutase, catalase and glutathione peroxidase [12]. This could easily be the mechanism of how it improves cognition, memory and perhaps longevity. The increased superoxide dismutase can be used to break down histamine, helping reduce allergy symptoms. Other studies have shown it increases acetylcholine receptor activity, stimulates the growth of axons and dendrites and has GABA-like activity [13, 14]. In most cases we prefer it to GABA because it is a "whole natural food" and has many complementary properties.

Natural Killer cells are lymphocytes which are known for their ability to kill tumor cells. Animal studies showed an increase in Natural Killer cell population in those taking ashwagandha. More research is needed, but early studies are promising on the use of ashwagandha on cancer patients as a way to naturally increase Natural Killer cell number and activity [15]. Ashwagandha also has potential to help chemotherapy-induced fatigue of cancer patients [16].

Men with Oligospermia who took ashwagandha for 90 days were shown to have a 167% increase in sperm count, 53% increase in semen volume, and 57% increase in sperm mobility compared to the control group. Women who took ashwagandha reported a significant increase in sexual function and pleasure.

In clinical practice we find it especially useful in patients under increased stress, or with sleep problems, cognition issues and/or various neurological imbalances. It does overlap EndoSupreme™ to some extent though we tend to view Endo more as an endocrine system restorer while ashwagandha effects anti-oxidant levels as well as various neuro-transmitters. Many physicians use it as their first choice to support the adrenal glands.

This is an oversimplification and both products should be evaluated on every patient.

Contraindications: Do Not take if pregnant or breastfeeding. Consult your doctor before taking if you have hypotension or are on psychiatric medication.

Our recommended dosage:
1-3 caps daily.

Astragalus

Key Indications: antimicrobial (especially viral & bacterial), immune stimulant, anemia, cardio protective, chronic fatigue

Astragalus by Supreme Nutrition Products, also known as *Astragalus membranaceus* or Huang Qi, has been used for thousands of years in Traditional Chinese medicine for a wide range of conditions. The plant is mainly native to the north and eastern regions of China and has been labeled a “superior herb” in the 2,000-year-old classic *Shen Nong Ben Cao Jing* for its impressive abilities as an adaptogen and immune system restorer.

Astragalus has been studied and continues to be studied for the following actions and benefits it possesses among others:

1. Astragalus is a powerful immunostimulant showing the ability to control T-helper cells 1 and 2 while increasing macrophage, immunoglobulin and natural killer cell activity, production and function. (1) This property is the main reason Astragalus can be viewed as an excellent broad-spectrum antimicrobial herb with an emphasis on viruses and bacteria. It is the number one herb used in China for prevention and treatment of colds, the flu, and respiratory illnesses.
2. Acts as a potent anti-inflammatory due to its high concentration of saponins, flavonoids and polysaccharides.
3. It has supreme cardiovascular protective properties by lowering arterial plaque, regulating heart calcium levels, lowering blood pressure, and lowering triglyceride levels. In 2014, the Chinese Journal of Integrative Medicine stated that combining Astragalus with conventional methods increased the success of viral myocarditis treatment. Along with Dan Shen, Astragalus showed superior in the treatment of angina vs. conventional drugs. (2)

4. Astragalus is being used extensively for the treatment of diabetes due to its ability to reverse insulin resistance and protect pancreatic beta cells. The herb is being re-searched and used for type 1 and type 2 diabetes. (3)

5. Fibromyalgia and Adrenal/chronic fatigue are two conditions that Astragalus has showed promising results for due to its adaptogenic properties and ability to “invigorate vital energy” by strengthening the body’s resistance and constitution according to Traditional Chinese Medicine.

6. The herb has been used for thousands of years for longevity, which has now been attributed to Astragaloside IV and Cycloastragenol, two of the plants powerful saponins. These constituents activate telomerase enzymes leading to reversal of cellular damage and the slowing of aging and degenerative diseases. (4)

7. It is extremely helpful for male hormones and has been scientifically shown to increase male sperm motility, thus helping with male infertility.

8. Used in treatment of chronic asthma, Astragalus has been shown in studies to decrease airway hypersensitivity and reduce mucus production. (5)

9. Potent kidney protector shown to reduce diabetic ketoacidosis (6) and in one study preserved residual renal function in dialysis patients. People with IgA nephropathy have been shown to benefit from supplementing Astragalus.

10. Anticancer properties have been demonstrated in vitro for gastric, colon, ovarian and hepatic cancers. (10) (11)(12)(13) Furthermore, Astragalus is very affective for reducing the toxicity and side effects of chemotherapy and been shown to enhance platinum-based chemotherapy. (8)

11. It can help methylation issues due to its folic acid, betaine and choline content.

12. Very effective in normalizing GTP in people with viral hepatitis with over 70% success rate, showing potent liver protective properties (9). The herb also inhibits herpes simplex virus 1 (7).

In conclusion, Astragalus is a powerful herb that should be considered in any immune system related case. These consist of but are not limited to chronic infection, fibromyalgia and adrenal/chronic fatigue. The herb is best used for longer periods of time due to its potent ability to build immune system and constitutional strength over time and help prevent infections in the first place. For this reason, we evaluate it on every patient.

Contraindications:

Do not take this supplement if pregnant or nursing. Astragalus is contraindicated for patients on lithium and or immunosuppressant drugs.

Dosage : 1 capsule 3 times daily

Bacopa Supreme

Key Indications: memory & focus, brain health and thyroid

Bacopa monniera is a small plant that grows in moist, damp areas throughout Asia and has been widely used in Ayurvedic medicine at least as far back as the 6th century. One of its common names is water hyssop and the whole plant is used medicinally. As with most herbs it has many uses. Most common include increasing cognitive ability, memory, nerve tonic, cardiogenic, diuretic, in asthma, bronchitis, mental imbalances, depression, anxiety, and epilepsy. It contains over a dozen active constituents, the most well-known being luteolin, beta-sitosterol, and d-mannitol. The constituents responsible for Bacopa's cognitive effects are bacosides A and B (1).

One double blinded human study (2) showed it to significantly improve learning and memory while also decreasing anxiety. A similar study in seniors observed that taking 300 mg of Bacopa monnieri daily significantly improved the speed of processing visual information, learning rate, and memory, compared with the placebo treatment (3). A third study on 54 seniors showed increased memory and decreased anxiety and depression compared to placebo (4). Another study elicited a similar reaction to lorazepam (5).

It also can act as a strong antioxidant (6) especially in the antioxidant activity in the hippocampus, frontal cortex, and striatum (7). Bacopa aids in the repair of damaged neurons (8)

A double blinded study done on 36 children with ADHD showed improvement in memory as well as paired associate learning tasks. This improvement was maintained at least 4 months following cessation of bacopa (9). Another ADHD study with 31 ADHD children showed Bacopa reduced symptoms such as restlessness, poor self-control, inattention, and impulsivity in 85% of the children (10). In animal studies high doses of Bacopa have raised levels of T4 without affecting T3 levels (11) making it possibly useful in hypothyroidism.

Bacopa has been noted in animal models to decrease the toxicity of morphine, possibly making it useful in patients going off of morphine based medications (12).

There appear to be no contraindications (with the possible exception being it can be contraindicated if taking amitriptyline) and dosages can safely be given at 5-10 grams daily though we typically start at 1-2 caps 3x/day.

No studies have been done on pregnancy and bacopa so we recommend avoidance until studies are conducted.

BFB-1™ & BFB-2™

Key Indications: biofilms, antimicrobial, quorum sensing

BFB-1 and BFB-2 are two separate essential oils blends. Their main purpose is to help degrade biofilms, interfere with communication between microbes, enhance penetration of concurrently used antimicrobials and act as antimicrobials themselves. We decided to produce two overlapping formulas and prescribe via our testing results. Some patients will need one of them while more chronic patients may need both simultaneously.

BFB-1 consists of a proprietary blend of the following essential oils: *Piper nigrum*, *Rosmarinus officinalis*, *Syzygium aromaticum* L., and *Origanum compactum* benth.

BFB-2 consists of a proprietary blend of the following essential oils: *Eucalyptus globules*, *Citrus reticulata* blanco var *tangerina*, *Boswellia carterii*, and *Thymus vulgaris*.

A biofilm is a negatively charged group of cells which produce a matrix of extracellular polymeric substance and adhere to each other. Biofilms can also be referred to as "bacterial slime", and are generally composed of extracellular DNA, proteins, polysaccharides, fibrin, microbes, minerals and heavy metals.

A biofilm can be comprised of multiple microbes; bacteria, viral, protozoa, parasite, and fungus that cohabitate and engage in "quorum sensing", a form of communication used for sharing information and mutual survival. A Lyme Disease researcher in New York also demonstrated that *Borrelia* species not only produce biofilm, but can live in the community in any form (i.e., spirochete, cell wall deficient, spheroblast, and cyst). Additionally, other associated bacteria such as *Babesia*, *Bartonella*, *Ehrlichia*, *Anaplasma*, and *Mycoplasma* species can inhabit these communities as well. The biofilm is used to both

protect the bacteria from the host's immune system and most antimicrobial agents, while also serving as a nutritional reservoir in times of need. It's an efficient way to ensure that many microbes of a certain species survive, thrive, replicate, and avoid attack.

Candida albicans is also known to produce biofilm colonies, as are many other potentially health-affecting microbes. Dental plaque is an example of a biofilm. The "plaque" material that adheres to the teeth is made up of bacterial cells (mainly *Streptococcus mutans* and *Streptococcus sanguinis*), salivary polymers and bacterial extracellular products. The accumulation of microorganisms subjects the teeth and gums to high amounts of bacterial metabolites which results in dental disease.

Biofilms are said to be anchored at certain places by positively charged ions including: calcium, magnesium, mercury, lead, etc. This may be why when a patient undergoes heavy metal chelation, they often experience an exacerbation of symptoms. Chelation of minerals and metals can destabilize biofilm (EDTA can degrade biofilm), rendering the inhabiting bacteria more vulnerable to the host's immune system and antimicrobial substances.

Biofilms have been found to be involved in a large percentage of bodily infections. Chronic sinusitis patients undergoing surgery presented with biofilms approximately 80% of the time. Other infectious processes in which biofilms have been implicated include problems such as urinary tract infections, catheter infections, middle-ear infections, endocarditis, Lyme disease and its co-infections, infections in cystic fibrosis, and infections of permanent indwelling devices such as joint prostheses and heart valves. More recently it has been noted that bacterial biofilms may impair cutaneous wound healing and reduce topical antibacterial efficiency in healing or treating infected skin wounds.

Current treatments for biofilms include proteolytic

enzymes (serrapeptase/lumbrakinase/nattokinase) which are very effective at dissolving mucopolysaccharides. N-acetylcysteine and lactoferrin also may cause biofilm degradation. Other products used to degrade biofilms include EDTA (calcium, heavy metal removal), and silica (In vitro studies show biofilms do not grow on silicone rubber.) The problem with these agents in our opinion is that none are highly antimicrobial and as a result can result in microbes being released into the systemic circulation and causing problems far removed from their original site as well as acute exacerbation of existing low level conditions. We have seen patients end up with serious complications from using these agents as a result of "freeing" microbes that were living with the biofilm and were now released.

Select essential oils, on the other hand, are equally effective in biofilm degradation. Some are able to penetrate the biofilm layer as well as interrupt "quorum sensing", and kill a broad spectrum of microbes. We have found them to be the most effective biofilm degraders with the least amount of potential negative side effects due to their antimicrobial properties.

As the biofilm diminishes, endotoxins, mycotoxins, etc. secreted or excreted by microbes that are contained within the matrix, are then released into the bloodstream. This can cause a "Herxheimer" effect. We believe in minimizing this due to the damage done by this type of inflammatory reaction. A remnant of the sticky biofilm probably facilitates toxins adhering to tissue surfaces and blood vessel endothelium, forming viscous (thick) or hypercoagulable blood. Ideally a combination of biofilm degraders, herbal antimicrobial agents and herbal blood thinners can make a good combination to treat this growing issue.

Supreme Nutrition, through clinical research along with an extensive literature review, has developed two essential oil blends that appear to have biofilm degrading abilities. Clinical trials with these, along with Supreme

antimicrobials (Morinda, Melia, Golden Thread, Illicium, Vital Guard, and Schisandra) and detoxification agents (Takesumi, Schisandra, Camu, and Smilax) have proven to be a potent combination to help chronic patients with long-standing low grade infections involving biofilms.

Physicians utilizing applied kinesiology and other energetic testing methods to treat what appears to be Lyme and its co-infections, fungal issues, etc. have found that the addition of these essential oil products has assisted patients with previously hard to eliminate problems.

RECOMMENDED DOSAGE FOR BFB-1 AND BFB-2

Adults: Place 1 drop on the bottom of each big toe, morning and evening. Day 2: Continue to apply one drop on the bottom of each big toe, and add 1 drop on each thumb pad morning and evening. Day 3: In addition to the big toes and thumbs, apply 1 drop on back of each ear lobe, morning and evening. If well tolerated after a few days, oils can be applied directly to areas of concern, but only externally. If a rash develops, try using a carrier oil such as coconut or olive. Mix the BFB oils with the carrier oil, then apply.

If using both BFB-1 and BFB-2 at the same time, alternate BFB-1 on one side of the body and BFB-2 on the other as directed above.

Children under 12: 1 drop onto the sole of one foot, once daily for the first 3 days, and if tolerated, increase to one drop on the bottom of both feet twice daily.

If using both oils, put one drop of BFB1 on sole of right foot, and one drop of BFB2 on sole of left foot once a day. If tolerated, increase to twice daily, alternating feet each time.

DO NOT USE DURING PREGNANCY OR BREASTFEEDING. This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

Black Walnut tincture

Key Indications: antiparasitic, antifungal, antibacterial and antiviral

Juglans nigra, commonly known as black walnut, is a large hardwood tree native to the east coast of North America as well as Asia. It was imported to Europe before the common era.

Black Walnut has been used in herbal medicine for centuries as a very effective anti-parasitic helping to kill and expel helminths (worms) as well as other parasites. It is also a powerful anti-fungal, including against *Candida albicans* (1). Juglone is one of its active constituents and has been shown to be as effective as zinc undecylenate in treating fungal issues. It also exhibits anti-bacterial properties against *Staph. aureus* and other species, as well as having anti-neoplastic activity (2, 7). *Juglans* has successfully treated various forms of herpes and other virus (3-6). Anecdotally, Dr. Michael Lebowitz reported a case back in the 1980s of a 2-year-old with a positive *C. difficile* stool test unresponsive to the prescription given to her. She was exhibiting severe diarrhea. *Juglans nigra* tincture cleared the symptoms within a few days and a follow up test was negative. Dr. Lebowitz also had a 2nd similar case. We do not recommend forgoing allopathic treatment for this type of infection, but found this interesting to report (8)

Dosage: 10-30 drops 3x/day.

Contraindications: Do not use if pregnant or breastfeeding

Tinctures:

Our tincture is extracted with organic cane alcohol which is then boiled off (as much as possible while retaining potency) and then organic glycerin is added.

Most tinctures on the market are extracted by non-organic grain-based alcohol (many from GMO corn ethanol). Supreme Nutrition products has decided to manufacture a small number of tinctures. While in general we prefer dried whole herb, our tinctures can also be effectively used. The main reason we decided on these is we wanted a small line of antimicrobials for children too small to swallow pills that would cover many bases. Our first product of this type, elderberry, is primarily an antiviral and black walnut is primarily antiparasitic. They are also effective for adults.

Approximate dosage for kids. We generally go off weight, not age.

20 pounds	2-5 drops	3x per day
30 pounds	2-6 drops	3x per day
50 pounds	5-10 drops	3x per day
100 pounds	10-25	3x per day

Body Guard Supreme™

Key Indications: Patients with Kidney stones, gallstones, urinary issues, liver toxicity, EMF sensitivity, fibromyalgia, hypertension, hypercoagulative disorders (including stroke), babesia, or on chemotherapy should consider taking Body Guard.

Each capsule of Body Guard contains pure Phyllanthus niruri with no added fillers, binders, excipients, etc. There are well over 50 published studies on the therapeutic effects of this herb and for hundreds of years it has been used throughout South America, Central America, Africa, and Asia as a traditional treatment for many conditions.

Body Guard appears to be an excellent liver detoxifier and helps protect against carbon tetrachloride induced liver mitochondrial damage [1]. For people sensitive to caffeine and/or chocolate due to liver detoxification issues, Body Guard can be used to help against liver stress and increase natural anti-oxidants [2].

The International Journal of Pharma and Bio Sciences says regarding Phyllanthus Fraternus/niruri (Body Guard) "Its main uses are for treatment of many types of biliary and urinary conditions including gall stones and kidney stones, hepatitis, colds, flu, tuberculosis, viral infections, liver diseases, anemia, and for bacterial infections such as cystitis, prostatitis, venereal diseases and urinary tract infections. The plant is employed for numerous other conditions such as colic, diabetes, malaria, dysentery, fever, pain, tumours, vaginitis, gonorrhoea and dyspepsia. The plant also expels worms, intestinal gas and acts as a mild laxative" [3].

In 1990 at the Paulista School of Medicine in Brazil it was shown that phyllanthus promoted the elimination of kidney stones and is sold today in pharmacies throughout that country for that purpose. Phyllanthus Niruri has an inhibitory effect on kidney stone formation,

and could be used as a preventative for those prone to develop stones, or to help decrease the growth of stones in those with pre-existing ones [4]. It also changed the shape and size of pre-formed stones, making them smaller and smoother, which then can be easier to pass. [5]

It has diuretic properties and is shown to help lower blood pressure [6]. It also increased in vitro clotting time and bleeding time in rabbits, similar to heparin or aspirin. Strokes are often due to both thrombus formation and oxidative stress, making Phyllanthus unique in its ability to help with both pathways [7].

Mice studies showed it can help reduce damage during chemotherapy and radiation and it increased the life span of mice with liver cancer by 65% [8]. Lyme and its co-infections [10]. Initial studies have shown it to possess anti-malarial activity [9]. In addition anti-babesia compounds are present and many clinicians use it when treating it.

Phyllanthus has been shown to alleviate muscle-mediated pain and used in the treatment of chronic musculoskeletal pain syndromes such as fibromyalgia [11].

In office research and testing done by an Applied Kinesiologist indicate Body Guard as having strong protective abilities against Electro Magnetic Field (EMF) exposure. Many patients with EMF sensitivity have responded well from taking Body Guard. The effect appears to be from strengthening the organs that are stressed by EMF's.

Dosage: For my patients I have recommended one cap 3x/day if they have EMF sensitivity and one cap 1-2x/day as a possible preventative once the issues subside. Traditional pharmacies in South America recommend as high as 4-6 caps twice daily when treating kidney stones (I have never done this and it shouldn't be done in lieu of other treatment). For patients taking it as a liver detoxifier we recommend 1 cap 3x/day or 2 caps 2x/day.

Contraindications: Do not take during pregnancy or Breastfeeding. Consult your physician before taking if you are on hypertension, diabetes, or blood thinning medication.

This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

Camu Supreme™

Key Indications: natural high vitamin C source, allergies, metal chelator, antiviral, anti-inflammatory

One of the goals of Supreme Nutrition Products is to bring therapeutic foods that are nutrient dense and in most cases high in phytonutrients as well to your patients. We feel that nutrient dense foods unlike pharmaceutical grade isolated nutrients (which do have their role) have their own synergism (within the individual plant) that man cannot duplicate. Thera Supreme was our first product of this type and is a great immune builder/life enhancer.

Camu is a single food that we have known about for a long time but like many of our other products it took a while to find a source that passed our testing methods and that wasn't diluted with maltodextrin as most are. Camu is a berry from a bush (*Myrciaria dubia*) that grows in the Amazon rainforest. What makes camu stand out is that it is the 2nd most concentrated source of vitamin C found in any fruit. It is also a significant source of antioxidants including anthocyanins, d-limonene, and catechin [1, 2, 3]. Dr James Duke in his ethnobotanical database rates camu as being an effective antiviral, very useful for gingivitis and other periodontal disease, asthma, hepatitis, atherosclerosis, infertility, cataracts, migraine and cluster headaches, colds, osteoarthritis, depression, edema and Parkinson's disease [4]. According to Sloan Kettering of the Memorial Sloan Kettering Cancer Center, Camu decreases inflammatory and oxidative stress markers such as 8-hydroxy-deoxyguanosine, total reactive oxygen species, C reactive protein, IL-6, and IL-8 in smokers [5].

In one study after taking Camu for 7 days, patients had a significant decrease in total oxygen reactive species, decrease in high sensitivity C Reactive protein (hs-CRP),

and decrease in IL-6 and IL-8. A control group taking an equivalent amount of vitamin C showed no change in these same markers [6]. In another study obese rats were fed Camu for 12 weeks and those that received the pulp of camu reduced their weights of the fat in white adipose tissues, glucose, total cholesterol, triglycerides, LDL-c and insulin blood levels. There was also an increase in HDL-c levels [7].

In addition to being high in Vitamin C, camu is also high in phenolic compounds and carotenoids. Camu is a good source of potassium, iron, calcium, phosphorous and various amino acids including serine, valine and leucine. Due to these properties Camu could possibly be used to help stop the progression or prevent certain diseases such as cardiovascular and cancer [8].

Camu also has been shown to suppress the formation of edema in rats and contains betulinic acid. Betulinic acid has antiretroviral, antimalarial, anti-inflammatory, and anticancer properties [9].

We will not be stating vitamin C content on the label as it can vary depending on many variables (time harvested, soil and climate conditions) but an average dose of 4 capsules will have anywhere in the range of 200mg-1000mg in synergy with all the accompanying components (various research articles give differing amounts due to the factors just mentioned, thus the wide range) [10]. It is hard to compare natural vitamin C in the complex of a whole food to isolated ascorbic acid but it appears you need much less when taking it as a whole food source and the exact milligrams is not as relevant as how it works as a complete food [11].

Many of our physician customers have reported it to be effective in helping alleviate symptoms of hay fever and allergic rhinitis in doses of 12-16 capsules daily.

Dosage:

A good maintenance dose is four pills once daily but for acute and chronic conditions that need higher amounts of vitamin C, bioflavonoids and antioxidants you can do 8-12 capsules daily or more. People starting to come down with a cold often report getting helped by taking 4 pills 4x throughout the day.

For a daily dose make a smoothie that contains some juice, frozen berries, 2 opened capsules of Thera Supreme, 1 scoop of Wild Greens Supreme, and 4 opened capsules of Camu Supreme.

Cat's Claw Supreme™

Key Indications: antimicrobial (especially viral and lyme, anti inflammatory, cardiac health and insulin resistance

Cat's claw, also known as *Uncaria tomentosa*, is a woody vine that is native to Central and South America particularly in the Amazonian Rainforest. It has been used for medicinal purposes for centuries dating back to the Inca Civilization. Indigenous shamans say it is a bridge and balancer between the physical and spiritual worlds and is considered the most sacred herb. The herb is rich in alkaloids, terpenoids and flavonoids, which contributes to its historical use to help a wide range of symptoms and conditions. These conditions traditionally include but are not limited to arthritis, cardiac issues, Alzheimer's, cancer, diverticulitis, ulcers, colitis, gastritis, leaky gut, hemorrhoids, and a variety of infections (viral, fungal, bacteria, parasitic and spirochetes).

The following are the most common modern uses of Cat's claw:

1.) Cat's claw is one of the most potent antimicrobials in nature. It has demonstrated its strong effects against Lyme (1) and co-infections (babesia, bartonella), viruses (especially EBV and the herpes family) (2)(3), bacteria (Staph, Strep, Enterobacteria.) (4), fungus (chronic Candida infections) (5), and parasites. It is for this reason that we view it as a broad spectrum antimicrobial. This is one of the properties that gives it its reputation as an immune stimulant along with it increasing WBCs and NK cells. One of the NK cells that it increases is known as CD 57, which is known to be deficient in Lyme Disease. Due to the herbs antibacterial properties, PANDAS is a condition that many functional medicine doctors have been using cat's claw for along with tooth infections and UTIs. A recent study from 2021 also showed that cat's claw inhibited the release of SARS-COV-2 infectious particles and reduced the cytopathic effect caused by the virus (6).

- 2.) The uses for different types of inflammatory bowel conditions like Crohns, IBS and UC most likely stem from the positive effect cat's claw has on inflammatory markers like NF-KB. Cat's claw has shown potent antioxidant properties and the ability to turn down NF-KB in studies (16). Interesting to note is that the herb also inhibited LPS induced iNOS gene expression and nitrite formation.
- 3.) Many studies have shown the effectiveness of Cat's claw on osteoarthritis and Rheumatoid arthritis. This is not only due to the NF-KB being inhibited but also IL-1, IL-4, IL-17 and TNF-alpha (7). A 2001 study with 45 subjects suffering from osteoarthritis allowed researchers to conclude "pain associated with activity, medical and pain assessment scored were significantly reduced within the first week of therapy" (8).
- 4.) More recently, studies have been done and show the herbs ability to combat certain forms of cancer. The most studied have been breast cancer and leukemia. The British Journal of Hematology felt that the alkaloids pteropodine and uncarine F were especially impressive in the leukemia studies (9). A more recent study in 2015 also found that cat's claw can be extremely beneficial by improving quality of life and fatigue levels in advanced cancer patients (10).
- 5.) The cardiac health benefits stem from the alkaloid, hirsutine, which acts as a natural calcium channel blocker helping people regulate their blood pressure (11). Cat's claw also inhibits platelet aggregation and blood clot formation ultimately inhibiting plaque formation and blood clots in the heart, blood vessels and brain (12).
- 6.) DNA repair has been one of the more recent interests in cat's claw. A 2001 study showed significant improvement in DNA repair for people who had undergone chemotherapy (13). Furthermore, a 2006 study showed that cat's claw should be considered as a natural sunscreen due to the ability to repair UV light damaged skin cells (14).

7.) Cat's claw shows promise in diabetes as it improves insulin sensitivity (15).

One big controversy to clarify is the buzz around the TOAs (tetracyclic oxindole alkaloids) and POAs (pentacyclic alkaloid) in cat's claw. The claim is that TOAs disrupt the function of the nervous system and down regulate the POAs. However, master herbalists have disproven this claim. One says that the study that all of this was based on isolated only two of the five naturally occurring TOAs in cat's claw. This led to the two TOAs extract amount far exceeding the levels that are found in the plant in its natural form and way unnaturally potentized due to the purification process. This was also done in vitro only and never in humans. On the contrary, the overwhelming majority of research in the last 25 years has been using the whole plant, which has never demonstrated the claim of the TOAs down regulating the POAs. In fact, "This naturally occurring POA-TOA-containing herb has been successfully used for a very long time by these indigenous peoples to enhance immune activity. Additionally, the herb has been successfully used in clinical practice with thousands of people for over half a century in South America to enhance immune response. The herb itself, without any fiddling around, will work exceptionally well, especially for Lyme disease" (17).

In conclusion, cat's claw should be view as a potent antimicrobial that can help against chronic infections that patients have been struggling to overcome. This, along with the powerful anti-inflammatory and immune boosting properties that the herb possesses, should be a great addition to your patient's protocols.

Dosage – 1-2 caps 3x daily

Contraindications – pregnant and nursing females. Caution with high blood pressure meds and blood thinners.

This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

Chaste Tree Supreme™

Key Indications: Premenstrual Syndrome, Reproductive Hormone Balancing, Antimicrobial and Prostate Health

Chaste tree (*Vitex agnus-castus*), or chasteberry, is a plant native to Asia and the Mediterranean and has been used for centuries in herbal medicine for a variety of hormonal-related and gynecological conditions. The ancient Greeks and Romans used it to promote spleen health. Traditional Chinese Medicine uses it to support joint health, eye health and to relieve headaches. Homeopaths use it for spleen health, dental health and to promote male sexual functioning. Turkish medicine uses it for an antifungal/digestive aid, and German physicians use it for encouraging lactation. Widely accepted as the gold standard herb for female health conditions in Western herbalism, its active constituents consist of flavonoids (castican, orientin and isovitexin), iridoid glycosides (aucubin and agnoside), essential oils (limonene, cineole and sabinene) and essential fatty acids (oleic acid, linolenic acid, palmitic acid and stearic acid).

The following are the most well known uses and medicinal properties of chaste tree:

1. The management of premenstrual syndrome (PMS) is the most common use. In one study consisting of 1634 patients, 93% of participants reported a decrease in PMS symptoms or complete resolution after a 3 month treatment period. (1) In another study, women were given chaste tree for 3 menstrual cycles and twice as many women in the experimental group reported decrease in symptoms compared to placebo. (2) These consisted of mood swings, irritability, headache, bloating, cramps and breast tenderness. The main mechanism of this is chaste tree's ability to reduce prolactin, which can rebalance hormones, thus reducing PMS. Another mechanism studied for this action is chaste tree's modulation

of dopamine and its ability of its essential oils to bind to opioid receptors and modulate the opioidergic system that deals with pain, anxiety, depression and mood swings.

2. Studies show that chaste tree increases luteinizing hormone, which triggers ovulation in the body. This results in increased progesterone and a more efficient luteal phase. This boosted luteal phase is the mechanism behind why chaste tree is used to increase fertility and prevent miscarriages.

3. Regulation of the menstrual cycle from amenorrhea to heavy bleeding and everything in between. This property is also largely due to the increase of progesterone that chaste tree induces. This has also helped with hormonal acne as well.

4. Chaste tree improves fertility, contrary to its historic use of chastity. It is exceptionally useful when hyperprolactinemia is an underlying etiology. This is because high levels of prolactin can inhibit ovulation and interrupt the menstrual cycle leading to infertility. In a study of 40 women, chaste tree was as effective at lowering prolactin as the pharmaceutical drug used.(3) Another study used 93 women who had difficult conceiving within a 6-36 month span. The group given chaste tree experienced improved hormones after 3 months and 26% of them became pregnant compared to 10% in the placebo group. (4)

5. Cyclic mastalgia is another common hormonal-related issue that chaste tree has shown promising results helping (5). The dopaminergic effect and reduction of prolactin is thought to play a significant role in reducing mastalgia. Since estrogenic activity in the body triggers mastalgia, the property of boosting progesterone in the body and having anti-estrogenic activity makes chaste tree a wonderful option for this condition.

6. Reduces menopausal symptoms thanks to its hormone balancing effects. Women reported having better sleep, mood and reduction in night sweats and hot flashes. Some even regained their menstrual cycles. (6)

Some of the lesser-known uses of Chaste tree are as follows:

1. Helps prevent insect bites and head lice for about 6 and 7 hours respectively (7)(8)
2. Antimicrobial effects. The essential oils of the plant in vitro have demonstrated antimicrobial effects against Salmonella, E.Coli, Candida Albicans, Strep. faecalis, and Staph. aureus among other species of microbes (9)
3. Can help prevent epilepsy as demonstrated in animal studies (10)
4. Helps heal bones and reduce inflammation as shown in a study where women were given Chaste tree and magnesium. These participants showed an elevation of markers for bone repair compared to placebo (11)
5. Helps increase urine flow in men by helping with Benign prostatic hyperplasia (BPH)

In conclusion, Chaste tree should be considered in any patient with hormonal imbalances or where hormonal causes are suspected. These consist of but are not limited to PMS, menstrual irregularities, PCOS, polycystic breasts, migraines, joint pain, infertility, menopause, endometriosis and breast tenderness. Although usually thought of for solely female purposes, males have used this herb for centuries and it is safe for them to take. In studies, chaste tree tends to show that patients must be on it for a minimum of 3 months for many of its benefits to be experienced with 4-8 months being the most common length to notice full symptomatic help.

Dosage: 1-2 pills. 3x per day

Contraindications: Pregnancy and breastfeeding. Counteracts birth control, patients on Parkinson drugs and psychosis drugs. Caution with hormone related cancers.

Cissus Supreme

Key Indications: musculoskeletal pain, bone and tissue healing, increase metabolism, antimicrobial (broad spectrum)

Cissus Supreme is a plant medicine derived from the whole herb of *Cissus quadrangularis*. Cissus is a perennial plant in the grape family and is found throughout Africa, tropical Asia, India and Arabia. In Thailand it is one of the most commonly used medicinal plants. Traditionally Cissus has been used to promote bone and tissue healing, relieve pain, promote weight loss, decrease joint inflammation, treat lung inflammation, and treat infections. Cissus contains a rich array of phytochemical including sterols, flavonoids, stilbenes, iridoids, triterpenes, gallic acids, quercetin and resveratrol.

Current research on Cissus has shown powerful effects in healing bone fractures and treating osteoporosis. Human trials have shown Cissus to have significant effects on helping weight reduction. Additionally, Cissus has been shown to significantly reduce pain, specifically bone pain. Cissus has also shown to have a variety of metabolic benefits including lowering cholesterol, triglycerides and blood sugar. In one double blind, placebo-controlled trial the group receiving the Cissus extract had decreased waist circumference, body mass index, and decreased fat.

Cissus has been shown to have powerful effects on cartilage. Treatment with Cissus has shown the ability to protect chondrocytes from cell death and enhanced their growth and proliferation. Cissus was also shown to lower both the cytokines and matrix metalloproteinases known to cause cartilage and bone destruction.

Extracts of Cissus have been shown to have significant antioxidant effects and potent anti-cancer effects specifically against leukemia cell lines.

Cissus has been shown to have gastro-protective effects, countering the mucosal damage induced by aspirin intake.

As an antimicrobial agent, Cissus has been shown to have antibiotic effects against Gram-positive bacteria, including *Bacillus subtilis*, *Bacillus cereus*, *Staphylococcus aureus*, and various *Strep* species.

Cissus was shown to have significant liver protective effects, both decreasing lipid peroxidation in the liver and increasing hepatic antioxidant levels.

Like many of the products we offer at Supreme Nutrition, Cissus has a broad spectrum of clinical application. First and foremost, we consider Cissus to have anabolic potential, specifically with building and stabilizing all tissues, but more specifically in bone loss or injury to bone. Cissus has the potential for assisting other slow healing tissues like cartilage and ligaments as well. Additionally, it can be very instrumental in helping manage musculoskeletal pain. Beyond that it should be strongly considered in metabolic syndrome and diabetes, as well as high cholesterol and has marked effects in the GI tract as both a gut healer and antimicrobial agent.

Cissus differs from LuRong in that it does not contain glucosamine, chondroitin or IGF-1. Lu Rong tends to have more an athletic enhancement ability, whereas Cissus seems more to help with regeneration of bone, decreased joint pain, and decreased weight, body mass index, and fat.

Cissus is a very safe herb with no adverse effects noted. However, there is limited data on Cissus in pregnancy and breastfeeding and so best to avoid.

Recommended Dose: 2-3 caps twice daily

This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

Dan Shen Supreme™

Key Indications: cardio-protective, increases nitric oxide, fibrinolytic, bartonella, increases dopamine

Dan Shen, also known as red sage or *Salvia miltiorrhiza*, has been used in oriental medicine to treat many disorders and ailments for thousands of years. While Dan Shen has many uses, treating cardiovascular and cerebrovascular disorders are the most common things it is used for. These cardiovascular disorders can include recovering from a myocardial infarction, treating an acute ischemic stroke, hypertension, and inhibiting platelet adhesion in those prone to hypercoagulative disorders.

Patients with mild to moderate hypertension (high blood pressure) can benefit from Dan Shen. A recent study showed that taking 2,000 mg per day over 12 weeks reduced both the patients' systolic blood pressure as well as pulse rate [1].

A clinical study of 300 people with angina pectoris took Dan Shen and their symptoms improved in 82% of the people, including ECGs improvements in 50%. This supports a previous study of 323 patients with angina where 20.3% had remarkable improvement and 62% had moderate improvement while taking Dan Shen [2].

Patients who have had a myocardial infarction (heart attack) and undergone percutaneous coronary intervention were shown to have a better success rate when taking Dan Shen [3]. Dan Shen works as a cardio-protective agent by causing vasodilation, inhibiting platelet aggregation, and protecting against myocardial ischemia [4]. By reducing the development of atherosclerosis taking Dan Shen can help prevent cerebral infarctions. Studies also have shown Dan Shen to lower ones overall cholesterol, specifically LDL-C ("bad cholesterol") [5]. Additive effects occur with Dan Shen's ability to increase

vasodilation by increasing nitric oxide and scavenging free radicals, resulting in increased blood flow and decrease inflammation and oxidative stress on the body [6]. Dan Shen can uniquely help with decreasing cardiovascular issues by acting on many different pathways, addressing multiple causes of cardiovascular disease.

For patients who aren't on prescription blood thinners Dan Shen has the potential to help as a natural blood thinner. Research has shown it to work in multiple pathways including inhibiting platelet aggregation, interfering with the extrinsic pathway of blood coagulation, possessing anti-thrombin III like activity, and also promoting fibrinolytic pathway [7].

By acting on many different pathways at once Dan Shen may be the best all natural way to maintain healthy blood flow and help prevent blood clots and associated issues. Via similar actions studies have shown it to help with diabetic retinopathy [8].

While Dan Shen is most often used for its cardiovascular properties studies have shown it potentially work as an anti-cancer agent and also against HIV. When administered to human colon adenocarcinoma cells it was shown to both inhibit growth and induce apoptosis of the tumor cells [9]. Experimentation of HIV cells showed Dan Shen to inhibit viral replication of HIV cells [10].

Many people suffer from depression or low energy levels due to inadequate dopamine and/or epinephrine levels in the body. Initial research has shown Dan Shen to cause an increase in dopamine release, and could potentially be used as an addition to normal treatments for patients suffering from depression or low energy levels [11].

In traditional Chinese medicine Dan Shen is used on patients with liver issues. It is one of the most commonly used herbs for liver disorders and can also help treat Hepatitis B Virus in addition to stimulating increased liver activity [12] [13].

The active compounds in Dan Shen contain broad-spectrum antimicrobial properties, especially against bacteria and fungus. Lyme literate physicians have been including Dan Shen to also treat bartonella infections. Tanshinones and phenolic acids are identified as the main antimicrobial components, but other components also exist to boost the antimicrobial properties of Dan Shen [16].

The broad applications of Dan Shen make it a welcome addition to your patient with cardiac, coagulation, and hepatic issues as well as being anti-fungal and anti-bacterial.

CONTRAINDICATIONS

Patients taking blood thinners such as warfarin should avoid taking Dan Shen due to an exaggerated effect of the warfarin and increased risk bleeding of bleeding. As a precaution Dan Shen should not be taken while also taking NSAIDS or other blood thinners. You should also not take if on digoxin and consult your doc if on other heart medications. Do not take during pregnancy or while breastfeeding.

Recommended dosage is 1-2 caps 3x/day.

Elderberry

Key Indications: antiviral (esp. cold/flu), immune booster, and allergy support

Elderberry (*Sambucus Nigra*) is native to Europe but grows throughout the Western World as well as Asia and parts of Africa.

Our tincture is extracted with organic cane alcohol which is then boiled off (as much as possible while retaining potency) and then organic glycerin is added.

Most tinctures on the market are extracted by non-organic grain based alcohol (many from GMO corn ethanol). While Supreme Nutrition Products has never done a tincture before, the demand for a few antimicrobials for small children has made us decide to make this (and there might be a few more coming). The product obviously can also be used for adults.

Elderberry has many active components including quercetin and other flavonoids including anthocyanins and rutin, as well as vitamins A and C etc. (1). Elderberry is most well-known for its antiviral activity. Studies in Israel have shown that it can deactivate certain spike proteins making the virus unable to enter cells. This has made it effective against different strains of influenza, herpes, and HIV (2, 3, 4). Because of its mechanism of action, it should be efficacious against most strains of influenza. In one double blinded, placebo controlled study, those who took elderberry within the first 48 hours of having influenza like symptoms recovered on average 4 days earlier vs those given a placebo (4). It has also shown effective against most upper respiratory infections (5). Many people also use it prophylactically as a preventative against many viruses. Studies have shown using it before and after airplane travel helped reduce the severity of cold like symptoms as well as the average cold duration by 2 days (6).

Elderberry also has significant anti-oxidant activity, especially in preventing damage to the circulatory system from reactive oxygen species (7). It also may be helpful in preventing osteoporosis (8).

Folk medicine uses of elderberry include for conditions such as diabetes, constipation, sore throat, sciatica, eczema, and measles. It also acts as a blood cleanser, spring tonic, anti-inflammatory, and immune stimulant (9, 10). While working as an immune stimulant, there is no evidence of it overstimulating the immune system (11).

Dosage: 10-30 drops 3 times daily depending on weight.

Approximate dosage for kids. We generally go off weight, not age.

20 pounds	2-5 drops	3x per day
30 pounds	2-6 drops	3x per day
50 pounds	5-10 drops	3x per day
100 pounds	10-25	3x per day

There are no known contraindications.

Endo Supreme™

Key Indications: endocrine adaptogen, libido, adrenals, fatigue, arthritis

Endo Supreme™ contains pure powdered *Pfaffia paniculata*, also known as suma. The goal in developing this product was to find an herb that was strengthening and healing to the endocrine system. We view it as a master endocrine adaptogen, helping both hypo and hyperadrenia as well as many other endocrine imbalances as well as a host of other conditions [1]. Our physicians have never found great results using glandulars and have been looking extensively in the plant kingdom for broad spectrum remedies and healing agents. Suma appears to help with not only adrenal issues, but also with other hormonal/endocrine issues including helping the pituitary gland, thyroid gland, pineal gland, reproductive organs, and the pancreas.

There is much scientific research on *Pfaffia paniculata*. To just give you an idea of properties reported from its traditional use: it is known to increase libido, to treat impotence, PMS, menopausal symptoms and fatigue (both chronic and acute). It is used as a muscle relaxant, an anti-inflammatory, general tonic, anti-arthritic, for hypoadrenia, and as an immune support. It helps anemia (including sickle cell anemia) due to its high iron content, and diabetes by lowering blood sugar levels when needed [2, 3, 4, 5, 6]. It is also shown to have anti-neoplastic, chemo-preventive, and anti-angiogenic properties in multiple forms of cancer including liver and breast, among others [7, 8].

In patients with irritable bowel syndrome (IBS) and other bowel disturbances Suma has been shown helpful in decreasing intestinal inflammation, reducing multiple blood markers of inflammation in testing [2].

In addition to increasing libido, Studies have shown suma to help sexual performance in rats of those who

were sexually sluggish/impotent [9]. Steroid hormones including testosterone have been shown to increase after taking suma for 30 days [10].

Due to its anabolic properties it has been used by Russian Olympic athletes to increase endurance and muscle mass without any of the negative effects of PEDs [11]. This is why in Brazil it is called 'para toda' (for all things).

Dosage: We have found 3 caps daily to be an optimal dose in most cases, with the first dose taken before breakfast. In some patients results have been within days though the literature suggests it can take a month before effects are felt. Many people report that their stamina continually increases, the longer they take it.

Do not take during pregnancy or while breastfeeding.

Glypho-X Supreme™

Key Indications: Glyphosphate, herbicide, and pesticide detoxification, liver support, anti-inflammatory and antimicrobial

Glyphosate (Round Up) is a chemical that has been used as an herbicide since the 1970's. Between the 1970's and 2016 there has been a 100 times increase in its prevalence, and it is the most commonly used herbicide in the USA today. It is also routinely sprayed on many non-organic crops right before harvesting to help dry out the crops, and increase the harvest. In 2015 the World Health Organization classified glyphosate as "probably carcinogenic in humans". Glyphosate has been linked to increased intestinal permeability (leaky gut), causing chronic acidosis and mitochondrial dysfunction, altering normal gut flora, stimulating breast cancer cell growth, kidney damage, suppressing cytochrome P450 enzymes, and many other conditions (1, 2, 3, 4, 5, 6, 7). Many food products, including some organic ones, have been found to contain high levels of glyphosate residue (8).

One study was done to see if different herbs could contribute protection against damage caused by glyphosphate. The compound contained both *Taraxacum officinale* (dandelion) and *Arctium lappa* (burdock), two components in Glypho-X. In the study glyphosate invoked liver cell death, but after treatment with the herbs, liver cell death decreased by up to 89% (9).

Taraxacum officinale (dandelion) has been shown to be hepato-protective (10, 11). One study showed taraxacum can lower total cholesterol, lower triglycerides, and increase HDL (12). Another study showed it can help prevent hypercholesterolemic atherosclerosis and lower one's risk for coronary artery disease (13). In addition to cardiovascular health taraxacum has been shown to have an anti-influenza viral effect (14). It also has antibacterial and anti-inflammatory properties (15, 16).

Arctium lappa (burdock) is a plant known for its detoxification properties (17). It acts as an anti-inflammatory by decreasing inflammatory cytokines, IL-6, and TNF- α (18). In addition to being shown to help protect against glyphosate induced liver damage, it has also been shown to be effective in helping protect against multiple other types of chemical induced liver damage (19, 20, 21).

Ocimum basilicum (basil leaf) is a great detoxifier and studies have shown it to increase phase II enzyme activity, being especially helpful with xenobiotic detoxification (22). Similar to taraxacum officinalis and arctium lappa, basil helps to protect against chemical induced liver damage (23). It also has been shown to increase memory recall due to its antioxidant, flavonoid, tannin, and terpenoid levels (24). Studies also show ocimum to possess antiviral, antibacterial, and antifungal properties (25, 26, 27).

Dosage:

We recommend taking 1 pill 3x per day for the first bottle. After that it can be taken prophylactically as needed when eating foods that may have residue of glyphosate or other herbicides/pesticides.

Please consult your physician before taking if you have a bleeding disorder, are allergic to ragweed, or are pregnant.

Golden Thread Supreme™

Key Indications: broad spectrum antimicrobial (fungus, bacteria, virus, parasites), liver, gall bladder

Golden Thread Supreme™ is the powdered rhizome of the plant *Coptis chinensis*. This herb has been used in traditional Chinese medicine for over two thousand years. It contains a number of alkaloids that have been subject to recent research. The most well known of these alkaloids is berberine, the component that gives goldenseal, coptis, and oregon grape root their yellow/gold color, bitter taste and some of their therapeutic effect. *Coptis chinensis* contains 5-7% berberine as well as other important therapeutic compounds such as coptisine [1].

Much of the following information has been gleaned from textbooks translated from the Chinese. Golden Thread has been used extensively in the treatment of gastrointestinal disorders that are of a pathogenic origin [2]. It has proven to be an effective antifungal [3], antibacterial (including staph aureus, h.pylorii, strep pneumonia, tuberculosis, shigella, pseudomonas, salmonella, and many gram positive bacteria and mycobacterium) [4, 5, 6, 7, 8], antiparasitic [9, 10, 11] (including leptospirosis, trichomonas, amoeba, giardia), antiBiofilm [12] and antiviral [13] (including influenza and Newcastle virus) herb. It is also reported to have antiradiation effects [14]. In a situation where you have an "over facilitated sympathetic nervous system" berberine in *Coptis* has been shown to be helpful. It can also increase bile production and is used in the Orient in cases of chronic gall bladder problems, cold sores, and to help slow the development of atherosclerosis [15, 16].

In a fairly recent study, a decoction of *Coptis* (Golden Thread) was used as an enema in the treatment of ulcerative colitis on several patients with excellent results,

as well as in controlled studies on mice with ulcerative colitis [17].

In China it has been used to treat infantile dysentery, Trichomoniasis, diphtheria, scarlet fever, tuberculosis, typhoid fever, tonsillitis, eczema, type II diabetes and ventricular extra systole [18, 19, 20].

I have used Coptis (Golden Thread) for 15 years and have found it to be another great antimicrobial as effective as Melia and Morinda. I used to use it in tincture form but stopped years ago as I find the capsules do not stress the liver like the alcohol in the tincture might and it appears to reach further down in the gastrointestinal tract (as a capsule) and in general to be more effective.

I find sometimes one or sometimes more of these aforementioned antimicrobials are needed for the patient. There are times when Coptis will work when Morinda and Melia do not. Between the three of them, they should cover a wide range of conditions.

Most of the research being done currently on Coptis (Golden Thread) is being conducted on laboratory mice or other animals. Nevertheless, the results show the potential usefulness of Coptis in a number of areas. Besides confirming the traditional uses of Coptis, the research indicates that it is hepatoprotective [21] probably due to antioxidant properties, and can lower blood sugar and blood cholesterol levels [22, 23].

In one study the effects of several Coptis alkaloids were examined on the inhibition of cholinesterases and beta amyloids [24]. The results of this study indicated that "...coptidis rhizoma alkaloids have a strong potential of inhibition and prevention of Alzheimer's disease...". It also acts as a monoamine oxidase inhibitor and thus can potentially be used as an anti-depressant [25].

60

In one study taking coptis worked as well as Clotrimazole against vulvovaginal candidiasis, but the recurrence rate was 66% less when taking coptis, making it a better option [26]. It also works as an anti-microbial against *Brucella abortus* and against *H. Pylori* in addition to repairing the stomach [27, 28]. New research shows it also reduces the pain in those suffering from IBS by decreasing CCK and serotonin release in the distal colon [29].

As you can see, like most of our products it has many, many possible uses, and should be checked with every patient.

Recommended dosage 1 pill 3x per day.

Contraindications: Do not take while pregnant or while breastfeeding.

This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

Grass Fed Sheep Testicle

Key Indications: men's health, muscle growth and libido support

Our ovine (sheep) testicle is from 100% grass-fed, freeze dried organs harvested from young sheep in New Zealand. Once used by ancient Olympians and Gladiators, ovine testicle can possibly be a nutritional supplement to support muscle mass growth and strength when used in combination with exercise.

Many of the products available on the market are bovine and cut with liver since it is much less expensive to manufacture this way. Even though bovine sources work well, ovine in our opinion is more hypoallergenic and a superior source. Also, many products on the market are from non-organic, non-grass fed animals or from countries with less ideal growing conditions than New Zealand.

Freeze drying the ovine testicle keeps nutrient levels at a maximum and allows it to contain naturally produced peptides, hormone precursors, and enzymes that normally occur in the testicle. Many claim peptides in the glandular tissue contribute to specific signaling which facilitates the function of the testes including their manufacturing of testosterone as with the hypothesis of like cures like.

Bio-identical testosterone prescriptions are very popular in today's society, but have many negatives including decreasing your own bodies production as well as potentially increasing cancer risk. As mentioned above, consuming whole testicle has been used safely for thousands and years and traditionally has been used for the same benefits.

Dosage: 1-3 capsules once per day.

Contraindications: No known contraindications

This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

Grass Fed Sheep Thymus

Key Indications: immune boosting / modulating

Supreme Nutrition Products has decided to add several glandulars to its product line. Our first is freeze dried, 100% grass fed, ovine (sheep) thymus from young sheep raised in New Zealand. As with all of our products, there are no fillers, binders, flow agents or any other ingredients other than the capsule. Our thymus glandular product contains various peptides, hormones, etc. (i.e. example -thymosin, thymopoietin, and serum thymic factor). These components, like herbal adaptogens, help modulate, normalize, and optimize immune function. We decided with our glandulars to use ovine as opposed to bovine (cow) sources. Ovine is one of the most hypoallergenic foods as well as one of the cleanest domesticated animals. Also ovine is generally harvested at a younger age vs bovine.

Supreme Nutrition Products has an amazing array of herbs with antimicrobial properties that also have immune modulating properties to normalize immune function. We look at this glandular as being a perfect complement to these, further helping in acute and subacute microbial issues both therapeutically and preventatively.

Thymus tissue has been used both in immune deficiency states as well as having the potential to help those with overactive or autoimmune conditions.

Thymus tissue historically has been used in the treatment of bronchitis, allergies (including hay fever) and sensitivities, recurrent infections, asthma, and also hepatitis B & C (1,2,3).

The concept of glandular therapy is that oral ingestion of certain animal-gland material will strengthen the corresponding gland in humans ("like treats like" as it will have all the enzymes, hormones and co-factors the

gland needs for proper functioning). As with most organ glandulars, other than brain and intestines, it can contain a significant amount of various vitamins and minerals, especially B vitamins.

One double blinded placebo controlled study conducted on children with frequent respiratory infections found that treatment with thymus extract reduced the rate of infection (4).

Thymus glandulars were also shown be useful for food allergies in one study (5) as well as various dermatological conditions including eczema (6,7,8) and autoimmune conditions such as rheumatoid arthritis (9). It has been used in the treatment of childhood asthma.

Thymus extracts have been shown to modulate the production, maturation and activation of T lymphocytes (10) and to stimulate conversion of immature thymocytes (T6 cells) to non-dedicated T cells (T3 cells) in human bone marrow. In the more mature T cells, thymic extracts have been shown to effectively increase the number and function of T helper/inducer lymphocytes (T4 cells) and of suppressor cells (T8 cells) (10).

Thymus extracts have also been shown to reduce post-surgical infections, decrease the damage of chemotherapy and radiation, and have been used as adjuncts to mainstream therapy for treatment of neoplasms. Clinical studies have shown it useful for herpes simplex and herpes zoster, psoriasis, etc. (10).

Dosage: 2-3 capsules once per day for general wellbeing. Can increase to 2-3 times per day as needed.*

No side effects or contraindications for thymus gland have been reported.

This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

Hawthorn

Key Indications: cardio protective, blood pressure, cholesterol, and edema/swelling

Hawthorn berries (*Crataegus monogyna*) are in the rose bush family and native to Europe and parts of Asia. It is often known as the “heart herb” due to its cardio supportive and cardio protective components. Hawthorn has been traditionally used by people with chest pain, heart failure, hypertension, anxiety, blood flow issues, etc. Its usage dates back to at least 659AD in Chinese medicine (1). During the 19th century it was used by doctors in the USA to help with respiratory and circulatory issues, heart failure, heart disease, angina pectoris, atherosclerosis, and altered cardiac rhythm.

Hawthorn berries are rich in polyphenols which are potent antioxidants. Polyphenols have been associated decreasing risk of certain cancers, type 2 diabetes, asthma, heart issues, skin aging, as well as certain types of infections. Hawthorn also contains quercetin, rutin, choline, B1, B2, Vitamin C, calcium, iron, and phosphorus (2).

Multiple studies have shown it can help with congestive heart failure. One study showed Hawthorne increased working heart capacity and reduced ones’ cardiac symptoms. It also decreases systolic blood pressure (3), decrease fatigue, alleviates stress dyspnea, and can decrease palpitations (4). Hawthorn has also been shown to help lower blood pressure in type 2 diabetics after taking for 16 weeks (5).

The bioflavonoids in hawthorn have been shown to dilate peripheral and coronary blood vessels, thus improving blood flow to the heart. It can also reduce tension of the blood vessel walls themselves (6).

Studies on Hawthorn have showed it can reduce overall cholesterol, especially lowering LDL and triglyceride levels. It also helped lower ones' body weight (7). Hawthorn also is gastro protective and anti-inflammatory (8). It also has moderate antibacterial activity against gram positive bacteria.

Some studies have also found hawthorn may have anti-anxiety effects on the body.

In those with heart failure hawthorn was shown to reduce leg swelling (9). It can also help to reduce blood leakage from vessels by strengthening the inner lining of the vessels (10).

Hawthorn reduced inflammation in animals with asthma, arthritis, and gum disease. It did this by lowering TNF-alpha, Il-6, prostaglandins, COX-2, Th2, and others (11, 12, 13, 14, 15).

Hawthorn berries promote the growth of obesity fighting bacteria and could be beneficial as a weight loss prebiotic (16, 17).

Clinical observations suggest it may be useful in people with post viral endurance and energy issues due to viral or vaccine related issues.

Recommended dosage: 1 pill 3x per day

Precautions: Consult your doctor before taking if currently on cardiac or blood pressure medication. Do not take if on blood thinning medication and discontinue for 2 weeks before surgery.

Hemo Guard Supreme™

Key Indications: helps normalize hypercoagulation, anti-inflammatory, may decrease platelet aggregation

Hemo Guard Supreme™ was developed for people who may be prone to hypercoagulation. Hypercoagulation is a condition where fibrin builds up in the various blood vessels. In its extreme, fibrin deposition can lead to deep vein thrombosis, pulmonary embolisms, heart attacks, and stroke. In its less severe form it can possibly lead to phlebitis, fibromyalgia (by cutting off blood flow), I.B.S., chronic low grade infections where the microbes are "protected" by residing in the fibrin meshes, miscarriages, headaches, chronic pain, etc.

Traditional medicine sees the following as potential causes: immobilization, malignancy, genetic disorders, certain medications such as tamoxifen, pregnancy, supplemental estrogen, trauma, surgery, and nephrotic syndrome.

Recent research by David Berg and many others have also implicated the following in causing hypercoagulation: many forms of infection (viral, parasitic, bacterial, and fungal) as well as toxic chemicals and metals [1, 2]. The fibrin formation may be the body's attempt to wall off the microbes.

It is theorized by some that these newer recognized causes may account for many cases of pulmonary embolisms that were previously labeled as idiopathic.

To cause hypercoagulation there may be an excess of prothrombin, thrombin or fibrinogen or a deficiency or fibrin breakdown chemicals: plasmin, plasminogen, tissue plasminogen activator or a deficiency of antithrombin III.

Pharmaceutical intervention can be very effective but in some people can lead to serious side effects (typically bleeding events) [3]. The drugs though can be life saving and you should follow your physician's advice.

In less severe cases, with the consent of your physician, there are certain herbs and other lifestyle changes that can discourage hypercoagulation.

Hemo Guard is a combination of some of the more effective agents. It contains the following:

1) Ginkgo biloba: Ginkgo has been used for many years for memory enhancement, increased cognition, and an increased ability to pay attention [4].

One property reported in a study in China is that it is a potent antagonist of platelet activating factor and thus may help prevent blood clots and hypercoagulation [5]. The World Health Organization also reported that is helpful in treating cerebrovascular insufficiency as well as peripheral artery occlusive disease [6]. Recent studies also show it acting as a scavenger of free radicals and having neuroprotective effects from hypoxia [7]. It should not be used if you are on anticoagulant therapy.

2) Ginger root: Studies at the University of Maryland suggest that Ginger has blood-thinning properties by acting as an anti-thrombotic, in addition to lowering cholesterol and being anti-inflammatory [8]. A research study conducted in Australia looked at the ability of ginger to stop or reduce platelet activation and aggregation induced by arachadonic acid in human blood [9]. They also compared and contrasted the anticoagulant properties of ginger with those of aspirin [10]. The report concluded that ginger could prevent blood platelets from adhering together. This might be due to the inhibition of the enzyme COX-1 [9]. The report also concluded that ginger compounds and the derivatives of ginger are more effective as antiplatelet agents than aspirin.

In one fascinating study on dietary effects on fibrinolysis, fibrinolytic activity decreased by 18.8 per cent after administration of fatty meal. Addition of ginger along with the fat not only prevented the fall in fibrinolytic activity but actually increased it by 6.7 per cent. As compared with the fatty meal, ginger actually increased fibrinolysis by 31.5 per cent.

Ginger has many other good properties in addition to anti-coagulation. Studies have shown consuming ginger can be a way to lower blood pressure [12]. It also contains antibacterial properties that can be used to treat microbial infections such as colliform bacillus, staphylococcus epidermidis and streptococcus viridians [13]. Ginger has also shown to help with fat digestion in addition to increasing thermogenesis and decreasing satiety (hunger), working to help with weight loss [14, 15]. This is one reason why many cultures include ginger as a spice whenever they eat fatty meals [16].

3) Green Papaya: Green papaya contains three different proteolytic enzymes: Chymopapain, Papain, and Papaya Proteinase III [17]. The strong proteolytic enzymes in papaya may assist in fibrinolysis and dissolution of biofilms [18, 19, 20].

Hemo Guard should not be used if the patient is on 'blood thinners' such as warfarin and other similar pharmaceuticals. If the patient is not on these, it may prove to be a useful tool. It may also be used to possibly prevent conditions in people who have family histories of some of the previously mentioned hypercoagulation caused problems.

In many cases we see Hemo Guard helping treat microbial infections when one is on an antimicrobial regime by allowing the antimicrobials to reach the most distal areas of the body.

Other contraindications include pregnancy and latex allergies.

As with any herbal regimen, we encourage you to consult your physician to see if there is a more serious condition warranting more aggressive intervention.

Dan Shen Supreme also is helpful in hypercoagulation problems and should be considered as an alternative if the patient has latex sensitivities or in cases where more cardiac issues are apparent. We have used both of them successfully but would not give both simultaneously as the effect may be too strong.

Recommended Dose: 1 cap three times daily between meals. Dosage may be increased during times of acute infection to discourage hypercoagulation.

Houttuynia Supreme™

Key Indications: antimicrobial (especially against Bartonella), anti-inflammatory and inhibits histamine release in allergies

Houttuynia cordata is a flowering plant native to Asia, known as dokudami in Japan, which literally translates as poison blocking plant (the Chinese yúxīng cǎo; literally means "fishy-smell herb"). It is used as an edible garnish or salad green in parts of Asia and has been used medicinally for many centuries. As with most herbs it has many diverse uses and applications.

Houttuynia has at least 3 major anti-viral components: methyl n-nonyl ketone, lauryl aldehyde, and capryl aldehyde (at Supreme we prefer to provide dried plants in the ratios that nature provided them as opposed to standardized extracts) that have shown activity against herpes simplex type 1, influenza virus and HIV type 1 along with most envelope virus in general (1,2).

Houttuynia shows strong anti-inflammatory properties (3) and is antioxidative, and anti-mutagenic (4). It helps with allergies by inhibiting histamine release and mast cell activation (5,6). It has been successfully used to down-regulate the production of Th2 cytokines (7)

Houttuynia has been shown to have inhibitory effects against cholinergic antagonists and should be considered in cases of cognitive impairment (8)

It has antibacterial properties including Salmonella (9), and is anti-parasitic (11).

The Lyme community for many years has used Houttuynia to treat Bartonella species (also often contracted from and by cats). It also has anti-fungal effects, including inhibiting Candida albicans biofilms (10).

As with Morinda, Melia, Golden Thread, etc., etc, Houttuynia is a superb broad spectrum anti-microbial with many other therapeutic effects and should be considered with appropriate patients.

Dosage

1-2 capsules, 3 times daily

Contraindications

Do not take if pregnant or breast feeding.

Illicium Supreme™

Key Indications: broad spectrum antimicrobial, GI inflammation, neuro-protective, flu preventative

Illicium Supreme™ is the fruit of a tropical evergreen tree, *Illicium verum*. Both the roots and fruit have been used as medicine and, in recent years, have been further investigated for their medicinal potential. Traditionally, star anise (*Illicium*) was used to treat nausea, indigestion, expel gas, relieve colic, reduce hernias[i], increase milk production in nursing mothers, facilitate birth, and increase libido. In Traditional Chinese Medicine, it has been used to treat prolapsed organs, treat kidney deficiency, and to bring warmth and vitality to the stomach and intestines. We had to test samples from a number of different suppliers to find one that met our quality standards.

Illicium is rich in essential oils including anethole, safrole, cineole, pinene, and limonine[ii]. Additionally, it is rich in shikimic acid, the precursor molecule used to produce the antiviral drug Tamiflu. *Illicium* is also an antioxidant, and has pain relieving and sedative effects[iii]. The essential oil of *Illicium* has been shown in studies to be potently antifungal[iv]. Additionally, extracts of *Illicium* have been shown to be extremely effective against antibiotic resistant strains of bacteria including MRSA[v] and there have been studies demonstrating strong inhibitory effects against malaria[vi].

Illicium has also been shown to have anticholinesterase effects, the same mechanism of action as some Alzheimer's drugs[vii]. It has been shown to reduce brain ischemia and brain edema, further suggesting neuroprotective effects[viii][ix]. In one recent study, one of the components of *Illicium* was shown to enhance glutathione and decrease the macroscopic damage of colitis in rats[x]. *Illicium* is very anti-inflammatory for GI conditions like colitis[xi]. Antiplatelet and antithrombotic

effects have also been demonstrated, suggesting cardiovascular benefits[xii]. Some websites also cite *Illicium* as being a possible treatment for declining male hormones in old age[xiii].

From my experience, *Illicium* has been a great product for most patients as evaluated by applied kinesiology. It often negates positive tests to composite microbial vials and it strengthens the majority of patients "in the clear". It seems to strengthen the adrenals, improve digestive function (possibly increasing enzyme production), and build/balance the immune system. *Illicium* has a lot of applications for decreasing inflammation in the GI tract and also helps the cardiovascular system and brain (see above citations). I therefore consider this to be a supreme tonifying agent and extremely useful for treating acute illness.

Due to its specific chemical makeup it has strong antiviral effects and I feel it has great potential for both treating and preventing the various viruses including influenza. Lastly I feel this is an excellent anti-nausea medicine with thousands of years of safe use.

We test it on every patient due to the large number of potentially positive effects including anti-microbial effects and multiple organ support.

Recommended dose for acute illness:

2 capsules three times daily

Recommended dose for maintenance/prevention:

1 capsule twice daily

*There have been many case reports of children being poisoned with star anise/*Illicium verum*. Invariably these reports involve adulteration with Japanese star anise (*Illicium anisatum*), which contains toxic compounds. Chinese Star Anise (this product) has had centuries of safe use.

This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

Japanese Knotweed Supreme

Key Indications: Antimicrobial (biofilm, bacterial, lyme, viral, influenza, EBV, etc.), Anti-inflammatory, Cox-2 inhibitor, Biofilm

Japanese Knotweed (*Fallopia japonica*, or You Ji Hu Zhang in Chinese) is native to eastern Asia. It is most famously known for containing high amounts of resveratrol. Unlike foods like grapes or drinking wine, Japanese Knotweed contains mostly trans-resveratrol, which is the form best absorbed and used in ones body. Resveratrol is a type of phenolic compound called stilbenes and acts as an antioxidant. Japanese Knotweed also contains other beneficial components such as emodin, flavonoids (including rutin and quercetin), oleanolic acid, etc.

At Supreme Nutrition Products we believe that whole plants (not an extract) often work better than extracts that alter the normal ratios found in nature. Resveratrol is the main and best known component of Japanese Knotweed, but as shown in studies below, there is great synergy between the components of Japanese Knotweed, which have benefits that either isolate does not possess on its own.

One of the most studied benefits of resveratrol are its benefits with reducing cardiovascular disease. It has been shown to decrease low-density lipoprotein-cholesterol oxidation and platelet aggregation as well as having antiatherosclerotic and vasorelaxation action (1). New studies have also shown how it can induce autophagy and regenerate myocardial ischemic tissue treated with stem cells. In a study on rats, resveratrol decreased inflammatory cell infiltration, decreased and cardiac fibrosis (2).

With resveratrol being a known anti-inflammatory, it has been looked at to help with arthritis. A recent study showed resveratrol suppresses apoptosis and inflammatory signaling through its actions on the NF- κ B pathway

in human chondrocytes (3). Also it has been shown that resveratrol is an effective inhibitor of chondrocyte apoptosis in vitro by inhibiting IL-1 β -induced stimulation of caspase-3 (4). Similar to taking a non-steroidal anti-inflammatory drug, it inhibits COX-2-derived prostaglandin E2 synthesis (5). Injection of resveratrol into the knees of those suffering from osteoarthritis showed that it might protect cartilage against the development of experimentally induced inflammatory arthritis (6).

Resveratrol has also been shown to potentially help with Alzheimer's, liver disease, age induced cognitive decline, macular degeneration, neurodegenerative disease, Parkinson's disease, and multiple sclerosis (7, 8, 9, 10, 11, 12, 13). Studies have even shown it to cause similar benefits in the body as when undergoing calorie restriction therapy (14).

Japanese Knotweed itself has been shown to be a potent antimicrobial, including against drug resistant bacteria. In one study it showed complete inhibition of pathogen growth and did not induce resistance to the active components (15). It has also been shown to inhibit streptococcus mutans and streptococcus sobrinus, potentially helping with dental plaque formation and subsequent dental caries formation (16). Multiple components of Japanese Knotweed were shown to synergistically work against Influenza A virus, including H1N1 (17). Emodin, one of the active components of Japanese Knotweed has been shown to inhibit Epstein Barr Virus (EBV) replication as well as Coxsackievirus virus. (18, 19). Studies have shown it to be very effective against Propionibacterium acnes biofilm (20).

Due to these properties some of the top Lyme Literate Doctors in the field have called Japanese Knotweed the most important herb in regards to helping those with Lyme Disease.

Dosage: 1-2 pills 3x per day

76

Do not take during pregnancy or while breastfeeding. Consult your physician before taking if on any prescription blood thinners. Discontinue use two weeks before undergoing surgery.

This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

Lectin Protect™

Key Indications: lectin detoxification, trace mineral support, antiviral and antioxidant

The issue of lectins has become more well know recently due to the work of Steven Gundry MD and others. For your chronic patient, lowering the lectin load in the diet as well as taking lectin binding agents can make major shifts in your patients' health.

Lectins are carbohydrate binding proteins found in your foods. Though they probably exist in all foods to some extent, they are highest in beans, grains, grain and bean fed animal products, nuts and seeds, and nightshades.

Lectins are resistant to breakdown by the body's digestive enzymes and to most methods of cooking.

Eating them in excess or even in small amounts in susceptible people can contribute to a myriad of health problems (especially in patients with dysbiosis and/or food sensitivities).

They are a major contributor to increased intestinal permeability ("leaky gut") (1). As a result of leaky gut they can enter the bloodstream, react with antibodies and lead to various autoimmune "diseases" depending on your weakened areas, genetics, etc. One study showed specifically how they interact with enterocytes and lymphocytes, leading to antigenic stimulation, and cause the expression of rheumatoid arthritis (2). They can also make your body more prone to dysbiosis.

Many lectins are toxic to the nervous system, immune system, etc. Some, like the lectins in raw kidney beans, can lead to death. Hypercoagulation, and endocrine disruption are other possible side effects of eating lectins.

Dr. Gundry has stated in his book "Plant Paradox" that lectin reduction in his practice has helped such diverse conditions as arthritis, chronic fatigue, dementia, depression, heart disease, diabetes, migraines, PCOS, obesity, etc. (3).

Avoiding all lectins is impossible but it is advisable to decrease your exposure.

There are a few lectin binding products on the market. We decided to look at the research and buy samples of all the whole natural substances that appear to have lectin binding properties and with blind applied kinesiology testing find out which ones perform the best. We have done that and as a result have come out with the product Lectin Protect. We always feel that the simpler the product is the better. Lectin Protect has three ingredients: Bladderwrack, Okra, and Larch bark.

Bladderwrack (*fucus vesiculosus*) contains fucose sugars, whose mucilaginous properties appear to bind to harmful lectins and eliminate them from the body (4, 5, 6). It can also help eliminate pathogenic organisms from the gastrointestinal tract (7).

Okra has similar properties and can bind lectins in food as well as those already attached to various receptor sites. One study showed that Okra bound up to 80% of certain types of lectins (8).

Larch bark is naturally high in arabinogalactans and can help bind not only lectins but block lectin binding sites in the body (9, 10). Arabinogalactans have also been shown to help protect one against the common cold and stimulate the immune system to fight off infections (11, 12).

Recommended dosage:

2 capsules 3x per day for the first bottle, with meals. After that take 2 with each meal that contains higher lectin foods (beans, grains, nightshades, seeds, and grain fed animal products)

Lu Rong Supreme™

Key Indications: musculoskeletal support, mood enhancer, arthritis, nerve growth factors, anti-inflammatory, athletic performance, immune stimulant

Lu Rong Supreme™ is composed of deer or elk antler. Our selection of which batch and supplier to use depends on our testing both with applied kinesiology as well as clinical testing on patients. This type of testing eliminates over 90% of the products we consider adding to the Supreme Nutrition Products line as we only want to offer products that both test and perform optimally. It is then encapsulated with nothing else added.

It is harvested without harm to the animal and is a whole food product rich in minerals as well as many other phytonutrients. It has been used in oriental medicine for over 2,000 years.

Applications appear to be as follows (many of these have been reported on antler that was harvested at an earlier stage than LuRong Supreme but our patients have reported the same benefits):

1) It contains chondroitin sulfate as well as glucosamine sulfate, and hyaluronic acid. Unlike isolated extracts of those 3 substances, it has the necessary co-factors (fibroblasts, chondroblasts and more) etc. to optimize repair of cartilage and connective tissue. It also is not derived from shellfish (as many of these products are), which has the possibility of heavy metal and other contamination. Most of the collagen in Lu Rong is type II. Type II production is usually diminished in both osteoarthritis and rheumatoid arthritis and supplementation has been shown to increase strength, as well as decrease inflammation, pain, swelling, and stiffness. It also can be useful in decreasing the auto-immune reaction in these type degenerative processes. Lu Rong as a result can

be thought of as being chondroprotective and possibly restorative too. It should be tested on all arthritics and anyone with a family history of arthritis.

2) Lu Rong may have a small amount of IGF-1 (insulin growth factor-1 or IGF-1). IGF-1 encourages absorption of glucosamine and chondroitin. Research suggests IGF-1 may also help prevent osteoporosis and improve muscular development. It also promotes bone growth. To quote Wikipedia "IGF-1 is one of the most potent natural activators of the AKT signaling pathway, a stimulator of cell growth and multiplication and a potent inhibitor of programmed cell death.

Almost every cell in the human body is affected by IGF-1, especially cells in muscle, cartilage, bone, liver, kidney, nerves, skin, and lungs. In addition to the insulin-like effects, IGF-1 can also regulate cell growth and development, especially in nerve cells, as well as cellular DNA synthesis." IGF production is stimulated by HGH which decreases as we age and thus we also end up with an IGF-1 deficiency. Taking Lu Rong may help correct that deficiency.

3) Lu Rong also may have other growth factors including a nerve growth factor and epidermal growth factors.

4) Lu Rong is a source of gangliosides. Gangliosides provide cells with distinguishing surface markers that can serve in cellular recognition and cell-to-cell communication. They may also protect against neuro-degenerative diseases.

5) Lu Rong is a source of anti-inflammatory prostaglandins (not just the precursors) and can be helpful in all inflammatory conditions including headache prevention and treatment.

6) Lu Rong is a natural source of Pantocrin. According to Russian and New Zealand research, Pantocrin increases athletic performance (including increased speed and in

creased strength) as well as speeding recovery from intense physical activity. Pantocrin has also been shown in animal studies to hasten recovery from whiplash injuries. It also helps with lactic acid removal from muscles after exertion and helps speed recovery of injured muscle tissue and nerve tissue (Japanese study).

7) Studies have suggested it has a rejuvenating effect and is anabolic in the sense that it helps burn fat and builds muscle tissue.

8) Other studies suggest that Lu Rong may increase testosterone production leading to an increase of lean body mass and also an increase in endurance. As a result, it has traditionally been used to increase libido in men and women, to help erectile dysfunction, decreasing pre and post menopausal symptoms and increasing fertility. Lu Rong may contain small amounts of testosterone, estrone, luteinizing hormone and another hormone similar to progesterone.

9) Lu Rong is an immune stimulant and is reported to increase the effectiveness of chemotherapy drugs as well as reducing kidney damage from chemotherapy.

10) In Korea, it is used during the last trimester of pregnancy to enhance the chances of a smooth and easy delivery and it can also help lactation. It also has been used traditionally to increase growth in children and help in babies with delayed walking. There are no known contraindications during pregnancy or lactation.

11) Studies in Korea show that it can increase red blood cell production when needed.

12) Studies in mice show Lu Rong can decrease senility, and increase free radical scavenging activity.

13) It also can inhibit MAO enzyme function and act as a mood enhancer.

14) Studies have suggested it can decrease arterial blood pressure in hypertensive patients and also increase blood pressure in hypotensive patients.

15) Nutritionally it is a rich source of calcium hydroxyapatite as well as other macro minerals, trace minerals, and all essential amino acids.

A wonderful book by Betty and Paul Kamen called *The Remarkable Healing Power of Velvet Antler* (out of print but one can get it through Amazon) has a lot more information. Another book entitled *Velvet Antler* by Alison Davidson also has much research and is worth reading.

As far as applied kinesiology findings and personal clinical observations I found the following. It is not unusual for Lu Rong to block weakening responses to microbe composite vials (it is immune enhancing), positive endocrine NL's and occasionally metals. It is not as strong in those areas as our other products but is very health supporting in many ways. We used it to successfully treat a positive response to the parasite composites in a pregnant woman. Other patients have reported sounder sleep, increased libido and decreased headaches. Because it is a food it may take awhile to build up in some patients to feel the changes while others may feel the difference quickly.

To summarize main indications- I would suggest Lu Rong for any case of physical trauma (car accidents, athletic injury), anyone wanting to increase endurance and athletic performance, inflammatory conditions, arthritis and cartilage degeneration, osteoporosis, osteopenia, nerve degeneration, sexual dysfunction and most people interested in slowing the degree of onset of aging. I look at it as a whole food. Back before hybridization when people ate whole foods, many of them wild (including animals in some cases), there were small amounts of natural hormones and co-factors in the daily diet. I look at Lu Rong as restoring that part of the diet.

Most Lu Rong on the market comes in 250-500 mg per cap with fillers added. Our caps have no fillers added and as a rule is priced much lower and is of the highest quality. Our material is typically harvested at a later stage than much of the LuRong on the market. We have found that it actually tests better in this stage and performs better and allows us to keep the cost down.

I recommend 2 caps daily as a therapeutic dose for the glucosamine/chondroitin etc. or 1 cap a day for the other effects. I plan to take a one week break every two months or as testing dictates. For small children you would adjust the dose appropriately. Feel free to share your experiences with us.

Research Links

There are many books on oriental medicine which include much research on LuRong. Below are two free websites where you can view more details.

<http://www.itmonline.org/arts/antler.htm>

<http://www.acupuncturetoday.com/herbcentral/deer-antler.php>

Manjistha Supreme™

Key Indications: lymph detoxification, anti-inflammatory, anti anxiety, kidney & blood detoxification

Manjistha Supreme™ is a plant medicine derived from the roots of *Rubia cordifolia*. Manjistha grows in South-east Asia, China, tropical Africa, and India. It contains a variety of quinones, iridoid glycosides, triterpinoids, and beta-sitosterol.

Research has shown its efficacy as an antioxidant, muscle relaxer, anti-seizure, and anti-anxiety remedy. The herb has also been shown to be an immune stimulant; one trial demonstrated an increase in white blood cells by 151%.

Manjistha is a supreme Lymphatic tonic. It has a long history of being used in India to treat disorders of the lymphatics. Often patients with fungal dysbiosis and/or mercury toxicity have problems with lymphatic drainage; Manjistha works well with these patients to clear the problems and enhance circulation. Manjistha is also very anti-inflammatory for musculoskeletal problems and has been used historically to treat anything from bumps and bruises to rheumatoid arthritis [1]. It has also been used in cases of inflammatory digestive problems such as Peptic Ulcer, Crohn's Disease and Ulcerative colitis. There is some good research on Manjistha preventing serious allergic reactions to foods and it is used for inflammatory skin conditions like acne, vitiligo, and eczema. Manjistha may also be very useful in excessive-bleeding conditions like heavy menses, nosebleeds, and bleeding from trauma.

Manjistha seems to be very well absorbed in the GI leading us to think of it loosely as a more bioavailable version of turmeric (though a different plant).

Manjistha is considered to be the most renowned blood-detoxifying herb in Ayurveda. Manjistha has been used traditionally as a liver and kidney detoxifier. Manjistha also seems to be quite useful in treating anxiety [1]. This action may be in part due to its ability to raise dopamine levels. Historically it was used to help dissolve tumors as well as help broken bones to heal.

As an antimicrobial, Manjistha has shown activity against bacteria [2] as well as against viruses, particularly HIV virus. Additionally, Manjistha has been shown to have significant antioxidant activity [3]. Manjistha has also been demonstrated to have antitumor activity in one study.

Like most of Supreme Nutritions products the broad spectrum applications of this herb are very impressive. We tend to think of it mostly as a lymphatic drainer and an anti-inflammatory for the musculoskeletal and gastrointestinal systems as well as an anti-anxiety herb but we test it on everyone because of the other applications too. The herb is very safe. Manjistha contains some cardiac glycosides that exist in foxglove (where digitalis is derived from). We wouldn't recommend manjistha to patients already on this type medication. The toxic dose has been found via research in rats to be above 175g/kg. It is generally recommended not to exceed 30 grams per day[2].

Recommended dose- 2 caps twice daily

***It should be noted that Manjistha may temporarily turn urine orange or brown.**

Warning: Do not take if on the prescription Digitalis

This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

Melia Supreme™

Key Indications: broad spectrum antimicrobial, (fungus, bacteria, virus, parasites), liver, antihistaminic

Melia Supreme is powdered neem leaf (*Melia azadirachta*) put into vegetarian capsules with nothing else added (no fillers, binders, flowing agents, etc.)

Melia, like *Morinda* is an amazing plant that has been used therapeutically in India for at least 2,500 years. The word neem is reported to come from the Sanskrit language and roughly means "the healer and illness reliever". Our main reason for making melia available is that it is another superb broad spectrum anti-microbial showing effectiveness against various fungi, bacteria, parasites, virus (including herpes), and spirochetes [1]. It also works against drug-resistant bacterial infections including against both gram-positive (*S. aureus*) and gram negative (*E. coli* and *P. aeruginosa*) bacteria [2]. HIV positive patients with drug resistant candida were able to treat the candida by taking neem [3]. It has also been reported that it does not harm beneficial intestinal flora [4]. Melia has been shown to be hepato-protective, stimulates T-cell production in times of infection, and blocks pro-inflammatory prostaglandins [5, 6, 7]. Melia also possesses small amounts of catechin and quercetin—both having anti-inflammatory and anti-histaminic properties [8].

In Japan, Melia has been used for cancer treatment of solid tumors as well as using it topically on skin cancers [9, 10]. It has been used successfully to treat malaria as well as vitiligo, and has been reported to increase brain serotonin levels thus having anti-anxiety properties [11, 12, 13]. Melia has also been shown to lower cholesterol levels [14]. In insulin dependent diabetics, melia has reduced insulin requirements up to 50% [15].

One interesting effect is that without decreasing libido or sperm count, neem has been used effectively as a male contraceptive [16]. In parts of Africa women use it also for the same purpose (so you may not want to use it if you are trying to get pregnant). I could keep going but you can see how it merits its name "the healer and illness reliever".

We mainly use Melia Supreme as a broad spectrum antimicrobial (AK shows it to be much better than neem oil against most microbes and is much better tolerated). In patients with many microbial infections or severe symptoms Melia can be used in conjunction with other antimicrobials from Supreme Nutrition such as Morinda, Golden Thread, etc. We feel Melia is the strongest antimicrobial in the Supreme Nutrition line.

Melia is planted in urban areas in India because it is great at adsorbing pollutants, so we have to be very careful in our source selection [17]. As with other Supreme Nutrition Products- each batch goes through AK testing for effectiveness, besides the normal "purity" tests required by the government.

Recommended dose for adults can be 1 cap 3x/day. It is contra-indicated during pregnancy, nursing, and in young children.

Mimosa Supreme™

Key Indications: antimicrobial (especially against parasites and Borrelia), anti-hemorrhoids, anti-ulcers, liver support

Mimosa Supreme is pure powdered *Mimosa pudica* in a veggie cap. Like all other Supreme products there are no fillers, binders, flow agents or other substances added in the encapsulation process. Mimosa, also known as the sensitivity plant, has been used for thousands of years for medicinal purposes, especially in Ayurvedic Medicine. Traditionally, this plant has been used to combat many health challenges due to the beneficial phytochemical presence of terpenoids, flavonoids, glycosides, alkaloids, quinines, phenols, tannins, saponins, and coumarins. These uses include but are not limited to the following:

- 1) As a broad spectrum anti-microbial mimosa demonstrates effectiveness against *Aspergillus fumigatus*, *Citrobacter divergens*, *Plasmodium berghei*, and *Klebsiella pneumonia* in studies (6). Clinically, physicians have reported it to be effective in treating various parasites as well as various forms of *Borrelia* (14). According to a few physicians that have used mimosa for a number of years "many patients experience elimination of parasites into the toilet so they have to be informed prior to starting the herb" that visible parasites are a possibility (14).
- 2) Mimosa is the go to herb for Hemorrhoids in Ayurveda. This is due to the amazing wound healing abilities of the methanolic extracts of the plant. Traditionally the powder has been made into a paste and applied topically but oral supplementation can be effective as well.
- 3) Anti-diarrheal activity was demonstrated on rats that were given castor oil induced diarrhea and PGE2 induced enteropooling along with reducing gut motility after a charcoal meal. The ethanolic extract of Mimosa showed significant diarrhea inhibition (7).

4) Anti hepatotoxic activity was demonstrated through the measurement of high serum SGOT, SGPT, ALP, and total bilirubin in CCL4 induced liver damage in albino rats. Mimosa helped achieve near normal levels within 14 days (3).

5) Anti-diabetic activity was demonstrated in a study with rats on a high fructose diet. Mimosa reduced the body weight, improved insulin sensitivity, lowered blood lipids and reduced liver damage. Furthermore, blood tests showed in a different study that serum cholesterol, triglycerides, LDL, and VLDL all decreased while HDL increased (10).

6) Analgesic and anti-inflammatory activity has been demonstrated due to the flavonoid presence in the ethanolic extract.

7) Mimosa demonstrated potent anti-venom activity. This was demonstrated by the inhibition of lethality, phospholipase activity, edema forming activity, fibrinolytic activity and hemorrhagic activity of *Naja naja* and *Bangarus caeruleus* venoms (4).

8) Anti-ulcer activity was demonstrated against pylorus ligation, aspirin and ethanol-induced ulcers due to the plants ethanolic extract (11).

9) Mimosa does possess anti-convulsant activity, specifically for drug-induced seizures. It also demonstrated to be an antagonist for N-methyl-D-aspartate induced turning behavior (13).

To quote Fagenholz: "In conclusion, Mimosa possesses great medicinal properties. It seems to benefit the majority of patients with microbial issues. However, we do view it as an elite anti-parasitic due to its action on large intestinal worms. This herb needs to be considered in any resistant parasitic or microbial patient cases and in all patients that test positive for *Borrelia*" (14).

Mimosa Pudica is listed as a non-toxic plant for humans on the University of California's list of safe and poisonous garden plants (15). It is also listed as safe for humans and pets on the University of Connecticut College of Agriculture and Natural Resources website.

Dosage: The dosage is 2 capsules in the morning and 2 before bed on an empty stomach ideally. Some sensitive patients may experience discomfort and need to start at a lower dose. However, we have had some of the most sensitive patients not have any discomfort at all so we advise to just monitor your patients.

Contraindications: Do not take while pregnant or breastfeeding

Morinda Supreme™

Key Indications: broad spectrum antimicrobial, (fungus, bacteria, virus, parasites), anti-inflammatory, immune stimulant

Morinda citrifolia, also known as noni, has been used for hundreds of years throughout Polynesia for a variety of conditions.

Morinda citrifolia has been reported to help in a plethora of issues. It has been shown to be immune system modulating, anti-cancer, anti-diabetic, a strong antimicrobial and to enhance cognitive abilities, etc. While it has many beneficial properties it is most widely used for its antimicrobial and immune modulating properties, and is used by thousands of doctors across the world for this purpose.

One of the many factors that make Morinda so effective is its ability to act as a broad-spectrum antimicrobial, and just not against one certain type of microbe.

Morinda has anti-microbial properties against many species of bacteria, fungus, virus, and parasites. One recent study showed it to work against E.coli, Staphylococcus aureus, Candida albicans and Aspergillus niger [1, 2, 3,4]. Morinda also works against Mycoplasma, including: Mycoplasma pneumoniae, Mycoplasma penetrans and Mycoplasma fermentans [5].

Many researchers thought that the antimicrobial properties and anticancer properties of Morinda were due to its immune-stimulatory effects. While this is true, in vivo and in vitro studies have shown it to work as a potent antimicrobial, which not only stimulates the immune system, but also possesses its own antimicrobial properties.

Studies have shown taking Morinda Citrifolia causes an increase in the phagocytosis of pathologic bacteria in addition to activating CD4 and CD8, and increasing

immune function [6].

While doing this it also acts as an immune stimulant by activating IL6 cells and stimulating B and T Lymphocytes, demonstrating both its cellular and humoral immune stimulant properties [7, 8, 9]. When treating stomach ulcers the results suggest that *Morinda Citrifolia* possesses significant antiulcer properties which could be due to the cytoprotective action of the herb and/or strengthening of gastric and duodenal mucosa with the enhancement of mucosal defense [10]. Other studies also show *Morinda* to be an effective antimicrobial against *Helicobacter Pylori*, a major factor in peptic ulcers [11].

Many folk remedies talk about *Morinda* being used for arthritis and new studies now show how *Morinda Citrifolia* can act as a Cox-2 inhibitor, which can result in decreased inflammation and an alleviation of arthritic pain [12].

It has also been used to treat certain skin disorders in folk medicine and new research has shown it to potentially help protect the skin from UVB-induced injury [13].

Similarly, *Morinda* has been used to help diabetes and research has now shown that *Morinda* has multiple active components that act to lower ones blood sugar [14]. In addition to lowering blood sugar levels, it also significantly reduces wound healing time in diabetics [15].

A novel new use of *Morinda* could be taking it post surgery since it has an antiemetic property and can help prevent postoperative nausea in patients [16]. It also has been shown to have mild blood pressure lowering properties by causing vasodilation of blood vessels [17].

Morinda has an anti-jugular vein thrombotic effect and a possible additive antithrombotic effect without the induction of thrombocytopenia [18]. It also protects the

brain from stress-induced impairment of cognitive function and that this protective effect may be related to improvement in stress-induced decreases in blood vessel density in the hippocampal dentate gyrus [19]. These mechanisms are two ways that have been proposed for the beneficial affects of giving Morinda to those suffering from ADHD. In addition to ADHD some studies have shown it to help with drug and other addictive characteristics [20].

Morinda has been shown to increase dopamine and serotonin, which could help alleviate depression. It has been used as a folk remedy for depression for hundreds of years, and this is a potential mechanism behind why it has traditionally helped [21]. In folk medicine Morinda is given in some cultures to help with epileptic seizures, and the above-mentioned increases in serotonin and dopamine could explain its beneficial effects [22].

In clinical practice one unique property of Morinda is that it inhibits the suppression of cell-mediated immunity by immunosuppressive substances. It also inhibits the reduction of IL-2 production and activated Natural Killer Cells [23]. This could be a way to help stimulate the immune system in patients that are on immune-suppressive drugs such as prednisone or cortisone. Morinda has potential anticancer and antitumor activity against many forms of cancer including Lewis lung carcinoma, cervical cancer, and others [24, 25, 26]. The mechanism works by multiple pathways including prevention of carcinogen-DNA adduct formation and antioxidant activity [27]. It has also been shown to cause the inhibition of new blood vessel networks to help prevent tumor growth [28]. For those on chemotherapy it has also helped protect the body from the side effects of chemotherapy [29].

Contraindications:

Women who are pregnant or breastfeeding should not take Morinda as a precautionary measure. Some reports show that those with hyperkalemia should not take

Morinda due to its high potassium content, though the amount of potassium per capsule is quite low. This may apply more to drinking noni juice but caution is still advised.

Since Morinda has been shown to mildly lower ones blood pressure, one should carefully monitor his or her blood pressure if hypotensive before starting to take Morinda.

Dosage: For Acute and Chronic conditions people should take 3 pills, 3x per day. For Prophylaxis it is recommended that a person take 3 pills per day.

Many physicians use Morinda Supreme not only for treating acute and chronic infections, but recommend it prophylactically when under stressful situations or traveling to areas where mold and other pathogens are common.

We recommend taking it with meals if possible. A very small percentage (<5%) of people taking report minor stomach discomfort if they take it without food on an empty stomach, but report no issues taking it with food.

What Makes Morinda Supreme different from other noni products ?

There are many claims to how effective noni is, but in practice many physicians report not seeing it being very beneficial for their patients.

1) Much of the noni (in juice form) on the market is greatly diluted with other fruit juices to mask the taste, weakening the potency.

2) Most noni on the market has been put through a fermentation process that they feel enhances the product (but clinically we often see the opposite).

3) Most noni is either in pasteurized juice form or a capsule combining the leaves and fruit (We believe the raw powdered fruit without the leaves is the best form).

4) Much of the Hawaiian noni is grown downwind of Kilauea volcano and we believe this could be contaminated with toxic materials that are in the vog (volcanic fog). We believe this could possibly be true for some sources from the Big Island.

These are four of the biggest reasons why many people taking noni get mixed results, but thousands of MDs, DOs, DCs, NDs, LAC, etc. have reported impressive clinical changes with using Morinda Supreme.

Contraindications: Do not take if pregnant or breastfeeding. Consult your doctor before taking if you have low blood pressure.

This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

MT Supreme™

Key Indications: antimicrobial, immune stimulants, metal/chemical detox

Exposure to heavy metals can cause many different health ailments including neuropathy, organ failure, cancer, fatigue, brain fog, etc. Clinically we have seen metal toxicity correlate with numbness and tingling sensations, drooling at night, outbursts of unprovoked anger or depression, balance issues, sensitivity to EMF's, gum and/or tooth pain. Some of the more common heavy metal exposures are copper, lead, mercury, aluminum, and arsenic. The most common ways to try and detoxify heavy metals is via chelation therapy or detoxification agents.

In addition to taking supplements that bind to heavy metals, ones body has its own way to detoxify itself of various heavy metals. One of the ways is through a protein called Metallothionein (MT).

Metallothionein has been shown to bind copper, mercury, silver, arsenic, etc (1). It has been shown to help protect against oxidative stress in addition to protecting against heavy metal toxicity (2). Studies have shown MT to bind to superoxide and hydroxyl radicals, as one of its ways to decrease oxidative stress (3). It also works by inhibiting NF-κB signaling (4). By increasing MT in the brain, mercury, among other metals, can be detoxified (5).

Decreased levels of MT have been thought to be a cause of oxidative stress, autism, depression, intestinal inflammation, reduced natural killer cells, and blood-brain barrier dysfunction. After Glutathione levels are used up, MT takes over the main job of heavy metal chelation. MT is a key part of maintaining adequate zinc levels in the body (6). Those with autism often have altered zinc to copper ratios, which is a key role of MT (7).

“MTs are very important proteins in brain functioning mainly located in astrocytes which can protect neurons against excitotoxicity induced by experimental models of epileptic seizures or in damaged brain tissue as a result of focal cerebral ischemia through modulation of events such as inflammation, oxidative stress, and apoptosis (8).”

Reduced MT levels have been associated with Alzheimer’s disease (9). Defective MT function has been shown to potentially contribute to cancer (10). MT levels have been shown to dramatically increase when the body comes under infection. In cases of children with sepsis, those having higher levels of MT have a much higher survival rate. With the binding ability of MT to zinc, MT is responsible for moving around zinc to where the body needs it during times of infection (11). By transporting zinc to certain areas of the body MT can assist in fighting candida and other microbial infections (12).

MT supreme contains a proprietary combination of Cordyceps, Humulus lupulus (hops), and Syzygium aromaticum (clove). Each of these ingredients have been shown to increase MT product in the body.

Cordyceps has been shown to increase MT production, helping to prevent hypoxia induced oxidative stress (13).

Humulus lupulus has been shown to increase MT production and increase mercury excretion (14).

Syzygium aromaticum contains high amounts of Eugenol, which has been shown to increase production of MT in the brain (15).

In metal toxic patients we feel that MT Supreme complements Takesumi Supreme as they operate differently and can give you even better results than just Takesumi by itself.

Dosage: 1 pill 3x per day but can be increased under guidance of your physician

Warnings:

Discontinue use 2 weeks before surgery. Consult your physician before taking if pregnant or breastfeeding.

Mucuna Supreme™

Key Indications: neurodegenerative conditions, low libido, stress control, depression, antioxidant

Mucuna Supreme is made from the seeds of the velvet-bean, *Mucuna pruriens*, which is native to tropical and subtropical regions. It has been used as a green cover-crop and livestock forage due to the high protein content of its seeds (1).

Mucuna's use as a medicinal plant dates back thousands of years. It been used to treat a wide variety of conditions including high blood pressure, low sperm count, low libido, male infertility, diabetes, and neurodegenerative conditions like Parkinson's disease, and has been shown to have marked antioxidant activity (2).

Mucuna has marked ACE inhibiting properties, making its action similar to some pharmaceutical drugs designed to lower blood pressure (3).

There are many studies showing the positive effects of Mucuna on increasing sperm count and sperm motility (4, 5), as well as helping normalize healthy libido (6, 7) and helping treat male infertility (8, 9, 10, 11). Mucuna also has some promising research in treating erectile dysfunction in men (12).

Some of Mucuna's most famous effects are on the dopaminergic centers of the brain. Mucuna contains 4-7% L-Dopa which is the immediate precursor to Dopamine (13). Dopamine is an important neurotransmitter that helps people to feel a sense of satiety and contentment. When people feel a greater sense of contentment and connectedness, they tend to have less anxiety and can side-step stress more effectively. Mucuna has been shown in countless studies to raise dopamine levels in the brain. Parkinson's disease is a condition where the dopamine producing centers of the brain are damaged

and not enough dopamine is produced. These patients are often treated with dopamine-enhancing drugs like Levodopa, often with difficult side effects. Patients who take Mucuna, however, get the benefit of the dopamine producing effects of Mucuna but without many of the difficult side effects of these pharmaceuticals (14, 15). The L-Dopa content may also be used to help those suffering from depression (16). The L-Dopa found in mucuna can also be converted into epinephrine, helping those suffering from fatigue.

In addition to Parkinson's disease, Mucuna has been studied for other movement disorders like Epilepsy, and initial research has shown positive benefits (17). Mucuna has been shown to have anti-parasitic activity (18) as well as anti-neoplastic activities against liver cancer (19).

Additionally there have been several studies showing that Mucuna has the ability to lower blood sugar and so its use has been proposed to helping treat diabetes and insulin resistance (20, 21, 22, 23, 24).

Safety

Don't take Mucuna if you have a history of melanoma, have been diagnosed with liver or cardiovascular disease, or suffer from diabetes/low blood sugar. Consult your physician before taking if you have been diagnosed with a mental issue. Don't take if pregnant or nursing.

Dosage

One cap on awakening, at least 30 minutes before food. Two caps may be needed but ask your physician before increasing.

Do not go off of your prescribed Parkinson's drugs and replace them with Mucuna. There have not been enough studies to support this. Always work with your physician to utilize their expertise.

This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

Olive Leaf Supreme™

Key Indications: antimicrobial, cardioprotective, antioxidant

Olive leaf (*Olea europaea*) has been used as a therapeutic remedy for several thousand years or more but has only become popular in the US market over the last 25 years. Most commercially available olive leaf is in extract form. Being oriented toward using whole, natural-state herbs whenever possible, we attempt to find products in a whole, dried form (as opposed to an extract). By doing this, the herb retains all of the components in the same ratio found in nature (as close as possible considering it is dried). Extraction, standardization etc. are often used to maximize one component of the product, but often all the components work synergistically [1].

With these goals in mind, we were able to source high quality, dried, whole olive leaf which our team of accomplished applied-kinesiology-practicing physicians found performed better, in our opinion, than the extracts which we tested. Olive leaf has many known therapeutic uses.

1) Olive leaf is a great broad spectrum antimicrobial with published studies showing it has antiviral, antibacterial, antifungal, and antiparasitic effects [2, 3, 4]. It may stimulate phagocytosis, prevent viral shedding and even penetrate infected cells and stop viral replication [5].

2) It can act as a vasodilator, increase production of nitric oxide, inhibit platelet aggregation, and decrease oxidation of LDL, in addition to exerting other cardio protective effects [6, 7]. Olive leaf, at the dosage regimen of 500 mg twice daily, was similarly effective in lowering systolic and diastolic blood pressures in subjects with stage-1 hypertension as Captopril, given at its effective dose of 12.5–25 mg twice daily. It also lowered triglycerides in patients [8].

3) It is one of the strongest antioxidants on the market with an Oxygen radical absorbance capacity (ORAC) value of 7,608, which puts it as having higher antioxidant values than green tea, grape seed, blueberries, blackberries, garlic, and many other high anti-oxidant foods/supplements [9]. It also doesn't contain potentially harmful theobromine as in chocolate or theophylline in tea. It also contains a higher ORAC value than most other medicinal herbs. The antioxidant activity also has potential uses to help against cancer [10].

4) It can lower blood sugar and thus be a complement to other diabetes treatments [11].

5) It can increase T3 levels and decrease circulating TSH levels, thus helping thyroid function.

6) A compound found in Olive leaf inhibits xanthine oxidase thereby decreasing the buildup of uric acid [12].

7) It also has significant anti-inflammatory properties and can be very useful in a number of conditions as a result [13]. One of the anti-inflammatory properties is due to its superoxide dismutase (SOD)-like activity [1].

8) Studies suggest that postmenopausal women could be a target population for the intake of olive phenolics in order to prevent age-related and oxidative stress-related processes such as osteoporosis [14].

Consult your doctor before taking while pregnant or breastfeeding. Also consult before taking if you are on hypertension, blood sugar, or blood thinning medication.

If you already use olive leaf (extract or whole) be sure to test this versus your current brand or, if you are not currently using it, give this a try.

Dosage: 1-2 caps three times daily.

This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

Oral Supreme™

Key Indications: broad spectrum antimicrobial for oral cavity, biofilms

When Oral Supreme first came out its goal was to provide a great antimicrobial product to apply to the teeth and gums. Not a lot was known at that time in the alternative medicine world about dental biofilms. Once the knowledge became widespread and there became known various methods to identify these (both from scrapings and from more energetic/kinesiology methods), we began to see how common these are and how they can contribute to dysbiosis in general. We have decided to totally reformulate Oral Supreme with this in mind. Not only will it retain its superb antimicrobial (bacterial, parasitic, fungal, spirochete) properties but the herbs used also have good research behind them to have the ability to degrade biofilms. We have research and clinically tested the product out and we feel this will be a very superior product. Just like the previous formulation we advise the following application.

- 1.) Place a drop on an applicator or a clean finger and apply it where the teeth meet the gums on both the lingual (tongue facing) and buccal (cheek facing) surfaces. Do this before and after brushing
- 2.) Twice weekly put 2 drops in a small glass of water and soak your toothbrush (can be as short a time as 10 minutes)
- 3.) Stop if you feel you are sensitive to the oil blend-rash, etc.
- 4.) BFB 1 and 2 can often substitute if sensitive to oral supreme.

The base of Oral Supreme is pomegranate seed oil, which has anti-inflammatory and antimicrobial properties. Active ingredients are as follows

- a. Cassia-shown to be effective for candida, staph, pseudomonas, and other biofilms (1, 2, 3, 7)
- b. Tea tree- also shown to be effective for candida, staph, pseudomonas, and other biofilms (1, 2, 4, 5, 6, 7)
- c. Rosemary- shown to be effective for candida albicans, Staphylococcus aureus, Enterococcus faecalis, Streptococcus mutans, Pseudomonas aeruginosa, E.Coli biofilms (6, 7)
- d. Peppermint- shown to be effective for staph and e.coli biofilms (6, 7)
- e. Pomegranate seed oil- shown to be effective in reducing plaque and gingival bleeding when used as a mouthwash (8)

Reishi Supreme™

Key Indications: longevity, liver, kidney, fatigue, methylxanthine toxicity, chemical chelator, immune stimulant, antimicrobial

Reishi (*Ganoderma lucidum*) has been used in the Far East for approximately 4,000 years. In China it is called Ling Zhi (mushroom of immortality). Historically, it has been used as a longevity herb to treat kidney disorders, liver disorders, bronchitis, asthma, gastric ulcers, fatigue, insomnia, heart disease, cancer, and dizziness, as well as to prevent altitude sickness [1, 2, 3, 4, 5, 6, 7]. The bioactivity is due to the polysaccharides (over 100 types including beta-glucan), triterpenes, proteins, sterols, minerals (including germanium) and fatty acids [8, 9].

There have been many studies on *Ganoderma* showing it to be antimicrobial (specifically antibacterial against *H. pylori* and certain species of *Klebsiella*), and antiviral, including anti-HIV [10, 11, 12, 13]. Our clinical tests have also found it useful at times for fungal and parasitic issues [14, 15]. Reishi also exhibits the following properties: chemoprotective, anti-inflammatory, hepatoprotective, anti-oxidative [16, 17, 18]. Like *Morinda*, *Body Guard*, *Endo*, *Melia*, and *LuRong*, the clinical applications are very broad and we evaluate it on every patient as it has the potential to be health restorative for many.

In addition to working against *H. Pylori* research also indicates that the oral administration of Reishi for 2 weeks caused a significant acceleration of ulcer healing by between 40.1% and 55.9%. In addition it also suppressed or restored the decreased gastric mucus levels and increased gastric prostaglandin concentrations compared with the control group. These results indicate that Reishi has healing efficacy on acetic acid-induced ulcers in rats, which may help with the prevention and treatment of peptic ulcers [3].

Its antitumor effects have been studied extensively both as a single standing product and in combination with other herbs and chemotherapy agents. It also lessens the negative effects of chemotherapy and radiation [19]. Other trials show it to activate T-cells and certain cytokines, especially IL-2, as well as macrophages [20, 21]. In one study it caused an 81.2 % decrease of tumor volume and tumor mass [22].

Other studies show how Reishi suppresses tumorigenesis and inhibits tumor growth through direct cytotoxic effect and anti-angiogenic actions. This is possibly due to its immunomodulatory, anti-angiogenic, and cytotoxic effects. Reishi affects immune cells and immune-related cells including B lymphocytes, T lymphocytes, dendritic cells, macrophages, and natural killer cells [23].

Reishi can also act as a mast cell stabilizer, leading to an inhibition of histamine release [24]. It has been effective in lowering elevated cholesterol levels as well as blood pressure [25]. In addition to increasing HDL (good) cholesterol, it also has an anti-diabetic effect, lowers insulin resistance, and can lower plasma insulin levels [26].

New research suggests that *G. lucidum* extract inhibits scratching and relieves allergic itch through a peripheral action [26]. This could potentially help those who are prone to bug bites, including against mosquitoes.

Reishi also protects the hippocampus from oxidative impairment and helps benefit factors involved with spatial learning and ones memory, and also protects against severe damage of hippocampal neurons [27].

Not only is Reishi not contraindicated in patients with fungal issues, but it can help them get over it. Clinical research suggests it can minimize the toxic effects of methylxanthine ingestion (caffeine, theobromine in coffee, tea, chocolate, etc) and should be given to those

that consume moderate to large amounts of these substances.

Dosage:

Dosage is between 1 and 2 caps 3x per day depending on the severity of the condition. It works well in combination with all the other Supreme Nutrition products and also as a stand if none of the other products are indicated.

Contraindications:

The only potential side effect we know of is that it can have an additive effect involving the inhibition of platelet aggregation for people already on blood thinning medications so they may need less of the medication (or not take the Reishi).

Doctors note:

Similar to Lu Rong and Ashwagandha, mushrooms have been used in traditional medicine for thousands of years. While they have been used traditionally and sound quite impressive, many physicians have found inconsistent results when using them in clinical practice. Going through much research, clinic experiments, and consultation with herbalists we were able to find a type of Reishi, which performed well both academically and clinically on patients.

Rosemary Supreme™

Key Indications: helps break down estrogen, powerful anti-oxidant, neuroprotective, anti-inflammatory

Rosemary Supreme™ was developed as a collaboration between Dr. Walter Schmitt and Dr. Michael Lebowitz. Our source is organically grown, and has gone through extensive clinical testing to find the highest quality and most therapeutically effective source on the market.

Rosemary has three main therapeutic properties. 1, it is a powerful antioxidant with immune modulating properties [1, 2]. 2, it possesses extrahepatic estrogen breakdown effects [3]. 3, it may enhance cognitive ability [4].

In addition to modulation of estrogen breakdown, Rosemary also can inhibit the binding of dihydrotestosterone to androgen receptors, which can cause an increase in hair regrowth [5].

Rosemary contains three antioxidant substances that have potentially beneficial properties for our health: rosmarinic acid, carnosic acid, and ursolic acid [6].

Rosmarinic acid

Rosmarinic acid impacts estrogen breakdown in a positive way. Estradiol and estrone are detoxified via pathways that can be protective or carcinogenic, especially to tissues such as the breast and prostate. Rosmarinic acid has been shown to direct the metabolism of these estrogens toward the protective 2-hydroxy estrone pathway and away from the carcinogenic 4-hydroxy estrone and 16-hydroxy estrone pathways [3].

Rosmarinic acid also has important antioxidant effects.

In the arachidonic acid cascade it shifts the production of the highly inflammatory leukotriene B₄ toward the production of prostaglandin E₂ [7, 8]. It also inhibits the complement system, the inflammatory activity driven by the innate immune system [9]. In mice, it has been shown to inhibit the allergic airway inflammation induced by house dust mites in vivo [10].

Carnosic acid

Carnosic acid, and its metabolite carnosol also have antioxidant properties including neuroprotective effects in the brain. These effects include increasing reduced glutathione and protecting against middle cerebral artery ischemia/reperfusion [11].

Carnosol has been shown to inhibit lipopolysaccharide (LPS) and interferon- α (IFN α) induced nitrite production by mouse peritoneal cells by more than 50%. Nitric oxide and the further production of peroxynitrate and nitrite have DNA damaging and carcinogenic effects [12].

Carnosol performs this antioxidant activity by decreasing nitric oxide production via inhibition of inducible nitric oxide synthase (iNOS) and nuclear factor kappa-B (NF- κ B) promoter activity. These activities provide possible mechanisms for its anti-inflammatory and chemopreventive action [13].

Ursolic Acid

Ursolic acid has been found to reduce muscle atrophy, stimulate muscle growth, increase brown fat, and decrease diet-induced obesity in mice [14]. Ursolic acid has potential use as a cardioprotective compound [15].

Anti-microbial activity:

Rosemary has been shown to possess antimicrobial properties also. In one study it inhibited the adherence ability and biofilm development of the *C. albicans* and

C. tropicalis [16]. Another study showed its antibiofilm activity more effective than chlorhexidine against *Streptococcus mutans* and *Streptococcus pyogenes* biofilms [17]. It has also been shown to inhibit biofilm formation of MRSA [18].

Anti-cancer activity:

Rosemary has shown to possess anti-cancer properties against prostate, breast, skin, leukemia, and colon cancer. It also uniquely has selective toxicity towards cancer cells versus non-tumorigenic cells [19, 20].

In one study of Rosemary and breast cancer cells they found that it not only exerts antitumor activity against breast cancer cells, but also possesses antitumor effects against estrogen-dependent breast cancer subtypes, and significantly enhanced the effect of breast cancer chemotherapy [21].

Summation:

So to sum up - Rosemary should be thought of as a product to help estrogen degradation, as a powerful antioxidant, and as a cardioprotective and neuroprotective agent as well as in many autoimmune disorders.

We recommend considering using Rosemary Supreme in any free radical / inflammatory disease (including autoimmunity), in patients with hormonal imbalances (specifically estrogen), and chemical sensitivities.

Dosage:

Dose is 1-2 caps daily 2-3x/day.

Contraindications:

Rosemary may affect the blood's ability to clot, and could interfere with any blood-thinning drugs you are taking. Be sure to consult your doctor if you are taking Plavix, Coumadin, or Aspirin or any other type of blood thinner.

112

Rosemary may interfere with the action of ACE inhibitors in high blood pressure medications like: Monopril, Vasotec, Zestril, Capoten or any other such medications.

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Schisandra Supremetm

Key Indications: enhances liver function, increases energy, stamina and focus, increases glutathione production, broad spectrum antimicrobial

Schisandra is a berry originating in Eastern Asia, which has long been used in Chinese Medicine. Schisandra has been shown to increase liver function by increasing enzymatic activity, which in turn increases glutathione production (1, 2). Clinical trials in China by Liu KT in Studies on Fructus Schizandre Cinensis have shown that Schisandra berries can help those with chronic viral hepatitis (3). One mechanism of hepatitis alleviation is lowering levels of serum glutamic pyruvic transaminase (SGPT), a marker of hepatitis and many other liver disorders (4). It also may lower SGOT (5). Schisandra is thought to help regrow hepatic cells damaged by alcohol ingestion (6, 7, 8, 9, 10). The active parts of Schisandra currently identified as helping liver function are: schizandrin, deoxyschizandrin, gomisins, and pregomisin (11).

Animal studies have shown that Schisandra can increase physical stamina and energy levels (12). It can also quicken reflexes and increase focus; in addition to protecting against things such as heat shock, frostbite, heavy metal intoxication, radiation, high altitude problems and certain types of inflammation (13). Schisandra may also be a useful adjunct to chemotherapy due to both its liver protective properties (especially phase 1 detoxification) as well as its immune modulating properties (5). It can potentially help people handle the toxicity of certain pharmaceuticals they take. Heart contractility has also been shown to increase, without a change in blood pressure (14). In addition to increasing physical stamina, Schisandra is thought to increase mental stamina and focus as well as visual and hearing acuity (15). Schisandra is also known to have phytoadaptagenic properties (similar to ginseng) and to assist the endocrine, immune, and sympathetic nervous systems (16). It may help with cardiovascular and GI problems, increase bile secretion, and even help in the prevention of atherosclerosis (17,18).

It is also reported that Schisandra has an aphrodisiac affect on both men and women (by increasing men's staying power and stimulating sensitivity in the females' genitals) (19).

Schisandra is known to having some antimicrobial functions. It is thought to be especially effective against *Bacillus dysenteriae*, *Staphylococcus epidermidis*, *Staphylococcus aureus*, *Bacillus subtilis*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Proteus vulgaris* and HIV (20, 21, 22, 23).

In clinical practice it appears to be a very effective antimicrobial against many types of organisms (fungal, bacterial, viral, etc.). It also has been very useful in patients who have suffered from liver stress or need to possibly excrete some stored xenobiotics, chemicals, metals, and mycotoxins.

There are quite a few patients who need to be on it for 3-6 months and report many positive changes from taking it. We have seen it help chronic eczema as well.

Chinese medicine typically prescribes Schisandra to treat mental illnesses such as depression, and to help against insomnia (24).

Many studies have demonstrated the anti-inflammatory properties of Schisandra (25, 26). Also taking Schisandra for 4-6 days decreased hepatic total cholesterol (TC) and triglyceride (TG) levels (by up to 50% and 52%, respectively) in hypercholesterolaemic mice (27). It also causes relaxation of smooth muscle tissue and prostate tissues and could help with benign prostate hyperplasia (28).

Do not take while pregnant. Consult your physician before taking if breastfeeding

Our Recommended dose is one cap 3x/day.

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Scutellaria Supremetm

Key Indications: anti candida, anti dengue, increase glutathione, anti-inflammatory

Scutellaria baicalensis, Huang Qin, or Chinese Skullcap, is a flowering herb in the mint family that has been used for thousands of years in Traditional Chinese Medicine. The root is used as medicine and has been found to be very rich in flavinoids including baicalein, baicalin, wogonin, norwogonin, and oroxylin A [1].

In Traditional Chinese Medicine it is classically used to clear damp-heat which encompasses conditions like fever, nausea, dysentery, diarrhea, ulcers, tonsillitis, urinary tract infections, bronchitis, and pneumonia. It was also seen as an agent to clear toxins from the body and stop excessive bleeding as well as calm the fetus during pregnancy. Scutellaria baicalensis has been shown to have a synergistic effect when combined with beta-lactam antibiotics, thereby restoring their effectiveness against multidrug resistant bacteria like MRSA [2].

Scutellaria baicalensis has been shown in research to be a potent anti-inflammatory, neuro-protective [3, 4, 5, 6], cardioprotective [7], hepatoprotective [8, 9], kidney-protective [10, 11], anti-allergy, and a broad spectre anti-microbial agent [fungus, bacteria, virus, etc.] Scutellaria baicalensis has been shown to increase glutathione, a potent antioxidant [12]. There have been hundreds of studies on this herb. It has been shown to decrease damage after stroke and heart attack, and improve memory and cognition. It has also been shown to be a potent anti-inflammatory, which can both reduce joint pain [13] as well as allergy symptoms [14]. It has also been shown to be a potent anti-microbial against many bacteria including Salmonella, Typhimurium, Senftenberg, and Enteritidis species [15]. It has also been shown effective against candida species [16].

The flavinoids in Scutellaria baicalensis have been

shown to have potent anti-inflammatory effects, blocking TNF- α , COX and Interleukin 6 [17] and exhibiting positive effects on conditions like inflammatory bowel disease [18].

Scutellaria baicalensis has been shown to have potent anti-cancer effects for many different types of cancers including colon cancer [19], lung cancer [20, 21], breast cancer [22, 23], leukemias, liver cancer [24], brain cancers [25], stomach cancer [26], and squamous cell carcinomas of the head and neck [27].

Scutellaria baicalensis has been shown to decrease inflammation in the airways and has been shown very useful in treating asthma [28, 29].

Scutellaria baicalensis has protective effects on cardiac tissue and increases blood flow to the periphery lending itself as a treatment for erectile dysfunction and other circulation issues [30].

Scutellaria baicalensis has been shown to have potent anti-viral effects, particularly against H1N1 Flu virus [31] as well as dengue virus [32].

Scutellaria baicalensis has anti-coagulant effects and works by inhibiting platelet aggregation [33].

Studies in China suggest Baicalin (in *scutellaria*) may promote Treg cell differentiation and regulatory activity and may serve as a promising natural product for treating autoimmune inflammatory diseases [36].

Lastly studies have shown the herb to have a glucose-lowering effect, and therefore has implications for treating type II diabetes [34].

When analyzed for active chemical compounds in *Scutellaria* it was discovered both serotonin and melatonin were present [35]. Serotonin and Melatonin are both neurotransmitters where decreased amounts can cause depression and/or sleep deprivation. *Scutellaria* can also help with those who have too high of levels of catecholamines.

Consult your doctor before taking if pregnant or breastfeeding

Typical adult dose is one capsule t.i.d. but can go higher if needed.

Our tincture is extracted with organic cane alcohol which is then boiled off (as much as possible while retaining potency) and then organic glycerin is added.

Most tinctures on the market are extracted by non-organic grain based alcohol (many from GMO corn ethanol). While Supreme Nutrition Products has never done a tincture before, the demand for a few antimicrobials for small children has made us decide to make this. The product obviously can also be used for adults.

Tincture is designed for children but can be used by adults also. Dosage is 10-30 drops 3x per day.

Approximate dosage for kids. We generally go off weight, not age.

20 pounds	2-5 drops	3x per day
30 pounds	2-6 drops	3x per day
50 pounds	5-10 drops	3x per day
100 pounds	10-25	3x per day

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Shatavari Supreme

Key Indications: Female Hormone regulation, Milk Production, Libido, Gastric Ulcers, antimicrobial

Shatavari translates to “who possesses a hundred husbands” and has traditionally been used as a general tonic as well as female hormone/reproductive tonic. It is known as the Queen of Herbs in Ayurveda medicine. Studies have shown the extract to be antiulcer, antioxidant, antidiabetic, and contain immune-modulatory activities. Its benefits are suggested for nerve disorders, dyspepsia, diarrhea, dysentery, inflammation, cough, bronchitis, hyperacidity, and infectious disease (1). The main active components in Shatavari are alkaloids, mucilage, and steroidal saponins (2).

Shatavari has been shown to help milk production in mothers (3, 4, 5, 6). One of the mechanisms shown for this has been by increasing prolactin levels (7).

It is known as a well rounded female hormone tonic for many different uses including: “beneficial in female infertility, as it increases libido, cures inflammation of sexual organs and even moistens dry tissues of the sexual organs, enhances folliculogenesis and ovulation, prepares womb for conception, prevents miscarriages, acts as post partum tonic by increasing lactation, normalizing uterus and changing hormones” (8). It can also help with PMS and dysmenorrhea (9).

Many report having symptomatic relief with post-menopausal symptoms such as hot flashes, night sweats, vaginal dryness, etc. (10). Multiple studies have looked at Shatavari to help prevent post-menopausal bone loss. One found “The results of Shatavari were encouraging, as it has shown not only a decrease in bone loss, but a significant increase in bone formation” (11, 12).

Traditionally it has been used as an aphrodisiac for both men and women. Men consuming Shatavari had similar increase in sexual behavior as those taking testosterone therapy (13). It was also shown to increase erection time, seminal fructose content, and sperm count (14).

Studies have shown Shatavari can help those suffering from ulcers. The "ulcer healing effect of the drug was attributed to a healing effect, possible by potentiating intrinsic protective factor as it has neither antisecretory activity nor antacid properties, by strengthening mucosal resistance, prolonging the lifespan of mucosal cells, increasing secretion and viscosity of mucous and reducing H⁺ ion back diffusion. It has been found to maintain the continuity and thickness of aspirin treated gastric mucosa with a significant increase in mucosal main. As *A. racemosus* heals duodenal ulcers without inhibiting acid secretion, it may have cytoprotective action similar action to that of prostaglandin other binding of bile salts" (15, 16, 17).

Taking Shatavari juice has been shown to work as a cough suppressive, as effective as codeine (18). Studies have also shown it to help prevent against kidney stone formation (19). It can also stimulate a healthy peristalsis of the bowels (20).

Shatavari has shown antibacterial properties against: *Escherichia coli*, *Shigella dysenteriae*, *Shigella sonnei*, *Shigella flexneri*, *Vibrio cholerae*, *Salmonella typhi*, *Salmonella typhimurium*, *Pseudomonas pectida*, *Bacillus subtilis* and *Staphylococcus aureus* (21). It also has antiprotozoal activity showing inhibition of *Entamoeba histolytica* (22).

120

It has also been shown to help protect the liver and can alter function of macrophages, indicating possible immune-modulatory properties. Traditionally it has been used for depression with "antidepressant activity and this effect is probably mediated through the serotonergic, noradrenergic systems and augmentation of antioxidant defenses".

Dosage: Take 1 pill 2-3x per day

Warning: Do not take Shatavari while taking lithium or on diuretic medication.

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Smilax Supreme™

Key Indications: endotoxin/mycotoxin binder, broad spectrum antimicrobial, auto-immune issues, increase libido

Smilax Supreme comes from the root of the plant *Smilax officinalis* which is a small vine that grows throughout Central and South America. This herb has been used for centuries for many purposes. Over the years it has been traditionally prescribed for the following conditions: psoriasis, arthritis, autoimmune diseases, detoxification, hormone regulation, and as a general tonic and blood purifier (1, 2, 3, 4, 5). It has historically been used to treat syphilis, gonorrhea, and other STD's since at least the early 1800's as well as for leptospirosis (6).

Back in 1942 the New England Journal of Medicine reported on Smilax's effectiveness in treating psoriasis (7). Psoriasis as well as many other diseases such as inflammatory bowel disease, various liver disorders, pancreatitis, periodontal disease, coronary artery disease, arthritis and asthma are believed to have endotoxins as a possible causative component according to many researchers. One of the main components of Smilax is sarsaponin, which has been found to be an effective endotoxin binder. This is thought to be the reason it has been so helpful in treating psoriasis as well as so many other symptoms/conditions (8). Since endotoxins can alter the manufacture of cytokines and eicosanoids, endotoxins can be very pro-inflammatory and have a vast number of effects, mostly negative (9).

Smilax is anti-inflammatory and can help with nephrotoxicity by increasing anti-oxidative defense activities (10, 11). Studies have shown how Smilax may help against colon cancer cell proliferation (12). New research has also shown how Smilax helps reduce oxidative stress due to lead toxicity in rats (13).

Other research has shown how Smilax helps protect the liver against hepatitis and other injury. In the study it inhibited the elevation in transaminase activity, reduced the TNF-alpha production, and improved the histological changes, including inflammatory infiltration, hepatocyte necrosis and degeneration and Kupffer cell hyperplasia (14).

Other components of Smilax, specifically some of the flavonoids, have been shown to be hepatoprotective (15). We see Smilax filling an important niche in our work. Many alternative medicine physicians find that many of our chronic patients suffer from a variety of sub-clinical "infections" of bacterial, fungal, parasitic, viral, and spirochete origins. These "infections" can cause many symptoms effecting the derma, gastro-intestinal tract, respiratory system, etc. etc.

Many of the symptoms can arise from the endotoxins, mycotoxins, etc. produced by these microbes. An herb with the potential to bind many of these toxins can be of much benefit to speed up resolution of the patients' complaints. We already know of a number of natural plants that have strong anti-microbial properties but few that are noted for their endotoxin and possibly mycotoxin binding properties.

As with most of our products, we evaluate this on most if not all patients. It may show up initially or it also may not show up until dysbiosis is resolved so the body can focus more on endotoxin reduction. We see its greatest uses as:

- 1) A endotoxin binder and potentially a mycotoxin binder to accompany the antimicrobials you prescribe.
- 2) As a broad spectrum antimicrobial itself, including as a possible anti-spirochete agent (borrelia, babsesia, etc.) While the research hasn't been done yet, its effects in treating syphilis suggest its possible usage for other spirochetes as well.

- 3) Immune modulator especially in people with suspected auto-immune responses.
- 4) It has been traditionally used to increase libido and hormone balancing so you might want to investigate it in those areas (16).
- 5) It is also theorized that it increases GI absorption of other herbs and acts as an aid to the bioavailability of substances.

Consult your doctor before taking if pregnant or breast-feeding

Dosage:

Dose is one cap 3x/day. Can use 1 q.i.d. in severe cases.

St. John's Wort Supreme™

Key Indications: mood / serotonin support, gut support / antimicrobial, immune modulation endocrine support

St. John's wort (*Hypericum perforatum*) is a flowering perennial native to temperate regions across Europe, Asia, and the northern parts of Africa. It has been introduced to East Asia, Australia, New Zealand, and parts of North and South America.

St. John's wort (SJW) has been used in traditional medicine since at least the first century AD, often as a cure-all for many diseases. Today, it's commonly known to be used as an antidepressant, immune system modulator, and hormonal influencer. It can also have a dramatic influence on the enteric nervous system due to the gut-brain axis relationship.

SJW and Mood:

Regarding mood and specifically depression, SJW appears to be more effective than a placebo and as effective as standard antidepressant medications for mild and moderate depression, often without the side-effects. (1) A 2015 meta-analysis review concluded that SJW has fewer adverse effects than other antidepressants. (2) Overall, there are countless studies proving the effectiveness of SJW to help improve serotonin levels in the body. Due to the gut-brain relationship, this can greatly influence the digestive track and specifically the microbiota.

SJW and the Digestive System:

The main metabolites of SJW, such as hypericin, hyperforin, quercitrin, isoquercitrin, quercetin, kaempferol, and rutin, are shown in traditional Persian medicine to be very beneficial in the management of chronic liver disorders and help with jaundice and as a choleric medication. (3)

SJW can significantly reverse the pathological symptoms of body weight gain, serum lipid disorders and hepatic steatosis, and also reestablish gut microbial composition and metabolite profiles. (4) Probiotic yeast growth can be stimulated by extracts of medicinal herbs, specifically SJW, and suppress *Candida* yeasts suggesting a potential benefit of the treatment in diseases that are associated with fungal dysbiosis. One study also showed that the growth of the beneficial yeast *S. boulardii* was increased 130-fold with SJW. (5)

SJW and the Endocrine System:

St. John's wort might be helpful for menopausal symptoms, wound healing, and somatic symptom disorder. (6) SJW can influence the testosterone to DHT ratio in both men and women which was consistent with the possible inhibition of 5alpha-reductase. (7) In women using oral contraceptive pills and SJW simultaneously, it appears that SJW does not interfere with the antiandrogenic properties of these BCPs. (8) Though some studies note that SJW can reduce the effectiveness of some birth control pills. (9)

SJW and the Immune System:

SJW has been found to increase Treg cell levels in the spleen, thus improving immune responses. (10) The administration of SJW significantly also has been shown to reduce stress-induced increases in TNF-alpha levels as well as help to mediate the interrelationship between the immune, oxidative defense, and neuroendocrine systems. (11)

Regarding SARS-CoV-2 infection, one study identifies SJW and its active compound hypericin as potent inhibitors of SARS-CoV-2 and its variants alpha, beta, delta, and omicron. The antiviral efficacy of this plant has also been shown to be beneficial against the herpes simplex virus, human cytomegalovirus, hepatitis B virus, influenza A virus, and human immunodeficiency virus. (12)

There is also a therapeutic potential of SJW with the management of sleep deprivation-induced anxiety-like behavior and oxidative damage. (13)

SJW Considerations and Precautions:

The most common side effects of SJW is stomach pain, fatigue, and restlessness, though this is uncommon if used correctly. Other more rare effects include photosensitivity and skin irritation, breakthrough bleeding when taking oral contraceptives, and decreased effectiveness of immunosuppressants in those who have had organ transplants. Available data from clinical studies and case reports suggests that St. John's wort is unlikely to inhibit cytochrome P450 (CYP) 3A4 or 2D6, but is likely an inducer of CYP 3A4 and possibly the P-glycoprotein transporter. Examples of conventional medications which may undergo significant CYP 3A4 induction by St. John's wort include cyclosporine, indinavir, and oral contraceptives. (14)

Certain studies link some St. John's wort products with reducing the effectiveness of medicines like birth control pills, heart medications, HIV drugs, cancer medications, and some anticoagulants. (9)

One major precaution to be aware of is the possibility of "Serotonin syndrome." This can occur when a SSRI medication (e.g. Lexapro, Zoloft, Prozac) is given with a monoamine oxidase inhibitor (MAOI) drug (e.g. Marplan, Nardil), slowing the breakdown of serotonin. (MAOIs elevate levels of serotonin as well as norepinephrine and dopamine.) Headaches, confusion, agitation, cardiovascular symptoms, and digestive symptoms often occur in serotonin syndrome. St. John's wort, 5-HTP, tryptophan, and high tyramine foods (smoked, pickled, and fermented meats, as well as seafood and many yeast products) can also increase the risk of serotonin syndrome if combined with an MAOI drug. (15)

Dosage: 1-2 capsules 3 times per day. This is our official recommendation.

Clinically, Dr Stephen Gangemi has found this dosing to work well for him:

1 capsule two times per day to start for those with mild serotonin imbalances or gut impairment. Sometimes up to 3 capsules three times per day is indicated for more extreme cases. Have the patient slowly increase the dose every 4-5 days.

Precautions: Do not take if pregnant or breastfeeding. Avoid excess exposure to UV radiation while taking. This herb can interact with antidepressants, oral contraceptives, and other prescription medication. Consult your physician before taking if on any prescription medicine.

Takesumi Supreme™

Key Indications: metal/chemical chelator, detoxification, endo-toxemia, trace mineral source, intestinal upset

Takesumi or carbonized bamboo is well known in Japan but is just now becoming well known in the US. To put it simply- it is derived from bamboo that is carbonized under very specific conditions. Most of the literature on it is from the orient and a little hard to decipher. Many physicians have reported it working against heavy metal toxicity, chemicals, and often food sensitivities. We look at it as a supreme detoxification product. It also appears to adsorb mycotoxins and endotoxins (and other bio-toxins) from various organisms, take a load off the liver and kidneys and thus act in an anti-aging fashion. It is also reported to adsorb radiation (radon, nuclear, etc.). Many of the Lyme literate physicians use it as part of their protocols.

It does have anti-fungal and anti-bacterial properties but not as strong as the other Supreme Nutrition antimicrobials (Morinda, Melia, Vital Guard, Golden Thread, etc.). Because of the porous nature of the bamboo, it is an amazing absorber (up to 10x more so than wood treated similarly, according to many sources). Research from Japan claims it emits far infrared rays (thus improving circulation) as well as negative ions and shields the body from EMF's. It also is a natural source of minerals (macro and trace) and is reported to be alkalizing.

This was a very difficult product for us to get in the quantity needed for distribution. It took many months to find a few sources (we found 6) and with clinical testing we narrowed it down to 2 potential sources that met our standards. It then took going through a lot of red tape to get the samples and find someone who would export it. Each batch is checked to be free of radiation and other toxins.

We are making it available in powder form. It is tasteless and dissolves adequately in water so it is not difficult to take. We recommend everyone take it periodically (approximately twice weekly for the average person) for detoxification- some people for longer periods at a time, and some for shorter depending on their degree of toxicity and exposure to environmental contaminants (past and present). We have seen people need it daily for weeks to months at a time. It should also be taken whenever you have been exposed to a food or chemical you are sensitive towards, as it will hopefully shorten the severity and duration of the reaction. Many patients suffer from a degree of cognitive impairment and loss of co-ordination when eating a food he or she is sensitive to.

For many, Takesumi aborts the reaction and returns them to normal quickly.

While there is not much human medical research on the uses of Takesumi, there are studies showing how absorptive it is, and how it can bind up heavy metals. Studies have shown it to be effective in binding mercury, lead, cadmium, and other heavy metals (1, 2, 3, 4). It has also shown to be effective at binding aflatoxins (5).

Dosage:

Powder: 2 scoops once daily at least 30 minutes before or 2 hours after food and medication or as directed by a physician.

Capsules: A dose is 3 pills taken at once (equal to approximately 2 scoops).

Taking as a powder or capsules they should be taken at least 30 minutes before food, pills, or prescriptions or at least 90 minutes after.

130

In Japan and other far eastern countries, they add it to specialty breads (they claim it is a cancer preventative), soba noodles and even coffee and tea as they feel it does not adsorb nutrients but actually imparts them to the food, making it more healthful. It does not affect the taste. Some also use it as tooth powder to whiten the teeth.

Contraindications: The only possible contra-indication we know of is not to take it if you have been diagnosed with variegate porphyria.

This statement has not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease.

Thera Supreme™

Key Indications: immune stimulant, antioxidant, vitamin/mineral/phytonutrient source, solanine toxicity

Background Information:

The goal of Thera Supreme was to create a product that is a superb anti-oxidant, high in vitamins and minerals, an immune booster, and a 100% natural food product that could be added to a drink as an all round health booster. This product has been a long time in the making, taking over a year to research and develop.

There are many products already on the market that have mixes of fruits, vegetables, enzymes, etc. Most of these products appear to put everything that has ever gotten good press into one mix. Unfortunately, in clinical practice these seem to rarely work well with patients, often causing as many health issues as they “claim” to help. With this in mind, we weren’t sure we would be able to make a product to meet our criteria. We started by buying small amounts of most of the individual ingredients found in other products and doing blind evaluation on 50 patients, checking each sample individually for efficacy. We wanted to include only those ingredients that helped close to 100% of patients.

Using these criteria in our testing, we found whole categories of items that did not work with the vast majority of patients. These categories included the algae (spirulina, chlorella, etc.), grass juices (wheatgrass, barleygrass, etc.), fungal derived enzymes, and pro-biotics. All of these have their place but again we wanted something that would benefit close to 100% of patients. Unfortunately, most of the above mentioned ingredients appear in most fruit/vegetable blends on the market. We also found the majority of patients did not benefit on alfalfa which is often found in these types products.

After much experimentation we settled on 7 ingredients (from an initial batch of 60) and then blended them in varying ratios to obtain optimum results. This is an interesting product because, as with each other Supreme Nutrition Products, every new batch must pass the same testing to be released on the market (this has not always been easy, especially with Morinda Supreme, as many samples had to be rejected). With 7 ingredients in TheraSupreme - we may find it necessary at times to make slight variations in the ingredient list due to possible unavailability of raw materials that pass our testing.

The first batch was given to 10 people who took it over a period of time so we could test it for tolerance, taste and effect. It passed our tests but by then some of the ingredients were no longer available so we had to wait for new harvests and evaluate. It is a fun but at times frustrating and lengthy process.

We finally have a complete product that passed all our tests that is now available to you.

Thera Supreme has the following 7 ingredients: bilberry, blueberry, elderberry, pomegranate, asparagus, black radish, and cilantro (coriander). All have been tested to be free of pesticide residue (We actually like this better than most organic classifications as some organic food is grown on land with a long history of pesticide use and has had only a few years without pesticides).

What makes this product unique is a few things:

- 1) Each ingredient and batch must pass stringent Clinical and Applied Kinesiology testing
- 2) No added grass juices, algae or fungal derived enzymes as they do not work well on the majority of patients in our tests
- 3) An all encompassing fruit/vegetable blend containing plants with many different nutrients, colors, phytochemicals, etc.

We feel for the sensitive patient this can act like taking a multi-vitamin and for everyone it can supply many phyto-nutrients that we do not get in our daily diet. It will also help boost our nutrient levels and over all immunity, health, and wellbeing.

In addition to increasing nutrient levels it also often helps detoxify chemicals and metals, be antimicrobial, and act as a very complete product that almost everyone will benefit from. Professional athletes have reported taking Thera Supreme during the season and not gotten a cold or the flu when everyone else in the locker room succumbed to them.

Many patients who suffer from nightshade (solanine) sensitivity report having symptomatic relief while taking Thera Supreme.

About the individual ingredients:

Bilberry- high in anthocyanin pigments, high in antioxidants, helps prevent atherosclerosis, reportedly helpful for night vision, macular degeneration and some heart conditions and other vascular disorders (1, 2, 3, 4, 5).

Blueberry- recent studies suggest blueberries may be useful in reducing cancer risk, slowing the cognitive decline in Alzheimer, controlling blood pressure and prevention of urinary tract infections (6, 7, 8, 9). It can also be a good source of vitamin K as well as manganese (10).

Elderberry- another rich source of anti-oxidants and various phytonutrients - it has been shown to have anti-viral activity especially against certain strains of influenza (11, 12, 13). A good source of carotenoids and other nutrients.

Pomegranate- potent anti-oxidant with significant amounts of vitamins A, C, E, and folic acid (14, 15, 16). It also helps thin the blood and lower cholesterol (17).

Asparagus-supplies vitamins A,C,E, iodine, folic acid (18, 19, 20, 21). Traditionally it has been used to strengthen the genito-urinary system and more recently has been used to help in people with various forms of cancer (22, 23).

Black radish-one of the greatest detoxifiers and an activator of liver detoxification enzymes (24, 25).

Coriander/Cilantro -contains an antioxidant that helps prevent animal fats from turning rancid (26). It is also mildly anti-bacterial and anti-fungal and used by some to chelate mercury and other heavy metals (27, 28, 29, 30).

Dosage:

We recommend 6-9 capsules daily. For people in poor health, they may choose to take more.

Tulsi Supreme™

Key Indications: adrenal support, hepatoprotective, antioxidant, anti-inflammatory, antimicrobial

Tulsi Supreme™ is the powdered herb *Ocimum sanctum*, also known as holy basil. It is indigenous to India and southeast Asia. This herb has been cultivated in India for approximately 5,000 years and has been one of the most revered herbs used for physical, emotional and spiritual balance and healing. In general it has many uses: it is a very potent adaptogen that helps fight stress (including stresses like noise pollution, along with physical, cardiac, and emotional stress) and is one of the best adrenal supports available (animal studies show it can lower elevated cortisol levels) (1, 2, 3, 4). Studies have also shown it to help reduce both anxiety and depression (5).

In one study taking Tulsi for one month caused a significant reduction in fasting blood sugar, uronic acid, total amino acids, total cholesterol, triglyceride, phospholipids and total lipids (6). It is a broad spectrum antimicrobial (contains eugenol which is also an antimicrobial that exists in cloves), acts as an immunostimulant, reduces uric acid levels (has been used in kidney stone treatment), and acts as a mood stabilizer (normalizes neurotransmitter levels) (7, 8, 9, 10). Tulsi has Cox 2 inhibiting properties and thus is a potent anti-inflammatory agent (11). It also works to reduce edema and has anti-arthritis properties (12).

It has been used as part of a cancer treatment protocol as it discourages new blood vessel growth to tumors, as well as protects healthy cells from side effects of chemotherapy and radiation (13, 14). It has also been shown to be hepatoprotective for various chemicals including acetaminophen and is a potent antioxidant having been shown to increase SOD and glutathione levels if needed (15, 16, 17).

We evaluate Tulsi on all patients but find it most useful when patients have a stressful lifestyle and need adrenal support, though it is also part of our antimicrobial armamentarium.

Dosage: Because of its strong adrenal restorative properties, depending on genetics, some people only need a very small dose, 1 cap daily, while others may need up to 4 daily (one cap 4x/day). You may want to start low and increase as needed.

Consult your doctor before taking if pregnant or breastfeeding

Usnea

Key Indications: antimicrobial (especially bacteria and fungi) and biofilms

Usnea barbata or Old Man's Beard is a lichen with a long history of being used in herbal medicine. We chose to come out with it as a tincture looking at it as a great anti-bacterial especially for respiratory infections. Our tincture is extracted with organic cane alcohol which is then boiled off (as much as possible while retaining potency) and then organic glycerin is added. Most tinctures on the market are extracted by non-organic grain based alcohol (many from GMO corn ethanol) or just with glycerin, which generally makes a weaker product.

There are a number of active constituents found in usnea including those with antimicrobial, anti-oxidant and polyphenolic properties. It is most well known for treating certain types of infections, including those affecting the throat, respiratory tract, mouth, skin and urinary tract

Studies have shown it to be effective against strep, staph and mycobacteria species as well as other gram positive (and some gram negative bacteria), including drug resistant ones (1,2). It has shown anti candida properties as well (3). In Germany it has been approved to treat oral and pharyngeal inflammation (4) and is used for colds, influenza, pneumonia etc. It is sometimes added to cosmetics and deodorants due to its antibacterial and antifungal effects (5).

The crude extracts of usnic acid rich lichens (e.g., Usnea species) have been used throughout the world to treat various ailments, such as pulmonary tuberculosis, pain, fever, wounds, athlete's foot, and other dermal lesions (6,7,8,9).

The first recorded use of the *Usnea* species in Traditional Chinese Medicine (TCM) dates to 101 B.C., when it was used as an antimicrobial agent under the Chinese name of Song Lo (10).

Usnic acid, a main constituent, exhibited a significant inhibitory effect against the pathogenic protozoan *Trichomonas vaginalis* at comparatively lower concentrations than metronidazole (11) .

Usnea has also been shown to interfere with biofilm formation and quorum sensing (12).

Dosage- adult dose is 10-30 drops 3x/day. For children dose according to weight (for example a 75 pound child 5-8 drops 3x/day or 3-5 drops for 25 pound child). It is recommended to take it for up to 2 week duration and then take a break due to its strong effects.

Consult your physician during pregnancy and nursing.

Uva Ursi

Key Indications: Urinary tract infection, broad spectrum antimicrobial, oxalic acid issues, kidney stones

Uva ursi (*Arctostaphylos uva-ursi*), or bearberry, is a flowering alpine herb in the blueberry family with a long history of use in European and western herbalism. The leaves are the part used for medicine and have been traditionally used for urinary tract infections. The dried leaves historically have been used boiled or steeped in water to form a tea, however, powdered encapsulated products have been safely used since the 1970's[1].

The first documented use of Uva ursi in literature appears in the 13th century in a Welsh medical text. The herbal remedy was more used in northern areas of Europe before coming into more widespread use in central Europe. By the middle of the 18th century, Uva ursi was widely used in Europe and by the beginning of the 19th century it was considered an "official medicine". Historical uses include treatment of kidney stones, diabetes, gonorrhoea, edema, urinary tract infections, and as a diuretic.

Research has shown that Uva ursi has strong direct antimicrobial activity[2]. In regard to its use in treating urinary tract infections, Uva ursi has been shown to prevent UTIs even in high-risk populations[3][4]. Uva ursi leaves have been shown to be inhibitory against *Staphylococcus aureus*[5] and can exert a pro-oxidative effect on *E. coli* and also chelate iron, which causes the bacteria to be more susceptible to destruction[6]. Uva ursi leaves have been shown to inhibit growth of *Neisseria gonorrhoeae*, the causative agent of the STI gonorrhoea[7] and has exhibited antimicrobial activity towards a variety of organisms including *Mycobacterium smegmatis*, *Shigella sonnei* and *Shigella flexneri*[8]. Extracts of Uva ursi have been shown to be active against *Acinetobacter*

baumanii[9] and *H. pylori*[10]. *Uva Ursi* inhibited the growth in vitro of *Bacillus subtilis*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Salmonella typhimurium*, *Serratia marcescens* and *Staphylococcus aureus*[11] *Klebsiella pneumoniae*, *Candida albicans* and *Mycobacterium phlei*[12].

Uva ursi was tested for bioactivity analyses against two strains of *Chromobacterium violaceum*. *Chromobacterium violaceum* is well known for their resistance to many antibiotics. *Uva ursi* showed direct antimicrobial activity, non-specific and specific pro quorum sensing (QS) activities and anti-QS activity. Extracts of *Uva-uris* exhibited strong inhibition in these bacterial strains[13].

Uva ursi has been shown to have antiviral activity in vitro against Herpes simplex virus type 2, influenza virus A2 and vaccinia virus[14].

Regarding its traditional use for kidney stones, research has shown *Uva ursi* to have an inhibitory effect on calcium oxalate kidney stones by 95%[1] Clinical testing has shown *uva ursi* to be helpful to help clear the body of oxalates which can be implicated in various pain syndromes and other issues.

The main active chemical constituent of *Uva Ursi* is Arbutin which makes up 7-17% of the dry weight of the leaves. Methyl arbutin makes up at least 4%. Arbutin readily hydrolyses in the body to form hydroquinone which has potent antimicrobial properties[2]. Aside from this, arbutin has been shown to have antioxidant and anti-inflammatory properties inhibiting TNF-alpha and IL-6[3]. Topically, both arbutin and hydroquinone have been used to lighten the skin[4][5]. Other notable constituents of *Uva ursi* include tannins (10-20%), methylhydroquinone, anthocyanadins, salicylic acid, quercetin derivatives, and allantoin[6].

Safety: Uva ursi extracts have been shown to be very safe. In animal models fed 25 mg/kg/day crude uva ursi extract for 90 days, no pathologies were observed[7]. High dose and long term use is discouraged due to some of its strong components. We recommend not taking more than one bottle without taking a break of at least 1-2 months.

Cautions/Contraindications: Not recommended for pregnancy or breastfeeding. Not recommended in those with retinal diseases, kidney or liver pathology. Caution in children.

Traditional use: Clinically Uva ursi may be very useful in treating urinary tract infections, fungal infections, viral infections, and a wide range of bacterial infections.

Suggested Dosing: 1-2 capsule(s) twice daily or as directed by your health care practitioner

Vidanga Supreme™

Key Indications: antimicrobial (especially against helminths and tapeworms), high homocysteine / methylation issues, high LDL cholesterol and low HDL

Vidanga Supreme is the powdered berry of the plant *Embelia Ribes*. These berries have a long history of use going back over 2,000 years in both Unani and Ayurvedic medicine. It is also known as false black pepper and is native to Asia and India.

Literature shows potential key indications to be for Parasitic worms, as well as with methylation and hyperhomocysteinemia issues.

Research shows the potential beneficial uses:

1) **Anthelmintic (expels worms)**- including ascarides (a common small intestine inhabiting worm) (1) and Tapeworms (syed). The worms can often be observed in the stool. In acute worm cases, Ayurvedic texts recommend a dose as high as 2-3 gms daily for children and 6-12 grams for adults for several days (3).

2) **Hyperhomocysteinemia** (4,5) -an animal study demonstrated that rats with hyperhomocysteinemia significantly decreased the levels of homocysteine, LDH, total cholesterol, triglycerides, LDL-C and VDL-C and increased the HDL-C levels in serum. The results were comparable to **folic acid**.

-Clinically this is a fascinating study as at Supreme Nutrition Products we prefer to use herbs to isolated chemicals. It is unknown at this point whether it up-regulates certain genes, or acts as a methyl donor to achieve this but we encourage you to try it in cases that need **methylation support**.

3) Antibacterial activity, including staph mutans, known to contribute to dental carries and plaque as well as other forms of staph (6). It is often added to oil pulling formulas due to the aforementioned effects. It should be looked at as a **broad spectrum antimicrobial** as it also has effects against certain **fungi**.

4) It has strong analgesic properties (7)

5) It has been used as a reversible contraceptive agent for both males and females (8,9). There is much research on this but do not recommend it for this purpose as a sole contraceptive agent. We do advise you though to not take it if you want to initiate a pregnancy in the near future.

6) Possesses anti-convulsant activity (10)

7) Antipsychotic activity (11)

Dosage: 1-2 capsules 3x/day

Contraindications- Do not take this supplement if pregnant, trying to get pregnant (males and females), or while breastfeeding.

Vital Guard Supreme™

Key Indications: broad spectrum antimicrobial, neuro protective, cardio protective

Vitalguard Supreme is made from the ground flowers of *Chrysanthemum morifolium*. It is a broad spectrum antimicrobial as well as having many other valuable properties.

In China, the flowers of this particular species have been used for over 4,000 years as an important plant medicine. Traditionally, *Chrysanthemum* has been used in China to treat headaches, sore throats, and fevers, as well as eye disorders like red eyes, blurred vision, and near-sightedness. *Chrysanthemum* can be used to treat hypertension, vertigo, dizziness, and help resolve certain skin disorders like abscesses and ulcers [1]. It has also been used to treat insomnia in Korea.

Chrysanthemum flowers and leaves are rich in flavinoids, which are a class of compounds known to have anti-inflammatory, antioxidant, anticarcinogenic, and cardioprotective properties. The two principal flavinoids in *Chrysanthemum* are Luteolin and Apigenin, as well as some Quercetin. Modest amounts of essential oils are present in the flowers, 0.2-.85%. *Chrysanthemum* also contains Isobutyl-amides, immune modulating compounds also found in *Echinacea*.

Most importantly, *Chrysanthemum* has anti-bacterial, anti-fungal, anti-parasitic, and anti-viral properties, is cardioprotective, neuroprotective, and has potent antioxidant properties. I have found it to be especially useful in a wide variety of viral infections both acute and chronic, as well as bacterial infections including Lyme. Almost across the board when patients begin taking *Chrysanthemum* they report a greater sense of well-being, and some report increased-energy.

I've also seen great effects with patients who suffer from chronic aches and pains as in Fibromyalgia. With muscle testing, it generally seems to strengthen most people in the clear. I find Chrysanthemum to be useful in a broad range of applications from a gentle cardiovascular and brain tonic to a potent anti-microbial agent.

Chrysanthemum is very safe, large quantities having been tested in animal models for extended periods of time (Rat models fed up to 15g/kg body mass for 14 days in one study and 1,280g/kg body mass for 26 weeks in another study, both with no adverse effects) [2].

Chrysanthemum extracts have been shown to be cytotoxic against *Mycobacterium tuberculosis* [3]. Extracts have also been shown to be anti-mutagenic against *Salmonella typhimurium* [4]. Of special note were several studies, which showed strong effects at inhibiting HIV by both interfering with the integrase enzyme as well as direct anti-HIV activity in cell-culture [5].

In one study, extracts from Chrysanthemum significantly reduced neuronal defects, extent of infarction, brain edema, and improved the production of super-oxide dismutase (SOD), in brain tissue following ischemic stroke in animal models [6]. In another study, Chrysanthemum extracts were shown to be protective against oxidative damage and cytotoxic drugs by reducing reactive oxygen species (ROS) in brain tissue [7].

There is some evidence that Chrysanthemum is protective against damage from heavy metals, particularly lead. In one study, Chrysanthemum extracts were shown to be protective against lead-induced oxidative injury, as well as being hepatoprotective and nephroprotective [8].

In heart tissue, Chrysanthemum has been shown to be cardioprotective acting as an anti-arrhythmic agent, increasing the action of papillary heart muscles, and protecting against oxidized LDL, the precursor to

atherosclerotic plaque [8, 9]. It has also been shown to prevent apoptosis of aortic vascular smooth muscle cells [10]. High doses of Chrysanthemum have been used over a course of several months for Coronary Artery disease leading to improvements in 86% of patient symptom scores and 45% improvement on objective EKG findings [11].

In summary we test Vitalguard Supreme on all patients due to its general health enhancing properties and broad range of applications (as we do with all the other Supreme Nutrition products). It is a great anti-microbial and possibly like Morinda can act as a preventative. It also appears to improve health in general. When using it as an anti-microbial we let our testing dictate whether we use it as a stand alone or in combination with other products such as Morinda, Melia, Golden Thread, and Schisandra.

We have read of no contraindications during pregnancy (after exhaustively searching for them) so it might be the treatment of choice when treating dysbiosis during pregnancy but as with any herb during pregnancy monitor your patients closely.

Recommended Dose:

4 capsules three times a day for active issues and two caps 2 times daily for general health.

Wild Greens Supreme™

Key Indications: phytonutrient source, general health enhancement

Wild Greens Supreme™ has been a long time in the making (approximately three years). The goal was to create a high quality green food product that consistently worked with a vast majority of patients. The herbs needed to be nutritive without being overtly medicinal so they could be consumed daily and nourish the body with a therapeutic dose of nutraceuticals and phytochemicals. They also needed to retain their nutritional integrity over time. Many samples were tested and we almost gave up many times as virtually nothing met the criteria.

Finally, a viable source was found that passed our testing. The resulting product is a combination of five herbs that are harvested in the wild, immediately frozen, then freeze-dried just prior to packaging. Freeze-drying retards the degradation of the plant's constituents allowing the vital nutrients to maintain much longer than air-dried plants.

The contents are a blend of nettle, chickweed, Siberian lettuce, dandelion leaf, and couchgrass.

Noticeably absent are the cereal grasses (e.g. wheat and barley grass juice), various algae (spirulina, chlorella, blue green algae, etc.), and legume foliage (e.g. alfalfa). Almost every other "greens" product on the market contains at least one of these, if not more. We didn't want to include the grass juice from gluten containing grains to avoid the possibility of a reaction from gluten (gliadin) sensitive individuals. We excluded the algae because of the risk of excitotoxins and toxic metals and possibly other factors. I have been evaluating various algae for approximately twenty years and have yet to find one that works well on the majority of patients I see. There is some doubt as to whether alfalfa is a suitable food for

human consumption. Though it has a good nutritional profile, it is best suited for the digestive system of a horse, and even then it can be easily overdone. Cancer pioneer Charlotte Gerson found that alfalfa and certain other legume sprouts and grasses can encourage or aggravate auto-immune conditions which are becoming more and more common in the civilized world (1).

Wild Greens is rich in minerals, both macro and trace. The minerals are far more bioavailable than what is found in most supplements due to the fact that plants convert the inorganic form of the minerals (rock dust) into an ionic form that is easily assimilated. The greens contain ample electrolyte minerals (calcium, magnesium, sodium, & potassium) to supply the body with alkalizing material to help maintain the proper pH of the blood and other body fluids.

Also in significant amounts are vitamins A, C, & K; fiber, and free form amino acids. Not to be overlooked are the phytonutrients such as flavonoids that also play important roles.

One of the best features of greens is their chlorophyll content. Chlorophyll is a remarkable molecule responsible for photosynthesis - the ability of a plant to convert sunlight into carbohydrates for its own use. In the human body, chlorophyll promotes tissue regeneration and oxygenation, aids in detoxification, and is antimicrobial. Supplied as part of a whole plant product as opposed to an isolated component, we feel it is far more effective.

You've probably read or heard the quote from Hippocrates; "Let your foods be your medicine and let your medicine be your foods". This is a foundational principle in human health, but we need to have high quality food - something that is becoming increasingly difficult in our modern world. We made Wild Greens Supreme™ to help fill that need.

The Ingredients:

Nettle is known for its ability to help hay fever, arthritis, benign prostatic hypertrophy and to be an effective anti-inflammatory (2, 3, 4, 5).

Chickweed is very nutritious and has been known to help with pulmonary disease, bronchitis, act as an antimicrobial, anti-obesity, and many other functions (6, 7, 8).

Couchgrass & Siberian lettuce also have strong nutrient profiles and will help in detoxification and overall health. Dandelion greens have a high nutrient profile, are anti-inflammatory, and hepato-protective (9, 10).

Dosage:

As a general health promoting supplement/food, we recommend two level teaspoons daily mixed in 4 oz. water or juice taken with a meal once daily. Better yet, add it to your smoothie. On extremely toxic individuals twice daily is preferred.

Wild Greens Supreme should be an extremely healthful addition to everyone's diet. There is no product like this on the market and, due to the wild crafting and freeze drying, it will never be mass marketed to the public. We are extremely happy to make this available to our customers.

Woad Supreme™

Key Indications: anti microbial (especially viral), anti-inflammatory, emf protection

Woad Supreme™ is the powdered root of *Isatis tinctoria*. *Isatis* has a history of use in China for 2,000+ years. *Isatis*, commonly known as woad, has the following indications:

1) It is a broad spectrum antimicrobial. We find it most effective as an antiviral for both acute (including severe respiratory conditions) and chronic problems (1). Many studies have shown it be effective against influenza (the flu) (2). It has also been shown to have antibacterial and anti-parasitic effects, including against leptospirosis (3). It is also immune-stimulatory (4). In China, woad is used to treat such conditions as pneumonia, UTI, sinusitis, tonsillitis, influenza and even acute hepatitis (5, 6). They also brew it into a tea to use topically on rosacea, herpes, shingles, and impetigo.

2) Woad is strongly inhibitory against the COX-2 enzyme thus exhibiting strong anti-inflammatory activity (7). In addition to inhibiting COX-2 and 5-LOX, *Isatis* reduced allergic airway inflammation and airway hyper responsiveness by inhibiting the production of the Th2 cytokines IL-4 and IL-5, and RANTES (8).

3) In China it has been found to be useful in helping some cancer patients, especially those with leukemia (it is obviously not a stand-alone cancer treatment) (9).

4) Animals studies suggest it has protective effects against certain forms of radiation, especially mucosal damage, and may be a good detoxifier in general (10).

Supreme Nutrition attempts to supply the physician with a large array of broad spectrum antimicrobials with long histories of use in different cultures. *Isatis* is an

excellent addition to this list and should be considered in any patient with subclinical or overt infection. It should especially be considered on patients with viral/flu symptoms.

Contraindications:

- 1) Do not use if patient is on prescription blood thinners.
- 2) Safety during breastfeeding and pregnancy has not been studied so you may want to avoid prescribing it during these times.

Dosage: 1-2 caps, 3x/day

Supreme Nutrition Products

The following herbs have traditionally been used safely during pregnancy and while breastfeeding:

**Acerola
Alaria
Camu
Elderberry
Glypho x
Grass-fed Sheep Thymus
Illicium
Lectin Protect
Lu rong
Manjistha
Reishi
Scutellaria
Shatavari
Takesumi
Thera
Vital guard.
Wild Greens**

Best to avoid during pregnancy but traditionally safe while breastfeeding

**Ashwagandha
Olive Leaf
Rosemary
Tulsi**

Key Indications of Supreme Nutrition Products

Acerola

- high vitamin C
- immune boosting

Alaria

- trace mineral supplement especially iodine
- anti-inflammatory
- antiviral
- anti-radiation
- metal and chemical chelation

Albizia

- anxiety & depression
- insomnia
- immune boosting

American Ginseng

- adrenal support
- cognitive enhancement
- cold & flu prevention
- blood sugar regulation

Andrographis

- antimicrobial
- libido
- liver support

Artemisia

- antimicrobial
- autoimmune

Ashwagandha

- fatigue
- stress
- sleep aid (gaba like)
- antioxidant
- adrenals
- mood enhancer

Astragalus

- antimicrobial (especially viral & bacterial)
- immune stimulant
- anemia
- cardio protective
- chronic fatigue

Bacopa

- memory & focus
- brain health
- thyroid

BFB-1 & BFB-2

- biofilms
- antimicrobial
- quorum sensing

Black Walnut

- antiparasitic
- antifungal
- antibacterial
- antiviral

Body Guard

- emf protection
- liver
- gall bladder
- antimicrobial
- blood pressure
- blood sugar

Camu

- natural high vitamin C source
- allergies
- metal chelator
- antiviral
- anti-inflammatory

Cat's Claw

- antimicrobial (especially viral and lyme)
- anti inflammatory
- cardiac health
- insulin resistance

Chaste Tree

- premenstrual syndrome
- reproductive hormone balancing
- antimicrobial
- prostate health

Cissus

- Musculoskeletal pain
- Bone and tissue healing
- increase metabolism
- antimicrobial (broad spectrum)

Dan Shen

- cardio-protective
- increases nitric oxide
- fibrinolytic
- bartonella
- increases dopamine

Elderberry

- antiviral (esp cold/flu)
- immune booster
- allergy support

Lu Rong

- musculoskeletal support
- arthritis
- nerve growth factors
- anti-inflammatory
- athletic performance
- mood enhancer

Endo

- endocrine adaptogen
- adrenals
- libido
- fatigue
- arthritis

Glypho-X

- Glyphosphate, herbicide, and pesticide detoxification
- liver support
- anti-inflammatory
- antimicrobial

Golden Thread

- broad spectrum antimicrobial (fungus, bacteria, parasites, virus)
- liver
- gall bladder

Grass Fed Sheep Testicle

- men's health
- muscle growth
- libido support

Grass Fed Sheep Thymus

- immune boosting/modulating

Hawthorn

- cardio protective
- blood pressure
- cholesterol
- edema/swelling

Hemo Guard

- helps normalize hypercoagulation
- may decrease platelet aggregation

Houttuynia

- antimicrobial (especially against Bartonella)
- anti-inflammatory
- inhibits histamine release in allergies

Illicium

- anti microbial
- GI inflammation
- neuro-protective
- flu preventative

Japanese Knotweed

- antimicrobial (biofilm, bacterial, lyme, viral, influenza, EBV, etc.)
- Anti-inflammatory
- Cox-2 inhibitor
- Biofilm

Lectin Protect

- lectin detoxification
- trace mineral support
- antiviral
- antioxidant

Lu Rong

- musculoskeletal support
- arthritis
- nerve growth factors
- anti-inflammatory
- athletic performance
- mood enhancer

Manjistha

- anti-inflammatory
- anti anxiety
- lymph, kidney, blood detoxifier

Melia

- broad spectrum antimicrobial (fungus, bacteria, parasite, virus)
- liver
- antihistaminic

Mimosa

- antimicrobial (especially against parasites and Borrelia)
- anti-hemorrhoids
- anti-ulcers
- liver support

Morinda

- broad spectrum antimicrobial (fungus, bacteria, parasite, virus)
- anti-inflammatory

MT Supreme

- antimicrobial
- immune stimulant
- metal/chemical detox

Mucuna

- neurodegenerative conditions
- low libido
- stress control
- depression
- antioxidant

Olive Leaf

- antimicrobial
- cardioprotective
- antioxidant

Oral Supreme

- broad spectrum antimicrobial for oral cavity

Reishi

- longevity
- kidney
- fatigue
- methylxanthine toxicity
- immune stimulant
- chemical chelator
- antimicrobial

Rosemary

- helps break down estrogen
- powerful anti-oxidant
- neuroprotective

Schisandra

- Increases glutathione production
- Increases energy, stamina and focus
- Adaptogen
- Increases liver function

St. John's Wort

- mood / serotonin support
- gut support/antimicrobial
- immune modulation
- endocrine support

Scutellaria

- anti candida
- anti dengue
- increase glutathione
- anti-inflammatory

Shatavari

- female hormones
- milk production
- libido
- gastric ulcers

Smilax

- endotoxin binder
- broad spectrum antimicrobial
- auto-immune issues

Takesumi

- metal/chemical chelator
- detoxification
- endo-toxemia
- trace mineral source
- intestinal upset

Thera

- immune stimulant
- antioxidant
- vitamin/mineral/phytonutrient source
- solanine toxicity

Tulsi

- adrenal support
- hepatoprotective
- antioxidant
- anti-inflammatory
- antimicrobial

Usnea

- antimicrobial (especially bacteria and fungi)
- biofilms

Uva Ursi

- urinary tract infection
- broad spectrum antimicrobial
- oxalic acid issues
- kidney stones

Vidanga

- antimicrobial (especially against helminths and tapeworms)
- high homocysteine / methylation issues
- high LDL cholesterol and low HDL

Vital Guard

- broad spectrum antimicrobial
- neuro protective
- cardio protective

Wild Greens

- phytonutrient source
- general health enhancement

Woad

- antimicrobial (especially viral)
- emf protection

Supreme Nutrition Products by Suggested Use

Adrenals

- Endo
- Tulsi
- Ashwagandha
- American Ginseng
- Camu
- Schisandra

Allergies

- Camu
- Morinda
- Elderberry
- Takesumi
- Houttuynia
- Reishi

Antimicrobial

- Morinda
- Melia
- Golden Thread
- Artemisia
- Olive Leaf
- Scutellaria
- Mimosa
- Cat's Claw
- Houttuynia
- Woad
- Vidanga
- Uva Ursi
- Usnea
- Andrographis
- St. John's Wort
- Schisandra
- Illicium
- Elderberry
- Black Walnut
- American Ginseng
- Vital Guard
- Japanese Knotweed
- Astragalus
- Oral Supreme
- Reishi
- Acerola
- Smilax

Antimicrobials continued...

- Shatavari
- BFB-1
- BFB-2

Anti-inflammatory

- Rosemary
- Manjistha
- Japanese Knotweed
- Cissus
- Cat's Claw
- Scutellaria
- Camu
- Uva Ursi
- Astragalus
- Houttuynia
- Tulsi
- Albizia
- Chaste Tree
- Morinda
- Glypho-X
- Alaria

Antioxidant

- Rosemary
- Thera
- Wild Greens
- Elderberry
- Hawthorn
- Bacopa
- Ashwagandha
- Olive Leaf
- Albizia
- Mucuna

Athletic Performance

- Lu Rong
- Grass Fed Sheep Testicle
- Cissus
- Schisandra
- Endo
- Tulsi

Biofilms

- BFB-1
- BFB-2
- Oral Supreme
- Usnea
- Japanese Knotweed

Cardiac

- Dan Shen
- Hawthorn
- Hemo Guard
- Japanese Knotweed
- Cat's Claw
- Vital Guard
- Astragalus

EMF's/Radiation

- Body Guard
- Takesumi
- Alaria
- Woad

Estrogen Imbalance

- Shatavari
- Chaste Tree
- Rosemary
- Schisandra
- Body Guard

Fatigue

- American Ginseng
- Tulsi
- Endo
- Astragalus
- Hawthorn
- Reishi
- Lu Rong
- Ashwagandha

Gall Bladder

- Body Guard
- Schisandra
- Golden Thread

Glyphosphate, Herbicide, and Pesticide Detoxification

- Glypho-X
- Schisandra
- Takesumi
- Smilax

Hypercoagulation

- Hemo Guard
- Dan Shen
- Hawthorn

Immune Stimulants

- Grass Fed Sheep Thymus
- Reishi
- Astragalus
- Morinda
- Acerola
- Elderberry
- MT Supreme
- Japanese Knotweed
- Albizia

Lectin Detoxification

- Lectin Protect

Libido

- Shatavari
- Grass Fed Sheep Testicle
- Endo
- Mucuna
- Andrographis
- Lu Rong

Liver

- Schisandra
- Body Guard
- Tulsi
- Glypho-X
- Andrographis
- Golden Thread
- Mimosa

Lymph Detoxification

- Manjistha
- Takesumi

Metal/Chemical Detox

- Takesumi
- MT Supreme
- Schisandra
- Camu
- Glypho-X
- Wild Greens
- Manjistha
- Alaria

Methylation

- Vidanga
- Thera
- Wild Greens

Methylxanthine Toxicity

- Reishi
- Takesumi
- Ashwagandha
- Body Guard
- Schisandra

Mood Enhancement

- Ashwagandha
- Albizia
- St. John's Wort
- Mucuna
- American Ginseng
- Shatavari
- Bacopa
- Chaste Tree
- Endo
- Tulsi
- Lu Rong

Musculoskeletal Support

- Lu Rong
- Cissus

Mycotoxins/Endotoxins

- Smilax
- Takesumi

Neuroprotective

- Vital Guard
- Rosemary
- Mucuna
- Bacopa
- American Ginseng
- Japanese Knotweed
- Illicium
- Dan Shen

Oral/Dental Health

- Oral Supreme

Sleep

- Ashwagandha
- Albizia

Solanine Toxicity

- Thera
- Takesumi
- Lectin Protect

Vitamin/Mineral Support

- Alaria
- Thera
- Wild Greens
- Camu
- Acerola
- Lectin Protect

Supreme Nutrition Products are available from:

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Office Hours: 9-7 EST, Monday - Thursday

9-5 EST Friday

or online at

www.supremenutritionproducts.com

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