

# 60 Capsule Bottles



# **Cognitive Boost Capsules**

# **Enhance Memory and Sharpen Mental Focus**

Enhance Memory, Awareness, Concentration, and Focus. - Protect Against Neurodegenerative Diseases - May Improve Mood, sleep quality, Alpha Brain Wave Activity - Achieve Alert Calmness - Relax (Reduce Stress) without feeling drowsy - Sharpen your mental acuity



Students, Digital Nomads, Business People, Professional/Amateur Sports People, and Aging Population: Here is a truly natural herbal product which human clinical tests have shown to support and boost your cognitive functions. These are in Vegetarian/Vegan capsules which are easy and convenient to carry with you anywhere.

Our delivery system, premium freeze dried powder allows us to avoid

the use of any preservatives. Our evolutionary, transitional and proprietary Cellular Preservation Technology sustains the health benefits of the fresh blue butterfly flower in a stable dry powder that is concentrated, highly bio-active, soluble and bioavailable (easy for your body to use and or store.

The health benefits and unique advantages of our powders are covered in our Blue Butterfly and Matcha Green Tea Product Briefs. Now to this amazing natural blue edible flower and Matcha Green Tea we have added L'Theanine super boost. (Suntheanine) See end notes

This L'Theanine boost is derived from Green Tea leaves by a patented fermentation process that mimics the natural process in green tea leaves. L'Theanine is a rare amino acid, found almost exclusively in green tea, which crosses the blood-brain barrier and has a direct and



dramatic positive effect on our cognitive abilities.

Over the Top: The highly competitive and stressful nature of today's modern world may sometimes result in extreme measures. In this "study hall" in a Chinese college, students study while hooked up to IV bottles that provide an amino acid drip to stay alert and stimulate their cognitive abilities. There is no need to go to this extreme; nature provides perfect solutions for every

challenge.

<u>Keep it Real</u>: Using blue butterfly flowers and green tea processed by Cellular Preservation Technology" combined with an L'Theanine boost provides an amazing natural cognitive product which human clinical trials have shown to:

- Increase alpha brain wave activity associated with a relaxed but alert mental state. Achieve alert calmness.
- Enhance Memory
- Increase Focus/Mental Concentration
- Improve Mental Health (Promote Healthy Aging)
- Relax (Reduce Stress) without feeling drowsy
- Improve sleep quality for healthy Men and Women as well as Children with ADHD

Other clinically demonstrated benefits include improvement in Premenstrual Syndrome (PMS) symptoms such as poor concentration, behavioral swings, and negative mental outlook as well as physical symptoms including autonomic reactions, pain, and water retention.

Immune response is assisted as is the enhancement of the parasympathetic nervous system helps conserve energy as it regulates heart rate, increases intestinal and gland activity and relaxes the gastrointestinal tract.

At the same time L'Theanine inhibits the sympathetic nervous system and in doing so mediates the "fight or flight" response.

Each of the Thai herbs in our Cognitive Function Blend are incredible by themselves and have delivered the results attributed to them consistently over centuries of traditional use. They have stood the test of time and each herb individually has been validated by modern science and has been approved by the Thai F.D.A. as a dietary supplement.

Together their effects are multiplied by the synergy between them, to improve your cognitive function would it not make sense to create real increases in your overall energy level and make more efficient use of your energy, tune your energy systems at the same time? In our bodies, everything affects everything else, the overall benefits of being in balance are all pervasive – they affect your entire being.

There is a Northern Thai (Lanna) concept we refer to as the "Wisdom of Equilibrium" which lies at the epicenter of wellness and holistic health. A body in balance (homeostasis) displays remarkable self-healing capabilities, increases your vitality and promotes longevity.

"Homeostasis" is the natural tendency of the body to adjust in a manner that maintains a state of overall balance. In balance the body can perform with maximum efficiency and your entire system works in a natural state of harmony. Your ability to adapt to internal and external stress factors is at its optimum level. This ability to adapt is literally a defining condition of life. Nothing could be more central to our existence and the basic instinct for survival that exists in every living organism.

While allopathic medications may effectively command the body to do as we wish (many times with serious negative side effects) these super herbs respect and work with the body's innate intelligence and natural balance with homeostatic efficiency. In a carefully considered combination, these herbs will begin to work on what's given and different for each person to bring that person into balance and reduce the friction and stress we have created in our bodies and our world.

Sharpen your mental acuity; enhance your memory, awareness, concentration, and focus. One of today's fastest growing health concerns is loss of cognitive function. Accumulated prevention from daily use is the best plan – start now on a program that will help you in today's competitive world and keep you on track.

# **Blue Butterfly Pea Vine**



#### Scientific name- Clitoria ternatea

Butterfly Tea has a beautiful deep cobalt blue color that lead many to believe that this gorgeous plant was actually a gift from nature; they have a shape similar to female genitalia from which it derives its scientific name. Aside from its many culinary uses, the blue butterfly pea vine has been used in Ayurvedic as well as traditional Asian and Middle Eastern medicine and its health benefits are increasingly supported by modern science.

# Health Benefits:

- **Nootropic.** Enhances cognitive functions including heightening intelligence and enhancing memory via acetylcholine localized to the hippocampus
- Anxiolytic. Reduces stress and anxiety calming effect
- Relaxes. Smooth vascular muscle aiding blood flow
- Analgesic. Helps to relieve pain to the extent it is used as a local anesthetic
- **Diuretic.** Promotes excretion of water (urination) which decreases blood volume thereby lowering high blood pressure, also used for fast but typically temporary weight loss
- Anti-inflammatory. The deep blue flowers contain flavonoid pigments similar to blue berries, acai berry, mangosteen rind etc. that protect the plant. When you injest the flower the effect is remarkably similar to the anti-inflammatory effect of the plant in nature.
- Anti-Asthmatic. assessed by passive cutaneous anaphylaxis
- Anti-microbial.
- Anti-anxiety. and depression with indication that high doses may be adaptogenic
- Anti-convulsion.
- Anti-diabetic. activity by inhibiting glucose intake from the diet
- **Anti-cancer.** and anti-tumor abilities resulting from cyclotides that cause cell death by disrupting cell membrane integrity
- **Anti-pyretic.** reduces fever by dilating the blood vessels just beneath the skin which increases blood flow near the surface of the skin where it can be more easily cooled by the air
- **Eyes.** The presence of the anti-oxidant, proanthocyanidin, helps to improve eyesight by increasing blood flow in the capillaries of the eyes which also allows the eyes to adjust to changes in light and improves vision. The blue butterfly pea vine flowers have been shown to effectively prevent cataracts and glaucoma, correct blurred vision, and reverse retinal damage as well as soothing inflamed and tearing eyes.
- **Hair.** The blue butterfly vine flower, rich in bioflavinoids, has been used traditionally to promote hair growth, thicken the hair and reduce greying of the hair.
- **Skin.** Anti-oxidants in blue butterfly pea flower stimulate collagen and elastin synthesis helping to rejuvenate the skin, reduce wrinkles and other effects of aging skin.
- **Aphrodisiac.** Traditionally used as an aphrodisiac particularly for women and used to treat problems associated with menstruation as well as leucorrhoea (white vaginal discharge).

**Healthy Convenience**: Our blue butterfly pea vine tea is unique. Normally, if you can find this tea at all, it will be in the form of dried flowers. You will steep the tea and then throw away the flowers, drinking only the mildly infused water. You've just kept the bath water and thrown away the baby!

In this case you do not need to steep tea. This makes the product more convenient, more dramatic (you can mix it at the table and watch the water turn blue), and avoids the heat of steeping the tea which will decrease the quality of the thermo sensitive ingredients. You can add just a pinch of our Cellular Preservation Technology (CPT) activated powder to either hot or cold water (even ice water) and the fine powder with porous particle structure will dissolve in the water with mild stirring to produce a beautiful bright blue herbal infusion ("Tisane") Our blue butterfly pea vine tea is similar to matcha tea in the sense that you are drying the flowers and creating a fine powder which you ingest – essentially drinking the flowers.

This provides a concentrated dose requiring only a very small quantity of powder and provides the benefits of this amazing plant in concentrated form. In this concentration the cost per serving is very reasonable. In this stable dry powder with shelf life of two years, you have availability of the highest quality all year round regardless of the flowering season.

www.cptsuperherbs.com



# Matcha Green Tea:

scientific name- Camellia sinensis

Tea has been used in traditional Chinese medicine for over 5000 years. Writings from the Tang Dynasty indicate that by 650 AD

tea was cultivated throughout China. It was introduced to Japan in about 600 AD by Buddhist priests returning from study in China.

The legendary health benefits of tea have been evaluated by modern science. This information is so well known and so thoroughly documented that I will not go into great detail in this product brief. Evidence- based scientific studies are well documented.

**Polyphenols** function as powerful antioxidants. One of the most powerful antioxidants found in green tea is Epigallocacatechin Gallate. EGCG may help against free radicals that contribute to cancer, heart disease and clogged arteries. They are also helpful to burn fat and counteract oxidative stress in the brain that can lead to neurodegenerative diseases such as Alzheimer's and Parkinson's.

**Weight Management:** EGCG inhibits enzymes that break down the hormone norepinephrine. Increasing norepinephrine levels increase the signals that stimulate the body to breakdown fat – especially visceral fat that builds up around our organs in the abdominal area. In addition caffeine stimulates fat burning by increasing our metabolic rate. The overall effect is weight loss and energy gain.



**Physical and Cognitive Stimulation**: Tea contains caffeine which blocks adenosine receptors and inhibits the effects of adenosine. The caffeine binds to and occupies the adenosine receptor sites. However, caffeine doesn't slow down the cell's activity as adenosine would. Instead of slowing down because of the adenosine, cellular metabolism speeds up.

With caffeine blocking the adenosine, you have increased neuron firing in the brain. The pituitary gland senses this activity and thinks an emergency must be occurring, so it releases hormones that tell the adrenal glands to produce adrenaline (epinephrine). Adrenaline is the "fight or flight" hormone and by this metabolic pathway caffeine stimulates your body and your mind. You may feel more alert and focused, more energetic and less fatigued.

However the high levels caffeine found in coffee may cause anxiety, irritability and reduced control of fine motor movements ("jittery effects) for some people. High caffeine levels may increase blood pressure, cause insomnia and have other negative health effects.

Green tea has lower levels of caffeine than coffee, enough for a boost but not so much as to cause the jittery effects we may see in coffee. In addition, green tea has high levels of a rare amino acid, L-Theanine.

L' Theanine increases the activity of GABA, a neurotransmitter which produces anti-anxiety effects and also increases dopamine and alpha waves in the brain. These calming effects result in a more stable energy (less "jittery") than caffeine alone. The proper balance of L-Theanine and caffeine promotes faster reaction time, faster numeric working memory and improved sentence verification accuracy.

L'Theanine can cross the blood-brain barrier to have a direct influence on brain activity. It enhances alpha activity and was found to increase the general state of mental alertness and arousal. The combination of caffeine and L-Theanine has increased speed and accuracy in attention switching tests and has reduced the likelihood of distraction in memory tasks. Researchers in Korea conducted randomized double-blind, placebo controlled studies which showed that L-Theanine improved memory, selective attention and cognitive alertness.

## The L Theanine we use is Suntheanine brand from Japan Award Winning, Patented Technology Kosher-Halal-Non GMO certificates.

Suntheanine was awarded the "Food Ingredient Research Award" at the 1998 Food Ingredients Europe and "Best New Product of 2000" at Nutracon. Suntheanine is protected by over 40 U.S. and international patents for its various physiological efficacies and L-isomer specific production processes.

See Notes on Suntheanine (What is Suntheanine?) see end of Green Tea Brief

**Cognitive Health**: Green tea not only increases immediate and short term brain function, but may also protect against neurodegenerative diseases in old age. Catechin compounds in tea may protect neurons potentially lowering the risk of Alzheimer's and Parkinson's.

Asthma: Theophylline relaxes smooth muscles and so has made tea a traditional remedy

for respiratory illness including asthma.

**Dental Health:** Catechins in green tea can inhibit the growth of harmful Streptococcus bacteria in the mouth that cause plaque formation leading to tooth decay.

**Diabetes:** Green Tea may improve insulin sensitivity and reduction in blood sugar levels to help combat Type II diabetes.

Anti-aging: A study of over 40,000 Japanese adults concluded that those who drank 5 cups or more per day of green tea were significantly able to live longer. A follow up study with 14,000 Japanese between the ages of 65-84 years found that those who drank the most green tea were 76% less likely to die during the six year period of the study and there were 31% fewer cardiovascular deaths in women who drank five or more cups of green tea daily compared with those who drank one cup or two.

#### **MOUNTAIN GROWN**



Most commercial tea is grown on large plantations on terraced land ("terrace tea"). This tea gets too much sun to qualify as "Matcha." Matcha green tea is grown with substantial shade as it grows naturally in the mountains where the surrounding trees and the shape of the mountains themselves provide nature's perfect balance of sunlight and shade along with the biodiversity of nature.

Shielding the tea leaves from sunlight increases the accumulation of amino acids vitamins, L'Theanine and Caffeine.

Less sunlight requires more efficient use of the sunlight during the process of photosynthesis. This requires higher levels of chlorophyll which results in the bright green color of "Matcha." Sunlight converts L'Theanine to catechins. Less sunlight creates more L'Theanine. At the same time less sunlight increases the level of Caffeine. It is this balance of L'Theanine and Caffeine that creates the alert calmness of a modern warrior typical of "matcha."

**RAW MATERIAL SPECIFICATIONS:** We start with the highest quality shaded mountain tea. The environment in which the tea is grown largely determines its quality. Encroachment of industrial toxins such acid rain have tinted the ancient tea forests of China and other highly industrialized countries. In the mountains of Northern Thailand, far from any cities and in an agricultural-based economy lacking industrial activity the environment is still pristine. Weather conditions, rainfall and time of harvest are critical. Our procurement team works with our farmers to harvest under just the right conditions. We harvest only the young shoot (terminal bud) and young top two leaves. The leaves are carefully hand-picked to avoid broken leaves and partial flushes that can reduce quality. The young, fresh growth produces the best Matcha since they have been exposed to far less sunlight than the mature leaves.

Farm Fresh: The Mountains where our tea grows is about 1.5 hours' drive from our factory. This is critical especially in the case of green tea. Tea is very energetic (bioactive) and as soon as it is removed from its life cycle (harvested) is heats up due to enzymatic activity and degrades rapidly. This heat is a reflection of the strength of the enzymes and the high level of energy in the tea leaves. Some botanicals can be frozen and delivered into the freeze dry process in frozen form since the first step after cleaning is freezing in any case. However tea leaves should not be frozen and must be delivered absolutely farm fresh into our Cellular Preservation process. This makes the logistics of delivery and processing quite challenging but possible for us due to our location very near to the mountain tea.

All teas come from the same plant. – *Camelia synensis*. (Herbal "teas" are not truly "tea" but more accurately described as "herbal infusions.") The differences between Matcha, green, black, oolong, white tea is a function not only of how the tea is grown, but to a large degree depends on how the tea plant is processed. In general, the less the tea is processed the stronger the presence of polyphenols and nature's benefits. Matcha green tea is made by drying and grinding fresh green tea leaves.

But our Cellular Preservation Technology activated Matcha green tea powder is created without heat and with a no need of mechanical grinding.

In CPT the tea leaf breaks up into small particles along and between cell walls preserving the cellular structure and intracellular contents. This unique process provides a highly bioactive material and bioavailable particle structure. This makes our Matcha green tea the highest attainable quality.

CPT activated Matcha green tea powder was analyzed by a food scientist consulting with a prestigious company in EU. Tea leaves had been harvested the same day, and from the same tea bushes; one lot had been traditionally dried under shade; the other lot had been dried by Cellular Fraction-Line technology.

Results are dramatic: In the case of CPT activated green tea, compounds (polyphenols) had been multiplied, by 4 folds up to 20 folds.

Same harvest, same origin, green tea from north of Thailand	Process	Main molecules of green tea g/100g								
		Catechin	Epicatech in	Epicatechin -30 gallate	Epigallocat echin	Epigallocat echin gallate (EGCG)	Total catechins	Gallic acid	Total des polyphenols	L-theanine
North of Chiang Mai	Accurate drying in the shade, then reduce to powder	0,28	0,046	0,14	traces	0,5	0,97	0,04	1,01	traces
	Active Freeze Drying	1,15	0,98	0,94	3,6	8,4	15,07	0,04	15,11	1,27
Result	Increase	400%	2100%	700%	x20	1700%	1600%	same	1500%	x20

Other lab tests show a high ORAC level and the complete absence of pesticides in our USDA Organically Certified green tea leaves Certificate Number: ONE-1667-151201-H-NOP.

When you drink Matcha green tea you are not getting just a mild infusion such as when you drink a cup of tea and then throw away the leaves or tea bag. A majority of the nutrients, antioxidants and vital ingredients stay in the tea leaves after steeping. In the case of "Matcha" you are getting a concentrated dose by ingesting the entire tea leaf. Compare this to drinking a cup of tea (a mild infusion) - now eat the tea leaves/tea bag. The difference is astronomical in terms of delivery of the vital ingredients and the health benefits of the live tea plant.

# What is Suntheanine?

Suntheanine is a 100% pure L-isomer-Theanine, clinically researched and backed by more than 40 U.S. and international patents.

It has been estimated that nearly 65% of the adult population experiences some form of stress, and these numbers are continually rising. Since ancient times, it has been said that drinking green tea induces relaxation. A pioneer in the science of green tea, Taiyo found this relaxation effect to be due to the presence of the amino acid L-theanine, found almost exclusively in tea. Clinical research suggests that 50 mg – 200 mg Suntheanine stimulates activity in the brain known as alpha waves, which are associated with a relaxed but alert mental state. Suntheanine is the trade name for Taiyo's patented pure form of L-theanine. Suntheanine is not an extract of green tea but rather is produced via a patented process that mimics the natural process in green tea leaves, resulting in a 100% pure L-isomer-theanine.

### How does it work?

Human clinical trials have shown Suntheanine to promote an alert state of relaxation without drowsiness, as indicated by an increase in Alpha brain waves, and a decrease in Beta brain waves.\*

The brain emits weak electrical impulses that can be measured on the surface of the head, which are classified based on their frequency:

Delta	0.5–3.0	Sound Sleep
Theta	4.0–7.0	Dozing/Sleeping
Alpha	8.0–13.0	Relaxed, Alert State
Beta	> 14.0	Awake, Excited State

Additional human clinical research suggests that Suntheanine may have application in improving the quality of sleep, diminishing normal symptoms of premenstrual syndrome (PMS), improving learning performance, heightening mental acuity, promoting concentration, reducing negative side effects of caffeine and supporting the immune system.\*

Is it safe?

Suntheanine has been shown to be safe based on numerous favourable toxicology and efficacy studies. Unlike other stress reducing supplements, Suntheanine does not cause drowsiness. Suntheanine has been consumed in beverages, foods and supplements since 1994 with no indication of adverse reactions or contraindications. The GRAS Affirmation (Generally Recognized as Safe) of Suntheanine received confirmation from the US FDA in 2007 for its use in a number of food and beverage categories (GRN 000209).

## Award Winning, Patented Technology

Suntheanine was awarded the "Food Ingredient Research Award" at the 1998 Food Ingredients Europe and "Best New Product of 2000" at Nutracon. Suntheanine is protected by over 40 U.S. and international patents for its various physiological efficacies and L-isomer specific production processes.

# Mind Body Green calls L-theanine a plant-based powerhouse

### Categories: Articles, In the News

We love how this <u>mindbodygreen.com article</u> describes L-theanine as, "the closest thing we've got to meditation in a bottle." This article also describes several other benefits associated with this amino acid, from boosting attention, mood and sleep quality to boosting creativity.\*

Suntheanine is a clinically proven, Non-GMO Project Verified L-theanine supplement. It's produced via a patented process that results in 100% pure L-theanine, ensuring safety, potency, consistency and quality.

Here's a quick look at what mindbodygreen had to say about L-theanine:

## L-theanine promotes a soothing brain wave pattern.\*

L-theanine has been clinically shown to increase alpha brain waves. These brain waves promote relaxation without drowsiness.\* "Alpha brain-wave production also happens during deep meditation, when sensory inputs are minimized and the mind is generally clear of unwanted thoughts or distractions. Interestingly, stimulating alpha waves has also been shown to boost creativity and alleviate depression."

Human <u>clinical trials</u> have shown that Suntheanine increases alpha brain waves, as well as decreases beta brain waves. Beta waves promote an excited state.

## L-theanine may help support attention and working memory.\*

According to the article, green tea consumption – L-theanine is naturally found in green tea – has been shown to enhance performance on tests of working memory by increasing connectivity within the brain during processing. "This is a fascinating discovery because activity in the frontal region of the brain is correlated to executive function, while the parietal region handles sensory input."

## L-theanine may slow or reduce cognitive decline.

The article references a <u>study</u> which showed that elderly individuals who consumed Ltheanine-enriched green tea powder had reduced cognitive decline compared with a placebo group.

## L-theanine may help improve mood.\*

L-theanine <u>helps improve</u> the production of GABA, a relaxing neurotransmitter. "GABA is important for nervous system function; (it's) often used as a natural supplement to promote sleep, improve mood, and ease anxiety," the article explains.

## L-theanine .\*

L-theanine encourages relaxation which helps calm the mind, making it easier to get longer and more restful sleep. The article also references a <u>clinical study</u> which used Suntheanine. In this study, researchers demonstrated that Suntheanine safely and effectively improved the sleep quality of 8 to 12-year-old boys with ADHD.

## Dr. London

Board Certified Family Physician and Triathlete

Would you drink 20 cups of green tea to help you win your next game? There is a more realistic way to stay calm and focused when you train or compete.

Top athletes understand that mental clarity and focus are essential to their performance. A split second loss of concentration can mean defeat or injury. And when it comes to natural alternatives for boosting alertness, there really is not a lot out there. Studies have shown that L-theanine, an ingredient found in green tea, can help you stay calm yet alert, which can be a competitive advantage for even weekend athletes. But you would have to drink as many as 20 cups of green tea in one sitting to get this benefit. Thank goodness there is a more practical solution!

L-theanine is an amino acid that causes alpha wave production, the same alpha waves you get when you meditate. Suntheanine, which is a purified form of L-theanine produced by an enzymatic process, does not make you drowsy as you might think meditation would.

I have personally overcome some of the most common excuses for being out of shape: having no time, inheriting so-called 'fat genes. and dealing with weight gain due to pregnancy.

People talk about inheriting fat, and that is nonsense. Everyone in my family, except my parents, was huge and they suffered the resulting health complications. I have never been obese but I have been overweight. I decided to shock my body so that by my 45th birthday I would have the body I had before having children.

I joined a gym, and hired a personal trainer to keep me motivated. I did all the things I tell my patients to do. At one point my trainer suggested that I think about competing, and it got me thinking about taking my physical fitness to the next level. Short course triathlons made the most sense for me.

Now when patients tell me they have no time to work out, I do not buy it. I am a single mom, a full time physician and a triathlete. Since I started training, my patients tell me I look younger. I feel that way too. I like the example I am setting. The best part is that my patients are now coming in and telling me about their new fitness routines. I am not asking them to do triathlons, only that they do not give into excuses. I tell them the right exercise is the one that they can stick with.

The L-theanine advantage

People today deal with a lot of anxiety and stress. They are worried about paying the bills, staying healthy, keeping their kids safe... normal everyday stressors. Exercise is one key to dealing with stress, and I get a lot of great feedback from my patients about how Suntheanine helps them take the edge off and allows them to keep working out. I do not know anyone who does not get nervous before a race. When you are training at a high level, there are very few differences in fitness levels among those who win and those who lose. Part of the winning edge is technique, but another important key is being able to think clearly, to breathe calmly and to remain focused. Suntheanine can be your secret competitive advantage – and it is completely safe.

I also make sure I get adequate hydration. Most people need hydration long before they notice they have become thirsty. I have seen people fall down from being dehydrated. To calculate your baseline needs, divide your body weight in half. That is how many ounces of water or liquids you should consume daily.

When you work out at the level that I do, it is also a stress on the body. Most triathletes do not have time to nap after a workout which would enable their bodies to recover, and so their immune systems become suppressed. That is why I also incorporate antioxidants into my workout recovery routine, including a high quality green tea extract or grapeseed extract, an all-natural tomato lycopene complex, and a natural hyaluronic acid for joint protection.

Because L-theanine has been shown to support the immune system, re-hydrating with one of the many recently released L-theanine containing beverages, such as all-natural Zenmaster, VitaminWater b-Relax or LifeWater Enlighten, is another great way to help the immune system bounce back.

Dr. Teitelbaum

Board certified internist and director of the Annapolis Research Center for Effective CFS/Fibromyalgia Therapies.

Doctors have a slew of anti-anxiety medications to jot on their scrip pads, including Paxil and Valium. "But these drugs are often not just ineffective – they are also rife with side effects, such as addiction, sedation, and sexual dysfunction," cautions Jacob Teitelbaum, MD, the medical director of the Fibromyalgia and Fatigue Centers of America and author of *Pain Free 1-2-3: A Proven Program to Get You Pain Free!* (McGraw-Hill, 2006) Find peace of mind with L-theanine, an amino acid found in green tea and "an outstanding treatment for anxiety," says Teitelbaum. "One of the greatest benefits of L-theanine is that you can use it without becoming sedated or lethargic in the process."

L-theanine works in a couple ways, according to Teitelbaum. First, it directly stimulates the production of alpha brain waves, which are associated with a relaxed-but-alert state of mind, similar to the state meditation achieves. Secondly, he explains, L-theanine is involved in the formation of the neurotransmitter GABA, which calms you while you're awake but deepens sleep at night. "L-theanine also naturally stimulates the release of the 'happiness molecules' serotonin and dopamine." One study earlier this year, conducted by researchers at the program in Cognitive Neuroscience at the City University in New York, found that by boosting people's alpha brain waves, L-theanine helped people stay more focused and responsive while performing mundane tasks.



#### The Technology – Cellular Preservation Technology (CPT)

Cellular Preservation Technology or CPT is a proprietary technology which utilizes a modified form of freeze drying.

Freeze Drying has been used for centuries however the common industry standard freeze dry method typically uses traditional 'static' freeze drying with a further process of mechanical grinding.

#### Image 1 – Traditional Vs Cellular Preservation Technology (CPT)

Traditional freeze drying Cellular Fracture Line technology - 1-step process - super frozen particles fly around in the product chamber - no mechanical grinding. -brittle material motion and sublimation of ice structure - multi-step process; bacteria and mould growth risk. that hold it together causes product to break along natural - static materials sitting on trays; elemental fracture lines. 10-20% residual moisture - <0.1% residual moisture - product ground into a powder; product cell structure destroyed

CPT is a key component in the creation of our functional foods. It allows us to preserve a whole food in its fresh form, thus maintaining all of the medicinal activity of a live plant while providing the safety of a stable commodity.

This proprietary and transitional preservation process gives us the unique ability to provide a superior product compared to anything else available on the market today. The 'secret' to our technology is the Herbs are dried while they remain frozen in a vacuum state, rather than sitting motionless on trays (as in the traditional tray freeze drier), the product is flying round in a vortex. The deeply flash-frozen CPT granules decrease in size due to sublimation of the connecting ice structure and break into increasingly smaller particles along natural elemental fracture lines.

This creates a smaller particle size and porous structure without cellular hemorrhaging, caused by mechanical grinding of the <u>traditional</u> process as used in the industry today. CPT particles are much more easily absorbed and metabolized (more bio-available), and are more soluble for use as a catalyst ingredient in other formulations.

#### <u>Solubility</u>

As a food ingredient our herbs are highly soluble. Solubility ties into taste as well as ease to combine with other ingredients. This high level of solubility (enhanced by the CPT freeze dry process creates a more soluble particle structure),

#### Fresh Super herbs and Super foods

As soon as our botanicals are harvested they naturally begin to degrade. It is critically important to get them into the CPT process immediately after harvest. The logistics are challenging in any case, but the fact that they are grown at our doorstep in the mountains surrounding Chiang Mai, Thailand makes it all possible.

#### Higher Bioactivity Superior Efficacy

The objective achieved by CPT is preservation not only of the targeted ingredients but preservation of the entire cellular and molecular structure of the live plant. This is achieved by:

- An Evolutionary and Transitional Freeze Dry Process where the product is never exposed to the destructive oxidative forces of heat.
- Plant tissue fractures between/along the layers of the cell walls preserving cellular integrity and improving the retention of the bioactive intracellular contents.
- Water removed as a liquid at an extremely low constant temperature (minus 55 deg C) evaporates at a constant rate while the quantity of water steadily decreases. This creates surface tension. Any solid structure in contact with the water will normally experience surface tension strong enough to damage fragile cell walls; CPT removes water in its gaseous state (water vapor) and avoids this destructive surface tension.
- Exposure of the entire surface area to sublimation results in "even" drying which preserves cellular integrity.

The net result is preservation of the complex synergistic structure as close as possible to how it exists in nature. This translates to a more highly bioactive more effective powder.

#### Higher Absorption and Higher Bio-Availability

Particles break down inside the product chamber with minimal need for mechanical grinding. They break down due to the movement of the super frozen particles and sublimation of the ice structure that holds the particles together. This causes them to fall into small porous particles along the natural Cellular Lines creating soft, porous particles which have more surface area per unit of weight and therefore are absorb more easily.

The function and value of our food supplements lie not in lab tests alone, but in their energetic breakdown and uptake inside your body and the preservation of enzymes, proteins and vitamins.

The ability of your body to store or use these nutrients is called bio-availability – yet another huge advantage of our Cellular Preservation Technology activated botanicals.

The quality and effectiveness of our Products are the result of the remarkable protocols and processes we employ from the fields to the finished product. For details on this evolutionary process, please contact us at <u>www.cptsuperherbs.com</u>

# Scientific Support & Reference Citations

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