

60 Capsules Bottle



Matcha Green Tea:

Scientific name- Camellia sinensis

A CANCER-FIGHTER, A FAT-BURNER, AND MUCH MORE, MATCHA LEAVES OTHER GREEN TEAS FAR BEHIND

One serving of matcha tea is the nutritional equivalent of 10 cups of regularly brewed green tea When you Take matcha you ingest the entire leaf and receive 100% of the nutrients of the leaf Matcha powdered green tea has 137 times more antioxidants than regularly brewed green tea. One cup of matcha = 10 cups of regularly brewed green tea in terms of nutritional content. One Capsule of CPT Superherbs Matcha Tea = 10 cups of matcha in terms of nutrition content.

Boosts metabolism and burns calories - Detoxifies effectively and naturally - Calms the mind and relaxes the body - Is rich in fibre, Chlorophyll and vitamins - Enhances mood and aids in concentration - Provides vitamin C, selenium, chromium, zinc and magnesium -Prevents disease - Lowers cholesterol and blood sugar

Why is matcha tea considered an anti-oxidant powerhouse?

One of the biggest buzz words in nutrition, antioxidants are naturally occurring chemical compounds that prevent aging and chronic diseases. Nowadays, a variety of fruits and vegetables are lauded for their antioxidant properties, leading to a host of products with all kinds of claims. But matcha is unparalleled in comparison. Firstly, matcha is packed with exponentially more antioxidants according to the latest innovation in antioxidant research. Using the testing method known as ORAC (oxygen radical absorbance capacity), experts at Tufts University discovered that matcha possesses an amazing twenty times more so than pomegranates or blueberries. Matchas ORAC rating is a mighty 1573 units per gram, compared to pomegranates 105 units per gram or blueberries 93 units.

In fact, to even begin to match the potency found in a single serving of matcha, you would need to drink at least ten cups of brewed green tea. When it comes to helping you achieve and maintain optimum health, matcha is without equal.

Antioxidants are the body's defence agents. They are chemical compounds that prevent aging and chronic

diseases. Put simply, the more you have, the better equipped your body is in the fight against infections

and disease.

Matcha tea contains a unique, potent class of antioxidant known as Catechins, which aren't found in other foods. In particular, the Catechin EGCg (epigallocatechin gallate) provides potent cancer-fighting properties.

Most importantly, EGCg and other Catechins counteract the effects of free radicals from the likes of pollution, UV rays, radiation, and chemicals, which can lead to cell and DNA damage. Since over 60% of the Catechins in matcha are actually EGCg, a daily matcha regimen can help restore and preserve the body's integral well-being and balance.

Amino Acid, L-theanine, helps me concentrate and focus?

Over a thousand years ago, matcha came to Japan as an aid to meditation practice. During long hours of sitting, monks would drink matcha to remain alert yet calm. Modern science has recently confirmed the lessons of centuries of tradition. Matcha is rich in L-Theanine, a rare amino acid that actually promotes a state of relaxation and well-being by acting upon the brains functioning. While stress can induce beta waves an excited, more agitated state, L-Theanine creates alpha waves, which lead to a state of relaxed alertness. And while L-Theanine is common in all tea, matcha may contain up to five times more of this amino acid than common black and green teas.

As an additional benefit, L-Theanine may help memory and learning and ability all the while inhibiting any possible side-effects from caffeine, a natural component of green tea. Therefore, a bowl of matcha promotes concentration and clarity of mind without any of the nervous energy found in coffee. Try matcha as a pick-me-up for the afternoon or anytime you need extra focus.



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 be-

cause 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.

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.

CELLULAR PRESERVATION TECHNOLOGY (CPT): This evolutionary and transitional process preserves the health benefits of the fresh tea in a stable form (dry powder) that is highly bio-active as well as highly bioavailable. It is largely this process that explains the superior quality and efficacy of our Matcha green tea. Tea is a complex living organism where higher levels of intelligence operate through patterns of association and encoded information in the structure and function of the components.

Analysis of the individual components and chemistry per se is not an incorrect analytical system but must exist together with and compliment the more holistic approach where we come to understand how the plant's activity moves through the body with higher levels of interaction and organization. Order, information, programming and communication are essential ingredients of every biological system and CPT is the best method to keep this all intact.

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 minimal need of mechanical grinding.

In CPT the tea 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.

The benefits of drinking Matcha Green Tea are well documented..... Imagine the increased benefits if you consume CPT Superherbs CAPSULES of PURE GREEN TEA??



It is this process that distinguishes our herbs from all others.

- 1. Our herbs do not require any preservatives or heat treatment to prevent degradation. If this were a crème or liquid it would require preservatives since moisture is the medium for the enzymes and microorganisms to degrade the product.
- 2. The enzymes, vitamins, minerals and other vital ingredients are preserved with their full potency intact. The value of the herbs and botanicals are kept at their highest level.
- 3. It is exactly this high level of preservation of the vital ingredients that create the results that we would otherwise not achieve in traditional drying methods, even if we had used exactly the same ingredients in exactly the same proportions.
- 4. If we use heat to remove the moisture (de-hydration), the heat will denaturize the enzymes (making them ineffective), reduce the protein levels considerably and oxidize thermo-sensitive vitamins such as Vit C and beta-carotene.
- 5. The freeze dry process eliminates water without exposure to heat thereby preserving all of the enzymes, vitamins, minerals, and bioactive compounds.
- 6. The very small particle size (micronization no need for grinding) and porous particle structure achieved by the Bio-Dynamic Freeze Dry Process allow our herbs to be more easily absorbed and metabolized. Vitamins such as Vit C are fat soluble and are easily and quickly absorbed into our body.
- 7. The effectiveness and capabilities of all our herbs are greatly enhanced due to the particulate size and structure produced by our transitional and evolutionary Freeze Dry process.



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)



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 <u>more soluble particle structure</u>),

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 www.cptsuperherbs.com

End notes:

1. Carlson JR, Bauer BA, Vincent A, Limburg PJ, Wilson T. Reading the tea leave anticarcinogenic properties of (-)-epigallocatechin-3-gallate. Mayo Clin Proc. 2007 Jun;82(6):725-32.

Kuzuhara T, Sei Y, Yamaguchi K, Suganuma M, Fujiki H. DNA and RNA as new binding targets of green tea catechins. J Biol Chem. 2006 Jun 23;281(25):17446-56.

Kuzuhara T, Suganuma M, Fujiki H. Green tea catechin as a chemical chaperone in cancer prevention. Cancer Lett. 2007 Dec 7.

Khan N, Mukhtar H. Tea polyphenols for health promotion. Life Sci. 2007 Jul 26;81(7):519-33.

Lambert JD, Sang S, Yang CS. Biotransformation of green tea polyphenols and the biological activities of those metabolites. Mol Pharm. 2007 Nov;4(6):819-25.

2. Kuriyama S, Shimazu T, Ohmori K, et al. "Green tea consumption and mortality due to cardiovascular disease, cancer, and all causes in Japan: the Ohsaki study". *JAMA*. 2006; 21.

Wolfram S. "Effects of green tea and EGCG on cardiovascular and metabolic health". *J Am Coll Nutr*. 2007 Aug;26(4):373S-88S.

Shimazu T, Kuriyama S, Hozawa A, et al. "Dietary patterns and cardiovascular disease mortality in Japan: a prospective cohort study." *Int J Epidemiol*. 2007 Jun;36(3):600-9.296(10):1255-65.

3. Wolfram S, Wang Y, Thielecke F. "Anti-obesity effects of green tea: from bedside to bench." *Mol Nutr Food Res.* 2006 Feb;50(2):176-87.

Boschmann M, Thielecke F. "The effects of epigallocatechin-3-gallate on thermogenesis and fat oxidation in obese men: a pilot study. "*J. Am Coll Nutr.* 2007; 26 (4):389S-395S.

Brown AL et al. "Health effects of green tea catechins in overweight and obese men: a randomized control cross-over trial." *BR J Nutr*. 2011 June 7: 1-10.

Nagao T, Hase T, Tokimitsu I. " A green tea extract high in catechins reduces body fat and cardiovascular risks in humans." *Obesity* (Silver Spring). 2007;15(6):1473-83.

4. Mandel S, Amit T, Bar-Am O, Youdim MB. " Iron dysregulation in Alzheimer's disease: multimodal brain permeable iron chelating drugs, possessing neuroprotective-neurorescue and amyloid precursor protein-processing regulatory activities as therapeutic agents." *Prog Neurobiol.* 2007 Aug;82(6):348-60.

Quirion R. Tea leaves Alzheimer's disease behind. *Health Q.* 2006;9(3):21-2.

Weinreb O, Mandel S, Amit T, Youdim MB. "Neurological mechanisms of green tea polyphenols in Alzheimer's and Parkinson's diseases." *J Nutr Biochem*. 2004 Sep;15(9):506-16.

Guo S, Yan J, Yang T, et al. "Protective Effects of Green Tea Polyphenols in the 6-OHDA Rat Model of Parkinson's Disease Through Inhibition of ROS-NO Pathway." *Biol Psychiatry*. 2007 Dec 15;62(12):1353-62.

5. Nobre, AC, Rao, A, Owen, Cn (2008). "L-theanina, a natural constituent in tea, and its effect on mental state. "*Asia Pacific journal of clinical nutrition*." 17 Suppl 1:167-8

Nathan PJ, Lu K, Gray M, Oliver C. 2008. "The neuropharmacology of L-theanine (N-ethyl-L-glutamine): a possible neuroprotective and cognitive enhancing agent." *J Herb Pharmac.* 6 (2): 21-30.

Gomez-Ramirez, M, , Higgins B,, Rycroft J, Owen G, Mahoney, J, Shpaner, M, Foxe J. 2007. "The Deployment of Intersensory Selective Attention." *Clinical Neuropharmacology* 30 (1): 25-38

6. Haskell, C. Kennedy D, Milne A, Wesnes, K. Scholey A. 2008. 'The effects of l-theanine, caffeine and their combination on cognition and mood." *Biological Psychology* 77 (2): 113-122.

Owen G, Parnell H, De Bruin E, Rycroft J. 2008. "The combined effects of L-theanine and caffeine on cognitive performance and mood." *Nutritional Neuroscience* 11(4): 193-198

Bryan, J. 2008." Psychological effects of dietary components of tea: caffeine and L-theanine." *Nutrition Reviews* 66(2):82-90.

Kelly, S et al. 2008. "L-Theanine and Caffeine in Combination affect human Cognition as Evidence by Oscillatory alpha-Band Activity and Attention Task Performance." *The Journal of Nutrition* 138(8): 1572S-1577S.

7. Park, Sang-Ki et al. 2011. "A Combination of Green Tea Extract and l-Theanine Improves Memory and Attention in Subjects with Mild Cognitive Impairment: A Double-Blind Placebo-Controlled Study. " *Journal of Medicinal Food* 14 (4): 334-43.

8. Nagao T, Hase T, Tokimitsu I. "A green tea extract high in catechins reduces body fat and cardiovascular risks in humans." *Obesity*.(Silver Spring). 2007 Jun; 15(6)

9. Lowry, N. "Tea and the ophylline." Hampshire College. Helios.hamp $\ /mompfds/Tea$, The op

10. Narotzki, B., Reznick AZ, Aizenbud D., Levy, Y. 2012. "Green tea: a promising natural product in oral health." *Archieves of Oral Biology*. 2012. May: 57(5): 429-435

11. Tsuneki H, Ishizuka M, Terasawa M, et al. "Effect of green tea on blood glucose levels and serum proteomic patterns in diabetic (db/db) mice and on glucose metabolism in healthy humans." *BMC Pharmacol*. 2004 Aug 26;418.

Hsu CH, Liao YL, Lin SC, Tsai TH, Huang CJ, Chou P. "Does supplementation with green tea extract improve insulin resistance in obese type 2 diabetics? A randomized, double-blind, and placebo-controlled clinical trial." *Altern Med Rev.* 2011 Jun;16(2):157-63.

Ryu OH, Lee J, Lee KW, et al. "Effects of green tea consumption on inflammation, insulin resistance and pulse wave velocity in type 2 diabetes patients." *Diabetes Res Clin Pract*. 2006;71(3):356-8.

Wolfram S. "Effects of green tea and EGCG on cardiovascular and metabolic health." *J Am Coll Nutr.* 2007 Aug;26(4):373S-88S.

12. Kuriyama S, Shimazu T, Ohmori K, et al. "Green tea consumption and mortality due to cardiovascular disease, cancer, and all causes in Japan: the Ohsaki study." *JAMA*. 2006; 296(10):1255-65.