

Morning Tea Formulation

Potentially Beneficial Supplements

Yerba Mate – this is a herbal source that naturally contains caffeine, which can have numerous health benefits. Caffeine is a methylxanthine that stimulates the central nervous system, heart, and skeletal muscle. This supplement also acts as a diuretic by increasing gastric and colonic activity. One major effect that caffeine places on the body is that it increases energy expenditure and fat oxidation, therefore, having the potential to alleviate symptoms of fatigue, lack of concentration, and improve metabolism and weight loss.¹⁷

Pu-erh Tea – this is fermented tea similar to green tea but has less antioxidant effects. This compound, taken daily, has been associated with significant weight loss, reduced body mass index, and an improved lipid profile. It produces its effects by accelerating metabolic processes, inhibits absorption of lipids, and helps facilitates the digestion of food.^{4,7,13}

Fennel Fruit – this is a perennial herb with yellow-green flowers and has shown to aid with irregular bowel movements by increasing intestinal motility. This effect is mainly due to the plants rich composition in fiber, essential oils, and a variety of vitamins. Fennel fruit also has many other health benefits, such as anti-inflammatory, antimicrobial, and possible cardiovascular protection.¹

Peppermint – peppermint is a digestible herb that is a cross between two types of mint (water mint and spearmint). This compound has been known to influence weight loss by stimulating gastric and bile secretions and bowel motility. It is also known to be an antispasmodic agent and has demonstrated efficacy in people with IBS by reducing abdominal discomfort and IBS severity.^{10,27}

Anise Fruit – it is an annual grassy herb with white flowers and small green-yellow seeds, which can be grown globally. This herb is known for many medicinal and health benefits. First, it has antibacterial and antifungal effects primarily due to the methanol, acetone and petroleum ether composition. Second, it has muscle relaxant effects due to its inhibitory effects on muscarinic receptors and activation of the NO-cGMP pathway. This herb has also been shown to have antioxidant effects as well as positive effects on diabetic patients.²²

Caraway Fruit – this herb belongs to the family Apaiaceae and has remained popular as a culinary spice and for its medicinal properties due to its rich composition in essential oils and beneficial fatty acids. Major potential benefits of this herb include its moderate effect on weight loss, significant appetite suppression, and reduction in anthropometric indices. Other minimal benefits include antimicrobial, antioxidant, and anti-glycemic effects.^{8,9,14}

Licorice Root – this substance is commonly used as a sweetener in the United States, but the roots of *G. glabra* may pose many potential health benefits. Major potential medicinal properties include antioxidant, anticancer, antimicrobial/antiviral, antiglycemic, positive effect on lipid

profiles, reduced body fat mass, anti-inflammatory, tissue stimulation and growth, as well as cardioprotective effects.¹²

Nettle Leaf – this product has been used in several cultures as a vegetable or herb, but most may consider this plant a weed. Nettles have been used for centuries in traditional medicine globally and have the potential to offer important health benefits. The main possible health advantage that nettle leaf offers is reduced weight gain. Though not fully understood, the proposed mechanism behind this is an increase in metabolic rate.⁶

Jagged Fruit of Hawthorn – the therapeutic properties of hawthorn have been utilized in a wide variety of cultures for centuries. Consumption of hawthorn proposes many health benefits, but the most studied appears to be cardiovascular protection. It has shown to be efficacious in aiding in the prevention of cardiovascular complications and disease; especially in ischemic heart disease. It conveys these effects by having positive inotropic, anti-inflammatory, anticardiac remodeling, vasodilating, and antiarrhythmic effects.^{25,26}

Green Tea – green tea is an extremely popular beverage worldwide and proposes many health benefits. The main health advantage that green tea offers is a reduction in body weight, as well as to maintain a healthy weight. It executes its effects by increasing an individual's energy expenditure and fat oxidation, as well as reducing lipogenesis and fat absorption.¹⁷

Follicular focus – also known as bladderwrack, is a brown kelp species that has been commonly used in Asia territories in past centuries for its medicinal properties. Some of which include extending the female's menstrual cycle, altering cholesterol metabolism and significantly lowering plasma cholesterol levels, as well as increasing the rate of an individual's metabolism; therefore lowering body weight. Although the mechanisms of its effects are still under investigation, possible explanations include the competitive inhibition by fucosterols found in kelp, as well as the high iodine content found in the compound.^{2,23}

Bitter Orange/Synephrine – this is the common name for *Citrus aurantium*. Synephrine comes from the fruit of this plant, as well as other protoalkaloids. Synephrine is an alpha adrenergic agonist and has a similar mechanism of action as epinephrine and norepinephrine, although different pharmacological properties. Bitter orange has been shown to show certain benefits in certain patient populations, such as increased energy expenditure and lipolysis, as well as acting as an appetite suppressor. Synephrine is the proposed active constituent in bitter orange.¹⁷

Chamomile Flower – this particular plant is used today to make teas, capsules, tablets, creams and ointments. This is a fairly popular herbal supplement with potentially many health advantages. Some of these advantages include anti-inflammatory, anticancer, cardioprotective, anti-diarrhea, and anticonvulsant effects. This compound also has been shown to have positive effects in diabetics, wound healing, common cold symptoms, sedation, osteoporosis, and certain gastrointestinal conditions. Its effects are extremely broad and mainly due to the composition of essential oils, coumarins, bisabolol, farnesene, flavonoids, and terpenoids.²⁴

Evening Tea Formulation

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Peppermint – peppermint is a digestible herb that is a cross between two types of mint (water mint and spearmint). This compound has been known to influence weight loss by stimulating gastric and bile secretions and bowel motility. It is also known to be an antispasmodic agent and has demonstrated efficacy in people with IBS by reducing abdominal discomfort and IBS severity.^{10,27}

Lemon Balm Leaf – this compound is also known as *Melissa officinalis*, and has been used in Iranian folk medicine for its digestive, analgesic, and diuretic properties for many centuries. This herb is rich in flavonoids, polyphenolic compounds, and essential oils. Some other benefits that it has the potential to provide are antimicrobial, antioxidant, and anti-inflammatory effects as well as aiding in the proper functioning of the gastrointestinal tract.¹⁶

Wart Birch Leaf – this herbal compound is part of the birch family and is an important member of the Angiosperms, which consists of 6 plant genera. The herb has been widely known for its healing properties in traditional medicine. It is commonly used for joint pain and as a diuretic. Some of the benefits that birch leaf can potentially offer include antispasmodic effects of the gastrointestinal tract, reducing fluid retention by acting as a diuretic, and having a role in degenerative joint disease.¹⁹

Dandelion Root – this is an edible green that is a rich source of vitamin A. It has a long history in the use of problems associated with the liver, bile ducts, digestive problems, and as a diuretic. It portrays its effects by being an agent with antioxidant and anti-inflammatory effects, as well as positive effects in regulating liver function. It has also shown efficacy against colon cancer cells by inducing apoptosis and effecting the mitochondria of these particular cells.^{18,28}

Marshmallow Root – marshmallow is a herb that is native to Europe and Asia territories. It is commonly used for its anti-inflammatory effects, dry cough, diarrhea, peptic ulcers, and urinary tract infections. It is also used for a sleep aid as well.¹⁵

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Hop – also known as *Humulus lupulus*, is a flowering plant in the hemp family. Hops have shown to be effective as an anti-depressant and reducing anxiety/stress levels if taken over a 4-week period. The proposed mechanism of action of its effects includes increasing the activity of the GABA neurotransmitter, which in turn, places inhibitory effects on the central nervous system.¹¹

Passion Herb – this indigenous American vine has white/blue/purple flowers and has been shown to be effective in sleep disorders as well as anxiety and epilepsy. The mechanism at which it produces its effects is by inducing GABA currents and having an inhibitory effect on the central nervous system.⁵

Lemongrass Herb – this herb is widely used in tropical countries, like Southeast Asia, and is known to be rich in essential oils that are used for aromatherapy. The possible health benefits that the herb extract may present to an individual include antimicrobial, antioxidant, anti-inflammatory, diuresis, and potentially positive effects on fasting blood glucose.²¹

Cistus – this plant is a herb that is extremely rich in antioxidants and is a potent detoxifier of free radicals within the body. Cistus has also been shown to have potent in vitro activity against viral envelope proteins, suggesting that it has the potential to help fight and prevent infections caused by particular viral organisms.^{3,20}

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