



THAI FREEZE DRY
COMPANY LIMITED

GINGER: *Zingiber officinale*)



Ginger is worthy of being classified as one of the most effective “superfoods.” There are many species and varieties of ginger and Thai Freeze Dry focuses on a rare ancient indigenous ginger found in the forests of Northern Thailand. Side by side this variety is significantly smaller in size but incomparably stronger in fragrance and taste. The difference between this and the commercial ginger that has been bred for a higher yield (for higher profitability) is apparent. Lab analysis shows the superiority of our primitive local variety in detail. Our “Kin Kaeng” ginger grows in a forest that is organically certified by ACT as is the ginger. This is the variety the Northern Thai Hill Tribe people eat and sell in the small local farmer’s markets. The general and export markets supplied the commercial variety – still good, but just not the best.

The processing by Thai Freeze Dry’s premium freeze dry process, “Cellular Fraction-Line Technology “ (CFL) sustains the properties of this local primal variety of ginger in all its complexity as closely as possible to how it grows in nature. The traditional drying method still used today is to boil or steam the ginger rhizome (root) to soften it in preparation for drying. The excessive use of heat denatures the enzymes, diminishes the value of thermo-sensitive vitamins, volatilizes and dissipates essential oils, and reduces the value of other vital ingredients. To call this a “superfood” after having processed an excellent plant (as it grows in nature) in this manner is a travesty. CFL does not expose our ginger powder to heat during any part of the drying process. For full details link to Thai Freeze Dry’s evolutionary and transitional CFL process brief .. ([Link](#))

Ginger is a root traditionally used to aid digestion, relieve nausea, and help fight the flu and common cold. Gingerol is a natural oil and the bioactive compound most responsible for its powerful antioxidant and anti-inflammatory properties. (1) Ginger has a long history as a sea sickness and anti-nausea remedy and can be highly effective for relieving “morning sickness” (pregnancy-related nausea). (2)

Ginger may reduce soreness and muscle pains due to exercise (3) as a result of its anti-inflammatory properties as well as joint pains and stiffness due to osteoarthritis (4)


Ginger’s anti-diabetic properties are noted in a 2015 study of 41 participants with type 2 diabetes. Two grams of ginger powder lowered fasting blood sugar by 12% (5) and in another study the markers for long-term blood sugar levels experienced a 10% reduction over 12 weeks.

Ginger has been shown to speed up the emptying of the stomach which helps to reduce chronic indigestion (6) and women's menstrual pain relief is a traditional use of ginger supported in a study where 150 women taking 1 gram of ginger powder per day during their first 3 days of menstruation reduced pain as effectively as commonly used drugs. (7)

In a 45 day clinical study of 85 people with high LDL ("bad") cholesterol, 3 grams of ginger powder daily significantly reduced cholesterol markers (8) Animal studies support this study and the bottom line is that evidence suggests that ginger can lead to reductions in LDL cholesterol as well as blood triglyceride (fat) levels both of which are associated with cardiac health. Ginger also was found to reduce the markers for oxidized lipoproteins, a risk factor for heart disease.

Cognitive health is fast overtaking all other health considerations as people live longer lives. Both chronic inflammation and oxidative stress accelerate the aging process and may promote age-related cognitive decline. The antioxidants and other biologically active compounds in ginger may help to inhibit inflammatory responses in the brain (9).

Infections and harmful bacteria are inhibited by gingerol. (10). Gingivitis and periodontitis (oral infections) (11) as well as the RSV virus known to cause common respiratory infections may also be mediated by ginger. (12)

All this makes ginger a top candidate for the list of the top 10 superfoods. A super ginger such as the rare indigenous variety found growing wild in the forests of Northern Thailand processed by Cellular Fraction-Line Technology  will spice up your life and may make a highly significant contribution to your greatest asset.

Endnotes:

1. Wang S. et al., "Biological properties of 6-gingerol: a brief review" Nat. Prod Commun 2014 July 9 (7): 1027-30
2. Viljoen E. et. al., "A systematic review and meta-analysis of the effect and safety of ginger in the treatment of pregnancy-associated nausea and vomiting" Nutr. J v 13, 2014
3. Black CD, O'Connor PJ. "Acute effects of dietary ginger on muscle pain induced by eccentric exercise" *Phytother Res* 2010 Nov. 24 (11): 1620-1626
4. Altman RD, Marcussen KC, "Effects of a ginger extract on knee pain in patients with osteoarthritis" *Arthritis Rheum.* 2001 Nov 44(11): 2531-6
5. Khandouzi N et al., "Effects of Ginger on Fasting Blood Sugar, Hemoglobin Alc, Apolipoprotein B, Apolipoprotein A-1 and Malondialdehyde in Type 2 Diabetic Patients" *Iran J Phar Res* 2015 Winter, 14(1): 131-140
6. Ming-Luen Hu, Rayner CK et. al., "Effect of ginger on gastric mobility and symptoms of functional dyspepsia" *World Journal of Gastroenterology* 2011 Jan 7, 17(1): 105-110
7. Ozgoll G, Goli M, Moaltar F. , "Comparison of effects of ginger, mefenamic acid, and ibuprofen on pain in women with primary dysmenorrhea" *J. Altern. Complement. Med* 2009 Feb 15 (2): 129-132
8. Alizabeh-Navael R et al., "Investigation of the effect of ginger on the lipid levels, A double blind controlled clinical trial" *Saudi Med. J* 2008 Sept; 29 (9): 1280-1284

9. Falzul Azam et. al., "Ginger components as new leads for the design and development of novel multi-targeted anti-Alzheimer's drugs: a computational investigation" *Drug Des Devel Ther* 2014; 8: 2045-2059
10. Ponmurugan K et. al., "Antibacterial effect of *Allium sativum* cloves and *Singiber officinale* rhizomes against multiple-drug resistant clinical pathogens" *Asian Pac. J Trop Biomed* 2012 Aug; 2 (8) 597-601
11. Park M, Bae J, Lee DS, "Antibacterial activity of (10-gingerol and (12) gingerol isolated from ginger rhizome against periodontal bacteria
12. Chang JS et.al., "Fresh ginger (*Zingiber officinale*) has antiviral activity against human respiratory tract cell lines" *J. Ethnopharmacol.* 2013 Jan 9; 145 (1): 146-151

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