A Compendium of Scientific References Supporting the Efficacy of Ingredients Used in the Formulation of Alpha CRS™ Cellular Vitality Complex

The following is a compendium of scientific references supporting the health and wellness benefits associated with the consumption of the botanical ingredients and essential dietary nutrients used in the formulation of dōTERRA's Alpha CRS Cellular Vitality Complex. Alpha CRS is part of dōTERRA's Lifelong Wellness Pack and is formulated to be used daily by adults as part of a foundational dietary supplement program. Regular use of Alpha CRS, along with eating a healthy diet, exercising regularly, managing stress and getting enough rest, and managing exposure to harmful environmental stressors will increase the likelihood of a lifetime full of vitality and wellness and decrease the likelihood of the premature onset of some conditions associated with aging.* Alpha CRS Cellular Vitality Complex is not formulated or intended as treatment or cure for disease. Persons with known medical conditions and pregnant or lactating women should consult a physician before starting any dietary supplement program.

Health Benefit Claims of Alpha CRS Cellular Vitality Complex :

- Provides support to antioxidant defense network*
- Provides powerful DNA protection against nucleic oxidation*
- Provides important factors of cellular energy and metabolism *
- Supports healthy genetic expression of cellular longevity factors*
- Supports healthy inflammatory response to oxidative stress in cells*
- Supports a healthy immune system*
- Supports a healthy response to stress*
- Supports cardiovascular health*

* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent disease.

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Alpha CRS™ Ingredient Highlights

Cellular Longevity Blend:

1. Scutellaria Root Extract (150 mg Baicalin)

Latin name: Scutellaria baicalensis, Scutellaria macrantha (synonym)

Common names: Chinese or Baikal skullcap, skute, *huang qin*

(Note: Scuttellaria baicalensis, or Baikal skullcap, is NOT the same as scutellaria lateriflora L., or blue skullcap, which has had reports of possible hepatotoxicity.)

Extract properties: Standardized for 150 mg of baicalin per daily serving

Key Scientific References:

1. Song, H.R., et al., *Scutellaria flavonoid supplementation reverses ageing-related cognitive impairment and neuronal changes in aged rats.* Brain Inj, 2009. 23(2): p. 146-53.
2. Zhou, B.R., et al., *Baicalin protects human fibroblasts against ultraviolet B-induced cyclobutane pyrimidine dimers formation.* Arch Dermatol Res, 2008. 300(6): p. 331-4.
3. Min, W., et al., *Inhibitory effects of Baicalin on ultraviolet B-induced photo-damage in keratinocyte cell line.* Am J Chin Med, 2008. 36(4): p. 745-60.
4. Li-Weber, M., *New therapeutic aspects of flavones: The anticancer properties of Scutellaria and its main active constituents Wogonin, Baicalein and Baicalin.* Cancer Treat Rev, 2008.
5. Wang, F., et al., *GABA A receptor subtype selectivity underlying selective anxiolytic effect of baicalin.* Neuropharmacology, 2008. 55(7): p. 1231-7.
6. Kim, D.H., et al., *Short-term feeding of baicalin inhibits age-associated NF-kappaB activation.* Mech Ageing Dev, 2006. 127(9): p. 719-25.
7. Chou, T.C., et al., *The antiinflammatory and analgesic effects of baicalin in carrageenan-evoked thermal hyperalgesia.* Anesth Analg, 2003. 97(6): p. 1724-9.
8. Shen, Y.C., et al., *Mechanisms in mediating the anti-inflammatory effects of baicalin and baicalein in human leukocytes.* Eur J Pharmacol, 2003. 465(1-2): p. 171-81.
9. Gao, Z., et al., *Free radical scavenging and antioxidant activities of flavonoids extracted from the radix of Scutellaria baicalensis Georgi.* Biochim Biophys Acta, 1999. 1472(3): p. 643-50.
10. Lin, C.C. and D.E. Shieh, *The anti-inflammatory activity of Scutellaria rivularis extracts and its active components, baicalin, baicalein and wogonin.* Am J Chin Med, 1996.

2. Green Tea Leaf Extract (50 mg EGCG)

Latin name: Camellia sinensis. Synonyms: Camellia thea, Camellia theifera, Thea bohea, Thea sinensis, Thea viridis

Common names: Green tea

Extract properties: Standardized for 50 mg of epigallocatechin gallate (EGCG) per daily serving

(Note: The green tea leaf extract used in Alpha CRS has less than 5 mg of residual caffeine per daily serving.)

Key Scientific References:

1. Maki, K.C., et al., *Green tea catechin consumption enhances exercise-induced abdominal fat loss in overweight and obese adults.* J Nutr, 2009. 139(2): p. 264-70.
2. Venables, M.C., et al., *Green tea extract ingestion, fat oxidation, and glucose tolerance in healthy humans.* Am J Clin Nutr, 2008. 87(3): p. 778-84.
3. Ikeda, I., *Multifunctional effects of green tea catechins on prevention of the metabolic syndrome.* Asia Pac J Clin Nutr, 2008. 17 Suppl 1: p. 273-4.
4. Alexopoulos, N., et al., *The acute effect of green tea consumption on endothelial function in healthy individuals.* Eur J Cardiovasc Prev Rehabil, 2008. 15(3): p. 300-5.
5. Auvichayapat, P., et al., *Effectiveness of green tea on weight reduction in obese Thais: A randomized, controlled trial.* Physiol Behav, 2008. 93(3): p. 486-91.
6. Panza, V.S., et al., *Consumption of green tea favorably affects oxidative stress markers in weight-trained men.* Nutrition, 2008. 24(5): p. 433-42.
7. Boschmann, M. and F. Thielecke, *The effects of epigallocatechin-3-gallate on thermogenesis and fat oxidation in obese men: a pilot study.* J Am Coll Nutr, 2007. 26(4): p. 389S-395S.
8. Hill, A.M., et al., *Can EGCG reduce abdominal fat in obese subjects?* J Am Coll Nutr, 2007. 26(4): p. 396S-402S.
9. Widlansky, M.E., et al., *Acute EGCG supplementation reverses endothelial dysfunction in patients with coronary artery disease.* J Am Coll Nutr, 2007. 26(2): p. 95-102.
10. Chow, H.H., et al., *Pharmacokinetics and safety of green tea polyphenols after multiple-dose administration of epigallocatechin gallate and polyphenon E in healthy individuals.* Clin Cancer Res, 2003. 9(9): p. 3312-9.

3. Polygonum Cuspidatum Extract (50 mg Resveratrol)

Latin name: Polygonum cuspidatum; Fallopia japonica

Common names: Fleece flower, giant knotweed, he shou wu, itadori, Japanese bamboo, Japanese knotweed, Japanese knotwood, Japanese fleeceflower, Mexican bamboo, PCWE, Polygoni multiflora, tiger cane.

Extract properties: Standardized for 50 mg of resveratrol per daily serving

Key Scientific References:

1. Pearson, K.J., et al., *Resveratrol delays age-related deterioration and mimics transcriptional aspects of dietary restriction without extending life span.* Cell Metab, 2008. 8(2): p. 157-68.
2. Harikumar, K.B. and B.B. Aggarwal, *Resveratrol: a multitargeted agent for age-associated chronic diseases.* Cell Cycle, 2008. 7(8): p. 1020-35.
3. Rocha-Gonzalez, H.I., M. Ambriz-Tututi, and V. Granados-Soto, *Resveratrol: a natural compound with pharmacological potential in neurodegenerative diseases.* CNS Neurosci Ther, 2008. 14(3): p. 234-47.
4. Das, S. and D.K. Das, *Anti-inflammatory responses of resveratrol.* Inflamm Allergy Drug Targets, 2007. 6(3): p. 168-73
5. Baur, J.A., et al., *Resveratrol improves health and survival of mice on a high-calorie diet.* Nature, 2006. 444(7117): p. 337-42.
6. Baur, J.A. and D.A. Sinclair, *Therapeutic potential of resveratrol: the in vivo evidence.* Nat Rev Drug Discov, 2006. 5(6): p. 493-506.
7. Labinskyy, N., et al., *Vascular dysfunction in aging: potential effects of resveratrol, an anti-inflammatory phytoestrogen.* Curr Med Chem, 2006. 13(9): p. 989-96.
8. de la Lastra, C.A. and I. Villegas, *Resveratrol as an anti-inflammatory and anti-aging agent: mechanisms and clinical implications.* Mol Nutr Food Res, 2005. 49(5): p. 405-30.
9. Bradamante, S., L. Barenghi, and A. Villa, *Cardiovascular protective effects of resveratrol.* Cardiovasc Drug Rev, 2004. 22(3): p. 169-88.
10. Dong, H.H. and H.L. Ren, *New progression in the study of protective properties of resveratrol in anticardiovascular disease.* Bratisl Lek Listy, 2004. 105(5-6): p. 225-9.

4. Pomegranate Extract (20 mg Ellagic Acid)

Latin name: Punica granatum

Common names: Anardana, dadim, dadima, fruit of the dead, Granada, grenade, grenadier, Roma, shi liu gen pi, shi liu

Extract properties: Standardized for 20 mg of ellagic acid per daily serving

Key Scientific References:

1. Afaq, F., et al., *Protective effect of pomegranate-derived products on UVB-mediated damage in human reconstituted skin.* Exp Dermatol, 2009. 18(6): p. 553-61.

2. Basu, A. and K. Penugonda, *Pomegranate juice: a heart-healthy fruit juice.* Nutr Rev, 2009. 67(1): p. 49-56.

3. Bell, C. and S. Hawthorne, *Ellagic acid, pomegranate and prostate cancer -- a mini review.* J Pharm Pharmacol, 2008. 60(2): p. 139-44.

4. Jurenka, J.S., *Therapeutic applications of pomegranate (Punica granatum L.): a review.* Altern Med Rev, 2008. 13(2): p. 128-44.

5. Lei, F., et al., *Evidence of anti-obesity effects of the pomegranate leaf extract in high-fat diet induced obese mice.* Int J Obes (Lond), 2007. 31(6): p. 1023-9.

6. Heber, D., et al., *Safety and antioxidant activity of a pomegranate ellagitannin-enriched polyphenol dietary supplement in overweight individuals with increased waist size.* J Agric Food Chem, 2007. 55(24): p. 10050-4.

7. Forest, C.P., H. Padma-Nathan, and H.R. Liker, *Efficacy and safety of pomegranate juice on improvement of erectile dysfunction in male patients with mild to moderate erectile dysfunction: a randomized, placebo-controlled, double-blind, crossover study.* Int J Impot Res, 2007. 19(6): p. 564-7.

8. Pantuck, A.J., et al., *Phase II study of pomegranate juice for men with rising prostate-specific antigen following surgery or radiation for prostate cancer.* Clin Cancer Res, 2006. 12(13): p. 4018-26.

9. Kasai, K., et al., *Effect of oral administration of ellagic acid-rich pomegranate extract on ultraviolet-induced pigmentation in the human skin.* J Nutr Sci Vitaminol (Tokyo), 2006. 52(5): p. 383-8.

10. Sumner, M.D., et al., *Effects of pomegranate juice consumption on myocardial perfusion in patients with coronary heart disease.* Am J Cardiol, 2005. 96(6): p. 810-4.

5. Grape Seed Extract (20 mg Proanthocyanidins)

Latin name: Vitis vinifera

Common names: Activin, black grape raisins, calzin, draksha, enocianina, European wine grape, extrait de pepins de raisin, flame grape, Folia vitis viniferae, grape, kali draksha, muskat, oligomeric proanthocyanidins, oligomeric procyanidins, OPC, OPCs, PCO, PCOs, petite sirah, proanthodyn, procyanidolic oligomers, purple grape, raisin, red globe, red grape, red malaga, sultanas, white grape, wine grapes.

Extract properties: Standardized for 20 mg of proanthocyanidins per daily serving

Key Scientific References:

1. Sivaprakasapillai, B., et al., *Effect of grape seed extract on blood pressure in subjects with the metabolic syndrome.* Metabolism, 2009.
2. Nassiri-Asl, M. and H. Hosseinzadeh, *Review of the pharmacological effects of Vitis vinifera (Grape) and its bioactive compounds.* Phytother Res, 2009.
3. LaRiccia, P.J., et al., *The effect of OPC Factor on energy levels in healthy adults ages 45-65: a phase IIb randomized controlled trial.* J Altern Complement Med, 2008. 14(6): p. 723.
4. Sano, A., et al., *Beneficial effects of grape seed extract on malondialdehyde-modified LDL.* J Nutr Sci Vitaminol (Tokyo), 2007. 53(2): p. 174-82.
5. Shenoy, S.F., et al., *Effects of grape seed extract consumption on platelet function in postmenopausal women.* Thromb Res, 2007. 121(3): p. 431-2.
6. Daroczy, J., A. Pal, and G. Blasko, *[Microcirculatory changes in patients with chronic venous and lymphatic insufficiency and heavy leg symptoms before and after therapy with procyanidol oligomers (laser-Doppler study)].* Orv Hetil, 2004. 145(22): p. 1177-81.
7. Vogels, N., I.M. Nijs, and M.S. Westerterp-Plantenga, *The effect of grape-seed extract on 24 h energy intake in humans.* Eur J Clin Nutr, 2004. 58(4): p. 667-73.
8. Yamakoshi, J., et al., *Oral intake of proanthocyanidin-rich extract from grape seeds improves chloasma.* Phytother Res, 2004. 18(11): p. 895-9.

6. Marigold Flower Extract (3 mg Lutein)

Latin name: Calendula officinalis

Common names: Calendula, garden marigold, garden marigold, gold-bloom, holligold, narigold, narybud, pot marigold, ruddles, zergul

Extract Properties: Standardized for 3 mg of lutein per daily serving

Key Scientific References:

1. Ma, L., et al., *A 12-week lutein supplementation improves visual function in Chinese people with long-term computer display light exposure.* Br J Nutr, 2009. 102(2): p. 186-90.
2. Perrone, S., et al., *Effects of Lutein on Oxidative Stress in the Term Newborn: A Pilot Study.* Neonatology, 2009. 97(1): p. 36-40.
3. Yagi, A., et al., *The effect of lutein supplementation on visual fatigue: A psychophysiological analysis.* Appl Ergon, 2009.
4. Hammond, B.R., Jr., *Possible role for dietary lutein and zeaxanthin in visual development.* Nutr Rev, 2008. 66(12): p. 695-702.
5. Johnson, E.J., et al., *The influence of supplemental lutein and docosahexaenoic acid on serum, lipoproteins, and macular pigmentation.* Am J Clin Nutr, 2008. 87(5): p. 1521-9.
6. Johnson, E.J., et al., *Cognitive findings of an exploratory trial of docosahexaenoic acid and lutein supplementation in older women.* Nutr Neurosci, 2008. 11(2): p. 75-83.
7. Palombo, P., et al., *Beneficial long-term effects of combined oral/topical antioxidant treatment with the carotenoids lutein and zeaxanthin on human skin: a double-blind, placebo-controlled study.* Skin Pharmacol Physiol, 2007. 20(4): p. 199-210.
8. Bahrami, H., M. Melia, and G. Dagnelie, *Lutein supplementation in retinitis pigmentosa: PC-based vision assessment in a randomized double-masked placebo-controlled clinical trial [NCT00029289].* BMC Ophthalmol, 2006. 6: p. 23.
9. Pommier, P., et al., *Phase III randomized trial of Calendula officinalis compared with trolamine for the prevention of acute dermatitis during irradiation for breast cancer.* J Clin Oncol, 2004. 22(8): p. 1447-53.
10. Olmedilla, B., et al., *Lutein, but not alpha-tocopherol, supplementation improves visual function in patients with age-related cataracts: a 2-y double-blind, placebo-controlled pilot study.* Nutrition, 2003. 19(1): p. 21-4.

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7. Tomato Fruit Extract (1 mg Lycopene)

Latin name: Solanum lycopersicum

Common names: Love apple, raktamaci, tamatar

Extract properties: Standardized for 1mg of lycopene per daily serving

Key Scientific References:

1. Paran, E., et al., *The effects of natural antioxidants from tomato extract in treated but uncontrolled hypertensive patients.* Cardiovasc Drugs Ther, 2009. 23(2): p. 145-51.

2. Riccioni, G., et al., *Protective effect of lycopene in cardiovascular disease.* Eur Rev Med Pharmacol Sci, 2008. 12(3): p. 183-90.

3. Schwarz, S., et al., *Lycopene inhibits disease progression in patients with benign prostate hyperplasia.* J Nutr, 2008. 138(1): p. 49-53.

4. Wood, L.G., et al., *Lycopene-rich treatments modify noneosinophilic airway inflammation in asthma: proof of concept.* Free Radic Res, 2008. 42(1): p. 94-102.

5. Chandra, R.V., et al., *Efficacy of lycopene in the treatment of gingivitis: a randomised, placebo-controlled clinical trial.* Oral Health Prev Dent, 2007. 5(4): p. 327-36.

6. Engelhard, Y.N., B. Gazer, and E. Paran, *Natural antioxidants from tomato extract reduce blood pressure in patients with grade-1 hypertension: a double-blind, placebo-controlled pilot study.* Am Heart J, 2006. 151(1): p. 100.

7. Falk, B., et al., *Effect of lycopene supplementation on lung function after exercise in young athletes who complain of exercise-induced bronchoconstriction symptoms.* Ann Allergy Asthma Immunol, 2005. 94(4): p. 480-5.

8. Agarwal, S. and A.V. Rao, *Tomato lycopene and its role in human health and chronic diseases.* CMAJ, 2000. 163(6): p. 739-44.

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8. Turmeric Root Extract

Latin name: Curcuma longa

Common names: Curcumae longa, curcumae longae rhizoma, curcumin, halada, haldi, haridra, Indian saffron, nisha, pian jiang huang, radix curcumae, rajani, rhizoma

Key Scientific References:

1. Jurenka, J.S., *Anti-inflammatory properties of curcumin, a major constituent of Curcuma longa: a review of preclinical and clinical research.* Altern Med Rev, 2009. 14(2): p. 141-153.

2. Ejaz, A., et al., *Curcumin Inhibits Adipogenesis in 3T3-L1 Adipocytes and Angiogenesis and Obesity in C57/BL Mice.* J Nutr, 2009.

3. Srivastava, G. and J.L. Mehta, *Currying the heart: curcumin and cardioprotection.* J Cardiovasc Pharmacol Ther, 2009. 14(1): p. 22-7.

4. Thomas-Eapen, N.E., *Turmeric: the intriguing yellow spice with medicinal properties.* Explore (NY), 2009. 5(2): p. 114-5.

5. Wongcharoen, W. and A. Phrommintikul, *The protective role of curcumin in cardiovascular diseases.* Int J Cardiol, 2009. 133(2): p. 145-51.

6. Pari, L., D. Tewas, and J. Eckel, *Role of curcumin in health and disease.* Arch Physiol Biochem, 2008. 114(2): p. 127-49.

7. Aggarwal, B.B., et al., *Curcumin: the Indian solid gold.* Adv Exp Med Biol, 2007. 595: p. 1-75.

8. Menon, V.P. and A.R. Sudheer, *Antioxidant and anti-inflammatory properties of curcumin.* Adv Exp Med Biol, 2007. 595: p. 105-25.

9. Holt, P.R., S. Katz, and R. Kirshoff, *Curcumin therapy in inflammatory bowel disease: a pilot study.* Dig Dis Sci, 2005. 50(11): p. 2191-3.

10. Ringman, J.M., et al., *A potential role of the curry spice curcumin in Alzheimer's disease.* Curr Alzheimer Res, 2005. 2(2): p. 131-6.

11. Satoskar, R.R., S.J. Shah, and S.G. Shenoy, *Evaluation of anti-inflammatory property of curcumin (diferuloyl methane) in patients with postoperative inflammation.* Int J Clin Pharmacol Ther Toxicol, 1986. 24(12): p. 651-4.

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9. Bilberry Extract

Latin name: Vaccinium myrtillus

Common names: Airelle, black whortles, bleaberry, burren myrtle, dwarf bilberry, dyeberry, European bilberry, huckleberry, hurtleberry, myrtilli fructus, Swedish bilberry, trackleberry, whortleberry, wineberry

Key Scientific References:

1. Piljac-Zegarac, J., A. Belscak, and A. Piljac, *Antioxidant capacity and polyphenolic content of blueberry (Vaccinium corymbosum L.) leaf infusions.* J Med Food, 2009. 12(3): p. 608-14.

2. Kolosova, N.G., et al., *Long-term antioxidant supplementation attenuates oxidative stress markers and cognitive deficits in senescent-accelerated OXYS rats.* Neurobiol Aging, 2006. 27(9): p. 1289-97.

3. Faria, A., et al., *Antioxidant properties of prepared blueberry (Vaccinium myrtillus) extracts.* J Agric Food Chem, 2005. 53(17): p. 6896-902.

4. Fursova, A., et al., *[Dietary supplementation with bilberry extract prevents macular degeneration and cataracts in senesce-accelerated OXYS rats].* Adv Gerontol, 2005. 16: p. 76.

5. Canter, P.H. and E. Ernst, *Anthocyanosides of Vaccinium myrtillus (bilberry) for night vision--a systematic review of placebo-controlled trials.* Surv Ophthalmol, 2004. 49(1): p. 38-50.

6. Laplaud, P.M., A. Lelubre, and M.J. Chapman, *Antioxidant action of Vaccinium myrtillus extract on human low density lipoproteins in vitro: initial observations.* Fundam Clin Pharmacol, 1997. 11(1): p. 35-40.

Cellular Energy Blend:

Key Scientific References:

1. Memeo, A. and M. Loiero, *Thioctic acid and acetyl-L-carnitine in the treatment of sciatic pain caused by a herniated disc: a randomized, double-blind, comparative study.* Clin Drug Investig, 2008. 28(8): p. 495-500.

2. Liu, J., *The effects and mechanisms of mitochondrial nutrient alpha-lipoic acid on improving age-associated mitochondrial and cognitive dysfunction: an overview.* Neurochem Res, 2008. 33(1): p. 194-203.

3. Soczynska, J.K., et al., *Acetyl-L-carnitine and alpha-lipoic acid: possible neurotherapeutic agents for mood disorders?* Expert Opin Investig Drugs, 2008. 17(6): p. 827-43.

4. McMackin, C.J., et al., *Effect of combined treatment with alpha-Lipoic acid and acetyl-L-carnitine on vascular function and blood pressure in patients with coronary artery disease.* J Clin Hypertens (Greenwich), 2007. 9(4): p. 249-55.

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1. Acetyl-L-Carnitine (100 mg)

Alternate names: Acetyl carnitine, acetyl-levocarnitine, ALCAR

Key Scientific References:

1. Ruggenenti, P., et al., *Ameliorating Hypertension and Insulin Resistance in Subjects at Increased Cardiovascular Risk. Effects of Acetyl-L-Carnitine Therapy.* Hypertension, 2009.

2. Malaguarnera, M., et al., *Acetyl L-carnitine (ALC) treatment in elderly patients with fatigue.* Arch Gerontol Geriatr, 2008. 46(2): p. 181-90.

3. Memeo, A. and M. Loiero, *Thioctic acid and acetyl-L-carnitine in the treatment of sciatic pain caused by a herniated disc: a randomized, double-blind, comparative study.* Clin Drug Investig, 2008. 28(8): p. 495-500.

4. Torrioli, M.G., et al., *A double-blind, parallel, multicenter comparison of L-acetylcarnitine with placebo on the attention deficit hyperactivity disorder in fragile X syndrome boys.* Am J Med Genet A, 2008. 146(7): p. 803-12.

5. Rossini, M., et al., *Double-blind, multicenter trial comparing acetyl l-carnitine with placebo in the treatment of fibromyalgia patients.* Clin Exp Rheumatol, 2007. 25(2): p. 182-8.

6. Zhou, X., F. Liu, and S. Zhai, *Effect of L-carnitine and/or L-acetyl-carnitine in nutrition treatment for male infertility: a systematic review.* Asia Pac J Clin Nutr, 2007. 16 Suppl 1: p. 383-90.

7. Calabrese, V., et al., *Acetylcarnitine and cellular stress response: roles in nutritional redox homeostasis and regulation of longevity genes.* J Nutr Biochem, 2006. 17(2): p. 73-88.

8. Zanardi, R. and E. Smeraldi, *A double-blind, randomised, controlled clinical trial of acetyl-L-carnitine vs. amisulpride in the treatment of dysthymia.* Eur Neuropsychopharmacol, 2006. 16(4): p. 281-7.

9. Cavallini, G., et al., *Carnitine versus androgen administration in the treatment of sexual dysfunction, depressed mood, and fatigue associated with male aging.* Urology, 2004. 63(4): p. 641-6.

10. Ames, B.N. and J. Liu, *Delaying the mitochondrial decay of aging with acetylcarnitine.* Ann N Y Acad Sci, 2004. 1033: p. 108-16.

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2. Alpha-Lipoic Acid (100 mg)

Alternate names: Thioctic acid, ALA

Key Scientific References:

1. Poh, Z., *A Current Update on the Use of Alpha Lipoic Acid in the Management of Type 2 Diabetes Mellitus.* Endocr Metab Immune Disord Drug Targets, 2009.

2. Becic, F., E. Kapic, and M. Rakanovic-Todic, *[Pharmacological significance of alpha lipoic acid in up to date treatment of diabetic neuropathy].* Med Arh, 2008. 62(1): p. 45-8.

3. Ghibu, S., et al., *[An endogenous dithiol with antioxidant properties: alpha-lipoic acid, potential uses in cardiovascular diseases].* Ann Cardiol Angeiol (Paris), 2008. 57(3): p. 165.

4. Gonzalez-Perez, O., N.A. Moy-Lopez, and J. Guzman-Muniz, *[Alpha-tocopherol and alpha-lipoic acid. An antioxidant synergy with potential for preventive medicine].* Rev Invest Clin, 2008. 60(1): p. 58-67.

5. Maczurek, A., et al., *Lipoic acid as an anti-inflammatory and neuroprotective treatment for Alzheimer's disease.* Adv Drug Deliv Rev, 2008. 60(13-14): p. 1463-70.

6. Singh, U. and I. Jialal, *Alpha-lipoic acid supplementation and diabetes.* Nutr Rev, 2008. 66(11): p. 646-57.

7. Hager, K., et al., *Alpha-lipoic acid as a new treatment option for Alzheimer's disease--a 48 months follow-up analysis.* J Neural Transm Suppl, 2007(72): p. 189-93.

8. Magis, D., et al., *A randomized double-blind placebo-controlled trial of thioctic acid in migraine prophylaxis.* Headache, 2007. 47(1): p. 52-7.

9. Vincent, H.K., et al., *Effects of alpha-lipoic acid supplementation in peripheral arterial disease: a pilot study.* J Altern Complement Med, 2007. 13(5): p. 577-84.

10. Alleva, R., et al., *alpha-Lipoic acid supplementation inhibits oxidative damage, accelerating chronic wound healing in patients undergoing hyperbaric oxygen therapy.* Biochem Biophys Res Commun, 2005. 333(2): p. 404-10.

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3. Coenzyme Q10 (50 mg)

Alternate names: CoQ10, ubiquinone, ubidecarenone

Key Scientific References:

1. Balercia, G., et al., *Coenzyme Q10 treatment in infertile men with idiopathic asthenozoospermia: a placebo-controlled, double-blind randomized trial.* Fertil Steril, 2009. 91(5): p. 1785-92.

2. Teran, E., et al., *Coenzyme Q10 supplementation during pregnancy reduces the risk of pre-eclampsia.* Int J Gynaecol Obstet, 2009. 105(1): p. 43-5.

3. Mizuno, K., et al., *Antifatigue effects of coenzyme Q10 during physical fatigue.* Nutrition, 2008. 24(4): p. 293-9.

4. Zheng, A. and T. Moritani, *Influence of CoQ10 on autonomic nervous activity and energy metabolism during exercise in healthy subjects.* J Nutr Sci Vitaminol (Tokyo), 2008. 54(4): p. 286-90.

5. Caso, G., et al., *Effect of coenzyme q10 on myopathic symptoms in patients treated with statins.* Am J Cardiol, 2007. 99(10): p. 1409-12.

6. Niklowitz, P., et al., *Enrichment of coenzyme Q10 in plasma and blood cells: defense against oxidative damage.* Int J Biol Sci, 2007. 3(4): p. 257-62.

7. Pepe, S., et al., *Coenzyme Q10 in cardiovascular disease.* Mitochondrion, 2007. 7 Suppl: p. S154-67.

8. Quinzii, C.M., M. Hirano, and S. DiMauro, *CoQ10 deficiency diseases in adults.* Mitochondrion, 2007. 7 Suppl: p. S122-6.

9. Gvozdjakova, A., et al., *Coenzyme Q10 supplementation reduces corticosteroids dosage in patients with bronchial asthma.* Biofactors, 2005. 25(1-4): p. 235-40.

10. Sandor, P.S., et al., *Efficacy of coenzyme Q10 in migraine prophylaxis: a randomized controlled trial.* Neurology, 2005. 64(4): p. 713-5.

11. Linnane, A.W., et al., *Cellular redox activity of coenzyme Q10: effect of CoQ10 supplementation on human skeletal muscle.* Free Radic Res, 2002. 36(4): p. 445-53.

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4. Quercetin (50 mg)

Alternate names: Meletin, quercetin dihydrate, sophretin

Key Scientific References:

1. Perez-Vizcaino, F., et al., *Antihypertensive effects of the flavonoid quercetin.* Pharmacol Rep, 2009. 61(1): p. 67-75.
2. Bischoff, S.C., *Quercetin: potentials in the prevention and therapy of disease.* Curr Opin Clin Nutr Metab Care, 2008. 11(6): p. 733-40.
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dōTERRA Tummy Taming™ Blend:

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1. Peppermint Leaf

Latin name: Mentha piperita

Common names: Bo he, brandy mint, Chinese peppermint, corn mint, menthae, lamb mint, menta piperita, menthae piperitae aetheroleum, menthae piperitae folium, menthe, menthe poivree, mint, mint balm, paparaminta, western peppermint

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2. Ginger Root Extract

Latin name: Zingiber officinale

Common names: African ginger, ardraka, black ginger, cochin ginger, gan jiang, gingembre, imber, Indian ginger, Jamaica ginger, jiang, kankyo, kanshokyo, nagara, race ginger, rhizoma zingiberi, rhizoma zingiberis, rhizoma zingiberis recens, shen jiang, sheng jiang, shoga, shokyo, shunthi, srungavera, sunth, sunthi, vishvabheshaja, zingiberis rhizoma, zingiberis siccatum rhizoma, zinzeberis, zinziber officinale, zinziber officinali

Key Scientific References:

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3. Caraway Seed

Latin name: Carum carvi

Common names: Anis des vosges, apium carvi, carraway, carvi fructus, cumin des pres, haravi, jeera, jira, kala Jjra, karwiya, krishan jeeraka, krishnajiraka, kummel, kummich, roman cumin, persian cumin, semen cumini pratensis, semences de carvi, shahijra, shiajira, Wiesen-Feldkummel, wild cumin

Key Scientific References for Caraway & Caraway/Peppermint Combination:

1. Madisch, A., S. Miehlke, and J. Labenz, *Management of functional dyspepsia: Unsolved problems and new perspectives.* World J Gastroenterol, 2005. 11(42): p. 6577-81.

2. Goerg, K.J. and T. Spilker, *Effect of peppermint oil and caraway oil on gastrointestinal motility in healthy volunteers: a pharmacodynamic study using simultaneous determination of gastric and gall-bladder emptying and orocaecal transit time.* Aliment Pharmacol Ther, 2003. 17(3): p. 445-51.

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Alpha CRS™ Cellular Vitality Blend Labeling

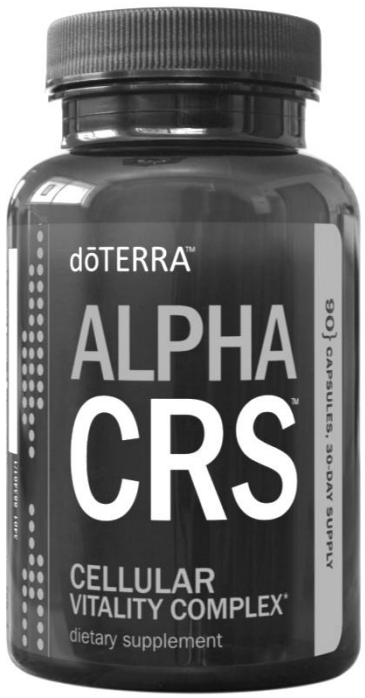
Supplement Facts

Serving Size: Three (3) Capsules
Servings per Container: 30

Amount Per Serving		% DV
Cellular Longevity Blend:	835 mg	*
Scuttelaria Root extract (150 mg Baicalin), Green Tea Leaf extract (50 mg EGCG), Polygonum Cuspidatum extract (50 mg Resveratrol), Pomegranate extract (20 mg Ellagic Acid), Grape Seed extract (20 mg Proanthocyanidins), Marigold Flower extract (3 mg Lutein), Tomato Fruit extract (1 mg Lycopene), Turmeric Root extract, Bilberry extract		
Cellular Energy Blend: :	360 mg	*
Acetyl-L-Carnetine extract (100 mg), Alpha-Lipoic Acid (100 mg), Coenzyme Q10 (50 mg), Quercetin (50 mg as Quercetin Dihydrate)		
dōTERRA Tummy Taming™ Blend :	15 mg	*
Peppermint Leaf, Ginger Root extract, Caraway Seed		

* Daily Value not established

Other Ingredients: Microcrystalline cellulose, gelatin, magnesium stearate (vegetable source), silicon dioxide.



Directions: Adults, take 3 capsules per day with food.

Caution: Keep out of reach of children. Pregnant or lactating women and people with known medical conditions should consult a physician before using. Do not use if safety seal is broken. Store in a cool, dry place.

Note: The products in dōTERRA's Lifelong Wellness Pack including Alpha CRS, EO Mega, and Microplex VM contain no wheat or milk. Additionally, no nuts are used in the manufacturer of these products. However, these products are produced in a facility that uses nut fruits.

Manufactured in the U.S.A. exclusively for dōTERRA Int., LLC, 370 West Center Street, Orem, UT 84057, www.doterra.com. For customer support, call 801-615-7200.