



Where science brings out
the best of nature



Herbs for Beauty Inside and Out



By: Dr. Ellen Kamhi, Ph.D, RN, HNC

Since Cleopatra's time herbs have been used to

- Enhance beauty
- Mythological symbols
- Nutritional foods



Herbs for Cosmetics and Personal Care Products



Herbs for Food & Beverages



Understanding the power of herbs

Herb - a plant or plant part valued for its medicinal, savory, or aromatic qualities.



Ways To Use Herbs:

- Teas
- Liquids
- Capsules
- Topicals



Herbs In Your Medicine Cabinet



Black Cohosh – Hot Flashes
Saw Palmetto – Prostate
Astragalus – Immune Support
Dandelion – Liver support
Hawthorn – Heart Health
White Willow Bark – Pain
Mullein – Lungs
Pepper Mint – Digestion
Valerian -Sleep
St Johns Wort - Depression

Kava Kava- Muscle Relaxant
Ginger – Increases Circulation
Fever few – Headaches, Pain
Licorice – Anti-Inflammatory
Milk Thistle – Liver Support
Olive Leaf - Antimicrobial





Oregano



- The ancient Greek's original name "oreganos", translates to "delight of the Mountains".
- Greeks believed it was created by Aphrodite as a symbol of happiness.
- Bridal couples were crowned with it Oregano was placed in tombs to give peace to the departed
- In the 5th century B. C., Hippocrates used it for curing various diseases such as stomach pain and respiratory diseases.
- Paracelsus used it to treat diarrhea, psoriasis, vomiting, jaundice, and fungal diseases. Mediterranean people used it as a meat preservative



Oregano



Species Confusion

Many plants throughout the world are called oregano.

Marjoram (*Origanum majorana*)

Oregano in Spain (*Thymus nummularius*)

Mexican Oregano (*Lippia graveolens*)



It is important to be aware that different species have different chemical constituents. The active ingredient, carvacrol, is found in high amounts only in **true oregano, *Origanum vulgare***

Uses of Oregano oil

- Antiseptic
- Cuticle Treatment
- Gum Care
- Canker and Cold Sores
- Athlete's Foot
- Candidiasis
- Canker and cold sores
- Eczema
- Psoriasis
- Wounds



• Oregano is experiencing a renaissance of consumer popularity and recognition as a 'value added" component .

Oregano



Research:

- * Talpur, N.; Preuss, H. G.; Manohar, V., et.al. **Medicinal herbal oils: Antifungal effects of the edible oil of Oregano** . Journal of the American College of Nutrition, 19:5, October, 2000, 689
- * You, Y. S.; Park, K. M.; Kim, Y. B. **Antimicrobial activity of some medical herbs and spices against Streptococcus mutans**. Korean Journal of Applied Microbiology and Bioengineering 21 (2), 1993, 187-191
- * Stiles, J. C.; Sparks, W.; Ronzio, R. A. **The inhibition of Candida albicans by oregano**. Journal of Applied Nutrition, 47:4, 1995, 96-102
- * Tassou, C. C.; Drosinos, E. H.; Nychas, G. J. E. **Inhibition of resident microbial flora and pathogen inocula on cold fresh fish fillets in olive oil , oregano , and lemon juice under modified atmosphere or air**. Journal of Food Protection , Jan 1996. v. 59 (1) p. 31-34.

Rosemary

- Grows in Mediterranean Region
- Parts used: Leaves for extracts, Flowers for volatile oil
- Active Constituents: essential oils, rosmarinic acid, phenolic acids, tannin
- Cosmetic Uses: shampoo, stimulates hair follicle, dandruff control, antioxidant, antimicrobial
- Ancient reputation for strengthening the memory
- Emblem of fidelity for lovers
- Used at weddings (bridal wreath) and funerals (cast on to the coffin when it had been lowered into the grave)
- Magical spells as a safeguard from witches and evil influences





Olive Leaf



- Grows in the Mediterranean Region
- Active constituents: oleuropein, triterpenes, and flavonoids such as rutin
- Potent Antioxidants: Tyrosol & Hydroxytyrosol
- Cosmetic Uses: anti-inflammatory, anti-microbial
- Since the earliest of times, the Olive leaf has been referenced as a mythological symbol, as a nutritional food and as a healing medicinal
- Olive branch is a well-known sign of peace. In Genesis (8:11), Noah is told of the nearness of land when a dove flew over the arc with an Olive leaf in her mouth. The Egyptians extolled the leaf as a symbol of cosmic power. Inhibits the growth of an incredible array of pathogenic organisms including bacteria, yeasts and viruses when tested in-vitro (ie. petri dish)
Cold and flu viruses,
Herpes and retroviruses like HIV
E. coli
Malariae (the old anti-malarial Olive leaf and wine remedy had some merit!)
In-vitro (in live animals) studies showed no toxic effects , even at high doses.

Olive Leaf

Active constituents: oleuropein, triterpenes, and flavonoids such as rutin

Cosmetic Uses: anti-inflammatory, anti-microbial

- A bitter compound that affords the Olive tree a marked resistance to insects, bacteria and other parasites.
- Its use for helping with human health issues can also be found in older medical literature.
- The Pharmaceutical Journal published an anti-malarial recipe in 1854 made from Olive leaves and wine.



Olive Leaf

Research:

- Antioxidant activity of phenolics extracted from *Olea europae* L. leaves . Benavente-Garcia, O.; Castillo, J.; Lorente, J.; Ortuno, A.; del Rio, J. A. Food Chemistry VOL. 68 NO. 4, 2000-03 PP. 457-462
- Quali-quantitative analysis and antioxidant activity of different polyphenolic extracts from *Olea europaea* L. leaves ,CAS SECTION- 163,CAS SUBSECTION- 004 Pinelli, Patrizia; Galardi, Carlotta; Mulinacci, Nadia; Vincieri, Franco H.; Tattini, Massimiliano; Romani, Annalisa J. Commod. Sci.VOL. 39 NO. 2 ,2000 ,PP. 71-83
- Olive leaves . Their extract performs effective antiradicalic action. Amari, Sergio; Maramaldi, Giada JOURNAL TITLE- SOFW J. VOL. 125 NO. 8 ,1999, PP. 30-32
- Baycin D., Adsorption of Olive Leaf (*Olea europaea* L.) Antioxidants on Silk Fibroin. J Agric Food Chem. 2007 Jan 30
- Goulas V, Exarchou V,et. Al. Phytochemicals in olive-leaf extracts and their antiproliferative activity against cancer and endothelial cells. Mol Nutr Food Res. 2009 Feb 4.

Guava

Guava contains many active constituents

Antioxidants & Anti-Inflammatory Effects

- Ten phenolic and flavonoid compounds including one new acylated flavonol glycoside were isolated from *Psidium guajava* seeds.
- **Flavonoids:** quercetin, myricetin, kaempferol and apigenin
- **Carotenoids:** including Lycopene
Carotenoids are in greater concentrations in the peel than in the pulp, and increase considerably during ripening.

Contains Vitamin C

Vitamin C helps build collagen, and aids in skin lightening properties.

Guava- 80.1 mg/100 g

Lemon-10.5 mg/100 g

Skin Tightening Agent

Experiments have shown guava extract to stimulate vasoconstriction- tightening of blood vessels



Guava

Research:

*Jaiarj P, Wongkrajang Y, Thongpraditchote S, et. al, **Guava leaf extract and topical haemostasis.** Phytother Res. 2000 Aug;14(5):388-91.*

*Miean KH, Mohamed S. **Flavonoid (myricetin, quercetin, kaempferol, luteolin and apigenin) content of edible tropical plants.** J Agric Food Chem. 2001 Jun;49(6):3106-12.*

*Nair S, Nagar R, Gupta R. **Antioxidant phenolics and flavonoids in common Indian foods.** J Assoc Physicians India. 1998 Aug;46(8):708-10.*

*Rodriguez-Amaya DB. **Latin American food sources of carotenoids.** Arch Latinoam Nutr. 1999 Sep;49(3 Suppl 1):74S-84S.*

*Michael HN, Salib JY, Ishak MS. **Acylated flavonol glycoside from Psidium guajava L. seeds.** Pharmazie. 2002 Dec;57(12):859-60 .*

Papaya

- Papaya is used medicinally for skin debridement, and can be used for exfoliation formulas.
- Papaya is a good source of Vitamin E, which has healing attributes for the skin.
- Papaya contains (111.3 mg/kg) of alpha tocopherol.
- Beta-cryptoxanthin, the bio-available antioxidant.



Papaya

Research:

Breithaupt DE, Weller P, Wolters M, et. al. Plasma response to a single dose of dietary beta-cryptoxanthin esters from papaya (Carica papaya L.) or non-esterified beta-cryptoxanthin in adult human subjects: a comparative study. Br J Nutr. 2003 Oct;90(4):795-801.

Pieper B, Caliri MH. Nontraditional wound care: A review of the evidence for the use of sugar, papaya/papain, and fatty acids. J Wound Ostomy Continence Nurs. 2003 Jul;30(4):175-83.

Ching LS, Mohamed S. Alpha-tocopherol content in 62 edible tropical plants. J Agric Food Chem. 2001 Jun;49(6):3101-5.

Mango

Applications

- Nutritional Supplement
 - Cosmetic Formulas
 - Phytomedicine
- Plasma retinol concentrations improved after 3 months of mango supplementation.
- Mango also contains Vitamin C, Niacin and Lysine
- Mango has historically been used as an anti-diarrheal agent in traditional cultures.
- Recent research collaborates its effectiveness.



Mango

Research:

Sairam K, Hemalatha S, Kumar A., et. al. Evaluation of anti-diarrheal activity in seed extracts of *Mangifera indica*. *J Ethnopharmacol.* 2003 Jan;84(1):11-5.

Drammeh BS, Marquis GS, Funkhouser E, et. al., A randomized, 4-month mango and fat supplementation trial improved vitamin A status among young Gambian children. *J Nutr.* 2002 Dec;132(12):3693-9

*Nunez Selles AJ, Velez Castro HT, Aguero-Aguero J., et. al. Isolation and quantitative analysis of phenolic antioxidants, free sugars, and polyols from mango (*Mangifera indica* L.) stem bark aqueous decoction used in Cuba as a nutritional supplement. *J Agric Food Chem.* 2002 Feb 13;50(4):762-6.*

Goji

- Also called Wolfberry- small raisin size red fruits that grow on a vine.
- Prized for their nutritional and healing value in traditional Asian medicine
- Science has isolated unique polysaccharides that 'amplify signals' between cells, and improve immune defense.



Acai

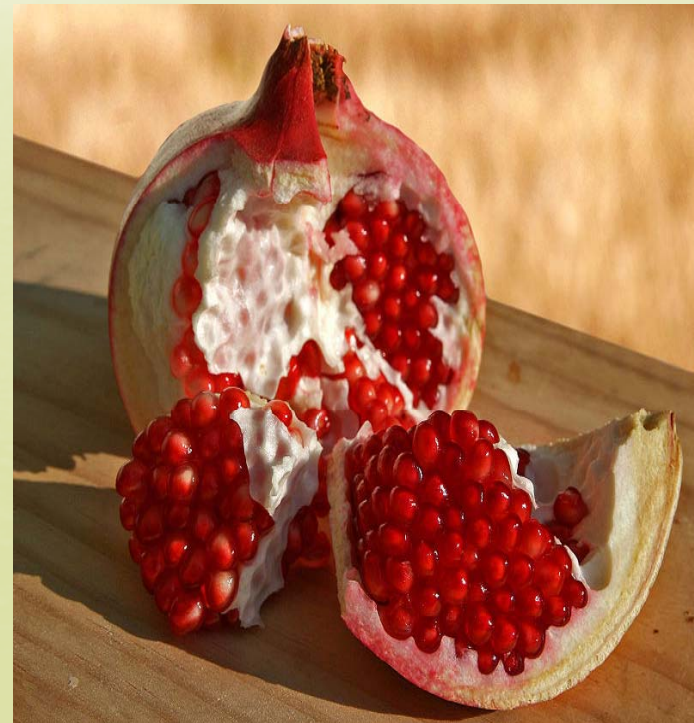
- Used for thousands of years by natives in Brazilian rain forests- believes acai has healing powers.
- Modern science uncovered a vast storehouse of nutrients in acai berry
- High concentration of antioxidants
Vitamin C and E- Vitamin B1 (Thiamin), Vitamin B2 (Riboflavin), Vitamin B3 (Niacin), iron, potassium, phosphorus and calcium.



Acai Berry- Rodriquez RB, Et. al., **Total Oxidant Scavenging Capacity of Euterpe oleracea Mart. (Acai) Seeds and Identification of Their Polyphenolic Compounds.** Journal Of Agricultural Food Chemistry 2006 May 31;54(11):3773-8.

Pomegranate

- Grows in the Middle East
- Traditionally recognized in ancient cultures as a source of longevity and strength.
- Rich source of Vitamin C, potassium, polyphenols and other beneficial antioxidants.
- Recent research supports the long held belief that pomegranate juice is healthy for the heart, and protects cell membranes.



Pomegranate- Adams LS, et. al. **Pomegranate juice, total pomegranate ellagitannins, and punicalagin suppress inflammatory cell signaling in colon cancer cells.** Journal of Agricultural Food Chemistry, 2006 Feb 8;54(3):980-5.

Echinacea (Purple Coneflower) –

Known to have Antibacterial properties and decrease inflammation and promote tissue regeneration

Internal benefits:

- Stimulates immune system
- Colds, coughs and flu,
- Enlarged lymph glands, sore throat
- Chronic infections of respiratory tract
- Chronic infection of lower urinary tract
- *May help* combat herpes and candida

Topical Benefits:

- Chronic ulcerations and slow healing wounds.
- Psoriasis, eczema and inflammatory skin conditions
- Promotes healthy skin



Echinacea



Research:

- * Hu C, Kitts DD. Studies on the Antioxidant Activity of Echinacea Root Extract. J Agric Food Chem. May2000;48(5):1466-72.
- * Melchart D, Linde K, Fischer P, et al. Echinacea for Preventing and Treating the Common Cold. Cochrane Database Syst Rev. 2000;(2):CD000530.
- *Shah, SA, , **Sander S, et. al.** *University of Connecticut School of Pharmacy, Storrs*,**Evaluation of echinacea for the prevention and treatment of the common cold: a meta-analysis. : Lancet Infect Dis. 2007 Jul;7(7):473-80**
- * Schulten B, Bulitta M, Ballering-Bruhl B, Koster U, Schafer M. Efficacy of Echinacea purpurea in patients with a common cold. A placebo controlled, randomised, double-blind clinical trial. Arzneimittelforschung. 2001;51(7):563-8.

Green, White & Red Tea

White and Green Tea come from *Camellia sinensis* plant. Both contain high levels of epigallocatechin (EGCG), a form of antioxidants associated a number of health benefits. The difference is how they are processed.

Red Tea is from the legume family and is tannin free, caffeine free.

Tea is said to have many health benefits

- Lowering cholesterol levels
- Boosting your immune system
- Helping to prevent cavities and tooth decay.
- Natural antioxidant

- Anti-inflammatory
- Respiratory and digestive infections
- Lower high blood pressure
- Researchers have suggested - may be effective in cancer prevention



Tea



Research:

- * Adhami VM, Ahmad N, Mukhtar H. Molecular targets for green tea in prostate cancer prevention. *J Nutr.* 2003;133(7):2417S-24S.
- * Dulloo AG, Sevdoux J, Girardier L, et al. Green Tea and Thermogenesis: Interactions Between Catechin-polyphenols, Caffeine and Sympathetic Activity. *Int J Obes Relat Metab Disord.* Feb2000;24(2):252-8.
- * Hertog MG, et al. Dietary Antioxidant Flavonoids and Risk of Coronary Heart Disease: The Zutphen Elderly Study. *Lancet.* Oct1993;342(8878):1007-1011.
- * Wu AH, Yu MC, Tseng CC, Hankin J, Pike MC. Green tea and risk of breast cancer in Asian Americans. *Int J Cancer.* Sep2003;106(4):574-9.



Ginseng



- For centuries, Ginseng was considered an almost magical drug, a cure for bodily woes.
- Among the Chinese healers Ginseng is regarded primarily as a "man's herb" although it may be taken by both men and women.
- The name Ginseng is derived from the Chinese word for "likeness of man" because its roots sometimes resemble a human figure.
- Native Americans have used the root of this plant to relieve vomiting and nausea. Some tribes used it in their love potions.
- American colonists began using ginseng in the early 1700s. The Eclectics, 19th century physicians who rejected synthetic drugs in favor of plant medicines, recommended American ginseng as a stimulant and aphrodisiac.
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Ginseng

Common uses:

Colds, Coughs and Flu
Helps Control Diabetes
Fight Chemical dependency
Stimulates Immune System
Stimulates The Mind
May Help Prevent Cancer
Sexual Performance
Improving Physical Performance



Types of Ginseng

Korean (*Panax ginseng*) Red Ginseng-hot stimulant.

Chinese-moderate, not as strong.

American (*Panax quinquefolius*)-most preferred form in China building, tonic.

Eleuthero (*Eleutherococcus senticosus*, Siberian)-completely different species of plant-similar tonic use, very helpful with depression.

Ginseng



Research:

- * Choi S. Epidermis proliferative effect of the Panax ginseng ginsenoside Rb2. Arch Pharm Res. 2002 Feb;25(1):71-6.
- * McKay D. Nutrients and botanicals for erectile dysfunction: examining the evidence. Altern Med Rev. 2004 Mar;9(1):4-16.
- * Morisaki N, Watanabe S, Tezuka M, et. al, Mechanism of angiogenic effects of saponin from ginseng Radix rubra in human umbilical vein endothelial cells. Br J Pharmacol. 1995 Aug;115(7):1188-93
- * Attele AS, Zhou YP, Xie JT, et. al. Antidiabetic effects of Panax ginseng berry extract and the identification of an effective component. Diabetes. 2002 Jun;51(6):1851-8.



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