

THE MIDNIGHT BLUE PAPERS MEDICINAL PLANTS AND HERBAL AGENTS HEALTH NUGGET

USEFUL TOOLS IN THE MEDICAL MISSIONARY WORK

INTRODUCTION

In the arena of Medical Missionary work, within the over-arching subject of medicinal plants and herbal agents, we'd like to bring to your attention the herb **Rosemary Officinalis** (RO). Our focus here will be on its uses as an internal medicine rather than a topical agent. As this is not a classroom setting, the information we intend to impart should be considered general in nature. We will field questions, comments, concerns, and/or suggestions after this gathering. (*Please note; from the point of view of Traditional Western Medicine (TWM) and for legal reasons, this information is provided solely for educational purposes and is not intended to diagnose, treat, or cure any disease or disorder.*)

The plant itself is a woody, perennial herb with fragrant, evergreen, needle-like leaves and white, pink, purple, or blue flowers. Native to the Mediterranean region and Asia Minor, it now grows widely in other parts of the world. It thrives in a warm and sunny climate but is reasonably hardy in cool climates. Rosemary grows in friable, loamy soil with good drainage in an open, sunny position. It will not withstand water-logging, and some varieties are susceptible to frost. It can withstand droughts, surviving sever lack of water for lengthy periods. The leaves are green above, and white below, with dense, short, woolly hair. The leaves, young shoots, and flowers are edible; however, the leaves are most commonly used for providing flavor to food and containing compounds for remedies. The plant flowers in spring and summer in temperate climates, but it can be in constant bloom in warm climates.

TALKING POINTS/BRIEFING

BENEFITS AND USES

Orally, RO is used for **dyspepsia**; **flatulence**; **gout**; **cough**; **headache**; **liver** and **gallbladder** complaints; loss of appetite and to treat **indigestion**; **cognitive decline** in the elderly; cardiovascular conditions such as **high blood pressure**; and to increase urine flow. In laboratories, it has been shown to have **antioxidant** properties. (Antioxidants can neutralize harmful particles in the body known as free radicals, which damage cell membranes, tamper with DNA, and even cause cell death.) Constituents include the minerals **Calcium**, **Iron**, **Magnesium**, **Potassium** and **Zinc**; as well as pro-vitamin **A**, many **B-complex** vitamins (including **Niacin** and **Pyridoxine**), and vitamin **C**.

METHODS OF USE

In *Natural* or *Alternative Medicine* RO can be used in **fresh**, **dried**, or **powdered** forms, or as an alcohol- or vegetable glycerin-based **tincture**.

In its **fresh** form, use it to flavor soups, stews, roasts; to infuse vinegars and vegetable oils; and to make a medicinal tea. In its **dried** form (cut and sifted), it may also be made into a medicinal tea (infusion) and preferably served warm. In its **powdered** form, it should be ground fine then capsulated and ingested with food, preferably. When decanted into a **tincture**, the potent result can be taken in water or under the tongue to alleviate acute symptoms.

Rosemary is a powerful tool in improving cognitive health and boosting circulation. In our work, this herb is considered an essential tool as it affects an organ of elimination and should be standard in our kits.

As you review this topic, please consider James 1:5 and 3 John 2. We thank you for your time and attention.

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THE USE OF NATURAL REMEDIES

Disease is an effort of nature to free the system from conditions that result from a violation of the laws of health. In case of sickness, the cause should be ascertained. Unhealthful conditions should be changed, wrong habits corrected. Then nature is to be assisted in her effort to expel impurities and to re-establish right conditions in the system. $-\{MH\ 127.1, see\ also\ 127.2-4\}$

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FREEHAND NOTES

THE **MIDNIGHT BLUE** PAPERS

MEDICINAL PLANTS AND HERBAL AGENTS

ROSEMARY

AKA OLD MAN, ROSE DES MARINS, ROMERO, MÍ DIÉ XIĀNG

DISCUSSION

Rosemary is widely used as a culinary spice. The leaf and oil are used in foods, and the oil in beverages. In manufacturing, rosemary oil is used as a fragrant component in soaps, perfumes, and other cosmetics. It has been hailed since ancient times for its medicinal properties. Chinese physicians used rosemary for headaches, indigestion, insomnia and malaria. Rosemary is also much used in European traditional medicine to strengthen the heart and blood vessels. There is a keen appreciation in this old culture of rosemary being an herb that clears congestion in the liver and gall-bladder thereby lifting the mood and resolving 'liverishness'. In addition, rosemary has been used to improve memory, relieve muscle pain and spasm, stimulate hair growth, and support the circulatory and nervous systems.

In *Natural*- or *Alternative Medicine* the parts that are used are the flowering tops, stems and leaves. Rosemary can be used in **fresh**, **dried**, or **powdered** form or as an alcohol- or vegetable glycerin-based **extract**. Two types of oil can be created. **Essential**, or volatile, **oil** can be extracted from leaves and parts of the flowers strictly for external use. The *undiluted* oil is **unsafe** for use. And, **infusions** of rosemary with vegetable-based **oils** for use both internally, as with food, or externally. In addition, a by-product of the production of the essential oil, **rosemary hydrosol**, can be used either internally or externally.

Rosmarinus officinalis (RO) is a woody, perennial herb with fragrant, evergreen, needle-like leaves and white, pink, purple, or blue flowers. Native to the Mediterranean region and Asia Minor, it now grows widely in other parts of the world. It thrives in a warm and sunny climate, but is reasonably hardy in cool climates. It can withstand droughts, surviving sever lack of water for lengthy periods. Forms range from upright to trailing; the upright forms can reach 1.5m tall, rarely 2m. The leaves are evergreen, 2-4cm long and 2-5mm broad, green above, and white below, with dense, short, woolly hair. The plant flowers in spring and summer in temperate climates, but the plants can be in constant bloom in warm climates. Rosemary grows on friable, loamy soil with good drainage in an open, sunny position. It will not withstand water-logging, and some varieties are susceptible to frost. It grows best in neutral to alkaline conditions (pH 7-7.8) with average fertility. It can be propagated from an existing plant by clipping a shoot (from a soft new growth) 10-15cm long, stripping a few leaves from the bottom, and planting it directly into soil.



BOTANICAL CLASSIFICATION

Kingdom	Order	Family	Genus	Species
Plantae	Lamiales	Lamiaceae	Rosmarinus	Rosemary Officinalis

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THE USE OF NATURAL REMEDIES

When attacked by disease, many will not take the trouble to search out the cause of their illness. Their chief anxiety is to rid themselves of pain and inconvenience. So they resort to patent nostrums, of whose real properties they know little, or they apply to a physician for some remedy to counteract the result of their misdoing, but with no thought of making a change in their unhealthful habits. If immediate benefit is not realized, another medicine is tried, and then another. Thus the evil continues. – {MH 126.2}

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MEDICINAL PHILOSOPHY

Orally, RO is used for **dyspepsia**; **flatulence**; as an abortifacient (causing miscarriage); increasing menstrual flow; **gout**; **cough**; **headache**; **liver** and **gallbladder** complaints; loss of appetite; **cognitive decline** in the elderly; for cardiovascular conditions such as **high blood pressure**; to increase urine flow; and to treat **indigestion**. *Topically*, RO is used for preventing **baldness**; **Alopecia** Areata; **circulatory** disturbances; **toothache**; **eczema**; joint or musculoskeletal pain such as **myalgia**, **sciatica** and intercostal **neuralgia**; **balneotherapy**; **wound healing**; and as an **insect repellent**.

Scientists have found **rosemary essential oil** beneficial in the treatment of various ailments including: acne; baldness and hair care, such as dry and damaged or over-processed hair, dandruff, and greasy or oily skin/scalp; congested and dull skin, eczema; aches and pains, including, arthritis, debility/poor muscle tone, muscle stiffness, muscular cramp, poor circulation; low blood pressure; gout rheumatism; liver congestion; fever; nervous exhaustion; fatigue; neuralgia; sciatica; insect repellent; lice; scabies; slack tissue; cellulitis; edema; water retention; sprains; strains; asthma; bronchitis; coughs; whooping cough; colic; indigestion; flatulence; dysmenorrhea; leucorrhea; colds/flu; headache; nervous tension; and stress-related conditions.

In laboratories, RO has been shown to have **antioxidant** properties. Antioxidants can neutralize harmful particles in the body known as free radicals, which damage cell membranes, tamper with DNA, and even cause cell death. Also in the lab, the oil appears to have **antimicrobial** properties (killing some bacteria and fungi in test tubes).

Rosemary has had a considerable amount of research as a plant but not so much in the form of actual trials on people. One scientific study in humans found that long term daily intake prevents thrombosis. Two studies that do stand out that have used the **oil** include;

- A controlled and randomized study involving the inhalation of the oil for three minutes by volunteers who were simultaneously monitored by EEG (electro-encephalographic recording) showed a significant change to their **alpha** and **beta wave** brain activity indicating increased alertness. The subjects reported feeling more relaxed and alert and were shown to be faster (but not more accurate) at solving maths problems compared with baseline results.
- An uncontrolled trial showed that gargling rosemary oil in water (in a **1:10** proportion of oil to water) inhibited the growth of the **fungi** Candida Albicans of **12** patients who were unresponsive to the drug Nystatin (originally named Fungicidin).

INDIGESTION

Rosemary leaf is used in Europe for indigestion (dyspepsia) and is approved by the German Commission E, which examines the safety and efficacy of herbs.

MUSCLE AND JOINT PAIN

Applied topically (to the skin), rosemary oil is sometimes used to treat muscle pain and arthritis and to improve circulation. It is approved by the German Commission E for this purpose as well.

ALOPECIA

Historically, rosemary has been used to stimulate hair growth. Rosemary was used in one study of **84** people with Alopecia Areata (a disease in which hair falls out, generally in patches). Those who massaged their scalps with rosemary and other essential oils (including lavender, thyme, and cedarwood) every day for **7** months experienced significant hair re-growth compared to those who massaged their scalps without the essential oils.

IMPROVE MEMORY OR CONCENTRATION

Rosemary is often used in aromatherapy to increase concentration and memory, and to relieve stress. One study suggests that rosemary, combined with other pleasant-smelling oils, may lower cortisol levels and help reduce anxiety. Another study found that the use of lavender and rosemary essential oil sachets reduced test taking stress in graduate nursing students.

NEUTRALIZE FOOD-BORNE PATHOGENS

As rosemary is so widely used in the food industry it has been subjected to considerable research into its properties as a preservative. Compared with **15** other well-known food preservatives rosemary was found to have the strongest **anti-oxidant** activity by far. The unusually effective ability to stop fats from going rancid has led to an association to why this

might be how rosemary has gained a reputation to help prevent hardening of the arteries in humans. Several studies show that rosemary inhibits food-borne pathogens like *Listeria monocytogenes*, *Bacillus cereus*, and *Staphylococcus aureus*.

ROSEMARY HYDROSOL

Rosemary hydrosol is the plant distillate water remaining from producing the essential oil. It has a surprising floral scent and taste, and when used as a beverage has no sharpness. Consumers should practice safety when using hydrosols: The same contra-indications and safety warnings apply for both the hydrosol and essential oil of rosemary. It has been shown to be helpful with treatment concerning: the gallbladder, digestion, detoxification, as a diuretic, antioxidant, as a toner for oily to normal skin, protecting hair keeping it shiny and soft, dry and over-processed hair, acne, and as a circulatory stimulant. It can be added to shampoos and conditioners for healthier hair or as an after-shower spray. It can also be used in the kitchen as a flavor enhancer.

PROPERTIES, ACTIVE CONSTITUENTS, AND NUTRITIONAL INFORMATION

Rosemary leaves provide just **131** calories per **100**g and contain no cholesterol. Apart from nutrients, this humble herb contains many noteworthy non-nutrient components such as dietary fiber (**37**% of RDA).

The herb is exceptionally rich in many **B-complex** vitamins. It is one of the herbs contain high levels of Folates; providing about $109\mu g$ per 100g (about 27% of RDA). Folates are important in DNA synthesis and when given during the peri-conception period can help prevent neural tube defects in the newborn babies.

Rosemary herb contains very good amounts of pro-vitamin A; **2924** IU per **100**g (about **97**% of RDA). A few leaves a day in the diet would contribute enough of this vitamin. Pro-vitamin A is known to have antioxidant properties and is essential for vision. It is also required for maintaining healthy mucus membranes and skin. Consumption of natural foods rich in pro-vitamin A is known to help the body protect from lung and oral cavity cancers.

Fresh rosemary leaves are a good source of the antioxidant vitamin C; containing about 22mg per 100g (about 37% of RDA). The vitamin is required for collagen synthesis in the body. Collagen is the main structural protein in the body required for maintaining the integrity of blood vessels, skin, organs, and bones. Regular consumption of foods rich in vitamin C helps the body protect from scurvy; develop resistance against infectious agents (boosts immunity) and help scavenge harmful, pro-inflammatory free radicals from the body.

Rosemary herb parts, *whether fresh or dried*, are rich source of minerals like **potassium**, **calcium**, **iron**, **manganese**, **copper**, and **magnesium**. Potassium is an important component of cell and body fluids, which helps control heart rate and blood pressure. Manganese is used by the body as a co-factor for the antioxidant enzyme **superoxide dismutase**.

This herb is an excellent source of **iron**, contains **6.65**mg/**100**g of fresh leaves (about **83**% of RDA). Iron, being a component of hemoglobin inside the red blood cells, determines the oxygen-carrying capacity of the blood.

Rosemary herb (Rosmarinus officinalis), Fresh						
leaves, Nutritive value per 100 g.						
(Source: USDA N	National Nutrient data base)					
Principle	Nutrient Value	Percentage of RDA				
Energy	131 Kcal	6.5%				
Carbohydrates	20.70 g	16%				
Protein	3.31 g	6%				
Total Fat	5.86 g	20%				
Cholesterol	0 mg	0%				
Dietary Fiber	14.10 g	37%				
Vitamins						
Folates	109 µg	27%				
Niacin	0.912 mg	6%				
Pantothenic acid	0.804 mg	16%				
Pyridoxine	0.336 mg	26%				
Riboflavin	0.152 mg	12%				
Thiamin	0.036 mg	3%				
Vitamin A	2924 IU	97%				
Vitamin C	21.8 mg	36%				
Electrolytes						
Sodium	26 mg	2%				
Potassium	668 mg	14%				
Minerals						
Calcium	317 mg	32%				
Copper	0.301 mg	33%				
Iron	6.65 mg	83%				
Magnesium	91 mg	23%				
Manganese	0.960 mg	42%				
Zinc	0.93 mg	8.5%				

Nutrients: Potassium, Calcium, Iron, Manganese, Copper, Phosphorus, Zinc, Magnesium, and Vitamins C, B₁, B₂, B₃,

B₅, B₆, Folic Acid.

Antioxidants: Carnosic acid, rosmarinic acid, caffeic acid, ursolic acid, betulinic acid, beta-carotene, vitamin C.

General actions on the physiology, by both the herbal extract and the essential oil include: *astringent*, increasing the tone and firmness of the tissues, and reducing the mucous discharge from the nose, intestines, vagina, and draining sores; *carminative*, stimulating the expulsion of gas from the gastro-intestinal tract, increasing the tone of its muscular wall thus stimulating peristalsis; *nervine*, acting as a tonic to the nerves, relieving pain and regulating the nervous system; and *stimulant*, assisting the functional activity of the body, thereby increasing energy.

Properties, Herbal Extract: Carminative, aromatic, antispasmodic, antidepressant, rubefacient, parasiticide,

antimicrobial, astringent, emmenagogue, nervine, and stimulant.

Properties, Oil: Analgesic, anti-allergic, antimicrobial, anti-inflammatory, anti-oxidant, antirheumatic, anti-septic,

anti-spasmodic, aphrodisiac, astringent, carminative, cephalic, cholagogue, choleretic, cicatrizant, cordial, cytophylactic, diaphoretic, digestive, diuretic, emmenagogue, fungicidal, hepatic, hypertensive, nervine, parasiticide, restorative, rubefacient (counterirritant), stimulant (circulatory,

adrenal cortex, hepatobiliary), stomachic, sudorific, tonic (nervous, general), and vulnerary.

Among the list of constituents found in RO are potentially biologically active compounds, including **antioxidants** and chemical **compounds** such as **camphor**, **rosmaridiphenol**, and **rosmanol**. Rosemary antioxidants levels are closely related to soil moisture content.

Phytochemicals, Fresh Leaves: Alpha-pinene, apigenin, beta-carotene, beta-sitosterol, betulinic acid, borneol, caffeic

acid, camphor, carnosol, carvacrol, carvone, caryophyllene, chlorgenic acid, diosmin, genkwanin, geraniol, herspridin, limonene, linalool, luteolin, oleanolic acid, 1,8-cineole, phytosteols, rosmanol, rosmarinc acid, salicylates, squalene, tannin, thymol,

and ursolic acid.

Phytochemicals, Herbal Extract: 1% volatile oil including borneol, linalol, camphene, cineole; and camphor;

tannins, bitter principle, and resins.

Phytochemicals, Oil: Alpha-pinene, camphene, limonene, cineol, borneal, camphor, linalol, terpineol, octanone, and

bornyl acetate.

CAUTIONS, CONTRAINDICATIONS, DOSAGES, ADVERSE REACTIONS

The appropriate dosage depends on several factors such as age, health, and several other conditions. Do follow the relevant directions on product labels and seek advice from a Natural Medicine Consultant **before** supplementing a medicinal regimen. This herb has been associated with skin rashes, itching, and allergies in some individuals. Use only as suggested.

For those who must remain on pharmaceutical drugs, such as <u>Anti-Diabetes</u> or <u>Anti-Coagulant</u> drugs, <u>ACE Inhibitors</u>, or <u>Diuretics</u>: consult the apposite Medical Doctor (MD, DO, ND) **before** replacing any prescription drug with medicine. When combined with these types of drugs, the following **interactions** may occur and have been categorized as *moderate*.

Anti-Coagulant and Anti-Platelet Drugs (Blood Thinners)

RO may affect the blood's ability to clot. It could interfere with any blood thinning drugs such as Warfarin (Coumadin), Clopidogrel (Plavix), and Aspirin.

Anti-Diabetes drugs

RO may alter blood sugar levels and could interfere with any drugs taken to control diabetes.

Diuretic Drugs (Water pills)

Because RO can act as a diuretic, it can increase the effects of drugs such as Furosemide (Lasix), and Hydrochlorothiazide.

ACE Inhibitiors

RO may interfere with the action of ACE inhibitors taken for high blood pressure such as Captpril (Capoten), Elaropril (Vasotec), Lisinopril (Zestril), and Fosinopril (Monopril).

Lithium

Because of its diuretic effects, RO might cause the body to lose too much water and the amount of lithium in the body to increase to toxic levels.

High doses of rosemary essential oil taken orally have been found to be **neurotoxic**. The *undiluted* oil is **unsafe** for use. It is recommended that those who are **pregnant** or have **high blood pressure** should not use rosemary essential oil, and people who are **epileptic** or show signs of epilepsy should not use rosemary essential oil in any instance. The camphor constituent in rosemary has been known to induce **seizures** in epileptics. In extremely rare instances rosemary essential oil has been found to induce **epileptic-like seizures** in people with no known medical history of seizures; however, scientists have found rosemary essential oil to be safe when used topically. It has been reported to be **non-toxic**, **non-irritant** (in dilution only), **non-phototoxic** and **non-sensitizing**.

A NOTE FROM THE EDITOR

Please note; a *strict* comparison of pharmaceutical drugs to natural medicines is simply **not** possible. Drugs are characterized as chemical substances developed by extraction from natural products (<u>pharmacognosy</u>) or synthesized through chemical processes. The drug's active ingredient will be combined with a "vehicle" such as a capsule, cream, or liquid which will be dispensed through a particular route of administration. Natural medicines are processed using a philosophically dissimilar approach. Natural medicines have been designed (<u>phytotherapy</u>) to take advantage of all the plant's mechanisms. Where standard <u>pharmacology</u> isolates an active compound from a given plant, phytotherapy aims to preserve the complexity of substances from a given plant with relatively less processing.

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OVER-ALL NOTES	

FREEHAND NOTES







