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FIBROMYALGIA:
AN EXPLORATION OF HERBS FOR TREATMENT

By
Earnestine Bufford

A Research Project Presented in Fulfillment
Of the Requirements for the Degree
Master of Arts in Liberal Studies
Emphasis Psychology

Regis University

October 16, 2008

FIBROMYALGIA: AN EXPLORATION OF HERBS FOR TREATMENT

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ABSTRACT

Fibromyalgia is a chronic condition engulfed by widespread pain, fatigue, sleep disturbance, and depression... Meanwhile, there are no successful medications to treat the condition without adverse reaction or side effects. Action research investigates herbs as a remedy for treating fibromyalgia. An exploration of its effectiveness will be evaluated, and whether or not it causes adverse reactions and side effects. In addition, the project will address herbs interaction with pharmaceutical drugs and other herbs. It is hypothesized that herbs are better and more effective than drugs. The results will show that there are many effective herbs that can be used to treat fibromyalgia. However, some does cause side effects, will interact to certain medications and other herbs, and can be deadly if not used properly. In conclusion, herbs promote better overall body health based on its natural properties and are more effective than drugs (Reader's Digest, 2008).

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Chapter 1

INTRODUCTION

Statement of the problem

Fibromyalgia is a chronic condition that is challenging to manage. Patients are considered complex because current medications cause adverse reaction and side effect. The demands for treating fibromyalgia patients seem to surpass physicians' capability, and existing treatment appears to be limited. Clauw (as cite in American Family Physician, 2000) emphasized that, "not all health care professionals, primary care or otherwise, want to diagnose and manage fibromyalgia. Some physicians dismiss the "label" of fibromyalgia, usually because the diagnosis is based on self-reporting of symptoms and no objective findings or diagnostic tests legitimizing the condition" (Para 3)...

The intent of this project is to create a handbook that can aid fibromyalgia patients or anyone who suffers with chronic pain, to gain knowledge of herbs that can alleviate their pain and other symptoms that accompany the condition. The handbook identifies and discusses herbs used for treating fibromyalgia by examining three important factors: (1) whether herbs are effective for treating fibromyalgia patients, (2) whether there are adverse reactions or side effects with the use of herbs, and (3) whether herbs interacts with pharmaceutical drugs and other herbs.

Recent progress in clinical research (Bradford, 2001) distinguished that, "there is no recognized cure [for fibromyalgia] but the patient's quality of life can be improved when fatigued and pain are either minimized or eliminated" (P. 1). Further, based on a five-year survey of 214 patients with fibromyalgia from 114 rheumatology practices (Abeles, Micha, Abeles, Shira R., and Abeles, Aryeh M., 2007) revealed that, "a total of 74 different medications were used for treatment, suggesting that no specific drug or class of drug is especially useful for patients with fibromyalgia as a whole" (Para 4). However, in a recent study on the treatment of chronic pain of fibromyalgia patients, (Turk, Swanson, & Tunks, 2008) defended that, "even when medications and invasive procedures effectively reduce pain, they often do not produce concomitant (symptoms that accompany a patient's main symptoms) improvements in physical and emotional functioning. Many prescribed treatments can result in significant complications or side effects" (p.214). Meese (as cited by Calabrese, et al., 2005) stated that, "Medical treatments used to treat fibromyalgia are limited and offers only temporary relief of the symptoms. These treatments include: antidepressants, opioids, nonsteroidal anti-inflammatory drugs, sedatives, muscle relaxants, and antiepileptics" (p.4).

Background

Fibromyalgia is a real condition that affects many people. Luckily, there are many natural medicines that can alleviate the

pain. The symptoms of fibromyalgia are not easy to diagnose because many of them replicate other disorders (see Appendix J for recently discovered symptoms). The diagnosis of fibromyalgia is a clinical diagnosis based on a history of widespread chronic pain that has been endured over a period of three months, fused with tenderness in at least 11 to 18 specific tender points of the body (see Appendix A for details).

Moreover, according to science, natural medicine (Herbs) is an originality that is now reoccurring in health care. The use of herbal medicine is an approach focused on promoting health and treating diseases without non-toxic solutions. Using herbs is a method of healing that utilizes various natural means to empower an individual to reach the peak of his or her health. Dunne (2008) pointed out that, "Herbs have been healing humankind for over 100,000 years, and the Chinese have over 5,000 years of recorded documentation about the effectiveness of medicinal herbs. The problem in the West is that the pharmaceutical industry does not like the competition".

Herbal medicine is older than any other kind of healthcare. All societies have taken advantage of herbs and their benefits. Herbal medicine began with ancient cultures using different plants for shelter, clothing, food, and medicine. The medical benefit of plants was learned by human through trial and error, and by observing animals. Human's knowledge of herbs and its medical use have advanced over time. In addition, "Herbal pharmacopoeias were developed by different tribes. Even the pharmacopoeia of scientific medicine in the 20th century was

developed primarily from native herbal lore", (Natural Herbs Guide, 2008, p.1)...

Definitions

What is Fibromyalgia?

Various experts studying fibromyalgia have expressed the meaning of the chronic illness in different ways. However, Fibromyalgia is a syndrome characterized by chronic pain, stiffness, and tenderness of the muscles, tendons, and joints without detectable inflammation. "Fibromyalgia (formerly fibrositis) is a chronic inflammation of the muscle, (myalgia meaning muscle pain).

Characteristics of Fibromyalgia

Individual with fibromyalgia tend to feel achy and stiff all over the body. Other symptoms include fatigue, headaches, insomnia, flu-like symptoms, digestive distress, intolerance to cold, anxiety and depression" according to (Mars, 2008). Another theory suggested, "treating fibromyalgia as hypothyroidism" (Purtell, as cited by the Herb Research Foundation, 2008). In addition, Purtell stated that, "fibromyalgia is one of the many faces of hypothyroidism. The clinical features of vitiligo, water retention, hypothermia, weight gain, cold sensitivity, dry skin, muscle weakness, arthritis, hypertension, slow heart rate and constipation are common to both" (Para 1)...

Further, Thorson (as cite by Herb Research Foundation, 2008) added that, "Fibromyalgia (FM) experts agree that depression plays a significant role in the disease. Several studies have focused on treating FM with antidepressant medications... The downside is that popular prescription antidepressants are associated with a number of undesirable side range effects" (Para 1)...

Thorson evaluated several studies that included more than 300 people with depression, establishing the fact that St. John's worth is as effective as prescription antidepressants, which does not cause the same side effects. She recommended a dosage of 300 mg three times daily, and she warns to be aware of large dosage of St. John's worth because it may cause individuals with fair skin to be more vulnerable to sunlight. In addition, Sahley (as cited by the Herb Research Foundation, 2008) pointed out another herb, "Boswella" that is good for treating chronic pain and swelling. Boswella is an herb from India, which is an effective natural anti-inflammatory agent that is non-toxic (p. 63). Based on a study "Treating Fibromyalgia with Herbs", (Dunne, 2003), a clinical herbalist stated:

What the experts tell us is that fibromyalgia is an amorphous blob of sickly symptoms, which include aches and pains... It is estimated that close to 80% of the three to six million fibromyalgia patients in America are women with most of them in their 30's to their 50's.

These symptoms seem to worsen with age. Contrary to popular allopathic medicinal rhetoric, there are hundreds of double blind scientific studies

exemplifying the inherent value of herbal therapies. China and Germany are world leaders in this research with the German E-Commission Monographs touted as the single best source on the efficacy of Western herbs. While you will not find these studies published in the Journal of the American Medical Association, there are other highly respected scientific venues where these are presented.

Moreover, a report from Fibromyalgia Hope (2008) revealed that, "Before modern medicine was developed in the 20th century, herbs were the method many societies used to treat health problems" (Para. 2). It is suggested that fibromyalgia may be due to chemical or hormone imbalances. However, there are many herbal treatments that can help alleviated various fibromyalgia symptoms. "Besides pharmaceutical drugs, natural alternatives such as herbs may be safer than prescription medications", (Herbal Supplement Guide (2008), p. 1).

Past and current studies, both agree that herbs are effective for treating fibromyalgia, and that it is more efficient than pharmaceutical drugs. One single herb alone can be used for multiple tasks. Herbs mentioned in this study to treat fibromyalgia include: "(1) Calendula (a herb good for its antibacterial, anti-fungal, anti-inflammatory, antispasmodic, antiviral, astringent, and immune stimulant properties), and much more. (2) Devil's Claw - an herb that has anti-inflammatory properties for the joints and muscles. It can also be used as a stimulant for lymphatic. (3) Gotu Kola an herb that strengthens body tissues and blood vessels. And (4) Olive leaf an herb that contain anti-viral, and antibacterial properties", according to (Herbal Supplements Guide, 2008, p.1).

In addition, in a recent study on "what are the Best Herbs for Fibromyalgia", Clyne, (2008) pointed out that,

Red clover; is an herb that provides energy and boosts the immune system... *Passionflower*; has a crucial part in treating fibromyalgia since it alleviates tension, anxiety and insomnia - all classic symptoms of fibromyalgia. *Valerian*; has been a front-line treatment for fibromyalgia because of its beneficial results on sleep and muscle tension...

Also, Chamomile - an herb that has relaxing properties, contributing to the restoration of deep REM sleep... *Ginseng*; considered to be one of the oldest herbs used to treat fibromyalgia, it is a potent immune system stimulant, aiding the body to fight off bacterial infections and viruses. *Griffonia Simplicifolia* - an herb, which has great quantities of 5-HTP, a natural painkiller that can significantly relieve the pain of the fibromyalgia trigger points on the body.

Furthermore, "herbs to treat fibromyalgia includes: Devil's claw, Ginkgo, Ginseng, Horsetail, Kelp, Nettle, Oatstraw, Rosemary, and Siberian Ginseng... Devil's claw is a native plant of southern Africa, the Kalahari Desert, Namibia and the Island of Madagascar. The name is derived from the herb's unusual fruits, which are covered with numerous small claw-like appendages. It can be used as an anti-inflammatory for joints and muscles, and as a stimulant for lymphatic movement.

Next, Ginkgo is native to East China, Europe, North and South America, and Asia. Like many other herbs, it is used to treat many ailments. However, for treating fibromyalgia it can be used to improve peripheral blood circulation. Ginseng is a family of tropical herbs, shrubs and trees that are often thorny and sometimes grow as climbing forms. It is a long prize of China for its medical qualities. For fibromyalgia patients, ginseng can improve their energy levels. Another herb, Horsetail is found in tropical regions (except for New Zealand and Australia). It has spirals of small scale-like leaves around a hollow, joint stem that is green and transmits photosynthesis. Horsetails reproduce by an

alternation of generations similar to that of the ferns. For the health of a fibromyalgia patient, it can regenerate connective tissues.

Moreover, Kelp is commonly referred to as seaweed, which grows along the coastlines all over the world. It is also known as algae, and it regulates thyroid function. Thyroid problem is a recently discovered fibromyalgia symptom. The Nettle comes from a family of fibrous herbs (small shrubs and trees) found in tropical and subtropical regions. It can be used and served as a stimulating nutritive tonic. Moreover, Oatstraw can be used as nerve nutritive, & an antidepressant for FM patients. It is one of the best-known herbs for treating the nervous system, especially under stress. Oatstraw is a nervine, that helps people deal with stress, maintain restful sleep patterns and reduces the frequency and duration of headaches and other symptoms.

In addition, Rosemary is an astringent, restorative herb that relaxes spasm. In addition, it improves digestion and stimulates circulation. It has antibacterial, anti-fungal, antiviral, anti-inflammatory and many more properties. The parts used are the leaves, flower, and essential oils. Siberian ginseng is a member of the ginseng family. It is different from other popular ginsengs such as the "Panax variety". Herbalists call it an adaptogen. Its name comes from the Chinese jen shen, which means, "man root", because some of its roots have limb like branches resembles human arms and legs. Based on the human like shape of the roots, Orientals consider it to be an overall body tonic. FM patients can use it for energy and an adrenal boost. Vervain *Officinalis* relieves pain, inflammation, and depression, relaxes the nerves, & is an energy stimulant. Vervain *Officinalis* is native to Europe, Asia, Africa, and North America. Herbal medicines are made from its leaf, flowers, and roots. Due to its bitter taste, herbalists use it to improve digestion, treat spastic pains (p.1).

Moreover, in an article "Aiding Fibromyalgia with Natural Remedies" (Winters, as cited by Associated Content, 2008), suggests taking several supplements alone with herbs. It was

implied that, "if you have sleep problems, you should be taking melatonin. For the fibromyalgia, take malic acid and magnesium. Arnica pills or crèmes are good for pain" (Para. 5)... On the other hand, Chaitow (2008), in a study on "Effective Treatments for Fibromyalgia" reported that, "There have been no clinical trials involving herbal treatment of fibromyalgia. But there is at least one very well researched herb, which is being used clinically to help circulation to the brain called "Ginkgo biloba"" (Para 7).

Herb interaction with Pharmaceutical drugs. In an article on Herbal Remedy Limitations: Interactions between Herbs and Pharmaceutical, (Dutorme, 2004) clarified that some herbs are dangerous. He asserts that, "herbs are not always safe. In 1991, 80 cases of kidney failure were reported from a medication that was formulated by combining botanicals and medications (fenfluramine and others) with a low-calorie diet in Belgium.. It was implied that on average, damage is much more common with misused of drugs or drug interaction than with the use of herbs" (p.1). In addition, Maul (2008), in an article called *Herbal Supplements vs. Prescription Drugs*, emphasized that,

The Real Score is that we cannot deny the fact that prescription drugs can provide an effective cure. But the process of treatment between conventional medicine and herbal supplements, spells the difference for the sustenance of your health and well-being.

In addition, Maul asserted that, herbal supplements offer a holistic approach to treatment

where a potent formulation of different herbal extracts work in synergy to soothe the inflammation and subdue the pathogens causing infection while treating underlying systemic disorders and restoring a persons' vitality. Herbal supplements do not come with side effects pertinent with prescription drugs (p. 1).

Adverse reactions with prescription drugs. Johns Hopkins, (2008) proposed six common herbs that might cause adverse interactions with prescription medication. These herbs are: Ginkgo, Garlic, St. John's worth, Licorice root, Kava, and Asian Ginseng. For example, Ginkgo, slow down the action of platelets in the blood, thus interfering with blood coagulation... Chemical compounds in garlic may inhibit blood clotting... Also, taking substantial amounts of licorice root may cause high blood pressure, water, and salt retention. It can also reduce potassium in the body, leading to abnormal heart rhythms or symptoms of weakness or fatigue... In addition, Kava appears to be toxic to the liver, so it is advisable not to use it at all.

Finally, Asian ginseng may lower your blood sugar... And the problem of St. John's wort interferes with the metabolism, and of various drugs it is probably the best defined of all herbs that interacts with other drugs. St. John's wort interacts with a variety of prescription drugs, by either increasing or decreasing their effect. These drugs include the antiviral drugs (Invirase), the anti-rejection drug (cyclosporine), the cardiac drug (Digoxin), the blood thinner

(Coumadin), antidepressants, and some cancer medications (p.1).

Pharmaceutical Drugs

Pharmaceutical drugs are any substance taken into the body in order to modify one or more of its functions. This may mean that the substance has therapeutic value; that is, it modifies an abnormality, like lowering high blood pressure. Or it may have preventive value in that it boosts the body's ability to ward off potential disease, like taking antioxidants.

Moreover, It has been studies and acknowledged that vitamin and mineral deficiencies either cause or aggravate the onset of fibromyalgia... An individual may want to talk with their physician before using any alternative supplements or herbs, just to make sure there are no harmful interactions between them and prescription drugs (Clyne, 2008, Para 5 & 6)...

Herbs

"Herbs come from plants or various parts of plants and possess certain chemical substances that have affects on the body. Herbal medicine, also called Botanical Medicine or Herbalism, is the use of these herbs for medicinal or therapeutic value" (Herbal Supplemental Guide, 2008, p. 1).

However, in the United States the Food and Drug Administration (FDA) does not regulated herbal medicines because they are marketed, as food, food additives, or dietary

supplements, and they do not make medical claims on bottle labels. Unless the government can prove that an herbal product is harmful, they will not remove it from the market. Different from a pharmaceutical drug company that has to prove that its product is safe, and must produce exceptional results before it can be marketed.

Newall, et al. (as cited in Herbal Medicine: A Guide for Health Care Professionals, 2008) expressed that,

Germany has a commission set up specifically to examine the claims of herbal products and ensure their safety. While the commission does not require that the herbal remedy be proven effective, it does publish summaries of research studies that give prescribes' and consumers information about which parts of a plant are safe to use, active chemicals, potential side effects, dosage and possible interactions with other drugs. Now one might think that such regulation would put a damper on the herbal industry. Not in Germany. St. John's Wort, for example, is prescribed 25 times more often for depression than Prozac. Ginkgo biloba is widely prescribed for circulation disorders.

What the above data from Germany is telling us is that some herbs are powerful remedies for common physical disorders. Here in the USA, the government and mainline medicine seem to treat them as if they are largely harmless and beneficial only for gullible people. Nothing could be further from the truth. Some plants and herbs are poisonous, known to cause cancer and liver damage, or dangerous to persons with heart conditions. And some are safe and effective (p.1).

Hypotheses

It is hypothesized that herbs are better for treating fibromyalgia, and for the human body. In addition, herbs are

more effective than pharmaceutical drugs based on its natural properties.

Assumptions

It is assumed that pharmaceutical drugs are not as effective as herbs. It seems that the only drug to treat fibromyalgia are antidepressants, opioids, nonsteroidal anti-inflammatory drugs, sedatives, muscle relaxants, and antiepileptics, accompanied by exercise, massage therapy, and rest. Yet, most pharmaceutical drugs have been reported to be a temporary fix, or ineffective. Exercise seems to aggravate fibromyalgia more. Massage therapy alleviate the pain temporary, and rest helps sometimes, but can a person really rest if they are in constant widespread pain?

Importance of the Project

The significance of this project is to gain knowledge of new ways to treat fibromyalgia. This project provides helpful information for fibromyalgia patients who are not familiar with herbal remedies or think that herbs are just an "old wives tale". It seems clear that herbs are good for the body because of its natural properties. I reiterate one single herb alone can have a variety of healing properties. Herbs are the best way to foster strength for healing powers of the body and for restoring imbalances within the body.

Purpose of the project

The purpose of this project is to create a handbook that make available information of herbal treatments for fibromyalgia patients and other individuals who suffer with chronic pain. The information provides different herbs and the symptoms each herb treats (e.g., inflammation, pain & etc.). In addition, the handbook includes information on side effects and adverse reaction when mixed with drugs and other herbs. Based on a qualitative approach, action research was embarked on to find the best suitable herbs to treat fibromyalgia. Primary and Secondary data was compiled from various sources (e.g., Experts opinions, The Internet, Books, & Academic Journals).

Summary

In sum, fibromyalgia is a chronic condition with limited medical treatments (e.g., antidepressants, opioids, nonsteroidal anti-inflammatory drugs, sedatives, muscle relaxants, & antiepileptics) from the medical world for its symptoms. Treatments that are ineffective, have a temporary fix, or may cause adverse reactions and side effects. However, various herbs are used to treat fibromyalgia. Some of the herbs mentioned in this study are: Calendula (alleviates pain & inflammation), Devil's Claw (anti-inflammatory & stimulant properties), Gotu Kola (strengthens tissues & blood vessels), Olive Leaf (anti-viral & anti-bacterial properties, alone with immune boosting & anti-inflammatory capability), Red Clover (boosts energy, & the immune system), Passionflower

(alleviates tension, anxiety & insomnia), Valerian (used as a sedative, & reduces brain fog), Chamomile (help restore REM sleep, & boost the immune system), Ginseng (stimulates the immune system, & aid the body to fight off bacteria infections & viruses), and Griffonia Simplicifolia (a natural pain killer), all effective for treating fibromyalgia symptoms and much more. On the other hand, common herbs that cause adverse reaction and side effects with prescription medications are: Ginkgo, Garlic, St. John's Worth, Licorice Root, Kava, and Asian Ginseng.

The Food and Drug Administration (FDA) do not regulate herbal medicine in the United States. Unlike pharmaceutical drugs that are required to prove the safety of its product. However, herbs have been proven effective for treating the symptoms of fibromyalgia without adverse reaction or side effects if properly used. Individuals if using prescription drugs, should consult with his or her physician before taking herbs to ensure that the herbs do not interact with the medication.

Chapter 2

REVIEW OF LITERATURE

Background

Many patients with fibromyalgia have exhausted their treatment because of adverse reactions and side effects from pharmaceutical drugs. However, this study explores various herbal remedies, evaluated for treating fibromyalgia. The study determines whether herbs are effective, and whether they interact with drugs or other herbs. It was hypothesized that herbs are better and more effective than pharmaceutical drugs for treating fibromyalgia and for overall human health. Previous and current studies demonstrated that herbs are effective for treating fibromyalgia without side effects. Yet, it was found that there are some herbs that do have some side effects, especially if mixed with other herbs or pharmaceutical drugs.

Relevant Findings

"About 80% out of 3 to 6 million fibromyalgia patients are women, ranging from 30 - 50 years of age" (Dunne, 2008). "The estimates of prevalence are 3.4 percent for women and 0.5 percent for men" (Millea, Paul J., M.D., & Holloway, Richard L., 2000, p. 1). However, some fibromyalgia patients are not diagnoses for a period of time because they are regarded as patients with psychological problems... "Current treatment is largely empirical and is individualized according to symptoms. The best results are usually obtained with a combination of drug

and non-drug therapies" (Crofford & Goldenberg, 2006, Pp. 1-3). Chakrabarty and Zoorob (as cited by Huynh, Yanni & Morgan, 2007) offered a clinical review of the diagnosis and management of fibromyalgia... They encouraged a multimodal approach to therapy (i.e., non-pharmacologic and pharmacologic treatment options)... Patients with fibromyalgia often will seek complementary and alternative treatments (Pp. 1, 2). Moreover, Homeopathy verses placebo treatment are significantly better in lessening tender points, improving the quality of life, and total health for fibromyalgia patients (Klotter, 2006, p. 1).

According to Thorson (as cited by Herb Research Foundation, 2008), there are no studies involving fibromyalgia and homeopathic, but many people have found relief using an herbal product call Arnica. Another product called "Bryonia" is recommended for patients who find it painful to move. In addition, if a patient tends to be chronically cold, Calcarea carbonica is a better herbal remedy for them to use, and for shooting pain Kalmia latifolia will relieve the symptoms. Moreover, Thorson found that muscle stiffness can be relieved with Rhus toxicodendron, and for those who suffer from muscle weakness, stiffness, and pain when walking, Ryta graveolens is recommended (p.1).

Sahley (as cited by Herb Research Foundation, 2008) in an article called "*Unmasking Unending Pain: Fibromyalgia*" pointed out that healing naturally is better. He demonstrated that stress, anxiety, depression, grief or major changes exacerbate fibromyalgia. Sahley asserts that fibromyalgia patients when

given Amino Acid in combinations that are inhibitory neurotransmitters, it have a calming effect on the mind and body. He feels that the body and mind are one, if you have stress, you will have pain. "Mental stress yields physical symptoms; when the mind suffers, the body cries" (p.63).

Bone (2006), clarified that, "Fibromyalgia is complex and poorly understood. It has a poor prognosis in the context of conventional treatments" (p. 1). In addition, Chakrabarty and Zoorob, (2007) believes that fibromyalgia is a common rheumatologic disorder that is under diagnosed (p.1). Further, Purtell (as cited by Herb Research Foundation, 2008) believes that fibromyalgia is one of many faces of hypothyroidism. With regards to treatment, he points out that patients need to be started on thyroid hormones, T4, in the smallest dose, 0.025 mg. daily, increased by that amount every two weeks until dosage in micrograms is equal to patients' weight in pounds (p.6). Moreover, Hallegua (2005), noted that

Drug therapy for pain in patients with fibromyalgia can be separated into management of pain initiators and of widespread pain... Pain triggers may be managed with analgesic agents (e.g., acetaminophen, & NSAIDs)... Other treatments that may be effective include local corticosteroid injections, lidocaine or acupuncture for trigger points, and antispasmodics and proton pump inhibitors for visceral bowel or esophagel pain (p. 4).

Nevertheless, for the treatment of fibromyalgia, "popular interest in alternative medicine is fueling research... Some of the research has used traditional investigative methods, and is

especially true of herbal medicine... There is little scientific or medical documentation in respect of their [herb] active constituents"... (Kahn, 1997, Pp. 1, 2). On the other hand, according to AJC Health (2008) in an article on *Integrative Medicine: Herbs*, it was noted that, "The use of herbs is a time-honored approach to strengthening the body and treating diseases. Herbs contain active substances that can trigger side effects and that can interact with other herbs, supplements, or medications". For these reasons, it is necessary to take herbs with precaution, supervised by a practitioner knowledgeable of herbal medicines.

"Other than treating fibromyalgia, herbs are good for many things. Particular herbs used for treating fibromyalgia are: Red Clover, Passionflower, Valerian, Chamomile, Ginseng, and Griffonia Simplicifolia" (Clyne, 2008, p. 1). Other herbs to consider are: "Calendula, Devil's Claw, Ginkgo, Horsetail, Kelp, Nettle, Oatstraw, Rosemary, Siberian Ginseng, and Vervain" (Mars, 2008). "Herbs are good for detoxifying our bodies. It enables the body to be ready for handling all healing tasks. Herbal remedies seek to work with the circadian rhythms of nature to restore the body's own good health" (Dunne, 2008, Para, 1 & 2). EHow (2008, Para. 2 & 3) pointed out that, "The care of a physician should not be replaced with herbal remedies. Some herbs may interact with prescription medications, causing undesired side effects" (p.1).

"Herbs for fibromyalgia can treat the sore muscle and tissues in the body as well as aid the immune and hormone

system" (Herbal Supplements Guide, 2008, p.1). Many societies used herbs to treat health problems before conventional medicines. As modern medicine developed in the 20th century, people viewed herbs as part of "old wives tales". But, in fact, most of modern medications were originated from herbs (Fibromyalgia Hope, 2008, p.1). One vital problem in measuring the effectiveness or the side effects of herbal products is the lack of strict manufacturing quality standards, permitting substantial inconsistency of products between numerous manufacturers and different shipments of a product from the same manufacturer. As a result, concrete conclusions on the compounds are difficult to reach (Johns Hopkins, 2008, p.1).

However, "the process of treatment between pharmaceutical drugs and herbs spells the difference for the nourishment of an individual's health and well being" (Maul, 2008, p.1). Like Crofford and Goldenberg, Millea, P.J. and Holloway, R.L. (2000) reported that, "treatment of fibromyalgia is largely empiric... Some frequently used approaches, such as antidepressants and exercise, have evidence to support their use; others (such as acupuncture) are less well studied. None of the therapies used in fibromyalgia are based on evidence from larger randomized, double-blind, placebo-controlled trials" (p.1). Morreim, (2003) argues that, "if critics of conventional and alternative medicines expects to limit its influence by holding alternative medicines to the same scientific standards as conventional medicines, they are headed for multifaceted disappointment" (Pp. 222, 227). For Morreim, some herbal medicines have been

associated with liver damage... Likewise, conventional medicines are well known for massive risks, whether side effects, complications, or outright errors.

Morris, C. R., Bowen, and Morris, A. J., (2005), on the subject of vitamins, minerals, and herbal supplements, *Southern Medical Journal*, 98(2), emphasized that, "the lay literature and the internet is rife with advertisements and articles expounding the benefits of dietary supplements. While the casual observer can readily see the numerous claims... most of the public overlooks the disclaimer... While anecdotal testimonial evidence is provided, no controlled trials demonstrate their efficacy" (p. 183).

However, "Herbs are powerful remedies for common physical disorders... In the United States, the government and mainline medicine seem to treat them as if they are largely harmless... Nothing could be further from the truth. Some plants and herbs are poisonous, known to cause cancer and liver damage, or dangerous to persons with heart conditions. [Yet], some are safe and effective" (Fibro-fighters, 2008, p. 1). Another point of view (Duterte, 2004), showed that, "public opinion falls into two opposing camps: (1) Patients choosing herbal remedies are risking their health... And, (2) Nature provides what people need, including medicines... Misuse of medications is responsible for more than 106,000 deaths per year" (p. 1).

On the other hand, Reader's Digest (2000), made note that herbalist believes that using herbs, which have a large variety of compounds, is the ultimate way to strengthen the bodies

healing powers and restore any imbalances within the body (p. 34). Different from current medical options for treating fibromyalgia, which are insufficient. The average effectiveness claim for some drugs is questionable. "In a double-blind trial comparing duloxetine (Cymbalta) with Placebo, patients taking duloxetine measured significantly better... But there was no difference on the Fibromyalgia Impact Questionnaire subscale of pain, fatigue, or morning fatigue" (Abeles, Micha, Abeles, Shira R. & Abeles, Aryeh M., 2007).

Moreover, in an update on fibromyalgia, Bandolier (2006), questioned whether the condition of fibromyalgia exists, diagnosis, and whether any treatments of whatever sort work. Bandolier's disagreement with theories of fibromyalgia is based on the fact that fibromyalgia trials come with different inclusion criteria, suggesting differences between women and men, and different outcomes (e.g., pain, sleep, trigger points number of tenderness, etc.) According to Bandolier, "there is no treatment that does what it says on the tin" (p.1)...

In another study (Tock, 2007) believed that fibromyalgia is a chronic pain disease, rather than a rheumatologic disease (Para. 2). It is hypothesized that fibromyalgia may be triggered by Lyme disease, hypothyroidism, viral infections, or autoimmune disorders, and associated with physical or emotional trauma and childhood abuse (Buesing, 2005, p. 1). In addition, fibromyalgia is said to be "a neuropathic pain disorder, and it may be related to specific neurologic conditions; cervical spinal stenosis and small posterior fossa abnormalities may be

associated with fibromyalgia" (The National Fibromyalgia Research Association, 2006)... As multiple researchers support the findings of the fibromyalgia condition, yet, many do not. Based on findings by Bradford and Allen (2006), "the very existence of fibromyalgia as a clinical entity has been questioned, partly because the most distressing symptom, pain, cannot be accurately measured or quantitated. A second cause of doubt is the absence of a clearly defined mechanism by which to define the disease". However, research showed that there are new drug therapies being reviewed by the FDA for fibromyalgia (i.e., duloxetine, pramipexole, and milnacipran). Other agents are being evaluated in clinical trials, such as Lyrica-the first FDA approved drug for fibromyalgia (Crofford & Goldenberg, 2006; and Jobson Publishing Group, 2007).

Further, Turk, Swanson, and Tunks (2008) suggested that, "Fibromyalgia personify a mystery to modern medicine, and the etiopathogenesis is far from elucidated. Chronic pain confronts individuals with the stress created by pain, and ongoing stressors that compromise every aspect of the sufferer's life." (p. 214). "The treatment of patients with fibromyalgia is complex, and no specific treatment has been successful... Because reaction to treatment is often poor, it is projected that patients with fibromyalgia could be interested in conventional and alternative medical treatments" (Waldner-Roedler, et al., 2005, p. 57).

In conclusion, fibromyalgia is without a doubt, a condition that is complex to live with, as well as hard to diagnose. For

patients who suffer from it, the answer may be found with the use of herbs that can boost the immune system and help relieve the symptoms. In addition, research has shown that life change, a nutritious diet, exercise, and plenty of sleep, with the use of herbal remedies will lead to a healthier pain free life.

Chapter 3

METHODOLOGY

Framework

This project evaluates herbs that are used to treat the symptoms of fibromyalgia and other chronic pain. Action research was carried out in search of herbal remedies. Fact on the subject was collected from experts' opinions (herbalists, Mars, B. and Dunne, M., 2008, & Dr. Subhuti Dhamananda, 2000), published materials (e.g., Books, Academic Journal Articles, & the Internet), and information from the Herb Research Foundation in Boulder, Colorado.

Data Collection

Data on herbs to treat fibromyalgia was collected from herbalists. A list of herbalists from Colorado, and other parts of the U. S. was gathered from the Internet and telephone directory. Electronic mail (email) was sent out to ask herbalists for their expert opinions of particular herbs used for treating chronic pain/fibromyalgia, as part of an assignment for the course of MAPC 688 (Capstone Project) at Regis University Master of Arts in Liberal Studies program. The questions asked: What herbs are used to treat fibromyalgia? Are the herbs effective? Do the herbs have side effects or adverse reactions? In addition, do the herbs have interactions with other herbs and pharmaceutical medications? Further, questions were asked in reference to herbs such as Black Cohosh, Burdock roots, Boswellia, Calendula, Cayenne, Celery seed, Chamomile, Chickweeds, Dandelion roots, Devil's Claw, Ginkgo biloba,

Ginseng, Goto Kola, Griffonia Simplicifolia, Horsetail, Kelp, Licorice Root, Lomatium, Nettle, Oatstraw, Olive leaf, Parsley, Passionflower, Poke root, Prickly Ask bark, Red clover, Rosemary, Saint John's Worth, Siberian Ginseng, Valerian, and many others. Permission from each herbalist to quote and reprint the information from them was asked, and the form was faxed to them. The form was signed, faxed, mailed back to me by U.S. Postal Service or an email was sent to me granting permission. Permission to use/reprint some data was granted by fax, or email. For others forms were mailed out to authors, editors, or publishers, which were signed and mailed back to me.

However, action research was carried out in the context of focused effort to find the best herbs that are suitable for treating fibromyalgia - to improve the quality of life for patients who suffer with the condition. Data of published material was analyzed such as books: the *"Encyclopedia of Natural Medicine"*, *"Curing Everyday Ailments the Natural Way"*; Academic Journals (e.g., Journal of Women's Health, American Academy of Family Physicians, Journal of Law, Medicine and Ethics, Journal of the American Chiropractic Association, and the Canadian Journal of Psychiatry); Web Pages such as Drug Digest - herbs, eHow - "How to use herbs to treat fibromyalgia", Fibromyalgia Herbs - "Fibromyalgia Symptoms and Treatment", Johns Hopkins - "When herbs and prescription drugs don't mix", Fibromyalgia Hope - "Fibromyalgia herbs relieves symptoms, No side effects", and so forth. In addition, an analysis of

published material on fibromyalgia from the Herb Research Foundation was examined to support the findings.

The facts was compared and contrasted, evaluating different perspectives of the subject to find the most fitting material that could inform fibromyalgia patients or anyone who suffer from chronic pain of herbal remedies that are good for treating their symptoms, acknowledging the herbs effectiveness, whether it interact with other herbs or prescription drugs, and its side effects or adverse reactions, if any.

Handbook Development

The "*Fibromyalgia: An Exploration of Herbs as Treatment*" Handbook was developed to educate fibromyalgia patients or anyone who suffers with chronic pain about different herbs that is effective for relieving their symptoms. It was designed to serve as a quick reference for useful and significant information. The handbook is divided into four sections. After Table of Content, etc., the first section discusses Fibromyalgia, and its characteristics. Section two confer herbs used to treat fibromyalgia, including pictures of herbs, detailing constituents, parts used, typical preparation for usage, brief history of the plant, its effectiveness, potential risk and drug interaction, allergy precautions, tips for usage, and buying tips. Section three consists of information on herb and drug interactions, if any. Section four is a "Quick Reference Guide" of herbs and its usefulness - used to treat

fibromyalgia and other symptoms. Finally, references and appendices are distinguished.

Chapter 4

RESULTS

This handbook was created to provide information for fibromyalgia patients or anyone who suffers from chronic pain. It identifies and discusses herbs that are used to treat fibromyalgia. Three important factors are considered: First, what are the herbs used to treat fibromyalgia, and are they effective? Second, do the herbs cause adverse reaction or side effects? Third, do the herb interact with pharmaceutical drugs or other herbs?

Research showed that fibromyalgia is characterized as a chronic condition engulfed by pain, fatigue, sleep disturbance, and depression, associated with other conditions (see Appendix B for details). However, there is still much to be learned about the condition, but there are many herbs, both single and combined with other herbs that will relieve the symptoms of fibromyalgia (see Appendices C, D, E, F, & I). Recent progress in a clinical study confirms that the condition of fibromyalgia is more common than it is estimated to be, (Bradford, 2001).

Further, it is revealed that an approximation of 3 to 6 million patients is diagnosed with the disease. Yet, there is no recognized "cure", but the quality of life for fibromyalgia patients can be better if pain and fatigue are reduced or eliminated. Another study based on a five years survey of 214 fibromyalgia patients from 114-rheumatology practices (Abeles,

M., et al., 2007) argued that no specific drug or class of drug is especially useful for fibromyalgia patients as a whole.

Moreover, the book reveals that, "Herbalists maintain that the natural balance of compounds in plants (herbs) provides a more effective means of restoring health than synthesized, single-ingredient drugs, as prescribed in orthodox modern medicine" (Reader's Digest, p. 43). It was also acknowledged that, "Besides pharmaceutical drugs, there are natural alternatives such as fibromyalgia herbs that are safer than prescription medications (Herbal Supplements Guide, 2008). In addition, Clyne, (2008) pointed out that,

Herb formulations for fibromyalgia are believed to be helpful since their stems, roots, and leaves contain chemicals with healing abilities. In fact, several prescription drugs are directly based upon herbs that have been used to cure for thousands of years. Unlike drugs, herbs for fibromyalgia are in their undiluted form. They carry chemical substances that boost the immune system, reestablish sleep, alleviate pain, and assist the body to cure itself.

While, Turk, Swanson, and Tunks (2008) defended that many prescription drugs can result in complications or side effects. Likewise, Duterme (2004) clarified that some herbs are dangerous; damage is more common with the misuse of drug, rather than drug interaction with the use of other herbs. In addition, research indicated that prescription drugs can provide an effective cure, but the process of treatment between conventional medicine and herbal supplements spells the difference for an individuals' health and well being (Maul,

2008). Another point made was that herbal remedies do not come with side effects applicable with prescription drugs (refer to appendix G on how to use herbs to treat FM).

A report from Johns Hopkins Health Alert (2008) warned that many herbal dietary supplements are considered safe when used as directed with no serious side effects reported - yet. However, problems with herbal products have been identified. Herbal supplements contain biologically active compounds that should not be considered safe just because they are sold over the counter or come from "natural" sources such as plants..

Many people have the notion that being natural, means that all herbs are safe, this is not so. Very often herbs may interact with medications a person may normally take, which may result in serious side effects. Individuals should keep an eye on unusual symptoms; often this may foretell the symptoms of a drug interaction. It is always good to tell your doctor or health practitioners what you are taking so that they can advise you of possible complications, if any.

Furthermore, some herbal remedies may increase the risk of hemorrhaging. If a person is going into surgery, he or she should be exceptionally careful. They should stop taking herbs at least a week before surgery. Herbs may interfere with drugs commonly used before, during, and after surgery, including anesthetics.

Experts suggests that natural does not mean completely safe (see Appendix H for tips and warnings). Everything you put in your mouth has the potential to interact with something else.

Medication taken by mouth travels through the digestive system in much the same way as herbs taken orally do. Therefore, when drugs and herbs or herbs mixed with another herb, each can alter the way the body metabolizes the other. Some drugs interfere with the body's ability to absorb nutrients. Similarly, some herbs, even food can lessen or increase the impact of a drug.

Nevertheless, the first section of the handbook reveals what fibromyalgia (FM) is, and the characteristics of the condition (see Appendix A for figure on FM tender points). The second section reveals herbs to consider for fibromyalgia, its effectiveness, and interactions, if any. The herbs included are *Black Cohosh* - An anti-inflammatory for the muscles, *Boswellia* - An herb that will improve circulation and synovial fluid viscosity, *Devil's Claw* - Anti-inflammatory for joints and muscles, stimulates lymphatic movement, *Horsetail* - regenerate connective tissue, *Kelp* - regulates thyroid function, *Lomatium* - anti-viral, *Siberian Ginseng* - Energy and adrenal tonic, *Ginkgo* - improves peripheral blood circulation", and many more according to (Mars, 2008). Section 3 acknowledges information on herb and drugs interactions. Finally, section four is a quick reference guide for fibromyalgia herbs and its uses for cleansing and detoxification.

Section 1

Fibromyalgia

Fibromyalgia and Its Characteristics

According to Johns Hopkins Guide to Fibromyalgia (2008), fibromyalgia is a chronic disorder characterized by fatigue and widespread pain in the fibrous of the body - the ligaments, tendons, and muscles. The name fibromyalgia describes the disorder. "fibro" refers to fibrous tissues, "my" to muscles, and "algia" means pain. It is characterized by fatigue and widespread pain. People with the condition tend to feel achy and stiff all over the body. The distinguishing features of fibromyalgia is localized pain from various tender sites called "trigger points", particularly in the neck, spine, shoulders, and hips. These trigger points causes excruciating pain.

Other characteristics of fibromyalgia are chronic fatigue - possibly related to sleep disturbance. Sufferers complain of waking-up as tired as they were when they went to sleep - remaining fatigued throughout the day. Unlike arthritis, fibromyalgia does not affect the joints, or cause inflammation. The pain produced by fibromyalgia, even if severe, does not damage or reform connective tissues or muscles. Moreover, fibromyalgia is not life threatening, and a cure has not yet been found. However, the symptoms can be managed so that patients can experience a better life.

For years fibromyalgia was considered a psychological condition. Now physicians understand that it involves the central nervous system in which the brain controls. But this does not mean that symptoms are "all in your head."

Research shows that physicians have been reporting symptoms of fibromyalgia since the 1800s, but only in the past few decades the medical community has come to recognize and understand fibromyalgia as a unique condition. Fatigue; pain in the muscles, tendons, and ligaments; and multiple tender-to-the-touch spots are the most frequent and debilitating symptoms of fibromyalgia. Other common symptoms include: irritable bowel syndrome; headaches; temporomandibular joint (TMJ) dysfunction ("jaw ache"); over sensitivity to smells, noises, touch and light; depression, anxiety, and difficulty concentrating.

Moreover, fibromyalgia is often called a disease of exclusion because several conditions with comparable symptoms must be ruled out before fibromyalgia can be diagnosed. These include: under active thyroid (hypothyroidism); rheumatoid arthritis (RA); polymyalgia rheumatica; lyme disease; and lupus. Fibromyalgia overwhelmingly affects women. The condition may develop between the ages of 20 and 60. While the disease is chronic, it is not progressive or life threatening. Thus, it is still not clear what causes fibromyalgia. Nerves register pain and this pain "signals" travel through the nerves and the spinal cord to the brain. Testing has found that fibromyalgia patients have overly sensitive pain receptors in their brain. Their brains also contain high levels of neurotransmitters that conduct pain signals. Possible explanations for what makes the brain more sensitive to pain include spinal trauma, bacterial or viral infection, chronic sleep disturbance, and nervous system

malfunctions of unconscious actions (e.g., sweating, digestion, heartbeat).

Treating Fibromyalgia. In June 2007, the drug Lyrica (pregabalin) became the first FDA-approved treatment for fibromyalgia. Previously approved as an anticonvulsant and to treat nerve pain from diabetes and shingles, pregabalin alters neurotransmitter levels in the brain. Though similar to pregabalin, gabapentin is not FDA approved for fibromyalgia; however, it may be prescribed off-label. Acetaminophen is the usual choice for lesser pains. Nonsteroidal anti-inflammatory drugs probably will not help, since fibromyalgia pain is not caused by inflammation.

Strong prescription opioids can be used for severe fibromyalgia pain as a last resort. Benzodiazepine such as Klonopin (clonazepam) and Valium (diazepam) may help you sleep and relax muscles, but these drugs are usually not a doctor's first choice because they can be addictive and their sedative effects can cause problems with balance. Several complementary treatments, including exercise, have been reported to ease fibromyalgia. Muscle pain and fatigue may make exercising hard at first, but sticking with it will improve symptoms in the long run. Swimming and water exercises, which are easier on the joints, are especially good choices. Many people with fibromyalgia also try acupuncture, massage therapy, and chiropractic treatment. Finally, it's important to find time to take it easy. Exercise and staying active matter, but so do

getting enough rest and doing things that you find relaxing and enjoyable.

According to Mars (2008), " one may have bouts of symptoms which may improve only to return without any obvious pattern.

Symptoms can worsen due to overexertion, draft exposure and along with a cold"... "Originally fibromyalgia was thought to be due to connective tissue inflammation, but is now believed to be a form of arthritis and aggravated by impaired deep sleep".

Fibromyalgia has also been called "mild adrenocortical deficiency". It can occur as a secondary condition to viral or bacterial infection. Individuals with fibromyalgia have lowered heart Rate, shortness of breath, low thyroid function, and elevated uric acid levels. Many patients who suffer with the condition have chronic foot pain especially in the area of the sole.

Moreover, environmental pollutants, allergies and even aluminum, mercury toxicity from dental fillings can all contribute to the causes. Foods to benefit fibromyalgia include avocado, barley, buckwheat, celery, cherries, fish (especially anchovies, bluefish, halibut, herring, mackerel, salmon, shark, tuna and trout), flax seeds, garlic, millet, oats and pineapple. Eat warm foods and spices and avoid extreme cold, both in food and in temperature. Avoid citrus fruits, alcohol, aspartame, caffeine, coffee, MSG, sugar and white flour.

Devil's Claw



Devil's claw root and dried devil's claw.

Devil's claw is a native plant of southern Africa, especially the Kalahari Desert, Namibia and the island of Madagascar. The name derived from the herb's unusual fruit, which is covered with small claw-like appendages. The secondary storage roots, or tubers, of the plant are used in herbal supplements.

Uses

Devil's claw has been used for thousands of years in Africa for fever, rheumatoid arthritis, skin conditions, and conditions involving the gallbladder, pancreas, stomach and kidneys. In the early 1900s, devil's claw was introduced to Europe. It is used for digestive problems. The bitter taste of devil's claw tea is thought to stimulate the digestive system. Today, devil's claw is used for conditions that cause inflammation and pain, such as back pain, neck pain, rheumatoid arthritis, Osteoarthritis, and tendonitis.

Active Constituents

The devil's claw tuber contains three important constituents belonging to the iridoid glycoside family: harpagoside,

harpagide, and procumbide. The secondary tubers contain twice as much harpagoside as the primary tubers and are the chief source of devil's claw used medicinally. Harpagoside and other iridoid glycosides found in the plant may be responsible for the herb's anti-inflammatory and analgesic actions.

Dosage

Devil's claw comes in the form of capsule, tincture, and tea. For inflammation and pain: Take 50 mg per day. In addition, for indigestion and appetite loss: Make a tea by steeping 1 teaspoon of chopped or powdered dry root in 2 cups of boiling water for 20 minutes, strain and let cool before drinking.

Safety

- Do not use if you have gastric or duodenal ulcers.
- For individuals with gallstones, consult your physician before using Devil' claw.
- Individuals with diabetes or who are taking medication that affects their blood sugar should only use devil's claw under the supervision of a qualified practitioner.
- Women who are pregnant should not use devil's claw. It may cause uterine contractions.

Side Effects

Devil's claw is known to trigger an allergic reaction, such as upset stomach, a sensation of fullness, tinnitus (ringing in the ears), and headache.

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⁵ Devil's claw from <http://drugdigest.org>, 2008. Reprint with permission.

Ginkgo Biloba



Ginkgo Biloba Plant

For fibromyalgia patients, Ginkgo Biloba is good for blood circulation, an antioxidant, and memory enhancement. Ginkgo (Ginkgo biloba) is one of the oldest living tree species and its leaves are among the most extensively studied botanicals in use today. Unlike many other herbal medicines, ginkgo leaves are not frequently used in their crude state, but rather, in the form of a concentrated, standardized ginkgo biloba extract (GBE). In Europe and the United States, ginkgo supplements are among the best smelling herbal medications and without fail it ranks as a top medicine prescribed in France and Germany.

Traditionally, Ginkgo has been used to treat circulation disorders and to improve memory. However, over the years scientific studies have maintained these traditional uses. Further, current evidence suggests that GBE may be particularly effective in treating ailments associated with decreased blood flow to the brain, particularly in elderly peoples. In addition, laboratory studies have shown that GBE improves blood circulation by dilating blood vessels and reducing the stickiness of blood platelets.

The leaves of Ginkgo contain two types of chemicals (flavonoids and terpenoids), which are believed to have potent

antioxidant properties. Antioxidants are substances that scavenge free radicals - damaging compounds in the body that alter cell membranes, tamper with DNA, and even cause cell death. Free radicals occur naturally in the body, but environmental toxins (including ultraviolet light, radiation, cigarette smoking, and air pollution) can also increase the number of these damaging particles. Free radicals are believed to contribute to a number of health problems including heart disease and cancer, as well as Alzheimer's disease and other forms of dementia. Antioxidants such as those found in ginkgo can neutralize free radicals and may reduce or even help prevent some of the damage they cause.

Medical Uses

According to the University of Maryland Medical Center (UMMC), (2008), "clinical studies suggest that ginkgo may provide the following benefits for people with Alzheimer's disease: (1) Improve thinking, learning, and memory (cognitive function), (2) improve activities of daily living, (3) improve social behavior, and (4) fewer feelings of depression" (p. 3). Moreover, several studies have found that Ginkgo may be just as effective as the leading medication for treating Alzheimer, by delaying the symptoms of dementia. Preventively, Ginkgo may also be used to delay the onset of Alzheimer's disease in someone who is at risk (e.g., family history).

Studies suggest that Ginkgo may help preserve vision (e.g., individuals who have Retinal problems, or Macular degeneration),

to improve blood flow (e.g., in people with intermittent Claudication - a pain caused by inadequate blood flow to the legs that affect walking), enhance memory impairment, Tinnitus (the perception of ringing, hissing, or other sound in the ears or head when external sound is present).

Other Uses

Ginkgo is also used for many other ailments, including altitude sickness, asthma, depression, disorientation, headaches, high blood pressure, erectile dysfunction, and vertigo...

Available Forms

Extracts containing 24 - 32% flavonoids (also known as flavone glycosides or heterosides) and 6 - 12% terpenoids (triterpene lactones), Capsules, Tablets, Liquid extract (tinctures, fluid extracts, & glycerites), and dried leaf for tea.

Preparation

For memory impairment and cardiovascular function: 120 mg daily in two separate doses, standardized to contain 24 -32% flavone glycosides (flavone or heterosides) and 6 -12% triterpene lactones (terpenoids). For Alzheimer's disease: Take 240 mg daily, in 2 or 3 separate doses.

Precautions

The use of herbs is an approach to strengthening the body and treat diseases. However, herbs contain components that can trigger side effects and interact with other herbs, supplements, or medications. For these reasons, herbs should be taken with care, under the supervision of a health care provider qualified in the field of botanical medicine. Moreover, Ginkgo biloba extract is considered to be safe, and side effects are rare. In a few cases, gastrointestinal upset, headaches, skin reactions, and dizziness were reported.

Because ginkgo decreases platelet aggregation (stickiness), there is some concern that it may increase risk of intracranial (brain) hemorrhage. In fact there have been several reports of bleeding complications associated with ginkgo use. Nevertheless, it was questioned whether ginkgo or another factor (such as the combination of ginkgo and blood-thinning medications including aspirin and non-steroidal anti-inflammatory agents such as ibuprofen) caused the bleeding complications.

A human study found that ginkgo extract significantly prolong bleeding when taken with cilostazol (Pletal), a common used medication that inhibits platelet aggregation. Pregnant and breastfeeding women should not take any ginkgo preparations. In addition, children should not be given ginkgo, especially under 12 years old, nor should the fruit or seed of Ginkgo biloba be ingested. Further, ginkgo use should be discontinued at least 36 hours before surgery due to the risk of bleeding.

Possible Interactions

Metabolism and the effectiveness of some prescription and non-prescription drugs may be altered by ginkgo. If you are being treated with any of the following medications, you should not use ginkgo without consulting your physician. High doses of ginkgo may decrease the effectiveness of anticonvulsant medications, such as carbamazepine (Tegretol) or valproic acid (Depakote), in controlling seizures. Moreover, Taking ginkgo with selective serotonin reuptake inhibitor (SSRIs) antidepressants, including fluoxetine (Prozac), sertraline (Zoloft), paroxetine (Paxil), and escitalopram (Lexapro), may cause serotonin syndrome. This condition is characterized by rigidity, tachycardia (fast heart rate), hyperthermia (high body temperature), restlessness, and diaphoresis (sweating). Ginkgo may enhance the effects (both good and bad) of antidepressant medications known as MAOIs, such as phenelzine (Nardil).

In addition, a physician should monitor the use of ginkgo with antihypertensive medications closely because it may decrease blood pressure. Interaction between ginkgo and nifedipine (Procardia), a calcium channel-blocking drug used for blood pressure and arrhythmias have been reported. Further, ginkgo has blood-thinning properties and therefore should not be used if you are taking anticoagulant (blood-thinning) medications, such as aspirin, clopidogrel (Plavix), dipyridamole (Persantine), heparin, ticlopidine (Ticlid), or warfarin (Coumadin). Bleeding in the brain has been reported when using a ginkgo product and ibuprofen (Advil), a non-steroidal anti-

inflammatory drug (NSAID). Ginkgo will also increase insulin levels in healthy subjects and will decrease insulin levels in diabetic patients. On the other hand, Ginkgo biloba may help protect the cells of the body during treatment with the immunosuppressive (decreases immunity) drug cyclosporine.

Furthermore, individuals who take thiazide diuretics, and trazodone (Desyrel) should consult their physician before taking it with ginkgo. There has been ginkgo/thiazide or trazodone interactions reported.

Folklore

Ginkgo is known to help remember dreams.

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⁶ Ginkgo biloba. University of Maryland Medical Center, 2008. Reprint with permission.

Ginseng



Ginseng plant and root.

As an aid for fibromyalgia ginseng is good for improving energy levels. There are two common types of ginseng *Panax ginseng* (also called Asian, Korean, or Chinese ginseng), and *Panax quinquefolius* ginseng (also called American, Canadian, or North American ginseng). According to traditional Chinese medicine, each type is thought to have unique healing properties. American ginseng has more "cooling" properties, which make it useful for fever and respiratory tract disorders. Asian ginseng has "heating" properties, which are good for enhancing circulation. However, the active compounds in the herb are believed to be steroid-like components called "ginsenosides".

The word *Panax* comes from the Greek word meaning "all-healing". In parts of Asia, ginseng is prized as a revitalizer for the whole body, partly due because the root is shaped like the human body. In addition, ginseng is known as an adaptogen, which means it increases resistance to physical, chemical, and biological stress and builds energy and general vitality.

Dosage

200 mg a day of a standardized extract. Do not use for more than three weeks at a time, followed by a one to two week rest period.

Side Effects and Safety

Women should avoid ginseng if pregnant or nursing. Also, individuals with hormone-dependent illnesses such as endometriosis, uterine fibroids, or cancers of the breast, ovaries, uterus, or prostate should avoid Panax ginseng because it may have estrogenic effects. In addition, panax ginseng could cause a decrease in the rate and force of an individual's heartbeats, therefore it should not be used by individuals with heart disease unless they are under the supervision of a healthcare provider. Further, ginseng may lower blood sugar levels, so it should not be administered to individuals with diabetes unless supervised by a physician, and ginseng could make insomnia worse. Side effects of ginseng may also include nervousness, agitation, insomnia, diarrhea, headaches, high blood pressure, and heart palpitations.

Herb-Drug Interactions

Ginseng will increase the effect of blood thinners (e.g., antiplatelet or anti-clotting drugs), such as clopidogrel, ticlopidine (Ticlid), warfarin (Coumadin), heparin, and aspirin, which can result in uncontrolled bleeding or hemorrhage. Certain herbs, such as danshen, devil's claw, eleuthero, garlic, hoirse chestnut, papain, red clover, and saw palmetto, will also

increase the risk of bleeding if combined with ginseng. Moreover, Panax ginseng may interact with insulin and other drugs for diabetes, such as metformin (Glucophage), glyburide (Glynase), glimepiride (Amaryl), and glipizide (Glucotrol XL).

Ginseng may interfere with the metabolism of monoamine oxidase inhibitors such as pheneizine sulfate (Nardil), tranylcypramine sulfate (Parnate) and isocabaxazid (Marplan). It is also believed that ginseng will affect levels of neurotransmitters (chemicals that carry messages from nerve cells to other cells) and may interact with antipsychotic drugs such as chiorpromazine (Thorazine) and fluphenazine (Prolixin).

Further, ginseng stimulates the central nervous system, therefore it may increase the effects of prescription drugs that do the same (such as medications for attention-deficit hyperactivity disorder, narcolepsy, and obesity). The combination may raise heart rate and blood pressure. The herb has been found to interfere with the metabolism of drugs processed by an enzyme called cyp3A4. Always ask your health care provider to check if you are taking medications of this type.

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Goto Kola

⁷ Note. From (<http://altmedicine.about.com>) "Ginseng - What You Need To Know About Ginseng" by Cathy Wong, 2007, About.com, Inc., 2008, by New York Time Company.



Gotu Kola

Gotu Kola is a medical herb that is highly respected in Ayurvedic medicine for its effect on the mind. Traditionally, Gotu kola is used for treating skin diseases, anxiety, diarrhea, menstrual disorders, vaginal discharge, and venereal disease. In a tonic, it purifies the blood and promotes healthy skin. It also aid in sleep, treat skin inflammation, is good for high blood pressure, and can be used as a mild diuretic. For fibromyalgia, patients Gotu Kola can be used for fatigue and the enhancement of blood circulation. In addition, the leaves are known to treat leprosy, cancer, skin disorders, arthritis, hemorrhoids, and tuberculosis. However, in the West the herb has become well known as a nerve tonic to improve relaxation and memory.

Gotu Kola has demonstrated mild transquillising, anti-anxiety, and anti-stress effects, as well as improving mental functions (such as concentration and memory). It has a calming effect and is used to treat the central nervous system. These qualities make the herb an excellent medication to treat children with A.D.D. because of its stimulating effect on the

brain that increases an individual's ability to focus while having a soothing and relaxing effect on an overactive nervous system.

Folklore

Goto Kola is said to increase knowledge of Brahman - the Supreme reality.

Goto Kola Benefits and Side Effects

⁸ Article from www.herbalspiral.com, 2008. The Herbal Spiral Web Page.

Generally, Goto Kola is found growing in tropical areas of India, Pakistan, Sri Lanka, Madagascar, and South Africa. It is also found in similar climates such as Eastern Europe and other regions throughout the world. Both roots and leaves are used in a variety of herbal preparations.

Dosage

Potency may vary; it is recommended that you follow manufacturer's instructions. A typical dosage for poor circulation in the legs is 30 to 60 mg 3 times a day.

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Griffonia Simplicifolia

⁹ Goto Kola Benefits and Side Effects from <http://www.nutrasanus.com> by Vita base, 2008.



Griffonia Simplicifolia

Griffonia Simplicifolia is an herb that produces 5-HTP in the body. It is a derivative of the amino acid tryptophan, which our bodies produce its own supply from tryptophan, an amino acid found in high protein foods such as chicken, fish, beef, and dairy products. 5-HTP (Griffonia Simplicifolia) is a mood-enhancing chemical that may induce sleep, regulate mood, and control appetite. Unlike many other herbs and drugs that have molecules too large to pass from the bloodstream into the brain, molecules of 5-HTP are small enough to do so. Once in the brain, they are converted into serotonin L-5-Hydroxytryptophan (5-HTP, which is a precursor to serotonin that may increase serotonin levels to promote healthy sleep pattern, regulate mood, and control appetite. Europeans have used Griffonia Simplicifolia for decades to treat insomnia and depression.

Benefits

- Griffonia Simplicifolia elevate mood in case of depression, anxiety, and panic attacks
- Treat insomnia
- Promote weight loss
- Ease migraine pain
- Increase tolerance to the pain of fibromyalgia

Dosage

- For depression, anxiety and panic attacks: Take 50 to 100 mg twice a day.
- Insomnia: Take 50 to 100 mg 30 minutes before going to bed.
- ADHD: Take 50 mg in the morning, 50 - 100 mg 30 minutes before bedtime.
- Weight control: Take 50 - 100 mg three times a day, 20 to 30 minutes before each meal.
- Migraine prevention: Work gradually up to a dosage that control migraine pain, starting with 50 mg three times daily.
- Fibromyalgia and other chronic pain: Take 100 mg three times a day. If drowsiness occurs, reduce the dose to 50 mg three times daily.
- Tobacco Dependence: 50 mg 3 times a day.

Drug Interaction

- Do not combine 5-HTP with conventional antidepressants (Prozac, Wellbutrin, or Effexor, Buspirone, Lithium). It may cause anxiety, confusion, increased heart rate, excessive perspiration, and diarrhea or other serious side effects.
- Do not take 5-HTP within four weeks of using a MAO inhibitor.
- Avoid taking 5-HTP with sedating antihistamines or St John's wort; the combination can cause drowsiness.
- Do not take with OTC cold remedies or any medications containing ephedrine or pseudoephedrine, because anxiety, confusion, or other serious side effects could develop.
- Muscle relaxants may cause excessive drowsiness if combined with 5-HTP.
- Do not take 5-HTP with narcotic pain relievers such as codeine or morphine it may cause drowsiness.

- Do not combine 5-HTP with Levodope or Mucuna Pruriens. It may cause anxiety, confusion, or other adverse reactions.

Possible Side Effect

- Side effects are typically mild but may include nausea, constipation, gas, drowsiness, or a decreased sex drive.
- Should nausea occur, it will disappear after a few days.

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Griffonia Simplicifolia

Horsetail

¹⁰ Griffonia Simplicifolia, Nature's Best Remedies from <http://herbal-powers.com> by Herbal Powers Corp., 2003-2007. Reprint with permission.



Common Horsetail Plant.

Horsetail is related to the fern plants. The form is ancient believed to be native to Europe, it is found in mild wet climates. In parts Eastern Europe it is grown as a field crop; but is considered a weed in most farming areas.

Uses

Horsetail may contain nicotine, which is likely to cause potential serious side effects in children than in adults. Therefore, the herb is not recommended for individuals under the age of 18. Moreover, it contains chemicals that have a mild diuretic action, which promote the loss of body water. If taken orally for a few days, horsetail may relieve mild swell caused by excess water in the body. Historically, it has been used to treat bladder, kidney, and urinary tract infections.

Recent studies reveals that horsetail can be used in treating arthritis, osteoporosis, and other conditions of the bones and cartilage. Horsetail contains large amounts of silica and smaller amounts of calcium. Both silica and calcium are componetns of bone, joints, and connective tissues such as tendons and ligaments. According to Drug Digest, 2008, "It is

believed that proteins in body tissues need silica to combine properly. Isolated results from early studies of animals show that horsetail may also have some pain-relieving and anti-inflammatory effects, which could add to its potential as a treatment for arthritis and related conditions" [for one, fibromyalgia].

Other chemicals in the herb (horsetail) have an astringent effect that could lessen bleeding and speed healing of minor skin injuries such as cuts and scrapes when it is applied to the skin. Further, astringent helps shrink and tighten the top layers of skin or mucous membranes, thereby reducing secretions, relieving irritation, and improving tissue firmness. In addition, oil distilled from horsetail has shown some anti-infective effects in laboratory studies. Because it could tighten skin tissue, it is often included in non-prescription "anti-aging" skin care products.

Warning and Precautions

Individuals who are allergic to nicotine and children under the age of 18 should not take horsetail orally, because it contains nicotine. It has been reported that a poisoning reaction occurred among children who chewed on fresh horsetail stems. In addition, the diuretic effects of oral use of horsetail could worsen heart disease or kidney conditions by decreasing the levels of potassium in the body. Therefore, individuals with a heart condition or kidney problem should not

take horsetail roally. Further, the use of horsetail is not recommended for pregnant women or while they are breast-feeding.

Side Effects

Based on an animal study eating large quantities of horsetail causes toxicity similar to nicotine poisoning. Animals affected appears weak - gradually losing muscle control over a period of days or weeks, some resulted in death. However, horsetail has not caused death among humans, it has been reported to cause muscle weakness in children who have put the hollow stems into their mouths to use as a straw or whistle. Moreover, horsetail can block the absorption of thiamine, a B vitamin. If horsetail is taken for more than a few days, a thiamine deficiency is remotely possible. Symptoms may include constipation, fatigue, irritability, loss of appetite, memory loss, or sleep disturbance. If prolonged, thiamine deficiency could cause nerve damage.

Other side effects that are less severe are occasional cases of seborrheic dermatitis - an oozing, scaly, itchy rash, which have been reported by individuals taking or handling the herb.

Prescription Drug

Individuals who take diuretic drug (Dyazide, furosemide, hydrochlorothiazide, and etc.) should consult their physician or pharmacist before using horsetail. Diuretics may cause the loss of potassium from the body, which could cause dangerously lower levels in the blood (also known as hypokalemia), especially if

taken at the same time as the herb, horsetail. Symptoms may include: Abdominal cramps, constipation, low blood pressure, nausea, vomiting, hallucinations, respiratory failure, and cardiac arrest. In addition, possible potassium deficiency caused by the diuretic action of horsetail could increase the effects and the risk of side effects from digoxin, a drug used to increase the force and decrease the rate of heartbeats. If horsetail and digoxin are taken together, heartbeats may become too forceful or too slow, possibly causing dangerous changes in heart rhythm. Digoxin's side effects may include changes in vision, drowsiness, heart rhythm changes, nausea, and vomiting.

Non-prescription Drugs

Since horsetail contain small amounts of nicotine, taking it while smoking a cigarette or using a nicotine replacement product (e.g., gum, lozenges, or patches) could result in nicotine overdose. Symptoms may include: Difficult breathing, drooling, intense headache, loss of muscle control, or upset stomach.

Use with Other Herbs

As with drugs, horsetail may promote the loss of water from the body, possibly decreasing the body's stores of potassium, as well. If taken with other potassium depleting herbs such as licorice, the chances of potassium deficiency increase. Low potassium levels may result in symptoms such as drowsiness, changes in heart rhythm, nausea, and vision disturbance.

Potassium depletion may also result if horsetail is taken at the same time as an herbal laxative. These herbs are: Aloe, Rhamnus cathartica, Rhamnus frangula, Rhamnus purshiana, Senna, and yellow dock.

If the horsetail is taken with other herbal products, such as motherwort or squill that have effects on the heart, the chance of side effects will increase. Possible side effects include: Changes in heart rhythm, drowsiness, nausea, vision disturbances, and vomiting. Some interactions between herbal products and medications can be more severe than others. The best way to avoid harmful interactions is to tell your physician what medications you are currently taking, including over-the-counter products, vitamins, and herbs. For information on how herbs interact with other herbs, drugs, or foods and the severity of those interactions, Go to online to the "Drug Interactions Checker" to check for possible interactions.

Form and Dosage

Horsetail is available as capsules, tablets, and tincture if taken orally. Topically, it is used as a cream, lotion, or ointment. For adults, a typical oral dose is 300 mg three times a day, taken with a full glass of water. Tea may be made by soaking 2 teaspoons of dried horsetail in 6 ounces of boiling water, steep for 5 minutes and then strain out the solid particles. Drink up to three cups of tea daily. It is recommended that An individual should not use no more than 6,000 mg (6 grams) of oral horsetail per day, and it should not exceed

no more than 5 days at a time. For a topical solution, use 10,000 (10 grams) of dried horsetail, soaked in one quart of boiling water. This solution should not be orally consumed, but applied to the skin after it cools enough to be comfortable. Horsetail may also be added to bath water to help relieve widespread skin conditions. Store out of the reach of children and pets, and label "skin only".

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Kelp

¹¹ Horsetail - Drugs and Vitamins-Drugs - Library - Drug Digest, 2007, from www.drugdigest.org. Reprint with permission.



Seaweed herb

Kelp is seaweed, an excellent source of minerals, particularly iodine that is important for the thyroid gland to function properly. The thyroid gland is an important regulator of metabolism and weight. Kelp is also known as Bladder wrack and Sea wrack. It is the most common type of seaweed in the ocean. The name Bladder wrack refers to the bladder like air pod (vesicles) that help keep the herb afloat on the ocean surface. However, when cows eat kelp, they produce more milk and are less likely to suffer from mastitis. Kelp also makes a wonderful garden fertilizer.

The whole plant is considered useful, and is known for the following properties: antibacterial, antioxidant, diuretic, emollient, endocrine tonic, expectorant, and nutritive. Generally, it is in the forms of tea, tincture, or capsules. Topical applications includes its use as a compress or oil for arthritic joints, a bath herb for cellulite and weight loss support, and lotion for its skin softening qualities. In addition, the hearty herb has various culinary uses, being eaten raw or cooked into soups and grains for its salty flavor and for the minerals it provides. Kelp has also been added to beans,

improving their digestibility, and used as a seasoning for any food where one wants to add a salty flavor.

Constituents

The primary known constituents of Kelp are algin, carrageenan, iodine, potassium, bromine, mucopolysaccharides, mannitol, alginic acid, kainic acid, laminine, histamine, zeaxanthin, protein, and vitamins B-2 & C. Moreover, past cultural studies relating to the result of dieting reveals that kelp is linked to lowering the rate of breast cancer, lessen obesity, heart disease, rheumatism, arthritis, lower blood pressure, lessen thyroid disease, lessen constipation and gastro-intestinal ailments and infectious diseases. Kelp also is a good support for the nervous system and heart in the form of iodine, vitamins, minerals and cell salts. According to Viable Herbal Solution, 2006

Iodine is essential for the proper regulation of energy through its effect on metabolism. Thyroxine, the major thyroid hormone, aids in protein synthesis, carbohydrate absorption and the conversion of carotin to Vitamin A. Kelp not only absorbs iodine from seawater, it also sponges up an enormous supply of essential nutrients and delivers them to the thyroid and the rest of the body. These nutrients include protein, essential fatty acid, carbohydrates, fiber, trace elements, sodium and potassium salts, and a variety of other chemicals, such as alginic acid. Additionally, the trace mineral content of kelp is among the highest of any known single source.

Iodine in kelp also helps to maintain a healthy thyroid, thereby significantly reducing one major possible cause of obesity. In addition, seaweed increases the body's ability to burn off fat through

exercise. Thus, stamina is boosted, allowing cells to consume energy more efficiently. Kelp has also been shown to support the lowering of blood cholesterol levels.

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Licorice Root

¹² Herbal description - Kelp from <http://www.viable-herbal.com> by Viable Herbal Solutions, 2006. Reprinted with permission.



Historically, Licorice root was used to treat the skin and coughs. It is also used to treat constipation, bronchitis, inflammation, and arthritis. In addition, to treat adrenocortical insufficiency, peptic ulcer, and chronic gastritis, health care providers may prescribe licorice root as well.

Constituents

Glycyrrhizin, a glycoside, makes up almost 8% of the licorice plant. These chemical compounds may have positive effects on the body. Enzymes that break down prostaglandin E (PGE) are stopped by glycyrrhizin. Stomach inflammation, colic, and ulcers are linked to low levels of PGE. Glycyrrhizin in the licorice herb stops the enzymes from lowering PGE levels allowing the levels to increase. Increased PGE assist production of stomach mucus that lowers the high acid levels, which can lead to a stomach disorder. Further, respiratory mucus production is increased by glycyrrhizin. This increase, however, helps the mucus to lose stickiness and leave the body more easily. Licorice can also rid the lungs of mucus and is

used to treat problems such as bronchitis, coughs, and sore throats. Many cough lozenges and syrups use licorice as flavoring and as a cough suppressant.

In traditional Chinese Medicine, licorice is used to treat tuberculosis and diabetes. Restrained production of cortisol and anti-inflammatory effects are caused by flavonoids and glycyrrhizin in licorice. Studies have shown that licorice flavonoids can kill bacteria that cause stomach inflammation and ulcers, called *Helicobacter pylori*. In addition, licorice is thought to have antiviral properties, but it has not been proven this far.

Forms and dosage

DGL extract: 0.4 to 1.6 grams three times a day to treat peptic ulcer; in chewable tablets 300 to 400 mg, take 20 minutes before meals to treat peptic ulcer. In a tincture, take 2 to 4 ml three times a day, and dried root - take 1 to 5 grams 3 times per day as decoction. Moreover, to treat sore throats in order children, use licorice tea or chew a licorice piece. To find the correct amount of tea, adjust the adult dosage to the child's weight. Adult dosage is calculated from a 150 lbs adult. A child that weighs 50 lbs should take 1/3 of the adult dosage.

Warning

Large amounts of licorice or chewing licorice-flavored products with tobacco can put you at risk of licorice toxicities and side effects.

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¹³ Licorice Root and Plant Medicinal Benefits, 2008, from <http://www.naturalherbsguide.com> by Natural Herbs Guide. Reprint with permission.

Lomatium



Dried lomatium and Lomatium plants.

The herb lomatium is native to western North America. And is potentially threatened in some parts of its habitat, so it should not be picked from the wild without consulting an expert that is familiar with the plant. The root of the plant is used medicinally for infection. Native american used the herb root to treat a wide variety of infections, particularly those affecting the lungs. The herb was used in 1917 during the influenza pandemic in the southwestern United States with reportly good results.

Constituents

Lomatium have antiviral, antibacteria, antibiotic, and anti-inflammatory effects. In addition, it has the properties to aid as an immune stimulator.

Common Uses

Lomatium is a herbal remedy for viruses, and inflammatory diseases. It is also useful for respiratory and urinary infections relief. It was used by North American Indians as

their most powerful herbal antibiotic. It is effective against a wide variety of bacteria and fungi infections. The herb also has the ability to make the blood more alkaline, which is beneficial for many individuals who have too much acid in their blood. In addition, it is used to stimulate the immune system and decrease inflammation.

Dosage

Take 1-3 ml of extract per day, and in tincture take 1-3 ml 3 times a day, both in about $\frac{1}{2}$ glass of water.

Warnings

Lomatium may cause a rash in susceptible individuals. However, the tincture should not be used unless a very small amount is tested first for a reaction. Even very small amounts can cause a reaction in sensitive people. Moreover, Women should not take the herb if pregnant or breast feeding. It can also cause nausea. There is no known drug interactions with lomatium, however, always consult with your physician before using any herbal remedy with or without drugs.

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¹⁴ Lomatium root herb information from www.naturesalternatives.com and www.vitaminsdiary.com, 2008. Reprint with permission.

Nettle



Nettle Plant and dried nettle.

Nettle is found in temperate regions of the world. The root and leaves are used in herbal medicine for benign prostatic hyperplasia (root extract), Osteoarthritis, hay fever, pregnancy and postpartum support, rheumatoid arthritis, and urinary tract infection. In addition, the fibers from the stem of nettle have been used to make cloth and the leaves cooked as a vegetable. Form ancient Greece to the present, it has been documented that nettle is traditionally used for treating coughs, tuberculosis, arthritis, and in stimulating hair growth.

Constituents

It is thought that polysaccharides (complex sugar) and lectins are the active constituents in nettle. The reason is that nettle prevents the body from making inflammatory chemicals known as prostaglandins. The roots of nettle affect hormones and proteins that carry sex hormones (such as testosterone or estrogen) in the human body. This explains why nettle helps benign prostatic hyperplasia (BPH). Although it may be used less frequently alone like saw palmetto or pygeum, some limited clinical trials suggest that men with a milder form of BPH will benefit from nettle root extract.

Usage

Capsules made from freeze-dried leaves of the herb, nettle reduces sneezing and itching in individuals with hay fever. However, it was noted that further studies are needed to confirm the finding. Topically, nettle can be used to relieve arthritis pain, but the nettle stings could be painful and may cause a rash that will last for 6-24 hours. It is documented that additional trials are required to determine if the practice is therapeutically effective.

Dosage

For allergy: Take 2 to 3 300 mg nettle leaf capsules or 2-4 ml of tincture 3 times a day. For BPH, take 120 mg of the concentrated root extract in capsules twice a day.

Warning

The herb may cause mild gastrointestinal upset for some individuals. Although allergic reactions to nettle are rare, when fresh nettle touches the skin, it causes a rash secondary to the stings on the plant. Nettle leaf is safe for use in pregnant and breast-feeding women. However, certain medical drugs may interact with the herb. Refer to the drug interaction safety checker for a list of reactions.

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¹⁵ Herb Nettle from www.vitaminsdiary.com, 2008. Reprint with permission.

Oatstraw



Oatstraw plant and dried oatstraw.

Oat straw is a nutritive herb. It is a tonic for the heart, nerves, and thymus gland. In addition, it has excellent emollient properties, and will lower cholesterol levels. The seed as well as the straw contains silica, iron, manganese and zinc, which are combined with triterpene saponins (avenacin and avenacoside), scopoletin and simple indole alkaloid.

Therapeutic Usage

Internally, oats are used to treat depression, nervous exhaustion, shingles, herpes, menopausal symptoms, and debility following illness. The stalks (oat straw) are used as a herbal tea and to fight osteoporosis (to build bone), for pain, calming hyperactive children, soothing elderly people, anxiety, panic attacks, and to boost the immune system. However, when green, oats are thought to have a sedative effect, and are good to use when attempting to stop smoking by reducing the craving to smoke. On the other hand, wild oats have been used as a natural aphrodisiac and as a strength enhancer for both men and women. In addition, it is said to aid free bound testosterone as well as stimulate the motor ganglia, thereby increasing the excitability of the muscles.

Externally, oat straw is used in various medical and cosmetic preparations to treat eczema, acne and dry skin. When added to a bath, oat straw will help with inflammatory skin conditions, as well as seborrhoeic skin disorders. Moreover, dried ground oats are an ingredient that is used in cosmetics and for its clearing and rejuvenating actions. The plant has cosmetic properties due to the components that make it up and which act on skin as a sedative, emollient and moisturizer. In addition, it acts on hair by moisturizing and revitalizing it.

Dosage

Use 100 g of herb for one full bath; equivalent preparations. Mode of administration: Comminuted herb for decoctions and other galenical preparations as bath additives, unless otherwise prescribed.

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¹⁶ Information on herb oats and oat straw from www.ageless.co.za, 2008.

Olive Leaf



Olive tree and dried olive leaf.

The olive is a small evergreen tree native to the Mediterranean regions, but naturalized to climates of Australia, California, and Texas. It is a green to blue-black fruit, which yields a useful, edible oil. Both the oil and leaves are used in herbal medicine. Moreover, olive leaf is a powerful antiviral, effective against antibiotic resistant bacteria (yeast strains & fungi). It has been used to lower fevers, and its poultices are among the oldest therapies for skin infection. Olive leaf is associated with a variety of modern claims; some are backed with scientific evidence.

Antibacterial Effects

Elenoic acid from olive has antibacterial properties. It destroys both infectious and helpful bacteria. However, the Elenoic acid from the leaves is broken down to make tea. The poultices of the leaves can heal the skin by encouraging circulation rather than by killing bacteria.

Cardiovascular Effects

The oleuropein in olive leaf and in olives prevents LDL cholesterol from oxidizing into a form that can form atherosclerotic plaques, and lowers blood pressure. Furthermore, olive leaf extract is known to lower blood sugar, however, its use for treating diabetes in human need more research.

Other Uses

Olive leaf is traditionally used for treating chronic fatigue, fibromyalgia, herpes, and parasites.

Forms

Olive leaf is available in tincture, capsule, or bulk leaves that can be grind for tea, or into a powder to be put into capsules.

Cautions

Olive leaf can cause a 'detox effect, but usually mild and short in duration.

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Parsley

¹⁷ Herbal Remedies - Olive Leaf from www.herbalremediesinfo.com, 2008.

Reprint with permission.



Fresh and dried parsley.

Parsley is also known as *Petroselinum*. The parts used for medical purposes are its roots and seeds. Parsley is used for many different ailments. For medicinal purpose the roots and seeds are employed, dried for making tea, and an oil called *Apiol*, which is of considerable curative value. *Apiol* was first obtained in 1849 by Dr. Joret and Honolle, of Brittany, and proven to be an excellent herbal remedy for a prevailing ague. Currently, it is used for malarial disorders.

The name *Apiol* is also applied to an oleoresin prepared from the plant, which contains three closely-allied principles: *apiol*, *apiolin*, and *myristicin*, the latter identical with the active principle of oil and nutmeg. The physiological action of the oleoresin of Parsley has not been sufficiently investigated, it exercises a singular influence on the nerve centres of the head and spine. In large doses it will cause giddiness and deafness, lowering of blood pressure, slowing of pulse and paralysis. Paralysis is followed by fatty degeneration of the liver and kidney, similar to that caused by *myristicin*, according to Grieve (2008, p.5).

The best seeds for medicinal purposes is that obtained from the Triple Moss curled variety, which mainly comes from the East coast, all tested separately before sales are made. However, parsley has carminative, tonic, and aperient action, but is chiefly used for diuretic effects, a strong decoction of the root being of great service in gravel, stone, congestion of the kidneys, dropsy and jaundice. The dried leaves are used for the same purpose.

Moreover, fluid extract is prepared from both parsley root and seeds. The extract from the roots act more readily on the kidneys than that from other parts of the herb. The oil extract from the seeds, called the Apiol, is a safe and efficient emmenagogue, for dosage: take 5 to 15 drops in capsules. In addition, a decoction of bruised Parsley seeds was at one time employed against plague and intermittent fever.

Furthermore, in France, green parsley and snails are used as a remedy for scrofulous swelling. It is pounded in a mortar to an ointment, spreaded on linen and applied daily. The bruised leaves are applied externally, used in the same manner as Violet leaves, Celandine, Clover, and Comfrey for the dispel of tumours suspected to be cancerous. In addition, a poultice of the leaves is an efficacious remedy for poisonous insects bites and stings.

Preparations and Dosages: Fluid extract root, $\frac{1}{2}$ to 1 drachm. Fluid extract seeds, $\frac{1}{2}$ to 1 drachm. Apiol oil, 5 to 15 drops in capsule.

Passionflower

¹⁸ Parsley - A Modern Herb from www.botanical.com by M. Grieve, 2008.

Reprint with permission.



Photo from nlm.nih.gov/medlineplus.

Historically, dried aerial parts of Passionflower have been used as a sedative and hypnotic (for insomnia) , and for nervous gastrointestinal complaints. Early evidence suggests that the herb may have a benzodiazepine - like calming action. However, clinical evidence supporting any therapeutic use in humans is lacking. Further, evidence for significant side effects is also unclear, and is complicated by poorly classified, potentially active constituents in different Passionflower species.

Uses based on scientific evidence

These uses have been tested in humans and animals. Safety and effectiveness have not always been proven. Some of the condition are serious and should be evaluated by a qualified healthcare provider.

Uses	Grade
Congestive heart failure	C
An extract containing passionflower and	

<p>hawthorn has been studied as a possible treatment for shortness of breath and difficulty exercising in patients with congestive heart failure. The results are promising, but the effects of the herb are unclear.</p>	
<p>Sedative (agitation, anxiety, & Insomnia)</p> <p>Passionflower has a history of use for symptoms of restlessness, anxiety, and agitation. Early evidence based on animals studies and weak human trials support these uses. More research is needed before a firm conclusion can be made.</p>	C

Key to Grades

- A. Strong scientific evidence for use;
- B. Good scientific evidence for use;
- C. Unclear scientific evidence for use;
- D. Fair scientific evidence against use;
- E. Strong scientific evidence against use.

Uses based on Tradition or Theory

- Alcohol withdrawal
- Antibacterial
- Anti-seizure
- Anti-spasm
- Aphrodisiac
- Asthma
- Attention deficit hyperactivity disorder (ADHD)

- Burns (skin)
- Cancer
- Chronic pain
- Cough
- Drug addition
- Epstein-Barr virus
- Fungal infections
- Gastrointestinal discomfort (nervous stomach)
- Helicobacter pylori infection
- Hemorrhoids
- High blood pressure
- Menopausal symptoms (hot flashes)
- Nerve pain and pain (general)
- Skin inflammation
- Tension
- Wrinkle prevention

Dosage

The doses mentioned below are based on scientific research, publications, traditional use, and expert opinion. However, many herbs and supplements have not been tested thoroughly, and safety and effectiveness may not be proven. The brands may even be different, with variable ingredients, and the doses may not apply to all products. Please read the label on any product before use, and discuss the herb and dosage with a qualified

healthcare provider before using. There are different preparations and doses that have been used traditionally.

For adults (18 years and older) take 0.5 grams of the dried herb 3 times a day by mouth. Tincture (1.8): 1-4 milliliters, 3-4 times daily by mouth. To make the tea from the dried herb use four to eight grams, add boiling water, steep for 5-10 minutes, and drink daily. For infusion: a dose of 2.5 grams 3-4 times daily.

Side Effects and Warnings

Side effects include rapid heart rhythm, nausea, vomiting, drowsiness/sedation, and mental slowing. Patients should use caution if driving or operating heavy machinery. However, there are a few reported allergies with the use of passionflower. These allergic reactions are asthma, sinus irritation, skin rash, and skin blood vessel inflammation (vasculitis). It is believed that some of the reactions are caused by impurities of the product, not from passionflower itself. Nevertheless, passionflower is considered a safe herb with few reported side effects.

Theoretically, passionflower may increase the risk of bleeding and affect blood test that measure blood clotting (international normalized ratio "INR"). Liver failure and death of a patient-taking passionflower with kava have been reported. Use caution with any product containing kava. Kava is associated with liver damage. It is suggested that the cause of liver damage is not likely related to passionflower. Women who

are pregnant or breastfeeding should not use passionflower. There is not enough scientific evidence to recommend the safe use of passionflower during pregnancy. The tincture contains high levels of alcohol and should be avoided during pregnancy.

Drug Interactions

In small pieces of passionflower, certain substances (harmala alkaloids) with monoamine oxidase inhibitory (MAOI) action have been found. Levels of these substances may be too low to cause noticeable effects, nevertheless, the plant may theoretically increase the effects of MAOI drugs, such as isocarboxazid (Marplan), phenelzine (Nardil), and tranylcypromine (Parnate). Also, increased sedation or low blood pressure could result from taking passionflower with tricyclic antidepressants, such as amitriptyline (Elavil), and selective serotonin reuptake inhibitors (SSRIs), such as fluoxetine (Prozac).

Based on animal research, the use of passion flower with alcohol or other sedatives may increase the amount of drowsiness caused by some drugs. For example, benzodiazepines, such as lorazepam (Ativan) or diazepam (Valium); barbiturates, such as phenobarbital; narcotics, such as codeine; some antidepressants; and alcohol. Caution is advised while driving or operating machinery.

Theoretically, passion flower may increase the risk of bleeding when taken with drugs that increase the risk of bleeding. For example, aspirin, anticoagulants (blood thinners)

such as warfarin (Coumadin) or heparin, antiplatelet drugs such as clopidogrel (Plavix), and nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen (Motrin & Advil) or naproxen (Naprosyn & Aleve). Furthermore, many tinctures contain high levels of alcohol and may cause nausea or vomiting when taken with metronidazole (Flagyl) or disulfiram (Antabuse). Passion flower may also interact with anti-anxiety drugs, antibiotics, anticonvulsants, antifungals, antihistamines, anti-cancer drugs, antispasmodics, antitussives, caffeine, CNS depressants, drugs broken down by liver, flumazenil, naloxone, and other neurologic agents.

Interactions with Herbs and Dietary Supplements

As mentioned on the previous page, the same as drug interaction with passion flower, other herbs and supplements with MAOI activity may cause additive effects. For instance, Kava (*Piper methysticum*) is believed to have weak monoamine oxidase inhibitor effects and may thus interact with passion flower. In addition, tricyclic antidepressants or selective serotonin reuptake inhibitors may lead to increased sedation or low blood pressure when taken with passion flower.

Based on an animal study, the use of passion flower may increase the amount of drowsiness caused by some herbs or supplements, such as valerian and kava. The herb may have additive effects when taken with other herbs or supplements that increase the risk of bleeding. Multiple cases of bleeding have been reported with the use of ginkgo (*Ginkgo biloba*), and fewer

cases with garlic and saw palmetto. Numerous other agents may theoretically increase the risk of bleeding, although this has not been proven in most cases. Moreover, when taken with caffeine or herbs containing caffeine-like compounds, passion flower may increase blood pressure. Passion flower contains lycopene and may have additive effects when taken with lycopene supplements. The plant may also interact with other herbs or supplements taken for pain, anxiety, seizures, fungal infections, bacterial infections, or cancer. In addition, interactions with antihistamines, antispasmodics, antitussives, CNS depressants, herbs and supplements broken down by the liver, and other neurologic agents are possible.

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Poke Root

¹⁹ Article on Passion flower from www.nlm.nih.gov. by U. S. National Library of Medicine (2008). Reprint with permission.



Poke root Plant



Ground Poke Root

Polk root is an attractive 8 to 10 foot perennial with dark green leaves, purple stems, and bright to bluish-black berries. This tree is native to the regions of the United States east of Mississippi. Polk root was a common herbal remedy long before Europeans settled North America. The Mohegan Indians used a poultice of mashed pokeberries to relieve breast pain. Indians used the poke root teas and poultices to relieve joint pain. During the first half of the nineteenth century, American physicians promoted pokeroot as a topical treatment for cancer, applied to areas of the skin where cancer was visible. A poultice of root or compress of its tincture was used to treat inflammations and cancer. After the Civil War, pokeroot was more commonly used internally as an "alterative" (a substance that favorably alters the course of an illness) for arthritis and skin conditions. Pokeroot was widely believed to relieve constipation, and it was used to induce vomiting to treat certain kinds of poisoning. During the 1890s, a doctor by the name of W. W. Baxter made one of the first diet pills from pokeberries.

Constituents

Primarily poke consists of jagilonic acid (diuretic), oleanolic acid (antibacterial, antiviral, anti-inflammatory),

and tannins. It also contains betalain type alkaloids (betanidine, betanine, isobetanine, isobetanidine, isoprebetanine, phytolaccine, prenetanine), according to herbalist Todd Caldecott. In addition, it contains triterpene saponins (phytolaccosides A-1, D2, O and associated aglycones), and at least five immunostimulant, cysteine-rich glycoprotein lectins also known as pokeweed mitogens (PWM) Pa1 through Pa5. Other constituents include genins (esculentic acid and phytolaccagenic acids), histamine (accounting for its anti-allergy effects), GABA, isomamericanin A, PAP (pokeweed antiviral protein, spinasterol, sterols, starch, saccharose, and potassium salts.

Parts Used

Poke root is safe for herbal use, but the leaves are not. Consumption of poke leaves can cause gastroenteritis with intense vomiting and frothy diarrhea.

Preparations

As a tincture - take one drop per day. It also is found in creams, ointments, and oils for topical use. Polk root is for treatment, not for prevention. The tincture can be taken for up to 2 weeks at a time to overcome symptoms of colds, flu, sore throat, mastitis, or tonsillitis. To treat inflamed skin (eczema or psoriasis), use 5 drops of tincture in $\frac{3}{4}$ cup of warm water to soak a 5" x 5" area of the body 3 times a day for up to 2 weeks. To use poke root to treat lymphedema, testicular

inflammation, or ovarian pain, or as an alternative for cancer, an individual should be supervised by an expert on herbs.

Precautions

Do not use Polk root if you have liver or kidney disease, pregnant, breast feeding, or for children under the age of six years old.²⁰

Prickly Ask Bark

²⁰ Article on Poke root is by Mountain Rose Herbs (2008). Reprint with permission.



Prickly-Ash photos .



Prickly-Ash Bark

According to Drug Digest (2008), the bark of the Prickly ash tree is one of the best tonics for alterative circulatory stimulants of the North American continent. It is quite safe, when used in small dosages throughout the day, for treating problems of deficient circulation, including chilblains, (a condition of the extremities, in which hot, irritated skin begins to itch, with skin eruptions and cracking of the skin). This effect of circulatory stimulation warms the body, and so can help other "stuck", or "cold" energetic situations in the body, such as rheumatism, arthritis. Other injuries involving swelling, or wounds, which is slow healing may also be helped because of improved peripheral circulation. Users of this herb will also begin to see improvement in problems of hemorrhoids, and varicose veins with continued use. Prickly ash bark helps ease the "full" or uncomfortable feeling associated with prostatitis (benign hypertrophy) and with pelvic congestion (of lymphatic origin) in both males and females.

Not only does prickly ash have a great stimulating effect on the cardiovascular system, but also it is greatly stimulating to the entire lymphatic system, and thus encourages elimination of toxic metabolites from our bodies.

The volatile oils contained in the bark are probably mostly responsible for the carminative actions of prickly ash. (Actions that help stimulate better digestion). The berries are especially warming and relaxing quality to the upper digestive tract, and so can help in cases of colic, cramping, or stomach upsets. Prickly ash can help stop vomiting fairly rapidly (an effect for which the volatile oils are also mostly responsible.).

The alcohol extract or the infused oil of Prickly ash can be used externally on joints to improve local circulation. Compounds of both of these forms, used externally, employing (for example), Ginger root, Orange sneezeweed root (*Helenium hoopesii*), Arnica, and Cinnamon, can help disburse fluids, or reduce pain in cases of swollen joints. The reasoning behind the effect is; if fluids are disbursed, and circulation is improved, then damaged tissue (no matter what the cause), can begin to heal more quickly, as waste products are removed, and oxygen and nutrients arrive.

Prickly ash can be chewed or the extract applied liberally to the teeth and gums to anesthetize a toothache. It can be applied externally as a poultice for helping to heal wounds, or resolving boils (combined with yerba mansa root, plantain leaf, and either finely ground kudzu root, or marshmallow root as a binder.)

Collecting: Collect after flowering, when berries are on the tree. Prune small, live limbs, and strip off the bark. Chop into small pieces. Collect some of the berries at the same time.

It is fun to act as "nature's pruner", alleviating the need to kill the living tree to obtain this medicine.

Parts used: Bark and berries

Constituents: Alkaloids (including berberine), coumarins, up to 4% volatile oils, resin, and tannin.

Actions: Circulatory Stimulant, Tonic, Alterative, Carminative, Diaphoretic, Hepatic, Sialogogue, astringent, and antiseptic.

Botany: Rutaceae (family)

Contraindications: Use either very sparingly or not at all in pregnancy, because of its stimulating properties.

Dosages: Infusion:

Pour 1 cup of boiling water onto two teaspoonfuls of the bark, and let steep for 15 minutes. This amount should be consumed three times each day, probably before meals, as it is a digestive aid.

Alcohol/Water Extracts: This extract should be prepared at a 1:5 ratio, using 75% alcohol (and 25% purified or distilled water). 10-20 drops is taken before meals.

Capsules:

Encapsulate freshly ground herb powder in size 00 capsules.
One or two capsules are taken three times per day.

Note: Although this herb does not grow in the Southwest areas (yet), it is available through us from Ethical wild crafters or organic growers. .



Red clover Plants



According to the National Center for Complementary and Alternative Medicine ((NACCAM), 2008), historically, red clover was used for cancer and respiratory problems, such as whooping cough, asthma, and bronchitis. Current uses of red clover are for menopausal symptoms, breast pain associated with menstrual cycles, high cholesterol, osteoporosis, and symptoms of prostate enlargement.

How It Is Used

The flowering tops of the red clover plant are used to prepare extracts available in tablets and capsules, as well as in teas and liquid forms. Although several small studies of red clover for menopausal symptoms had mixed results, a large study found that red clover had no beneficial effects on menopausal symptoms. There is not enough scientific evidence to determine whether red clover is effective for any other health conditions. NCCAM is studying red clover to learn more about its active components and how they might work in the body, including a clinical trial investigating the safety and effectiveness of red clover for menopausal symptoms.

Side Effects and Cautions

Red clover seems to be safe for most adults when used for short periods. No serious adverse effects have been reported. Because red clover contains estrogen-like compounds, there is a possibility that its long-term use would increase the risk of women developing cancer of the lining of the uterus. However, studies to date have been too brief (less than 6 months) to evaluate whether red clover has estrogen-like effects on the uterus.

It is unclear whether red clover is safe for women who are pregnant or breastfeeding, or who have breast cancer or other hormone-sensitive cancers. Tell your health care providers about any complementary and alternative practices you use. Give them a full picture of what you do to manage your health. This will help ensure coordinated and safe care.

Further, "Red clover is used for skin complaints such as eczema and psoriasis, cancers of the breast, ovaries and lymphatic system, chronic degenerative disease, gout, whooping cough and dry cough. This plant is now under investigation for a certain medicinal alkaloid 'slafamine' which is often found in diseased clover. The substance has shown antidiabetic and anti-AIDS activity", (Jackson, & Bergeron, 2001).

Recipe

"Medicinal tea: Take 1 tablespoon of dried flower, add 1 cup of boiling water, steep for 10 minutes, sweeten to taste, and drink warm for cough and upset stomach" (Jackson & Bergeron).

Rosemary



Rosemary



Rosemary is an evergreen perennial shrub native to the Mediterranean region, Portugal and Spain. It has silvery, needle-like foliage and delicate flowers. Blue, pink or white varieties are available, and they range in habit from creeping to mounding to upright. Rosemary is long known as the herb of remembrance; it symbolizes loyalty and friendship, and has traditionally been associated with both weddings and funerals. It is believed that the gift came from Aphrodite; the goddess of love and beauty, brides once wore it in wreaths as a symbol of their fidelity.

This ancient perennial's romantic legend grew in the 14th century, when 72-year-old Queen Elizabeth of Hungary used rosemary as a medicine for her rheumatism and gout. Her potion of rosemary and lavender supposedly so enhanced her health and beauty that it fanned the passions of the 26-year-old King of Poland, who requested her hand in marriage. The potion became known as Budapest or Hungary water and was the beauty aide of choice for women for hundreds of years.

Rosemary has been used in pest control, and throughout much of history was thought to be the cure for many ills, ranging from gout to the plague. An age-old superstition led people to bind rosemary to their legs in an attempt to relieve the pain of gout. Moreover, ancient Greeks and Romans knew this shrub well. In their world, it enjoyed a reputation for improving memory and rejuvenating the spirits. Greek scholars wore garlands of rosemary during examinations in order to improve their memory and concentration. Shakespeare also wrote that it improved recollection.

Christians called rosemary the "Holy Herb" and associated it with Mary, who, according to Spanish legend, draped her cloak over a rosemary bush on the Holy Family's flight to Egypt, turning the color of the blossoms from white to blue.

In traditional European medicine, rosemary was used internally as a tonic, stimulant, and as a carminative to treat flatulence. It also treated dyspepsia, mild gastrointestinal upsets, colds, headaches, and nervous tension. In India and China, rosemary leaves attacked headaches.

Early in American history, rosemary found use as an antispasmodic, appetite stimulant, and digestion aid. In addition, modern-day herbalists use rosemary to assist with illness related to the gall bladder and the liver. The herb is also used as an antiseptic for treating flu, viruses and colds, and is touted as being able to help lower blood sugar and raise blood pressure. Many people gargle rosemary tea to help heal mouth ulcers and canker sores, and as a mouth wash for

halitosis. To make rosemary tea, steep two teaspoon of the dried flowering tops in one cup of water for twenty minutes.

The oil distilled from this plant's leaves can be mixed with a vegetable oil and used during massage therapy. Applied externally, the oil brings relief from muscular and arthritic pain. In Europe, rosemary oil treats rheumatic conditions, bruises, and circulatory problems. When applied in such a way, it appears to stimulate an increased blood supply. In addition, rosemary oil – or some freshly cut sprigs – can be added to bath water to soothe aching muscles and joints.

It is most commonly grown as a culinary herb, and it is valued for its pungent, pine-like scent. Pinch it as you stroll through an herb garden, and its scent will still be on your thumb and forefinger long afterward. Both the leaves and the flowers are edible. Crush the leaves and sprinkle them over roast chicken, pork or lamb for a wonderful flavor and aroma. Rosemary can also be used to make herb butters or mix into fresh salads. Add to potato dishes, soups or stews, and baked in bread.

Moreover, rosemary can be steeped in vinegar or olive oil, and add to salad dressings or use as a marinade for meats or vegetables. On the outdoor grill, it enhances the flavor of meats and vegetables by adding a few stems to the coals near the end of the cooking period. Use sprigs, leaves or flowers as an attractive, edible garnish.

After the leaves are stripped, toss the stems into the fireplace to fill the house with a delightful, pine-scented

perfume. Add some leaves or flowers to potpourri as well, and keep a sprig or two in the sweater drawer to repel moths. Weave branches into wreaths or garlands as a silvery, fragrant base.

Cautions

Only take rosemary oil internally in the form of an enteric-coated capsule. When taken in any other form, it can irritate the stomach and cause heartburn. If you are pregnant, do not use rosemary in therapeutic amounts. High doses could potentially cause complications. However, the amounts that typically appear in food or cosmetics pose no risk. In addition, if you have epilepsy, do not take medicinal amounts of rosemary; the camphor in the herb could potentially aggravate seizures.

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Saffron

²¹ Article from Google. Author unknown. Retrieved October 4, 2008.



Saffron plants and dried saffron.

According to Dr. Anjana Maitra (2006), since time immemorial, saffron has occupied a special place in the culture and tradition of people. This exotic herb is famous for its medicinal, coloring and flavoring properties. Valued all over the world, especially by culinary and medical experts, saffron has a number of uses.

Origin and Distribution

This exotic herb is mentioned in several ancient texts. It is mentioned in classical western writings and in the Bible. It is specially mentioned in Bhavprakash Nighantu, an Ayurvedic text. The Arabs, who introduced the cultivation of the plant into Spain as an article of commerce, bequeathed to us its modern title of *Zaffer* or saffron, but the Greeks and Romans respectively called it Krokos and Karokam.

Saffron is a native of Southern Europe. It was known to the ancient Greeks and Romans. It was imported to England from the East many centuries ago, and was grown extensively round Saffron Walden, in Essex, UK. One smoke-pervaded spot in the heart of London still bears the name 'Saffron Hill'. This herb is now cultivated in Mediterranean countries, particularly in Spain,

and in Austria, France, Greece, England, Turkey, Persia, India and China. The La Mancha belt of Spain is the largest producer of saffron in the world and contributes 80-90% of the world saffron production. In India, the cultivation of saffron is confined to Pampore and Kistwar areas of Jammu and Kashmir, extending to nearly 4000 acres.

Botanical Description

Saffron (*Crocus Sativus*) belongs to the family Iridaceae. It is a small bulbous perennial plant. The saffron we use is produced by drying the stigmas and part of the styles of the purple autumn crocus. It has a bitter taste and a penetrating aromatic odor. Moreover, saffron is one of the world's oldest and expensive spices. It is estimated that one pound of saffron consists of about 225,000 to 500,000 dried stigmas and requires the picking by hand of 75,000 flowers. That gives an idea of the human labor involved in harvesting saffron.

Culinary Uses

Saffron is very popular as a spice in all-international cuisines. It is an indispensable ingredient in most Mughlai dishes and erstwhile Mughlai chefs used this herb liberally in the rich concoctions they prepared for the royal table. Saffron gives a beautiful tinge and a special aroma to a dish. It is used in sweets as well as in curries. In India, to serve dishes decorated with saffron is regarded as a mark of honor to the guest and has become the norm rather than the exception.

Because of its coloring and aromatic properties, saffron is used mostly as a food additive in culinary, bakery and confectionery preparation. It is used in several exotic dishes, particularly in Spanish rice specialties and French fish preparations. It is also used for coloring butter, cheese, pudding and pastry. People in Europe and India use it to season various foods.

Medicinal properties

Saffron has many uses in Ayurveda, Unani, Chinese and Tibetan medicine. It has been found beneficial in the treatment of urinary problems. It acts as a diuretic if soaked overnight in water and administered with honey. The spice is useful in promoting and regulating menstrual periods. It soothes lumbar pains, which accompany menstruation. Saffron is also beneficial in the treatment of other ailments concerning women such as leucorrhoea and hysteria. Pessaries of saffron are used in painful conditions of the uterus. Saffron oil is used as an external application in uterine sores. In modern pharmacopoeias, saffron is employed only to color other medicines or as a cordial adjunct.

Precautions

Saffron may induce abortion; hence, pregnant women should not take it in large doses. Saffron bulbs are toxic to young animals and stigmas in overdose are narcotic.

Cosmetic Uses

Traditionally saffron is believed to promote fairness of the complexion, and is widely used in cosmetics, especially in fairness creams. It is an age-old belief that pregnant women give birth to 'fair' babies, if they consume saffron.

Commercial Uses

In India, the valley of Kashmir is famous for saffron, which is an important cash crop. Since it is very expensive, unscrupulous dealers often adulterate it. So one has to be very careful while buying saffron and should never buy it from roadside hawkers. Though powdered saffron is more efficient, there is increased scope for adulteration. Sometimes the male parts of the saffron flower (the stamens) are added to increase weight. Sometimes ground yellow stamens are sold as powdered saffron. Legitimate powdered saffron is red-orange and is made by grinding saffron stigmas.

Since over-use of saffron in cooking may lead to a bitter taste, one has to be careful. According to experts, for every tablespoon of saffron that you need to use, add three tablespoons of water. Use a spoon and make sure that the saffron threads get properly soaked; take care not to crush the threads.

Then add the mixture to a glass containing about 30-50 ml of lukewarm water and mix thoroughly. Leave the saffron in the glass for a minimum of 2 hours. Prepare your recipe as usual and add the contents of the glass along with the saffron threads when required.

Kashmiri saffron is valued all over the world for its fine quality and a large part of the saffron produced in Kashmir is exported. In Conclusion, saffron is rightly called the magical herb. It has varied uses ranging from culinary to medicinal and beauty and has been highly valued by man since ancient time.



Sage is a shrubby, evergreen perennial shrub with pale green leaves. Flowers are borne in summer.

Parts used

The leaves and essential oil are used.

Properties

Sage is an astringent, antiseptic, tonic herb, with a camphor-like aroma. It relaxes spasms, suppresses perspiration and lactation, improves liver function and digestion and has anti-inflammatory, anti-depressant and estrogenic effects. It contains phenolic acids, flavonoids, diterpenoids, triterpenes and an essential oil, which contains α -thujone, camphor, 1, 8 - cineole and other monoterpenes.

Therapeutic Uses

Internal Use. Sage is used internally to treat indigestion and flatulence. In addition, it is used to reduce excessive lactation in nursing mothers and night sweats (especially in menopause), excessive salivation, profuse perspiration, anxiety, depression, female sterility and menopausal problems. Moreover,

it supports properties of the liver and is used to boost its function.

External Use. Externally, sage is used for insect bites, throat, mouth, gum and skin infections, as well as vaginal discharge. Sage contains rosmarinic acid that has good antioxidant properties, which are reinforced by picrosalvin also found in sage. Furthermore, sage has anti-microbial and antiviral effects and is often used in hair care to combat greasy and oily hair by regulating the sebum production of the scalp. It is also used to treat various skin problems, such as acne.

Aromatherapy and essential oil use. In small amounts, sage lightens a tired mind, and fight depression and grief. However, it must be used with great care, since large amounts can cause problems. Sage is used to treat the digestive system, increase appetite, balance the hormone estrogen of females and ease dull aches and pains. It is also very useful for regulating the menstrual cycle, and reducing night sweats during menopause. Other uses include refining the texture of the skin, wound healing, ulcers, and dermatitis. Sage can also be used as an anti-inflammatory, antibacterial, antiseptic, antispasmodic, astringent, digestive, diuretic, emmenagogue, febrifuge, hypertensive, laxative, stomachic and tonic agent.

Safety Precautions

The herb should not be used in high dosage or for long periods, because toxicity can occur. In addition, pregnant

women should not use sage. The essential oil contains high amounts of thujone, which can work as an abortifacient and is therefore best avoided if pregnant. In addition, people with epilepsy and high blood pressure should not use the essential oil of sage.²²

Saint John's wort

²² Article from www.ageless.co.za/herb-sage.htm (2008). Author unknown.



Photo of Saint John's wort.

Saint John's wort is a perennial herb native to North America and Canada from Nova Scotia, Ontario Quebec south to the United States. It is a bittersweet herb that has cooling and astringent properties. The herb is mostly used to calm the nerves, reduce inflammation and promote healing. The dried flowering tops are the parts used. The herb contains phenolic compounds, terpenoids, hyperforin and hypericin.

Therapeutic Uses

Internal use. St. John's wort is used internally for anxiety, mild to moderate depression, nervous tension, insomnia, menopausal disturbances, premenstrual syndrome, shingles, sciatica and fibrositis. It is also used to treat inflammation of the stomach and intestines and internal worms. In addition, it is used for homeopathy for pain relief and to combat inflammation caused by nerve damage.

External use. For external use, the herb is used as an anti-septic and analgesic on burns, bruises, sores, and deep wounds with nerve damage, as well as sprains, tennis elbow and cramps.

Safety precautions

Saint John's wort should not be used with other medicine such as oral contraceptives, warfarin, digoxin, anticonvulsants, theophylline, selective serotonin reuptake inhibitors, triptans, cyclosporine and with various antiviral prescribed for HIV patients. Nor should it be used in cases of severe depression. Moreover, when the herb is used internally it may increase the effect of narcotics as well as some antidepressants. If high doses of this herb are used internally, it could cause skin sensitizing and photo toxicity when exposed to the sun, normally in fair skinned people.

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Siberian Ginseng

²³ Article from www.ageless.co.za/herb-st-johns.htm (2008). Author unknown. Reprint with permission.



Primarily, Siberian Ginseng is a medicinal herb used for increased stamina and for boosting the immune system and immune system responses. Though it's is not of the same genus, it is often used as a substitute for Panex Ginseng. Its adaptogen actions is believed to be stronger than that of Panex Ginseng. In addition, it is used to help relieve fatigue and declining capacity to work. Siberian Ginseng is thought to help improve memory; concentration, and increase longevity. It has been considered helpful for those experiencing stress or stressful situations and has a reputation in traditional Chinese medicine as a remedy for insomnia. Further, there have been some cases where it has been utilized to help combat radiation sickness and exposure to toxic chemicals.

Forms

It can be taken as a capsule, pill, tea, tincture or the whole root chewed.

How to take Siberian Ginseng

Siberian Ginseng usage may be contraindicated: If you have high blood pressure or are taking blood pressure medication (it may increase production of adrenaline in adrenal glands, on the

other hand, glycoside content may lower blood pressure). Consult your physician before use, especially if you are taking other medications. Take Siberian Ginseng capsules or tablets by mouth, and drink plenty of water. For the best bioavailability and if you have a sensitive stomach, it is recommended that you take Siberian Ginseng as a tincture, infusion, tea, or the raw herb chewed. You can take ginseng with or without food. It is generally thought that Siberian Ginseng can be taken for a longer period of time than Panax Ginseng. Still, as with Panax, breaks in usage that last two to three weeks should be included in any long term regime.

Dosage

Dosages are usually based on the severity of the symptoms and the type of problem. Low dosages are usually 1.0-2 grams/day - and High dosages: 9.0-15 grams/day with the Avg dosage for Siberian ginseng usage being 2 to 6 grams a day. The following consists of common average recommended dosages for ginseng usage: Tablets, Pills, Capsules: Equivalent to 2-6 grams of the root/day or equivalent standardized product. Chewed: 2-6 grams root/day - may be boiled gently and for a short time to soften it up before chewing Tea/Infusion: 2-6 gram root/day - boil in water, drink 3x day. Tincture/Liquid Extract: 33% ethanol extract @ 5.0 milliliters 3X/day up to 60 days - equivalent to 2-3 grams/day

Interactions

Siberian Ginseng may interact with hexobarbital increasing its effect due to inhibition of its metabolic breakdown. It may also interact with antibiotics increasing their efficacy (enhancement of T-lymphocyte activity).

Side Effects of Siberian Ginseng

Side effects from correctly administered Siberian Ginseng are thought to be very rare. If you experience any of these side effects, stop usage immediately and report them to your health care professional. Increase in blood pressure. Side effects that usually do not require medical attention (stop usage and report it to your health care professional if they are continuing or bothersome): Headaches Insomnia (very rare) Anxiety Irritability.

Warnings

Usage of stimulants (such as caffeine) may be contraindicated if a patient has cardiovascular disease and is taking Ginseng. Ginseng may be toxic in very large quantities (Ginseng Abuse Syndrome) and/or with intake over a long period of time. (This has been shown with Panax Ginseng usage). Be sure to read the labels carefully before purchasing . A concern when purchasing Siberian Ginseng is the continued practice of substitution. An herb called Periploca sepium is reported to be a common adulterant used in Siberian Ginseng products. Labels should be checked for clear identification of the plant genus utilized. Still even if the correct genus is listed, absence of

the active constituents and mixing of herbs should be all cause for care when purchasing ((NCCAM) National Center for Complementary and Alternative Medicine, 2008).

Folklore

Thought to be a love potion by American Indians.

Skullcap



Skullcap plant and powder.

Skullcap (*Scutellaria lateriflora*) is native to North America, but is now widely cultivated in Europe and other areas of the world. It has been used for over two hundred years as a mild relaxant and has long been hailed as an effective therapy for anxiety, nervous tension, and convulsions. Because of its calming effects on the nervous and musculoskeletal system, it was also at one time considered a remedy for rabies, thus it's name "mad dog weed."

Scutellaria lateriflora is one species of skullcap that is used in herbal preparations. The plant name derived from the cuplike appearance of the outer whorl of its small blue flowers. It is slender, heavily branched plant that grows to a height of two to four feet and blooms in July. The parts of the plant used for medical purposes are the leaves, which are harvested in June from a three-to-four -years-old skullcap plant.

Medical Uses

Skullcap is used for muscle spasms, calming of the nerves, Tension headache, Anorexia nervosa, Anxiety, Fibromyalgia, restless leg syndrome and other causes of Insomnia, mild Tourette's Syndrome (a disorder characterized by multiple motor and vocal tics), and Seizures.

Chinese Skullcap

A closely related herb, Chinese skullcap (*Scuterillaria baicalensis*) has actually been the subject of a number of studies, on both animals and humans. It has anti-oxidative, anti-inflammatory, and antihistamine properties, which can help treat allergies such as hay fever, particularly when used with other herbs, including sting nettle. Traditionally, it was used in Chinese medicine to treat tumors. Early laboratory studies investigating the traditional use of the herb showed preliminary promises for combating bladder, liver, and other types of cancers in test tubes.

Moreover, in terms of clinic studies on people, skullcap is one of the eight herbs that make up PC-SPES, an alternative treatment for prostate cancer. (It is important to note that the U. S. Food and Drug Administration (FDA) recently issued a warning to consumers that PC SPES may contain undeclared prescription drug ingredients that could cause dangerous side effects). In addition, Chinese laboratory research has isolated an element present in skullcap that may prove useful in treating hepatitis B and has suggested that the antioxidant properties of Chinese skullcap may prove beneficial for preventing heart disease or limiting the damage following a heart attack. More research needs to be done in these areas before conclusions can be drawn. However, skullcap is available as a powder or liquid extract.

Preparations

For pediatric, skullcap may be used for calmative purposes, administered as a mild tea. Either use prepackaged tea bags, letting it steep for 2 minutes or add 1 teaspoon of dried leaves to 1 cup of boiling water and steep for 2 minutes. Shorter steeping time makes for milder strength teas. The tea should be taken according to the child's age and weight as follows:

- Children 1 to 2 years (24 lbs [11 kg] or less): $\frac{1}{4}$ cup one to three times per day
- Children 3 to 6 years (25 to 48 lbs [11 to 22 kg]): $\frac{1}{2}$ cup one to four times per day
- Children 7 to 11 years (49 to 95 lbs [22 to 43 kg]): $\frac{3}{4}$ cup one to four times per day
- Children 12 and older (over 95 lbs [43kg]): 1 cup one to four times per day.

The following are recommended adult doses for skullcap:

- Dried herb: 1 to 2 grams per day
- Tea: Pour 1 cup of boiling water over 1 teaspoon of dried herb, steep 20 to 30 minutes, and drink 2 to 3 cups per day
- Fluid extract: (1:1 in 25% alcohol): 2 to 4 ml (40 to 120 drops) three times daily
- Tincture (1:5 in 45% alcohol): 2 to 5 ml (40 to 150 drops) three times daily

Precautions

The use of herbs is a time-honored approach to strengthening the body and treating disease. However, herbs contain active

substances that can trigger side effects and interact with other herbs, supplements, or medications. For these reasons herbs should be taken with care, under the supervision of a practitioner knowledgeable in the field of botanical medicine. Moreover, there are mixed opinions as to the safety of skullcap because it has, in the past, been contaminated with *Teucrium* species, a group of plants known to cause liver problems. Therefore, it is important that skullcap be obtained like any other herb from a reliable source. In addition, overdose of the herb tincture produces giddiness, stupor, mental confusion, twitching, irregular heartbeat, and epileptic-like symptoms. Skullcap should not be used during pregnancy or breastfeeding.

Possible Interactions

While there are no reports in scientific literature that suggest that skullcap interacts with any conventional medications, it does possess sedative properties. Therefore, the herb should be used with caution, if at all, by those who are taking benzodiazepines (anti-anxiety medications) such as diazepam or alprazolam, barbiturates (medications often prescribed for sleep disorders or seizures) such as pentobarbital, or other sedative medications, including antihistamines (Huang, et al, 2008).



Suma Plant and root.

Suma is a large, rambling, shrubby ground vine with an intricate, deep, and extensive root system. It is indigenous to the Amazon basin and other tropical parts of (southern) Brazil, Ecuador, Panama, Paraguay, Peru, and Venezuela. Since its first botanical recording in 1826, it has been referred to by several botanical names, including *Pfaffia paniculata*, *Hebanthe paniculata*, and *Gomphrena paniculata*. The genus *Pfaffia* is well known in Central and South America, with over 50 species growing in the warmer tropical regions.

Tribal and Herbal Medical Uses

In South America, suma is known as *para toda* (which means "for all things") and as *Brazilian ginseng*, since it is widely used as an adaptogen with many applications (much as "regular" ginseng). The indigenous peoples of the Amazon region who named it *para toda* have used suma root for generations for a wide variety of health purposes, including as a general tonic; as an energy, rejuvenating, and sexual tonic; and as a general cure-all for many types of illnesses. Suma has been used as an aphrodisiac, a calming agent, and to treat ulcers for at least

300 years. It is an important herbal remedy in the folk medicine of several rainforest Indian tribes today.

In herbal medicine throughout the world today, suma is considered a tonic and an adaptogen. The herbal definition of an adaptogen is a plant that increases the body's resistance to adverse influences by a wide range of physical, chemical, and biochemical factors and has a normalizing or restorative effect on the body as a whole. In modern Brazilian herbal medicine practices, suma root is employed as a cellular oxygenator and taken to stimulate appetite and circulation, increase estrogen production, balance blood sugar levels, enhance the immune system, strengthen the muscular system, and enhance memory.

In North American herbal medicine, suma root is used as an adaptogenic and regenerative tonic regulating many systems of the body; as an immunostimulant; to treat exhaustion and chronic fatigue, impotence, arthritis, anemia, diabetes, cancer, tumors, mononucleosis, high blood pressure, PMS, menopause, and hormonal disorders, and many types of stress. In herbal medicine in Ecuador today, suma is considered a tonic and "normalizer" for the cardiovascular system, the central nervous system, the reproductive system, and the digestive system; it is used to treat hormonal disorders, sexual dysfunction and sterility, arteriosclerosis, diabetes, circulatory and digestive disorders, rheumatism, and bronchitis. Thomas Bartram, in his book *Encyclopedia of Herbal Medicine*, reports that suma is used in Europe to restore nerve and glandular functions, to balance the endocrine system, to strengthen the immune system, for

infertility, menopausal, and menstrual symptoms, to minimize the side effects of birth control medications, for high cholesterol, to neutralize toxins, and as a general restorative tonic after illness.

Constituents

Nutritionally, suma root contains 19 different amino acids, a large number of electrolytes, trace minerals, iron, magnesium, zinc, vitamins A, B1, B2, E, K, and pantothenic acid. Its high germanium content probably accounts for its properties as an oxygenator at the cellular level; its high iron content may account for its traditional use for anemia. The root also contains novel phytochemicals including saponins, pfaffic acids, glycosides, and nortriterpenes.

Suma has also been called "the Russian secret," as it has been taken by Russian Olympic athletes for many years and has been reported to increase muscle-building and endurance without the side effects associated with steroids. This action is attributed to an anabolic-type phytochemical called *beta-ecdysterone* and three novel ecdysteroid glycosides that are found in high amounts in suma. Suma is such a rich source of beta-ecdysterone that it is the subject of a Japanese patent for the extraction methods employed to obtain it from suma root (approximately 2.5 g of beta-ecdysterone can be extracted from 400 g of powdered suma root-or .63%). These same Japanese researchers filed a U.S. patent in 1998 for a proprietary extract of suma (which extracted the ecdysterone and beta-

ecdysterone); it claimed (through various in vivo and in vitro studies) that their compound maintained health, enhanced the immune system, and had a tonic and an anti-allergenic effect. A French company also filed a U.S. patent on the topical use of these ecdysterone chemicals, claiming that their suma ecdysterone extract strengthened the water barrier function of the skin, increased skin keratinocyte differentiation (which would be helpful for psoriasis), gave the skin a smoother, softer appearance and, also, improved hair appearance.

Suma root has a very high saponins content (up to 11%). In phytochemistry, plant saponins are well known to have a wide spectrum of activities including lowering blood cholesterol, inhibiting cancer cell growth, and acting as antifungal and antibacterial agents. They are also known as natural detergent and foaming agents. Phytochemists report that saponins can act by binding with bile acids and cholesterol. It is thought that these chemicals "clean" or purge these fatty compounds from the body (thus lowering blood cholesterol levels). One of the most famous plant saponins is digitalis, derived from the common foxglove garden plant, which has been used as a heart drug for over 100 years.

The specific saponins found in the roots of suma include a group of novel phytochemicals that scientists have named *pfaffosides*. These saponins have clinically demonstrated the ability to inhibit cultured tumor cell melanomas (in vitro) and help to regulate blood sugar levels (in vivo). The *pfaffosides* and *pfaffic acid* derivatives in suma were patented as antitumor

compounds in several Japanese patents in the mid-1980s. In a study described in one of the patents, researchers reported that an oral dosage of 100 mg/kg (of suma saponins) given to rats was active against abdominal cancer. The other patents and Japanese research report that the pfaffic acids found in suma root had a strong *in vitro* activity against melanoma, liver carcinoma, and lung carcinoma cells at only 4-6 mcg of pfaffic acids. However, it should be noted that this equates to taking 400 to 600 g (about 1 pound) of natural suma root daily to achieve the therapeutic dosage of pfaffic acids reported to demonstrate toxic activity against these cancer cells. As such, it will probably be left up to the pharmaceutical companies to provide synthesized versions of these chemicals in therapeutic amounts.

Suma's main plant chemicals are: allantoin, beta-ecdysterone, beta-sitosterol, daucosterol, germanium, iron, magnesium, nortriterpenoids, pantothenic acid, pfaffic acids, pfaffosides A-F, polypodine B, saponins, silica, stigmasterol, stigmasterol-3-o-beta-d-glucoside, vitamins A, B1, B2, E, K, and zinc.

Biological Activities and Clinical Research

In addition to the pfaffic acids having anticancerous activity, recent research in Japan (in 2000) reported that natural suma root had anti-cancerous activity as well. In this *in vivo* study, an oral administration of powdered suma root (at a dosages of 750 mg/kg) was reported to inhibit the proliferation of lymphoma and leukemia in mice and, otherwise,

delay mortality. Notice, however, that this antiproliferative effect slowed the growth of these cancer cells - it did not eradicate them. These researchers postulated that the inhibitory effect evidenced might be due to the enhancement of the nonspecific and/or cellular immune systems.

In 1995, another U.S. patent was filed which detailed some beneficial effects of suma root against sickle-cell anemia. In a double blind placebo human study, they reported that 15 patients taking suma root for three months (1000 mg three times daily) increased hemoglobin levels, inhibited red blood cell sickling and, generally, improved their physical condition by reducing side effects during the treatment. These results were statistically higher than the 15 other patients on placebo. Unfortunately, once treatment was discontinued, symptoms and blood parameters returned to their pretreated state within 3-6 months. It was reported, however, that several patients in the study remained on the suma supplement for three years or longer. They reportedly maintained consistent improvement and a higher quality of life with no side effects. Other U.S. researchers (in 2000) studied suma root's actual mechanism of action in its ability to resickle blood cells and reported their findings- which again confirmed an antisickling effect and a rehydration effect of sickled cells (in vitro).

In other research, suma demonstrated analgesic and anti-inflammatory activities in various in vivo rat and mouse studies. Another tested activity focused on its long history of use as a sexual stimulant and aphrodisiac. Researchers verified

this traditional use, reporting in a 1999 clinical study that a suma root extract was able to increase the sexual performance in healthy, sexually sluggish and impotent rats. In 2001, a U.S. patent was filed on a multi-plant combination containing suma for sexual enhancement in humans. The patent indicated that the suma extract tested increased sexual performance and function.

Toxicity studies with humans indicated no toxicity at an oral dosage of 1.5 g of the root. Another orally administered toxicity study with rats also reported no toxicity—even when suma root represented 50% of the rats' food supply for 30 days. However, mice injected subcutaneously with the equivalent of 5 gm/kg (in an ethanol extract) evidenced sedation, drop in body temperature, and loss of motor coordination; mortality was observed at 10 g/kg (again, in an ethanolic extract) when injected in mice.

Current Practical Uses

Suma is another excellent example of a highly beneficial rainforest plant that has many activities and applications - with clinical research validating its traditional uses. No wonder it is called "for all things" throughout South America! With its varied applications - from cancer and sickle cell anemia to its sexual stimulant and tonic qualities - it is finally becoming more popular and well known in North American herbal medicine practices as well. Suma root products are now more widely available in health food stores; several encapsulated, ground-root products (and root extracts in

capsules and liquid extracts) are available on the shelves under various labels. There is also at least one standardized extract (standardized to the saponin content) that has made a recent appearance on the market.

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Turmeric

Turmeric is recognized as a spice that is widely used in Indian cuisine. Native to India and tropical areas of Asia, it

²⁴ Article from Raintree Nutrition, Inc., www.rain-tree.com. Wealth of the Rainforest, Pharmacy to the World, by Leslie Taylor (1996-2006). Reprint with permission.

is what gives curry powder its vibrant yellow hue. It is also the ingredient that makes American-style mustard so yellow. Turmeric is made from the root of *Curcuma longa*, a beautiful tropical plant with yellow or yellowish-white flowers, luscious fruits, and very large lily like leaves. Its exotic fragrance once made the flowers a favorite for making fragrances. In addition, herbal healers have been using it for thousands of years to stop inflammation.



Turmeric plant and roots ground into powdered.

What Turmeric Is and What It Can Do

The leaves of turmeric generally are not used. Ordinarily, only the rhizomes, or roots, are used for medicinal purposes and for food flavoring. turmeric is harvested at the end of the growing season and sun dried. Herbalists usually use dried roots, although sometimes they stew them instead. They call this "guisador" in Peru but "azafran" elsewhere in Latin America.

One secret of turmeric's medicinal power is the many antioxidants it contains. You will recognize some of the more common ones, such as vitamins C and E, along with several carotenoids. It also contains lesser known, but more effective antioxidants--specifically, curcumin and related compounds called curcuminoids.

Recently, substances called cyclooxygenase inhibitors have won praise as powerful miracle aspirins for blocking inflammation, especially inflammation caused by arthritis and, my own personal affliction, gout (gout is a type of arthritis). turmeric, like its cousin ginger, contains some natural cyclooxygenase inhibitors. Some studies compare it to ibuprofen. Research suggests it works almost as well and with none of the side effects.

In fact, studies also suggest that turmeric can stop inflammation about half as well as a corticosteroid called cortisone. Corticosteroid medications are considered the "gold standard" for stopping inflammation. The problem with these drugs is that their potential side effects, such as fluid retention, high blood pressure, and bone damage, are nearly as impressive as their benefits.

According to Dr. Duke (2008, cite from Mother Nature, Inc.), there is evidence to suggest that turmeric helps prevent colon, breast, and lung cancer as well as melanomas. In animals, it was found that turmeric - the curcumin it contains - may reduce the risk of colon cancer by 58 percent, because of its powerful interferes with at least four different links in the chain that cause cancer. Curcumin appears to neutralize some cancer -causing substances, and it acts as an antimutagenic - meaning it stops early changes in cells that turn into cancer. In a later stage, curcumin appears to reduce the number and size of different types of tumors. Most importantly, it possesses antimetastatic properties.

In addition, Duke is convinced that curcumin in turmeric is beneficial for treating conditions of the gastrointestinal tract. Research suggests that it can help increase mucous content in gastric juices, which can also make it helpful for stomach disorders. However, some herbalists say that turmeric should not be used by people with gallbladder disease, but Duke believes there is solid evidence that the herb can increase bile flow and help disintegrate gallstones.

Duke stated that, "in one study, mice with experimentally induced gallstones were fed modest amounts of turmeric. Within 5 weeks their gallstone volume had dropped by 45 percent and after 10 weeks, by 80 percent" (p. 1). He insists that because curcumin increases the solubility of bile, it may help prevent gallstones from forming. Duke adds that, "if he had gallstones, he would definitely cook lots of curries - and go heavy on the turmeric, but some herbalists disagree" (Para. 5).

Turmeric Uses in Combination with Spices and certain Foods

Turmeric is useful for many condition, however, it is tricky to get enough of it where the body needs it the most. This is because the body tends to metabolize turmeric fast, meaning it uses it all up with the exception of, herbalists and pharmacologists finding a few ways around this. For instant, black pepper - one of the chemicals in ordinary black pepper, piperine, seems to improve the bioavailability of turmeric. In fact, researchers at St. John's Medical College in Bangalore,

India, found that combining turmeric with black pepper may significantly increase the body's ability to use it.

For cancer prevention, mix turmeric with foods that contain large amounts of isoflavonoids, food that have powerful anti-cancer effects. Some breast cancer researchers believe that a combination of curcumin and isoflavonoids might be the most potent inhibitor of human breast tumor cells. Isoflavonoids is in dried beans and peas, soy, kudzu, and licorice. "Curried lentil or bean soups is at the top of the list", implied Dr. Duke.

Caution

According to Duke (2008), "the German E Commission (a panel of experts equivalent to the U. S. Food and Drug Administration) advised against taking turmeric only for individuals who have biliary obstruction. Apart from this, there is evidence that having too much turmeric may cause stomach irritation in people who are sensitive to it, which could lead to ulcers". In addition, eating large amounts of turmeric could potentially damage white and red blood cells. However, there is little likelihood that anyone would ever ingest enough to make this happens.

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²⁵ Article on Turmeric from Mother Nature, Inc. by Dr. Duke (2008).



Turmeric (*Curcuma lon*)



Turmeric Plant and Roots

Valerian



Valerian Plant

Valerian is an herb native to Europe and Asia that grows in most parts of the world. The name is believed to come from the Latin word "valere" meaning to be healthy or strong. The root of the plant is believed to contain its active constituents. Use of valerian as a sedative and anti-anxiety treatment has been reported for more than 2,000 years. For example, in the 2nd Century AD, Galen recommended valerian as a treatment for insomnia. Related species have been used in traditional Chinese and Indian Ayurvedic medicine. Preparations for use on the skin have been used to treat sores and acne, and valerian by mouth has been used for other conditions such as digestive problems, flatulence (gas), congestive heart failure, urinary tract disorders, and angina (chest pain).

Moreover, valerian extracts became popular in the United States and Europe in the mid-1800s and continued to be used by both physicians and the lay public until it was widely replaced by prescription sedative drugs. Valerian remains popular in North America, Europe, and Japan and is widely used to treat insomnia. Although the active ingredients in valerian are not known, preparations are often standardized to the content of valeronic acid.

Dosage

Adults (18 years and older). Studied doses range from 400 to 900 milligrams of an aqueous or aqueous-ethanolic extract (corresponding to 1.5 to 3 grams of herb), taken 30 to 60 minutes before going to bed. Valerian has historically been used in the form of a tea (1.5 to 3 grams root steeped for five to 10 minutes in 150 milliliters boiling water), although this formulation has not been studied. Doses of 300-1,800 milligrams of valerian have also been taken by mouth in capsule form. However, there is not enough scientific evidence to recommend the use of valerian in children.

Allergies

People with allergies to plants in the Valerianaceae family may be allergic to valerian.

Uses based on tradition or theory

Acne, amenorrhea (lack of menstruation), angina (chest pain), anorexia, anti-seizure, antiperspirant, antiviral, arthritis, asthma, bloating, bronchospasm, congestive heart failure, constipation, cough, cramping (abdominal, pelvic, menstrual), depression, digestive problems, diuretic (increase urine flow), dysmenorrhea (pain with menstrual cycle), emmenagogue (stimulation of menstrual blood flow), epilepsy, fatigue, fever, flatulence (gas), hangovers, headache, heart disease, heartburn, high blood pressure, HIV, hot flashes, hypochondria, irritable bowel syndrome, liver disorders,

measles, memory enhancement, menopausal symptoms, migraine, mood enhancement, muscle pain/spasm/tension, nausea, nerve pain, pain relief, restlessness, stomach ulcers, premenstrual syndrome (PMS), restless leg syndrome, rheumatic pain, skin disorders, stress, urinary tract disorders, vaginal infections, vertigo, viral gastroenteritis, vision problems, withdrawal from tranquilizers.

Interactions with Drugs

Based on animal and human studies, valerian may increase the amount of drowsiness caused by some drugs, although this is an area of controversy. Examples include benzodiazepines such as lorazepam (Ativan®) or diazepam (Valium®), barbiturates such as phenobarbital, narcotics such as codeine, some antidepressants, and alcohol. Caution is advised while driving or operating machinery. In one human study, a combination of valerian and the beta-blocker drug propranolol (Inderal®) reduced concentration levels more than valerian alone. A brief episode of confusion was reported in one patient using valerian with loperamide (Imodium®) and St. John's wort (Hypericum perforatum L.).

An episode of agitation, anxiety, and self-injury was reported in a patient after taking valerian with fluoxetine (Prozac®) for a mood disorder (the person was also drinking alcohol). In theory, valerian may interact with anti-seizure medications, although human data is lacking. Valerian tinctures may contain high alcohol content (15-90%) and theoretically may cause vomiting if taken with metronidazole (Flagyl®) or

disulfiram (Antabuse®). Valerian may interact with certain drugs metabolized by the liver or vasopressin.

Side effects and Warnings

Studies report that valerian is generally well tolerated for up to four to six weeks in recommended doses. Valerian has occasionally been reported to cause headache, excitability, stomach upset, uneasiness, dizziness, unsteadiness (ataxia), and low body temperature (hypothermia). Chronic use (longer than two to four months) may result in insomnia. Slight reductions in concentration or complicated thinking may occur for a few hours after taking valerian. Use caution if driving or operating heavy machinery. Some research suggests that valerian may not cause sedation.

A drug "hangover" effect has been reported in people taking high doses of valerian extracts. "Valerian withdrawal" may occur if you stop using valerian suddenly after chronic high-dose use, including confusion (delirium) and rapid heartbeat. These symptoms may improve with the use of benzodiazepines such as lorazepam (Ativan®). Although unknown, valerian may have similar brain activity as benzodiazepines (which are commonly used to treat anxiety and insomnia), through effects on the brain chemical gamma-amino-butyric-acid (GABA).

Valerian has been on the U.S. Food and Drug Administration's (FDA's) GRAS (Generally Regarded as Safe) list, and no deaths due to overdose are currently available. Moreover, liver toxicity has been associated with some multi-

herb preparations that include valerian. However, the contribution of valerian itself is not clear due to the potential liver toxicity of other included ingredients and the possibility of contamination with unlisted herbs.

Because there is limited human safety data, valerian use during pregnancy and breastfeeding is not recommended. There are theoretical concerns over the adverse effects of chemical components that are toxic in laboratory studies.

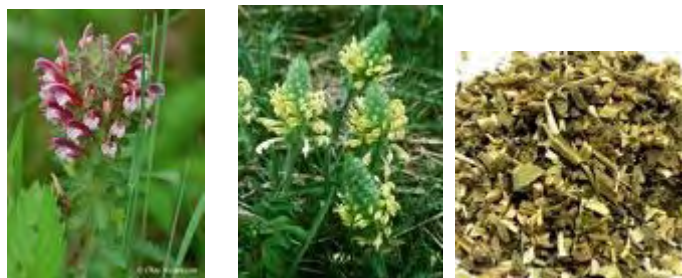
Interactions with Herbs and Dietary Supplements

Based on theoretical concerns, valerian may increase the amount of drowsiness caused by some herbs or supplements. A brief episode of confusion was reported in one patient during use of valerian with loperamide (Imodium®) and St. John's wort (*Hypericum perforatum* L.). Nausea, sweating, muscle cramping, weakness, elevated pulse, and high blood pressure were reported after a single dose of a combination product with St. John's wort, kava, and valerian. Valerian may interact with certain herbs and supplements that are metabolized by the liver.

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Wood Betony

²⁶ From www.nlm.nih.gov (2006 -2008), by National Library of Medicine's (NLM) Medline Plus. Reprint with permission.



Wood Betony red, white, and ground.

Wood Betony is a pretty woodland plant that grows frequently throughout England. It generally grows in woods and copses, and is occasionally found in open space amongst the tangled growths on high ground. There are five species of *Stachys*, which grows wild in England. The herb was much-valued once. The species are named as follows: Betony (*S. Betonica*); the Marsh Stachys, or Clown's Woundwort (*S. palustris*); the true Woundwort (*S. Germanica*), a doubtful native, occurring occasionally on limestone soils in England, but very common on the Continent, where the dense covering of its leaves was at one time in rustic surgery employed in the place of lint for dressing wounds, the low-creeping Field Stachys (*S. arvensis*); and the Hedge Stachys, or Hedge Woundwort (*S. sylvatica*), perhaps most common of them all.

The Wood Betony (*S. Betonica* according to present-day nomenclature, though named *Betonica officinalis*, by Linnaeus) was held in high standing not only in the Middle Ages, but also by the Greeks who celebrated its qualities. An Old Italian proverb, "Sell your coat and buy Betony, and He has as many virtues as Betony", a saying of the Spaniards, show what value was placed on its remedial properties. Antonius Musa, chief physician to the Emperor Augustus, wrote a long treatise,

showing it was a certain cure for no less than forty-seven diseases.

Throughout the centuries, faith in its virtues as a cure for all illnesses was thoroughly ingrained in the popular estimation. It was largely cultivated in the physic gardens, both of the apothecaries and the monasteries, and may still be found growing about the sites of these ancient buildings. Robert Turner, a physician writing in the latter half of the seventeenth century, recounted nearly thirty complaints for which Betony was considered effective, and adds, "I shall conclude with the words I have found in an old manuscript under the virtues of it: "More than all this have been proved of Betony."

In addition to its medicinal virtues, Betony was endowed with power against evil spirits. On this account, it was carefully planted in church yards and hung about the neck as an amulet or charm, sanctifying. It was said that, "those that carried it about them was good against fearful visions, and an efficacious means of driving away devils and despair". Another saying was that, "It is good whether for the man's soul or for his body; it shields him against visions and dreams, and the wort is very wholesome, and thus thou shalt gather it, in the month of August without the use of iron; and when thou hast gathered it, shake the mold till it is gone, then dry it in the shade very thoroughly, with its roots together to reduce it to dust: then use it and take of it when you need it". Many extravagant superstitions grew up round Betony, one, of very

ancient date, was that serpents would fight and kill each other if placed within a ring composed of it; and others declared that even wild beasts recognized its efficacy and used it if wounded, and that stags, if wounded with a dart, would search out Betony, and, eating it, be cured.

Betony comes up year after year from a thick, woody root. The stems rise to a height of 1 to 2 feet, and are slender, square and furrowed. They bear at wide intervals a few pairs of oblong, stalkless leaves, 2 to 3 inches long, and about 3/4 to 1 inch broad, with roughly indented margins in other plants of this group, the pairs of leaves arise on alternate sides of the stem. The majority of the leaves, however, spring from the root and these are larger, on long stalks and of a drawn-out, heart shape. All the leaves are rough to the touch and are also fringed with short, fine hairs; their whole surface is dotted with glands containing a bitter, aromatic oil.

At the top of the stem are the two-lipped flowers of a very rich purplish-red, arranged in dense rings or whorls, which together form short spikes. Then there is a break and a piece of bare stem, with two or four oblong, stalkless leaves and then more flowers, the whole forming what is termed an interrupted spike, a characteristic peculiarity by which Wood Betony is known from all other labiate flowers. The cup or calyx of each flower is crowned by five sharp points, each representing a sepal. The corolla is a long tube ending in two lips, the upper lip slightly arched, the lower one flat, of three equal lobes. The four stamens lie in two pairs within the arch of the upper

lip, one pair longer than the other, and shed their pollen on to the back of bee visitors who come to drink the honey in the tube, and thus unconsciously effect the fertilization of the next flower they visit, by carrying to it this pollen that has been dusted upon them. After fertilization, four brown, smooth three-cornered nutlets are developed. The flowers are in bloom during July and August.

The common name of this plant is said by Pliny to have been first *Vettonica*, from the *Vettones* a people of Spain, but modern authors resolve the word into the primitive or Celtic form of *bew* (a head) and *ton* (good), it being good for complaints in the head. It has sometimes, also, been called *Bishopswort*, the reason for which is not evident. The name of the genus, *Stachys*, is a Greek word, signifying a spike, from the mode of flowering.

Parts Used Medically. The whole herb, collected from wild plants in July, when at their best, and dried.

Medical Action and Uses. Betony was once the sovereign remedy for all maladies of the head, and its properties as a nervine and tonic are still acknowledged, though it is more frequently employed in combination with other nervines than alone. It is useful in hysteria, palpitations pain in the head and face, neuralgia and all nervous affections. In the *Medicina Britannica* (1666) we read: 'I have known the most obstinate headaches cured by daily breakfasting for a month or six weeks on a decoction of Betony made with new milk and strained.'

As an aromatic, it has also astringent and alterative action, and combined with other remedies is used as a tonic in

dyspepsia and as an alterative in rheumatism, scrofula and impurities of the blood. The weak infusion forms a very acceptable substitute for tea, and in this way is extensively used in many localities. It has somewhat the taste of tea and all the good qualities of it, without the bad ones. To make Betony tea, pour a pint of boiling water on an ounce of the dried herb. A wineglassful of this decoction three times a day proves a benefit against languid nervous headaches.

The dried herb may also be smoked as tobacco, combined with Eyebright and Coltsfoot, for relieving headache. A pinch of the powdered herb will provoke violent sneezing. The dried leaves formed an ingredient in Rowley's British Herb Snuff, which was at one time quite famous for headaches. In addition, the fresh leaves are said to have an intoxicating effect. They have been used to dye wool a fine yellow.

Among other uses, Betony preserves the lives and bodies of men from the danger of epidemical diseases. It helps those that loathe and cannot digest their food. It is used either dry or green either the root or herb - or the flowers, drunk in broth or meat or made into conserve syrup, water, electuary or powder - as everyone may best frame themselves, or as time or season requires.

Herb also cures jaundice, falling sickness, palsy, convulsions, gout, dropsy and head troubles, and that 'the powder mixed with honey is no less available for all sorts of colds or cough, wheezing, of shortness of breath and consumption. Further, the decoction made with mead and

Pennyroyal is good for putrid agues, and made in wine is good as a vermifuge, and also removes obstructions of the spleen and liver. Moreover, the decoction with wine gargled in the mouth ease toothache.... It is a cure for the dogs bites.... A gram of the powder taken with a little honey in vinegar is good for refreshing those that are tired from travel. It stops bleeding of the nose and mouth, help those that spit blood, and are good for those that have a rupture and bruised.

Moreover, the green herb bruised, or the juice, applied to any inward or outward wound in body or head will quickly heal. It will draw forth any broken bone or splinter, thorn or other thing gotten into the flesh, also heals old sores or ulcers and boils. The root is displeasing to taste and the stomach, whereas the leaves and flowers by their sweet and spicy taste, comfort in meat and medicine.

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²⁷ Article from www.botanical.com by M. Grieve (2008).

Section 3

Herb and Drug Interactions

Herbs-Drug Interactions

Based on a study (University of Michigan Health System, 2008), people are buying herbal remedies for every-thing from migraines to memory preservation to depression. Where once you had to see an herbalist or naturopath to get the daily dose of herbs for what ails you, herbal products now are widely available on drugstore shelves and in health food stores, making the ability to self-medicate greater than ever. However, with that opportunity comes a warning: mixing herbal remedies and prescription drugs could be harmful to your health.

Just like drug-drug and drug-food interactions, herb drug interactions are very common. Some herbal medicines may cancel the effect of a prescription drug; others may reduce it, or even exaggerate it. Part of the problem is many people do not tell their doctors they are taking herbal remedies, because many doctors are not receptive about this so patients fear telling them and keep it to themselves.

Further, doctors often express disapproval or change the subject when patients inquire about herbal remedies. Some pharmacists are now tracking medications on computer and can tell you if your drugs and herbs are conflicting with each other. If your doctor does not know or is not sympathetic, then head to a pharmacist and ask them. Bookstores also have entire shelves devoted to Herbalism these days, and many outline possible drug interactions. Since herb drug, interactions are not predictable, and are possible, especially if you are taking

a range of prescriptions and herbal remedies. Therefore, it is best to play it safe and study the herbal medicine before adding it to your pillbox.

- **Black Cohosh, Baneberry, Bagworm, Squawroot and Rattle root (Cimicifugin racemosa):** used for treating hot flashes, premenstrual discomfort and dysmenorrhea. Do not take with Estrogens, Oral contraceptives, or Anti-hyperlipidemics. An herb that affects hypothalamus-pituitary system decreases luteinizing hormone secretion and binds estrogen receptors. It also can decrease response to estrogen. May cause possible additive effect.
- **Chamomile:** used as a mild sedative, antispasmodic, and antiseptic agent. Do not mix with Iron the tannin content in the herb may inhibit iron absorption. In addition, do not take with anticoagulants - an herb containing coumarin constituents may interfere with the drug's effects.
- **Dong Qual:** taken for menopausal symptom. Do not mix Dong Qual with warfarin (anticoagulants), St. John's wort and some antibiotics such as sulfonamides, quinolones.
- **Echinacea:** Mostly taken as an immune boost to prevent cold and flu. Do not mix Echinacea with some heart medications, antifungal medications, HIV medications and anti-anxiety medications.
- **Ephedra:** A powerful decongestant. Contains ephedrine, which can open up bronchial passages. It is controversial because it is a powerful stimulant that can raise blood

pressure, cause insomnia and high blood pressure. Do not mix with heart medications or medications for high blood pressure, glaucoma or thyroid problems.

- **Feverfew:** taken to reduce the severity of migraines. Do not take with other migraine medications, as it may raise heart rate and blood pressure. Feverfew has the potential to react with warfarin (anticoagulants), increasing the thinning of blood.
- **Ginkgo:** increases blood flow and circulation throughout the body, also can help improve memory. May interact with anticoagulant medications such as Aspirin, Coumadin, heparin and warfarin, causing the blood to thin too much, and provoking a serious bleeding disorder. A recent report in the New England Journal of Medicine describes a case of a man who had been taking Aspirin to prevent a heart attack and had spontaneous bleeding into the eye from the iris within a week of taking a daily dose of ginkgo.
- **Garlic:** is thought to help lower cholesterol and prevent the formation of blood clots that could lead to heart attacks. Garlic capsules may increase blood thinning if you are already on anticoagulants. Do not take with diabetes medication because it may cause a decrease in blood sugar.
- **Ginseng:** Used to help reduce stress, boost energy and improve stamina, and may help lower cholesterol. Can cause nervousness and excitation, and overuse can lead to headaches, insomnia and heart palpitations. Ginseng can

also increase blood pressure. It should not be used if you are taking medication for high blood pressure or Coumadin.

- **Hawthorn:** claimed to be effective in helping reduce angina attacks by lowering blood pressure and cholesterol levels. It should not be taken with digoxin, a heart medication. The mix may lower heart rate too much.
- **Kava:** is used to treat anxiety, Insomnia, and nervousness. Do not take Kava if you have a history of liver problems. Also do not mix with antidepressants, sedatives, and do not mix Kava with alcohol.
- **Licorice:** used to treat coughs, cold and peptic ulcers. High doses can lead to increased blood pressure, water retention and potassium loss. Do not use with diuretics or digoxin because it could lead to further loss of potassium, essential for heart function.
- **Passionflower:** used for anxiety and restlessness. Do not mix with anticoagulants. Excessive dose may increase the risk of bleeding.
- **Red Clover:** used to boost energy and the immune system. Do not mix with anticoagulants. An herb containing coumarin; in large amounts may increase the risk of bleeding.
- **Saint John's wort:** a natural anti-depressant for mild to moderate depression. Do not take with other anti-depressants, HIV medications, oral contraceptives, some heart/blood thinning medications and Tamoxifen, a cancer drug.

- **Saw palmetto, Sabal, and Cabbage palm (Serenoa repens):**
used to treat benign prostatic and hyperplasia. Do not mix with Iron or Estrogens. The tannin content of herb may limit iron absorption, and it may potentially cause additive effects.
- **Turmeric, and Indian Saffron (Curcuma longa):** used to treat Dyspepsia. Should not be used with Antiplatelet agents, because herbs containing curcumin may potentiate antiplatelet activity.
- **Valerian:** A mild sedative with hypnotic effectives, used to promote sleep. Do not take with alcohol or Valium.

Herb-Drug Interactions

Anti-inflammatory (NSAIDS)	Avoid herbal medicines with known adverse gastrointestinal effects such as <i>Gossypol</i> , <i>Coffee Arabica</i> , <i>Cola</i> , and <i>UVA-URSL</i> . (Esp. Avoid <i>Alcohol</i>)!
Cycloporine Sandimmune	<i>Grapefruit juice</i> may cause increased cyclosporine levels. <i>St. John's wort</i> may decrease levels.
	Avoid internal consumption of <i>Aloe Vera</i> , which may irritate the large intestine and exert a strong purgative effect, leading to a decrease in serum potassium levels and potentiation of cardiac glycosides.

<p>Digoxin</p> <p>Lanoxin</p>	<p>Avoid herbs with digoxin-like substances, (e.g. <i>Yellow Foxglove</i>, <i>Eleutherococcus senticosus</i>, and <i>Siberian Ginseng</i>).</p> <p>Avoid use with the herb Licorice (not usually found in the candy), as its diuretic effect can result in low potassium levels and toxicity.</p> <p>Avoid taking Psyllium fiber, which decreases digoxin absorption within two hours of taking medication.</p> <p>Avoid <i>Hawthorn Berry</i>, which can potentiate digoxin action, since it acts synergistically. (It may decrease the necessity to take digoxin).</p> <p>Avoid <i>Siberian Ginseng</i>, as it increases digoxin levels or may interfere with digoxin assay.</p>
<p>Diuretics:</p> <p>Acetazolamide</p> <p>Thiazides</p>	<p>Avoid herbs with a diuretic effect such as <i>Artichoke</i>, <i>Goldenseal</i>, <i>Celery seeds</i>, and <i>Dandelion</i>.</p>
<p>Lithium</p>	<p>Avoid <i>Butcher's Broom</i>, <i>Bochu</i>, <i>Dandelion</i>, and <i>Juuniper</i>, which are diuretics that may enhance the effect of lithium and cause possible toxicity.</p>
<p>Thyroid Medication:</p>	<p><i>Horseradish</i> may depress thyroid function. <i>Kelp</i> contains iodine, which may result in excess</p>

Synthroid	thyroid levels when taken with thyroid replacement medication.
Hypoglycemic Agents: Glucotrol Glucophage DiaBeta Insulin	<p>Avoid <i>Buthcher's Broom, Buchu, Dandelion, and Juniper</i>, which are diuretics that may compromise hypoglycemic effects.</p> <p>Herbs containing hyper or hypoglycemic components may compromise or enhance hypoglycemic effects. (<i>Chromium, Vanadium, Magnesium, Gymnema Sylvestri, MSM</i> and the herb <i>Karela</i> may actually improve glucose tolerance, so they may reduce the need for medication).</p>
Warfarin Coumadin Sofarin	<p>Avoid herbs that decrease platelet aggregation (thin blood), since they may cause hemorrhage. They include <i>Cayenne, feverfew, Garlic, White Willow bark</i> (and <i>Aspirin</i>) and <i>St. John's wort, and Ginkgo Biloba</i>. If you take them regularly, may be your doctor can reduce your medication dosage.</p> <p>Avoid high doses of herbs such as <i>dark green leafy vegetables, Alfalfa, Dong Quai, Devil's claw, Danshen, and Green tea</i>, as they may decrease anticoagulant activity.</p> <p>(If you take these nutrients consistently, medication requirements may be reduced or</p>

increased).

Taking high doses of *Vitamin C* may result in lessened anticoagulant effect, as will high doses of *vitamin A* and *K*; and taking over 1000 IU of *Vitamin E* or the *papaya enzyme Papain* may result in increased bleeding.

Section 4

Quick Reference Guide to
Fibromyalgia Herbs

A Quick Reference to
Fibromyalgia Herbs and Its Uses



Black Cohosh

(Anti-inflammatory for muscles)



Burdock Root

(Soothe achy joints & remove toxin from the blood).



Boswellia

(Improves circulation and synovial fluid viscosity, etc.)



Calendula Officinalis

(Pain, antibacterial, anti-fungal, astringent, anti-inflammatory,

Immune stimulant,

etc.)



Cayenne

(Headaches, Chronic pain, improve blood circulation).



Celery Seeds

(Arthritis, gout, reduce Muscle spasms, inflammation, calm nerves, lower blood pressure and cholesterol).



Chamomile

(Improve sleep, nervine, swelling, antispasmodic, stomachic tonic)



Chickweeds

(Pain, laxative, etc)



Dandelion

(Dandelion is used for urinary disorders, edema associated with high blood pressure, joint complaints)...



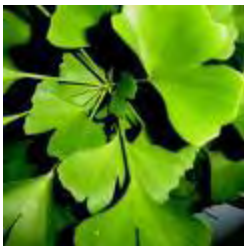
Devil's Claw

(Devil's claw is used for neck & back pain, tendonitis, fever, skin conditions)...



Echinacea (Microbial

infections (bacterial and viral)).



Ginkgo Biloba

(Blood circulation, Memory enhancement,
& antioxidant)



Ginseng

(Revitalizer for the
Whole body).



Goto Kola

(Anxiety, healthy skin,
high blood pressure)



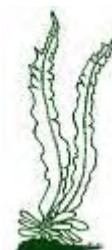
Griffonia Simplicifolia

(Produces 5-HTP in the
body, promote sleep,
& control appetite)



Horsetail

(Treats bone, joints, &
connective tissues, swelling,
treat bladder, kidney, and urinary



Kelp (Sea Weed)

(Regulates thyroid
function)...

tract infections)...



Licorice Root

(Anti-inflammatory)



Lomatium

(Antiviral)



Nettle

(A stimulating nutritive tonic)



Oatstraw

(Nerve nutritive,
antidepressant)



Olive leaf



Parsley

(Antiviral)

(Swellings)



Passionflower

(Insomnia, gastrointestinal complaints)



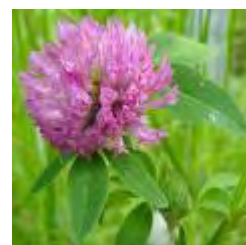
Poke Root

(Joint pain,
skin conditions)



Prickly-ash

(Stimulates circulation)



Red Clover

(Pain, etc.)



Rosemary

(Stimulates circulation, etc.)



Saffron

(Relaxes spasms)



Sage

(Relaxes spasms, anti-inflammatory, & anti-depressant)



Saint John's Wort

(Antiviral, depression)



Siberian Ginseng

(Energy and adrenal tonic)



Skullcap

(Anxiety, nervous
tension, & convulsion)



Suma Root (Adaptagen)



Turmeric (Anti-inflammatory)



Valerian (Used as a sedative, and good for anxiety)



Wood Betony (Relaxing, yet stimulating brain tonic)



Pine Tree Bark

Grape seed extract



Pine tree bark and Grape seed extract, both are antioxidants that can reduce inflammation and promote better immunity.

Cleansing herbs that can be used as part of a detoxification diet:

- Garlic - blood cleanser, lowers blood fats, natural antibiotic
- Red Clover - blood cleaner, good during convalescence and healing
- Echinaces - lymph cleanser, improves lymphocyte and phagocyte actions
- Dandelion - liver and blood cleanser, diuretic, filters toxins, a tonic
- Chaparral - strong blood cleanser, with possibilities for use in cancer therapy
- Cayenne pepper - blood purifier, increases fluid elimination and sweat
- Ginger Root - stimulates circulation and sweating
- Licorice Root - "great detoxifier", biochemical balancer, mild laxative
- Yellow dock root - skin, blood, and liver cleanser, contains vitamin C and iron

- Burdock Root - skin and blood cleanser, diuretic and diaphoretic, improves liver function, antibacterial and antifungal properties
- Sarsaparilla root - blood and lymph cleanser, contains saponins, which reduce microbes and toxins
- Prickly ash bark - good for nerves and joints, anti-infections
- Oregon grape root - skin and colon cleanser, blood purifier, liver stimulant
- Parsley leaf - diuretic, flushes kidneys
- Goldenseal - blood, liver, kidney, and skin cleanser, stimulates detoxification

Herbs Useful in Detoxification

Blood Cleansers

Echinacea

Red Clover

Dandelion

Burdock

Yellow dock

Oregon grape root

Laxative

Cascara sagrada

Buckthorn

Dandelion

Yellow dock

Rhubarb root

Senna leaf

Licorice Root

Diuretics

Parsley

Yarrow

Cleavers

Horsetail

Corn silk

Uva Ursi

Juniper berries

Skin Cleanser

Burdock Root

Oregon grape

Yellow dock

Goldenseal

Ginger Root

Antibiotics

Garlic

Myrrh Gum

Prickly ash

Wormwood

Echinacea

Elder flowers	Propolis
Peppermint	Clove Stems
Cayenne pepper	Eucalyptus

(Information on cleansing herbs and detoxification provided by Marc Leduc, 2002, from healingdaily.com).

(Note: The information provided in this study is not for the purpose of diagnosing. In case of a medical emergency or treatment for any medical condition, please consult with a licensed medical professional. As with any medication, a medical provider should be consulted before use).

According to Unschuld (1988, as cited by Dharmananda, S.) "Light herbs should be taken after meals, and heavy herbs before meals". The following was translated from the "Shoshi Baoyuan" (Achieving Longevity by Guarding the Source; 1616 A.D.) cited by Subhuti (2008), "When an illness is located in the upper part of the body, small pills are suitable. One should always take such pills after meals... When an illness is located in the lower part of the body, large pills are suitable. One should always take such pills before the meals"... Further, it was implied that "the idea that herbs of light nature rise up and treat symptoms in the upper body-they are taken after meals so that they are reflected upward by the mass of food in the center.. In contrast, heavy materials sink downward and they are taken before meals so that they can sink down unimpeded by mass of food and even be pushed down by the food"... (Go to <http://www.itmonline.org/arts/dosage.htm> for more information).

Chapter 5

DISCUSSION

Because fibromyalgia (FM) is a chronic condition characterized by widespread musculoskeletal pain. It can be said that fibromyalgia is a crippling disorder both to the mind and body. The symptoms of muscle and soft tissue pain, fatigue, sleep disturbance, and depression accompanied by headaches, stiffness, and dizziness can be stressful, especially when battling so many ailments at once. Thus, the current medical treatments (antidepressants, opioids, nonsteroidal anti-inflammatory drugs, sedatives, muscle relaxants, and antiepileptics) all have side effect or adverse reactions. Many of the treatment are ineffective or provide only temporary relief - the cause is unknown.

Because many doctors question the existence of fibromyalgia, whether it is a rheumatologic disease or a chronic pain disorder, many patients go untreated and suffer. Based on theory, Tocks, (2007) argued that, "The presumed legitimacy of the tender points concept of fibromyalgia seems to be the only factor from classifying it as a chronic pain syndrome", (Para. 2). In addition, based on a clinical study it is acknowledged that there is no recognized cure for fibromyalgia, but minimizing or eliminating fatigue and pain will improve the patient's quality of life. It is believed that the stems, roots, flowers, and leaves of herbs used to treat fibromyalgia contain chemical healing properties. Research demonstrated that

herbs are better and more effective than prescription drugs, and that many pharmaceutical medications are made from herbs.

Distinct from pharmaceutical drugs, herbs are used in its undiluted form, which carry chemical substances that enhance the immune system, restore sleep, relieve pain, and assist the body to heal itself. On the other hand, pharmaceutical drugs and other procedures effectively lessen pain, but do not help the other symptoms accompanied by the patients' main symptoms. It seems clear that most pharmaceutical drugs associated with fibromyalgia have adverse reaction or side effects. Herbs such as "Calendula", Vervain, and Burdock roots can alleviate the symptoms of fibromyalgia, just to mention a few.

However, some herbs are not safe, if not taken properly or if a false substance is purchased - mistaken for an herb - a person may have serious repercussions, or even may result in death. It is strongly advised that individuals always consult with their physician, before using alternative medicines (herbs). I restate that many herbs do not mix with other herbs or pharmaceutical medications. For instant, "Ginkgo inhibits the action of platelets in the blood, thus interfering with blood coagulation". A person should not use ginkgo if they are taking the blood thinner warfarin (Coumadin) or antiplatelet drug such as clopidogrel (Plavix). Ginkgo may also lower blood sugar; an individual should not use it if they are taking drugs for diabetes (Johns Hopkins, 2008).

Still, herbs if used properly can be effective for fibromyalgia and many other illnesses. According to Maul

(2008), "Herbs do not come with side effects pertinent with prescription drugs". Just to be on the safe side, "prior to going into the hospital for surgery, a person should stop the use of herbs because of the risk of hemorrhaging. Herbs may interfere with drugs commonly used before, during, and after surgery, including anesthetics" (Johns Hopkins, 2008).

By gathering past and current research, consulting with experts (herbalists) on the subject of fibromyalgia and herbs that may be used to treat the condition without side effects, it was discovered that there are many herbs that can treat the symptoms of fibromyalgia. Some of the herbs are Siberian Ginseng (for energy), Calendula (for pain & inflammation), and Passionflower (for sleep disturbance), just to mention a few. In addition, Mars (2008) acknowledged that there are other herbs that can be used to treat fibromyalgia, such as Black Cohosh, Boswellia, Cayenne, Celery seed, Dandelion root, Devil's claw and so forth.

Moreover, Morreim (2003), believed that, "there is only one kind of medicine - medicine that has been adequately tested. Any drugs or herbs that has not been proven by science to be safe and effective should be banned", (Pp. 222, 227). However, many herbalists believe that the natural compound found in herbs are better for our health opposed to pharmaceutical drugs, which confirms the hypothesis. In like manner, according to the (Herbal Supplement Guide, 2008), herbs are safer than prescription medications.

Summary

In sum, Fibromyalgia is a disease that subdues the body with chronic pain. Little is known about the disease and current medical treatments have not been effective. However, there are many effective herbal remedies that are used to treat the condition, but it must be used with caution, and the patient's physician must be notified, so that he or she can advise the patient of any possible drug interactions or side effects. Herbs are plants used since the beginning of time for medical purposes, and may be produced in the form of leaves, flowers, roots, and stems. Herbs are claimed to be healthy for the body because of its natural properties, and ability to make the body heal itself. Also, herbs may interact with other herbs and pharmaceutical medications.

Contribution

What I have contributed to this project is my personal knowledge from battling the condition of fibromyalgia for a period of nine years, my experience with pharmaceutical drugs, and recently my familiarity with herbs. Accompanied by a body of literature from various sources (experts opinions, & etc.), which aided in the study in an effort to help individuals who suffers with the chronic condition of fibromyalgia, especially those who are unaware of herbal remedies that can relieve their pain, sleep disturbance, fatigue, and other symptoms of fibromyalgia.

Resolution of the problem

This handbook will help individuals to gain a better understanding of fibromyalgia, access new knowledge of ways to treat the condition with out side effect or adverse reactions. In addition, it will provide helpful information for fibromyalgia patients who are not familiar with herbal remedies and think that herbs are just an "old wives tale".

Limitations

One drawback of the project is that it does not claim to cure fibromyalgia with herb. In addition, there is insufficient information on dosages, and timeframe for taking herbal remedies. Because there is a lack of information on the subject, and fibromyalgia seems to be a condition filled with medical mysteries, more research needs to be done to determine the cause of fibromyalgia, and to find a cure. Moreover, more research needs to be done on herbs to determine what herb works best together as a combination - tested on fibromyalgia patients.

Implications

The findings hold important implications for the treatment of fibromyalgia patients at a time when traditional medicines are ineffective or cause adverse reactions and side effects. Research confirmed the hypotheses. Herbalists, such as Dunne and Mars, The Herb Research Foundation and others, provided vital information on herbs that are good for treating

fibromyalgia and other ailments. They all agree that herbs are better for the human body rather than pharmaceutical drugs base on its natural, undiluted properties. In addition, research acknowledges that pharmaceutical drugs does cause side effects, adverse reactions, or is not effective at all.

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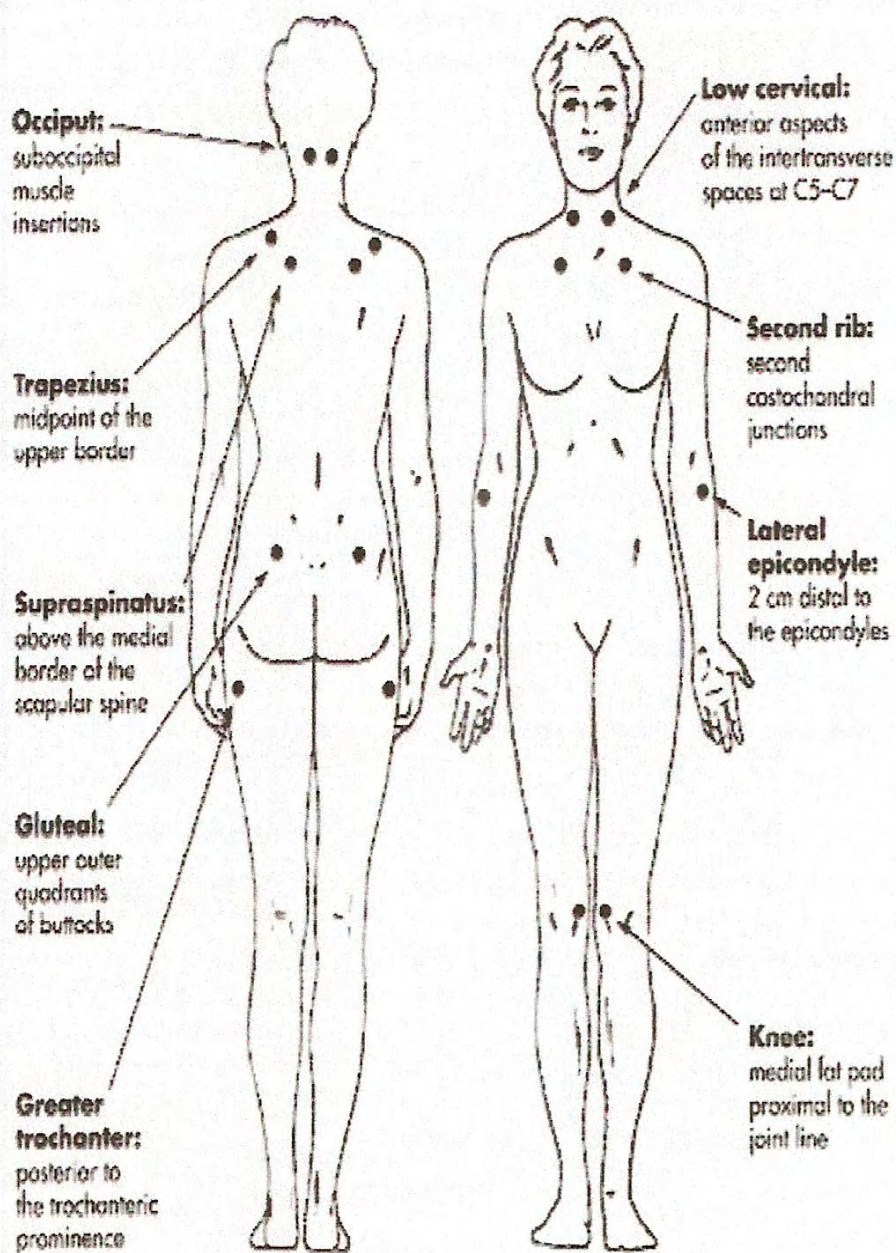
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APPENDIX A

Fibromyalgia Tender Points

The Fibromyalgia Tender Points



APPENDIX B

Other Common Conditions Associated
with Fibromyalgia

Other Common Conditions Associated with Fibromyalgia

There are certain widespread ailments that also appear to be linked with fibromyalgia. These conditions include:

Allergies	Hair loss
Irritability	Phobias
Lyme disease	Mood swing
Night cramps	Panic attacks
Photophobia	Bruxism
Chronic Rhinitis	Dizziness
Digestive disturbances	Dyslexia
Premenstrual Syndrome	
Recurrent bladder sensitivity or infections	
Recurrent viral infections	
Restless leg syndrome	
Short-term memory loss (Brain fog)	
Sleep apnea	
Easy bruising	

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¹ Rona, Zoltan, MD. American Journal of Natural Medicine. Vol. 5, NO 4, May 1998

APPENDIX C

Other Fibromyalgia Herbs

FIBROMYALGIA HERBS

Herbs used to treat fibromyalgia may help the many symptoms associated with this mysterious debilitating syndrome. Fibromyalgia affects millions of people, with a larger percentage of women being affected than men. Herbs for fibromyalgia can treat the affected muscle and tissues in the body as well as support the immune and hormone systems.

Other Fibromyalgia Herbs

The following are herbs that may aid in relieving the condition:

- Turmeric - contains the compound curcumin that is a powerful anti-inflammatory for treating muscle pain and swelling. It also contains powerful antioxidants that can ward off illness by ridding the body of dangerous toxins.
- Pine Bark - Reduces inflammation. Also can help with circulation.
- Milk Thistle - Supports the liver and aids in its regeneration thus improving the immune system and hormone production.
- Saw Palmetto - Can help men with urinary flow problems.

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² The information on this page was taken from the Herbal Supplements Guide and Fibromyalgia Hope Web Pages.

APPENDIX D

Other Important Nutrients to Treat Fibromyalgia

OTHER IMPORTANT NUTRIENTS TO TREAT FIBROMYALGIA

Omega - 3 Fatty Acids, especially those found in fish oil, can decrease inflammation and allergic response.

Magnesium - an important mineral for proper muscle and nerve function, as well as hundreds of different cell functions.

³ Herbal Supplements Guide [Electronic Version], Retrieved 06/08/2008.

APPENDIX E

Typical Herbal Dosages

TYPICAL HERBAL DOSAGES

Provision of dosage information does NOT constitute a recommendation or endorsement, but rather indicates the range of doses commonly used in herbal practice. Doses are given for single herb use and must be adjusted when using herbs in combinations. Doses may also vary according to the type and severity of the condition treated and the individual patient's conditions.

- *Tea*: Add 1 to 2 grams (1 to 2 tsp.) of dried flower heads to 1 cup of boiling water, steep for 5-10 minutes and strain. Drink two to three cups a day.
- *Tincture*: (1:9 in 20% alcohol): 2-4 ml per 1/4-1/2 cup of water.
- *Tincture*: (1:5 in 90% alcohol): 0.3-1.2 ml three times a daily.

All preparations must be protected from light, moisture and heat.

APPENDIX F

The Best Ways To Treat Fibromyalgia

The Best ways to Treat Fibromyalgia

According to the Herbal Supplements Guide (2008), it is recommended that herbs used to treat fibromyalgia be taken with minerals and nutrients, separately or together in one comprehensive formula:

1. Taking each fibromyalgia herb, mineral and nutrient separately could be costly, as you would have to buy many different supplements.
2. Mixing and matching herbs and nutrients on your own could be dangerous to your health.
3. Many herbs and nutrients working together can offer more therapeutic benefits, often better than a single herb on its own.
4. All nutrients have to be balanced perfectly in order to be optimally effective.

APPENDIX G

How To Use Herbs To Treat Fibromyalgia

How To Use Herbs To Treat Fibromyalgia

Steps

1. Brew a tea of dandelion, burdock root and red clover to enhance the body's immunity and clean the bloodstream. For best results, drink 4 to 6 cups daily. Alternatively, take 1 tbsp. of dandelion juice twice a day.
2. Apply a mixture of 1 part cayenne and 3 parts wintergreen oil topically. Cayenne contains capsaicin, a chemical that inhibits pain-causing neurotransmitters.
3. Use Echinacea and Astragalus to help with the function of the immune system.
4. Black walnut leaves or nuts will remove parasites within the body.
5. Favor ginger over aspirin for pain. Ginger is sold in 1,000 to 2,000 milligram capsules at health food stores. It can also be taken in tea form by taking 1 tsp. of ground ginger root steeping it in 8 ounces of hot water for 10 minutes.
6. Calendula, dried flower petal used as a tea is excellent for reversing the effects of fibromyalgia. Many alternative medicine practitioners recommend that fibromyalgia patients take calendula in high doses on a daily basis. Normally, 2 to 3 cups daily. (See Appendix D for instruction on typical herbal dosage on how to make the tea).

APPENDIX H

Tips and Warnings

Tips and Warning

According to eHow Health Editor (2008) on the subject "Treating Fibromyalgia Symptoms to Treat Herbs", it was pointed out that, "to ensure quality, buy herbs from a health food store or a trusted organic grower" (p.1).

A person should not replace the care of a physician with herbal remedies, especially when they are experiencing potentially life-threatening symptoms.

Some herbs may interact with prescription medications, causing undesired side effects.

To find out more about herbs consult the Mayoclinic.com, Herb Research Foundation.

APPENDIX I

Herbal Combination Formula

Herbal Combination Formula

Herbs used to treat fibromyalgia can sometime be combined with other herbs and nutrients for a more effective treatment for various conditions.

Ginkgo, bilberry hawthorn, with *B-vitamins* can improve memory and the ability to make decisions.

Black Cohosh, flaxseed, and *soy isoflavones* can help with menopausal symptoms if a person has low estrogen by balancing the hormones.

Saw Palmetto combined with *pumpkin seed oil* and *phytosterols* can be effective for treating prostate health.

Milk Thistle, Turmeric, and *Dandelion,* with *Reishi Mushroom* can support liver health.

Boswellia with *Safflower extract* can relieve pain without adverse effects. This is an alternative to the recently pulled Vioxx and other arthritis medications currently under investigation because of the long-term detrimental effects of Vioxx.

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⁵ Fibromyalgiahope.com. Com. Fibromyalgia Herbs - Relieve Symptoms Without Side Effects.

APPENDIX J

Recently Discovered Fibromyalgia Symptoms

Recently Discovered Fibromyalgia Symptoms

According to Bradford (2001), other symptoms of fibromyalgia include bursitis, softening of cartilage, constipation, diarrhea, vertigo, tinnitus, and sinus and thyroid problems. In addition, many of the symptoms reported were said to be aggravated by noise, lights, stress, posture and weather. Moreover, additional research showed that increased sensitivity to non-painful warmth over tender points and a tendency to increased sensitivity to non-painful cold.

Another study showed that fibromyalgia patients had a history of Raynaud's phenomenon (spasm of the finger arteries leading to whitening of the fingers), and dry mouth and eyes. The symptoms were suggested to be a systemic connective tissue disorder. Other symptoms are Environmental Chemical Sensitivity, Edema (fluid retention syndrome), and muscle weakness (Pp. 4, 5).

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⁶ Article from Townsend Letter for Doctors and Patients: Recent Progress in Clinical Applications and Research in Fibromyalgia - Part 1.