# Product Name: PMS Relief Herb Pac





**Descriptions:** PMS Relief Herb Pac comes in a 6 gram packet of highly concentrated dried herbal powder to be mixed in water and drink as a tea. Its primary purpose is for the relief of menstrual cramps, PMS, (Pre-Menstrual Syndrome) moodiness, irritability, backache, headache, breast tenderness and all the uncomfortable symptoms which accompany a woman's monthly menstrual cycle. One packet of PMS Relief Herb Pac can be taken the day before menstruation begins or at the onset for relief of uncomfortable symptoms. Most women use one packet per day although it is safe to use 3 packets a day if needed. Most women find an immediate reduction in symptoms (within 30 minutes) and many use only PMS Relief Herb Pac for 2 or 3 days a month. PMS Relief can also be taken mid-cycle for relief of moodiness, irritability and ovulation pain. **PMS Relief Herb Pac** efficacy is backed by studies published in peer-reviewed scientific journals. A partial list of published studies is included below.

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#### **Product Background:**

PMS and menstrual cramps are often referred to as primary dysmenorrhea. This is a common gynecological complaint for young girls and women of all menstruating age. The most common over-the-counter treatment is non-steroidal anti-inflammatory (NSAIDs), such as acetaminophen and ibuprofen or sodium naproxin commonly sold under various brand names. The failure rate of NSAID's is often 20-25%.

NSAID's also have considerable side-effects such as liver toxicity and GI upset. Many consumers prefer not to take an NSAID due to these side effects and often simply suffer each month with menstrual pain that often keeps them home from school and work.

Many consumers are seeking natural alternatives to conventional medicine. The research presented herein gives substantial proof that Chinese herbal medicine can play an important role in the reduction of symptoms for menstrual cramps and primary dysmenorrhea.

In the U.S., herbs are legally classified as dietary supplements. Although a few Western <u>single</u> herb remedies have been on the market for a number of years for symptom relief of menstrual cramps, the efficacy of these remedies has neither the historical nor scientific amount of data which backs the efficacy of Chinese herbs used in formula combinations.

Chinese herbs are always used in a combination to create a formula to maximize therapeutic effect and minimize side effects. **Pac Herbs PMS Relief Herb Pac** has the right high quality herbal blend, sophisticated pharmaceutical processing <u>and</u> innovative packaging. All of these combine to create a product that is evidence based and highly effective.

### **Ingredients of PMS Relief Herb Pac**

Bupleurum – Chai Hu
White Peony – Bai Shao
Ligusticum - Chuan Xiong
Angelicae - Dang Gui
Achyranthes - Niu Xi
Red Peony - Chi Shao
Baked Licorice – Zhi Gan Cao
Peach Kernel - Tao Ren
Carthamus - Hong Hua
Mugwort - Ai Ye
Moutan - Mu Dan Pi
Corydalis - Yan Hu Suo

Dipsacus - Xu Duan

Below please find a list of recent published studies on the chemical constituents in these Chinese herbs. The evidence for primary dysmenorrhea is overwhelmingly supported by studies by organizations such as the Internationally renowned Cochrane Library and peer reviewed studies published around the world.

### Unique Packaging & State of the Art Manufacturing

Our manufacturer KPC (Kaiser Pharmaceutical Company in Taiwan) is a world leader in Chinese herbal extracts. Now over 60 years old and with sales of products throughout Asia, Australia, Japan, Canada the EU and the U.S. Kaiser has strict controls to insure purity standards are met. Tests for pesticide residues, heavy metals, and microbiologic organisms insure any possible contaminants are minimized and remain within safe and acceptable limits as specified by international standards. Marker chemicals which identify each herbal medicinal are verified with Thin Layer Chromatography (TLC) and High Pressure Liquid Chromatography

(HPLC). These testing methods are also employed to measure active chemical constituents both before and after herb processing is completed.

Chinese herbs are always used in a combination to create a formula to maximize therapeutic effect. Each herb in the Pac Herbs formulas has its own medicinal qualities, which are either enhanced when used in combination with other herbs. The active ingredients of Chinese herbs are often the root and bark, stem of plants. In order to extract the active ingredients, the herbs are boiled in water, under precise temperature controls. Our herbs, in packets of granules have shown to have superior absorption due to the lack of fillers, binders and other excipients commonly used in capsules and tablets. In addition, drinking a water based solution of herbs has shown faster absorption and thus bioavailability.

### **Origin of Traditional Chinese Medicine?**

Traditional Chinese herbal medicine has been used continuously for over 2000 years. The traditional method of cooking botanicals in a water based decoction has proven 2000 years later in scientific studies to provide the fastest route of absorption for the abundant phyto-chemicals in these medicinal botanicals. The attached studies prove the medicine is evidence based and can be used successfully for menstrual cramps and other painful symptoms. Unfortunately, this is not a complete collection of evidence, a only a small sampling of what is available in the English databases. Much more evidence is available in Mandarin.

### **Dosage Matters**

Herb granules in places like Japan and Taiwan have been used for decades and have made a major impact on their healthcare systems. Safety controls during manufacturing and traceability of granule batches allow for uniform consistency that is difficult to match with other forms of herbs, such as raw herbs. This makes granules ideal for research studies since each batch must conform to traceable concentration standards

Our herb granules are highly concentrated in the cooking and drying process. Each packet contains 6 grams of herbal extract yet this extract is cooked at a ratio of approximately 5:1, this means our 6 gram extract has the equivalent of taking 30 grams of raw herbs. A standard daily adult dose as regulated by the Taiwanese and Chinese governments is anywhere from 18-30 grams raw herbs, depending on the formula. As you can see, our dosage is on the high side and this potency level insures a superior effect.

### A brief synopsis of Chinese Herbal Medicine in Japan

Kampo Medicine was developed in Japan about 1400 AD. It is an accumulation and systemized database of herbal formulas from Traditional Chinese Medicine. Kampo literally means "Kan Method", another name for the Han Dynasty in China where many of the formulas originated, and "Ho or Po" meaning "way of treatment" referring to the herbal system of China that developed during the Han Dynasty.

Kampo's collection of important herb formulas are prepared in accordance with traditional Chinese herbal medicine. One of the most important formulas is Xue Fu Zhu Yu Tang or "Drive Out Stasis in the Mansion of Blood Decoction", contains the same herbs in PMS Relief Herb Pac. In 1976 this formula, (and others) were given formal recognition by the Japanese Department of Pharmaceutical Affairs of the Ministry of Health and Welfare and they became part by the Japanese National Health insurance program. In addition, the herbal formula was approved for use in medical facilities. The formula is prepared in factories under strict conditions. Only about 80 Chinese herbal formulas are frequently prescribed in Japan, of the approximately 148 that are covered by national insurance. Kampo herbal formulas are widely used throughout Europe, Canada, Australia and Asia. The convenience of dried extracts make the formulas convenient to use. The merits of Chinese herbal medicine in granules, from pharmaceutical grade factories like ours is quickly becoming the most popular delivery method because of quality control standards, dependable potency levels and ease of use.

## Studies published on the Kampo formula - Xue Fu Zhu Yu Tang, the same herbs as **PMS Relief Herb Pac**

Study #1. Clinical efficacy of Kampo medicine (Japanese traditional herbal medicine) in the treatment of primary dysmenorrhea. Oya A, Oikawa T, Nakai A, Takeshita T, Hanawa T. Published in: J Obstet Gynaecol Res. 2008 Oct; 34(5):898-908.

Department of Obstetrics and Gynecology, Nippon Medical School, Kitasato

OBJECTIVE: We intended to evaluate the clinical efficacy of Xue Fu Zhu Yu Tang Kampo medicine, a Japanese traditional herbal medicine, for primary dysmenorrhea which was prescribed according to the Kampo diagnosis, with classification of its severity.

METHOD: A retrospective evaluation of Kampo treatment in 176 subjects with dysmenorrhea during the previous 12 years was performed. In order to minimize the subjective discretion of the severity of symptoms, classification of the severity level of abdominal pain during menstruation was applied by considering the requirement for non-steroidal anti-inflammatory drugs (NSAIDs) and disturbance of daily activities. The following severity levels were used: no abdominal pain (level 0), abdominal pain with no requirement of NSAIDs (level 1), abdominal pain with no daily activity disturbances with use of NSAIDs (level 2), and painful menstruation which required absenteeism even with use of NSAIDs (level 3).

CONCLUSION: Kampo medicine prescribed according to Kampo diagnosis reduced the severity of primary dysmenorrhea and is therefore suggested to be beneficial in improving quality of life.

### 2. <u>Traditional Chinese medicine and Kampo: a review from the distant past for the future</u>

Yu F, Takahashi T, Moriya J, Kawaura K, Yamakawa J, Kusaka K, Itoh T, Morimoto S, Yamaguchi N, Kanda T. J Int Med Res. 2006 May-Jun;34(3):231-9

Department of General Medicine, Kanazawa Medical University, Ishikawa, Japan.

Abstract: Traditional Chinese medicine (TCM) is a complete system of healing that developed in China about 3000 years ago, and includes herbal medicine, acupuncture, moxibustion and massage, etc. In recent decades the use of TCM has become more popular in China and throughout the world. Traditional Japanese medicine has been used for 1500 years and includes Kampo-yaku (herbal medicine), acupuncture and acupressure. Kampo is now widely practised in Japan and is fully integrated into the modern health-care system. Kampo is based on TCM but has been adapted to Japanese culture. In this paper we review the history and characteristics of TCM and traditional Japanese medicine, i.e. the selection of traditional Chinese herbal medicine treatments based on differential diagnosis, and treatment formulations specific for the 'Sho' (the patient's symptoms at a given moment) of Japanese Kampo--and look at the prospects for these forms of medicine.

3. Cochrane Database Syst Rev. 2001; (3):CD002124.

# Herbal and dietary therapies for primary and secondary dysmenorrhoea

<u>Proctor ML</u>, <u>Murphy PA</u>. Department of Obstetrics and Gynaecology, National Women's Hospital, Claude Road, Epsom, Auckland, New Zealand, 1003. ml.wilson@auckland.ac.nz

Abstract: Dysmenorrhoea refers to the occurrence of painful menstrual cramps of uterine origin.

OBJECTIVES: To determine the efficacy and safety of herbal and dietary therapies for the treatment of primary and secondary dysmenorrhoea when compared to each other, placebo, no treatment or other conventional treatments (e.g. NSAIDS).

SEARCH STRATEGY: Electronic searches of the Cochrane Menstrual Disorders and Subfertility Group Register of controlled trials, CCTR, MEDLINE, EMBASE, CINAHL, Bio extracts, and PsycLIT were performed to identify relevant randomised controlled trials (RCTs). The Cochrane Complementary Medicine

Field's Register of controlled trials (CISCOM) was also searched. Attempts were also made to identify trials from the National Research Register, the Clinical Trial Register and the citation lists of review articles and included trials. In most cases, the first or corresponding author of each included trial was contacted for additional information.

SELECTION CRITERIA: The inclusion criteria were RCTs of herbal or dietary therapies as treatment for primary or secondary dysmenorrhoea vs each other, placebo, no treatment or conventional treatment. Interventions could include, but were not limited to, the following; vitamins, essential minerals, proteins, herbs, and fatty acids. Exclusion criteria were: mild or infrequent dysmenorrhoea or dysmenorrhoea from an IUD.

DATA COLLECTION AND ANALYSIS: Seven trials were included in the review. Quality assessment and data extraction were performed independently by two reviewers. The main outcomes were pain intensity or pain relief and the number of adverse effects. Data on absence from work and the use of additional medication was also collected if available.

JAPANESE HERBAL COMBINATION: One small trial showed the herbal combination to be more effective for pain relief than placebo, and less additional pain medication was taken by the treatment group.

### 4. Herbs of Special Interest To Women Hardy ML.

J Am Pharm Assoc (Wash). 2000 Mar-Apr; 40(2): 234-42; quiz 327-9

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OBJECTIVE: To review the efficacy and safety of specific herbal medications that have been used traditionally to treat common conditions in women.

DATA SYNTHESIS: Herbal medicines have long been used in traditional healing systems to treat conditions of particular interest to women, such as premenstrual syndrome (PMS) and menopausal symptoms. For a select number of phytomedicines, including evening primrose oil, black cohosh root extract, dong quai, and chaste tree berry, scientific investigation is elucidating the pharmacologically active constituents, mechanism of action, and clinical value.

CONCLUSION: Based on the available evidence, evening primrose oil and chaste tree berry may be reasonable treatment alternatives for some patients with PMS. **Dong quai may have some efficacy for PMS when used in traditional Chinese multiple-herb formulas**. For relief of menopausal symptoms, black cohosh root extract and dong quai have good safety profiles, but only black cohosh has demonstrated efficacy for this indication.

### 5. Analgesic effect of a herbal medicine for treatment of primary dysmenorrhea--a double-blind study.

Am J Chin Med. 1997;25(2):205-12. Kotani N, Oyama T, Sakai I, Hashimoto H, Muraoka M, Ogawa Y, Matsuki A.

Department of Anesthesiology, University of Hirosaki School of Medicine, Japan.

We evaluated the analgesic effect of Toki-shakuyaku-san (TSS) also known (Dang gui ,Shao-Yao-San) in women who had a combination of "deficiency," of "Yin," "cold," and "stagnated blood" syndromes, and were suffering from dysmenorrhea. We treated patients with either TSS or placebo during 2 menstrual cycles with a double-blind technique, and we followed them for 2 additional cycles. A significant alleviation of dysmenorrhea was observed in patients treated with TSS as compared to those treated with placebo. Our results suggest that TSS is effective for treatment of dysmenorrhea in patients with the above-mentioned conditions. <u>Journal of Ethnopharmacology Volume 71, Issues 1-2</u>, July 2000, Pages 133-143

### **6.** Cochrane Database Syst Rev. 2007 Oct 17;(4):CD005288.

### Chinese Herbal Medicine for Primary Dysmenorrhoea

Zhu X, Proctor M, Bensoussan A, Smith CA, Wu E. Chinese Medicine Program, University of Western Sydney, Center for Complementary Medicine Research, Bldg 3, Bankstown Campus, Locked Bag 1797, Penrith South DC, Sydney, New South Wales, Australia, 2750.

x.zhu@uws.edu.au Update in: Cochrane Database Syst Rev. 2008;(2):CD005288.

OBJECTIVES: To determine the efficacy and safety of CHM for PD when compared with placebo, no treatment, and other treatment.

SELECTION CRITERIA: Any randomized controlled trials (RCTs) involving CHM versus placebo, no treatment, conventional therapy, heat compression, another type of CHM, acupuncture or massage. Exclusion criteria were identifiable pelvic pathology and dysmenorrhea resulting from the use of an intra-uterine contraceptive device (IUD).

MAIN RESULTS: Thirty-nine RCTs involving a total of 3475 women were included in the review. CHM also resulted in better pain relief than acupuncture and heat compression.

**AUTHORS' CONCLUSIONS:** The review found promising evidence supporting the use of CHM for primary dysmenorrhea.

#### 7. Chinese Herbal Medicine For Endometriosis

Flower A, Liu JP, Chen S, Lewith G, Little P. - Cochrane Database Syst Rev. 2009 Jul 8;(3):CD006568. PMID: 19588398 [PubMed - indexed for MEDLINE]

Complementary Medicine Research Unit, Dept Primary Medical Care, Southampton University, Norlington Gate Farmhouse, Norlington Lane, Ringmer, Sussex, UK, BN8 5SG.

Abstract: In China, treatment of endometriosis using Chinese herbal medicine (CHM) is routine and considerable research into the role of CHM in alleviating pain, promoting fertility, and preventing relapse has taken place.

OBJECTIVES: To review the effectiveness and safety of CHM in alleviating endometriosis-related pain and infertility.

MAIN RESULTS: Two Chinese RCTs involving 158 women were included in this review. CHM administered orally and then in conjunction with a herbal enema resulted in a greater proportion of women obtaining symptomatic relief than with danazol (RR 5.06, 95% CI 1.28 to 20.05; RR 5.63, 95% CI 1.47 to 21.54, respectively). Overall, 100% of women in all the groups showed some improvement in their symptoms. Oral plus enema administration of CHM showed a greater reduction in average dysmenorrhoea pain scores than did danazol (mean difference (MD) -2.90, 95% CI -4.55 to -1.25; P < 0.01). Combined oral and enema administration of CHM showed a greater improvement, measured as the disappearance or shrinkage of adnexal masses, than with danazol (RR 1.70, 95% CI 1.04 to 2.78). For lumbosacral pain, rectal discomfort, or vaginal nodules tenderness, there was no significant difference either between CHM and danazol.

AUTHORS' CONCLUSIONS: Post-surgical administration of CHM may have comparable benefits to gestrinone but with fewer side effects. Oral CHM may have a better overall treatment effect than danazol; it may be more effective in relieving dysmenorrhea and shrinking adnexal masses when used in conjunction with a CHM enema.

**8.** Sakamoto, S., Kudo, H., Suzuki, S., Sassa, S., Yoshimura, S., Nakayama, T., Maemura, M., Mitamura, T., Qi, Z., Liu, X. D., Yagishita, Y., and Asai, A. Pharmacotherapeutic effects of tokishakuyaku-san on leukorrhagia in young women. Am J Chin Med 1996;24(2):165-168.

Menstrual/ovulation effects: In a case series trial with 20 young Japanese women, Toki-shakuyaku-san, a traditional Chinese herbal prescription (consisting of peony root, atractylodes lancea rhizome, alisma rhizome, hoelen, cnidium rhizome, and Japanese angelica root) has been shown to improve irregular menstrual cycles, improve intermenstrual bleeding, reduce leukorrhagia, improve pseudo-erosion of the cervix, improve low luteal phase basal body temperature, and improve low plasma progesterone levels.

**9.** Gepshtein Y, Plotnikoff GA, Watanabe K. Kampo in Women's Health: Japan's Traditional Approach to Premenstrual Symptoms. J Altern Complement Med. 2008 May 8.

### **White Peony**

Peony is one of 23 medicinal substances that have been classified according to The Doctrine of Signatures, which has been traced back to the medical and pharmacological literature during the Middle Ages and then to 16<sup>th</sup> and 17<sup>th</sup> Century Europe where it was developed further. White Peony root has been used in connection with the following conditions; muscle cramps, fever, atherosclerosis, polycystic ovary syndrome and PMS. It has been an important remedy for female reproductive conditions ranging from dysmenorrhea (painful menstruation) to irregular menses. Studies show the major effect of white peony is to calm nerves and alleviate spasms. Peony contains a unique glycoside called paeoniflorin. Proanthocyanidins, flavonoids, tannins, polysaccharides, and paeoniflorin are all considered to contribute to the medicinal activity. Peony shows some weak estrogen-like effects, acting like a very weak anti-estrogen, particularly as part of a formula.

### 10. Studies on the use of Peony Root in Menstrual Irregularities

Sakamoto, S., Yoshino, H., Shirahata, Y., Shimodairo, K., and Okamoto, R. Pharmacotherapeutic effects of kuei-chih-fu-ling-wan (keishi-bukuryo-gan) on human uterine myomas. Am J Chin Med 1992; 20(3-4): 313-317.

**Summary**: According to herbal texts, peony root has been used to treat menstrual irregularities and amenorrhea, which suggests that it may have hormonal effects. Both *in vitro* and human clinical trials with traditional Chinese and Japanese herbal formulas containing peony have also suggested various hormonal effects in both pre and postmenopausal women.

**Evidence**: Sakamoto et al. conducted a case series trial with 20 young Japanese women to investigate the effect of Toki-shakuyaku-san, a traditional Chinese herbal prescription (consisting of peony root, *atractylodes lancea* rhizome, alisma rhizome, hoelen, cnidium rhizome, and <u>Japanese angelica</u> root), in the treatment of irregular menstrual cycles, intermenstrual bleeding, leukorrhagia, pseudo-erosion of the cervix, low luteal phase basal body temperature, and low plasma progesterone. Results showed that irregular menstrual cycles improved in 17 out of 20 subjects (85%), intermenstrual bleeding improved in nine out of 12 subjects, short and/or low luteal phase basal body temperature improved in 17 out of 20 subjects (85%), pseudo-erosion of the cervix improved moderately in all 20 cases.

**11.** Dang-Gui-Shao-Yao-San (DGSYS) is a mixture of medicinal herbs used in traditional Chinese medicine for the treatment of ovulatory disorders and anemia. The formula consists of *Angelica sinensis*, *Ligustucum chuanxiong* Hort, *Paeonia lactiflora* Pall., *Poria cocos* (Schw.) Wolf, *Atractylodis macrocephala* Koidz, and *Alisma orientalis* (Sam.) Juzep. The antioxidant actions of DGSYS have demonstrated beneficial cytoprotective effects against lipid peroxidation in three *in vitro* models: 1) rat liver homogenate, 2) human platelet aggregation induced by arachidonic acid (AA) and adenosine diphosphate (ADP), and 3) mitomycin C-mediated hemolysis in human erythrocytes.

Shen, A. Y., Wang, T. S., Huang, M. H., Liao, C. H., Chen, S. J., and Lin, C. C. Antioxidant and antiplatelet effects of dang-gui-shao-yao-san on human blood cells. Am J Chin Med 2005; 33(5):747-758.

**12.** Uterine fibroid reduction effects: A traditional Chinese herbal remedy (bark of *Cinnamomum cassia* Bl. (Lauraceae), root of *Paeonia lactiflora* Pall. (Paeoniaceae), seed of *Prunus persica* Batsch. or *P. persiba* Batsch.var.davidiana Maxim. (Rosaceae), carpophores of *Poria cocos* Wolf. (Polyporaceae), and root bark of *Paeonia suffruticosa* Andr. (Paeoniaceae)) was shown to reduce the size of uterine myomas in 110 premenopausal women (27-52 years old)

- **13.** Miller-Martini, D. M., Chan, R. Y., Ip, N. Y., Sheu, S. J., and Wong, Y. H. **A** reporter gene assay for the detection of phytoestrogens in traditional Chinese medicine. Phytother Res 2001;15(6):487-492.
- **14.** Kang, D. G., Moon, M. K., Choi, D. H., Lee, J. K., Kwon, T. O., and Lee, H. S. **Vasodilatory and anti-inflammatory effects of the 1,2,3,4,6-penta-O-galloyl-beta-D-glucose (PGG) via a nitric oxide-cGMP pathway**. Eur J Pharmacol 11-7-2005;524(1-3):111-119

**Vasodilatory effects**: Kang et al. investigated the vasorelaxant and anti-inflammatory effects and possible mechanisms of action of 1,2,3,4,6-penta-O-galloyl-beta-d-glucose (PGG) isolated from the root bark of *Paeonia suffruticosa* .......These results may suggest that PGG dilates vascular smooth muscle and suppresses the vascular inflammatory process via endothelium-dependent nitric oxide (NO)/cGMP signaling.

### Studies on Corydalis/Yan Hu Suo – an herb in PMS Relief Herb Pac

Many clinical studies have been conducted on this medicinal root. Corydalis has been used extensively in the treatment of coronary artery disorder because of its strong function to move blood and energy. In Traditional Chinese Medicine, pain is the symptom that manifests when energy is stagnate. Corydalis is one of the most effective herbs to relieve pain because of its ability to move the energy or qi. It's been used in gynecological conditions extensively and is often combined with other medicinal herbs in this formula for pain related to menstruation.

**15.** Huang, X. N., Liu, G. X., and Zhang, Y. [Tranquillizing effects of total alkaloids of Corydalis saxicola (author's transl)]. Zhongguo Yao Li Xue.Bao. 1981;2(3):156-159.

According to patient self-reports from clinical study, *Corydalis yanhusuo* and *Angelicae dahuricae* significantly decreased cold-induced pain intensity and the level at which pain was considered bothersome a dose-related analgesic effect was also observed. According to human *in vitro* study, alkaloids from *Corydalis* dependently inhibited K(ATP) channel current.

Alkaloids derived from *Corydalis saxicola*, as well as Tetrahydropalmatine (THP) and its analogues (all of which are derived from *Corydalis ambigua* and various species of *Stephania*), have demonstrated tranquilizing and hypnotic effects and therefore may interact with or augment the effects of sedative medications.

- **16.** Yuan, C. S., Mehendale, S. R., Wang, C. Z., Aung, H. H., Jiang, T., Guan, X., and Shoyama, Y. **Effects of Corydalis yanhusuo and Angelicae dahuricae on cold pressor-induced pain in humans**: a controlled trial. J.Clin.Pharmacol.
- **17.** Zhu, X. Z. **Development of natural products as drugs acting on central nervous system.** Mem.Inst.Oswaldo Cruz 1991;86 Suppl 2:173-175.

#### Studies on Dang Gui/dong quai an herb in PMS Relief

### **DANG GUI- Angelicae**

Dang-gui in Traditional Chinese Medicine (TCM), is sometimes referred to as the female ginseng. It is often included in herbal combinations, almost never used alone, for abnormal menstruation, suppressed menstrual flow, painful menstruation and uterine bleeding. It is also used in TCM for both men and women with cardiovascular disease, including high blood pressure and problems with peripheral circulation. Dang Gui is believed to have an adaptogenic effect on the female hormonal system.

- **18.** Fei GR, Fu YH, and Wen L. Fifty nine cases of chronic pelvic inflammation treated by traditional Chinese medicine and Western medicine. Journal of Guiyang College of Traditional Chinese Medicine 1997;19(1):45.
- **19.** Gundling K and Ernst E. Herbal medicines: influences on blood coagulation. Perfusion 2001;14:336-342.
- **20.** Harada, M., Suzuki, M., and Ozaki, Y. Effect of Japanese Angelica root and peony root on uterine contraction in the rabbit in situ. J Pharmacobiodyn. 1984; 7(5): 304-311.
- **21.** Johns J. What is dong quai and what health problems can it help relieve? Nebr Mortar Pestle 1996; 59:18.
- **22.** Johnston B. Califonia hospital study of dong quai. HerbalGram 1996; (38): 23

### Misc. Studies Supporting PMS Relief Herb Pac

- **23.** Blumenthal M, Gruenwald J, Hall T, et al (eds). <u>The Complete German Commission E Monographs: Therapeutic Guide to Herbal Medicines</u>. Boston, MA, Itegrative Medicine Communications, 1998.
- **24.** Chang HM, But PP. <u>Pharmacology and applications of Chinese material</u> medica, vol 1. World Scientific, Singapore, 1987; pp 489-505
- **25.** Goh SY, Koh KC. **Gynaecomastia and the herbal tonic "dong quai"**. Singapore Med J 2001;42:115-6.

