LESSON 9: Herbs that Regulate Blood

In general there are three pathologies that may affect the blood according to TCM theory: blood deficiency, blood stagnation and bleeding. In this lesson we will be looking at herbs that regulate the blood to stop bleeding and treat blood stagnation. Herbs to treat blood deficiency are addressed in Lesson 10 Tonifying herbs.

Regulating the blood implies restoring balance to the state of blood. Blood is without balance when there is excess or deficiency, heat or cold, yin deficiency or yang excess, and when blood moves externally from its internal state.

Herbs that stop Bleeding

The definition of bleeding is simply “blood that has left its normal passages”. Bleeding is considered pathogenic when it is present with symptoms such as: vomiting blood, coughing blood, nosebleeds, blood in the stool or urine, menstruation that is excessive or outside of a regular cycle, and bleeding that is associated with trauma. These types of bleeding may be caused by blood moving recklessly due to heat, excess yang, deficient yin, blood stagnation, qi stagnation, or qi deficiency. When treating bleeding, it is important to use the herbs to 'stop bleeding' in conjunction with herbs that treat the root cause of the problem (i.e. herbs that cool the blood, tonify yin or qi, or invigorate the blood).

Herbs that stop bleeding are:
• Pu Huang - Typha angustifolia
• Xian he cao - Agrimonia pilosa
• San qi - Panax notoginseng
• Ai ye - Artemisia argyi

Of these herbs Pu Huang and San qi may be used when blood stasis is present, Pu Huang is better for blood in the urine and San qi generally speaking is the stronger of the two. Xian he cao is astringent and helps to stop bleeding in this way. Ai ye is warming and used when the cause of bleeding is due to cold and deficient yang.

Herbs that Invigorate the Blood

When the circulation of blood is prevented it becomes stagnant, a pathological state. This disruption of flow is caused by several factors such as: a deficiency of qi which is unable to circulate the blood, qi stagnation preventing circulation, cold coagulating the blood, and blood heat...
preventing free flow. Whenever the blood is stagnant it is necessary to invigorate it and harmonize its movement.

Blood stagnation is associated with pain that is stabbing, often worse at night and there may be visual bruising or dark distended vessels. Abscesses and ulcers are also associated with stagnation of qi and blood. Additionally, it is important to recall pain that is associated with qi stagnant has subjective sensation but no objective palpability, when qi stagnation affects the blood to the point of stagnation there will be an actual palpable mass. Masses may be mobile or not, both may be treated by these herbs but special consideration must be given to the possibility of cancerous tumors. Blood stagnation will give rise to bleeding and therefore care in selecting herbs that invigorate blood and stop bleeding should be chosen.

Herbs that invigorate the blood are:

- Chuan xiong - *Ligusticum chuanxiong*
- Dan shen - *Salvia miltiorrhiza*
- Yi mu cao - *Leonurus heterophyllus*
- Chi shao - *Paeonia veitchii*
- Tao ren - *Prunus persica*
- Hong hua - *Carthamus tinctorius*
- Niu xi - *Achyranthes bidentata*

Chuan xiong is effective for blood stasis associated with the liver meridian and stagnation of qi; Chi shao is also effective in this regard though not as strong. Dan shen, yi mu cao, Tao ren, Hong hua and Niu xi are all indicated for stagnation of blood that affects menstruation. Niu xi is tonifying to the kidneys and also acts as an envoy to move herbs downward, making it useful for stagnation associated with deficiency and trauma at the low back and legs.

Hong hua and tao ren are most commonly used for all types of blood stagnation, they are synergistic herbs and are seen together in many formulas.

Though not discussed in this section, other useful herbs for blood stagnation are: curcuma (turmeric), frankincense, myrrh and wingless cockroaches.
Pu Huang *Typha angustifolia*  

**Other names:** cattail pollen, bulrush, typha pollen, hoo (Japanese), pohwang (Korean), *Typha orientalis*

**Plant description:** Good quality is yellow and shiny.

**Part used:** Pollen

**Habitat, ecology and distribution:** Jiangsu, Zhejiang, Shangdong, Anhui, Hubei, harvested in summer from blooming flowers

**History:** Divine Husbandman's Classic of Materia Medica

**Constituents:** *Pollen typhae augustatae* - isorhamnetin, pentacosane, al phasitosterol, palmitic acid, alpha-typhasterol

**Energetics Properties and Channels Entered:** sweet, pungent and neutral entering the liver, heart and spleen meridians

**Actions and Indications:** anti-hypertensive, smooth muscle stimulant, hemostatic

**Medical Research:**
- Water or alcohol preparations of pu huang (*Pollen Typhae*) given orally to rabbits reduced bleeding time and thrombin time, and increased platelet count.
- Preparations of pu huang stimulated the uterus in animal experiments. The effect was more pronounced on non-pregnant uteri, and was especially strong post partum.
- Large doses of decoctions or alcohol extractions of pu huang (*Pollen Typhae*) lowered blood pressure in cats and dogs. This effect was countered by atropine. Large doses had a negative inotropic effect, while small doses stimulated the hearts of frogs. No significant effect was noted in dogs given large doses of the herb.
- Preparations of pu huang increased peristalsis in rabbit intestine specimens. This action was inhibited by atropine.1
- This herb has recently been used in treating angina pectoris.2

**Toxicity, Contraindications and cautions:** use with caution during pregnancy, especially the unprepared form (raw) as it may cause uterine contractions.

**Medicinal uses:**
- Stops bleeding: for external bleeding associated with traumatic injury, and various forms of internal bleeding such as: uterine bleeding, vomiting blood, nosebleed, coughing of blood, blood in the urine, blood in the stool, or subcutaneous bleeding.
This herb has an astringent nature and is quite effective in stopping bleeding. Can be used for bleeding due to heat or cold due to its neutral nature.

- Invigorates the blood and dispels blood stasis: for chest pain, post partum abdominal pain, and menstrual pain due to blood stasis

**Pharmacy and dosage:** 4.5-12g, use raw to dispel blood stasis, toasted to stop bleeding. Usually decocted alone, or if added to a decoction wrap in cheesecloth.

**Major Combinations:**
- With xiao ji (*Herba Cephalanoplos*) for bloody urine associated with painful urinary dysfunction due to damp heat in the bladder.
- With pao jiang (quick fried *Rhizoma Zingiberis Officinalis*) for abdominal pain and distention associated with lochioschesis. This combination is also used for chronic bloody stools due to cold from deficiency of spleen and kidneys.
- With wu ling zhi (*Excrementum Trogopteri seu Pteroni*) for chest and abdominal pain due to blood stasis, especially when associated with menstrual irregularity and lochioschesis.
- With hai piao xiao (*Os Sepiae seu Sepiellae*) as a topically applied powder for external bleeding resulting from traumatic injury.
- With honey as a topically applied powder for pain and swelling associated with sores.

**REFERENCES**
1 Bensky, D. and Gamble, A.; Chinese Herbal Medicine Materia Medica; Eastland Press, Seattle; 1993; p250
2 Bensky, D. and Gamble, A.; Chinese Herbal Medicine Materia Medica; Eastland Press, Seattle; 1993; p250
Image scarfamilyditdajow.com
Xian He Cao *Agrimonia pilosa*  
仙艶草  

**Other names:** tuo li cao, agrimony, long ya cao  

**Plant description:** Good quality has purple red stems and well shaped leaves.  

**Part used:** stems and leaves  

**Habitat, ecology and distribution:** throughout China, harvested in summer and autumn when the stems and leaves are at their height, but before the flowers have bloomed  

**History:** Catalogued Differentiation of Erroneous Medicines  

**Constituents:** agrimonine, agrimonolide, cosmosiin, agrimol A, B, C, D, E, saponins, luteolin-7-ß-glucoside, apigenin-7-ß-glucoside, tannin  

**Energetics Properties and Channels Entered:** bitter, pungent, neutral, entering the lung, liver and spleen meridians  

**Actions and Indications:** hemostatic, vasoconstrictor, vasodilator, sedative (smooth muscle), antibiotic, analgesic  

**Medical Research:**  
- Shown to reduce bleeding time in animal studies, as well as peripheral vasoconstriction. In 11 cases using agrimonine to treat bleeding disorders, 3 showed increase of thrombin.  
- Powdered Xian he cao is commonly used in surgery or treatment of trauma as a hemostatic. In one clinical study of 20 surgical cases hemorrhage or seepage stopped in 1-2 minutes.  
- Agrimonolide was shown to reduce the frequency and strength of rabbit intestinal contractions and can prolong the relaxation phase.  
- Decoctions of Xian he cao had an in vitro inhibitory effect against *Staphylococcus aureus* and *Bacillus subtilis*, as well as a weak effect against *Mycobacterium tuberculosis*. Alcohol extractions of Xian he cao inhibited the growth of the Columbia SK virus in mice.  
- Decoctions of Xian he cao reduced conjunctivitis from either mustard oil or *Staphylococcus aureus* in rabbits.  
- A large dosage (50-100 mg/kg) of water extractions of Xian he cao given intravenously to rabbits produced a significant analgesic effect (dental pulp stimulation test).
**Toxicity, Contraindications and cautions:** may cause nausea or vomiting, may cause skin allergy in powdered form

**Medicinal uses:**
- Restrains leakage of blood and stops bleeding: widely used for various types of bleeding such as vomiting blood, coughing blood, nosebleed, bleeding gums, blood in the urine or uterine bleeding. Depending on its particular combination with other herbs, this herb can be used for bleeding due to heat, cold, excess or deficiency.
- Alleviates diarrhea and dysenteric disorders: for chronic problems, as this herb has a restraining nature.
- Kills parasites: for *trichomonas vaginitis* and tapeworm.

**Pharmacy and dosage:** 9-15g, 15-30g when used fresh. Used as a suppository for diarrhea and as a topical wash for *trichomonas vaginitis*.

**Major Combinations:**
- With hai piao xiao (*Os Sepiae seu Sepiellae*) for excessive uterine bleeding or dark bloody stool associated with pain in the middle burner (equivalent to peptic ulcer in modern biomedicine).
- With huai hua mi (*Flos Sophorae Japonicae Immaturus*) for bloody stool.
- With ce bai ye (*Cacumen Biotae Orientalis*) for vomiting blood

**REFERENCES**
Bensky, D. and Gamble, A.; Chinese Herbal Medicine Materia Medica; Eastland Press, Seattle; 1993
Image tcm.health-info.org
San Qi  
*Panax notoginseng*  

**Family:** Araliaceae

**Other names:** tian qi, shen san qi, notoginseng root, pseudoginseng root, literal English translation: three seven

**Plant description:** Good quality is large, solid and heavy, with a thin cortex and dark colour.

**Part used:** root

**Habitat, ecology and distribution:** Yunnan, Guangxi, Sichuan, Guizhou, Jiangxi, harvested in autumn or winter of the third or seventh year, either before the flowers bloom (better) or after the fruit is ripe.

**History:** Grand Materia Medica

**Constituents:** arasaponin A, arasaponin B, dencichine

**Energetics Properties and Channels Entered:** sweet, slightly bitter and warm entering the liver, stomach and large intestine meridians

**Actions and Indications:** hemostatic, antihypertensive, antibiotic

**Medical Research:**
- San qi decreases bleeding time in animals, this effect is not achieved if the portal vein is ligated first. It is therefore believed that the liver plays an important role in this herb's effectiveness. San qi also shortens thrombin time.
- Intravenous injections of san qi increase coronary blood flow and reduce blood pressure. Subcutaneous injections reduce capillary permeability in mice.
- Powdered san qi was used in one clinical trial of 16 patients with coronary artery disease whose main complaint was angina pectoris. All but one had satisfactory relief of pain. Those who had been on chronic nitroglycerin therapy tapered off that therapy, those with hypertension showed significant reduction in blood pressure, and in four cases there was mild improvement in the ECG.
- In a small study, daily use of powdered san qi was associated with a reduction in serum lipids and cholesterol.
- San qi preparations have been shown to have an in vitro inhibitory effect on the Norwalk virus and some dermatomycoses.
- In one series of 8 patients with acute attacks of Crohn's disease, powdered san qi was helpful in seven cases. On the average, within 2 days the pain lessened, within four days peristalsis had been restored, and with in 10 days the acute condition had passed.
**Toxicity, Contraindications and cautions:** contraindicated during pregnancy. Use with caution in patients with blood or yin deficiency.

**Medicinal uses:**
- Stops bleeding and transforms blood stasis: for internal and external bleeding including vomiting blood, nosebleed, and blood in the urine or stool. Because this herb can stop bleeding without causing blood stasis it is widely used.

- Reduces swelling and alleviates pain: the herb of choice for traumatic injuries, used for swelling and pain due to falls, fractures, contusions and sprains. Effective in invigorating the blood, it is used for chest and abdominal pain, as well as joint pain that is caused by blood stasis.

**Pharmacy and dosage:** 1-3g when taken directly as a powder, 3-9g when used in decoctions. Also used topically.

**Major Combinations:**
- With bai ji (*Rhizoma Bletillae Striatae*) for vomiting and coughing blood as well as nosebleed and bloody urine.
- With hua rui shi (*Ophicalcium*) and xue yu tan (*Crinis Carbonisatus Hominis Hominis*) for vomiting and coughing of blood, nosebleed, excessive uterine bleeding, bloody stool, or bloody urine.
- With long gu (*roasted Os Draconis*) and wu bei zi (*Rhois Chinensis*) as a topically applied poultice, for trauma induced bleeding.
- Ingredient in famous formula Yunnan baiyao, a hemostatic patented formula

**REFERENCES**
Bensky, D. and Gamble, A.; Chinese Herbal Medicine Materia Medica; Eastland Press, Seattle; 1993
Image scarfamilyditdajow.com
Ai Ye *Artemisiae argyi*  
艾叶

**Other names:** mugwort leaf, artemesia, wu yue ai, qi ai, bai ai, moxa leaf

**Plant description:** Good quality is grey white in colour, aromatic and has a thick, hairy texture

**Part used:** leaf

**Habitat, ecology and distribution:** throughout China, especially Shandong, Anhui, Hubei and Hebei; harvested at the end of spring and early summer when the leaves are growing vigorously, but before the flowers bloom.

**History:** Collection of Commentaries on the Classic of Materia Medica

**Constituents:** cineole, terpinen-4-01, B-caryophellene, Artemisia alcohol, camphor, borneol, linalool

**Energetics Properties and Channels Entered:** bitter, pungent and warm, entering the spleen, liver and kidney meridians.

**Actions and Indications:** antibiotic, antimalarial

**Medical Research:**
- Decoctions of ai ye have an *in vitro* inhibitory effect against such pathogens as *Staphylococcus aureus, B-hemolytic Streptococcus, Streptococcus pneumoniae, Shigella sonnei, Salmonella typhi* and *Salmonella paratyphi*.
- Both infusions and decoctions of ai ye caused strong contractions in rabbit or guinea pig uterus specimens.
- Large doses of ai ye given for 2 days to malaria patients 2 hours before the onset of symptoms showed control of symptoms in 89% of the cases, together with negative blood examinations for the parasite in over half of those cases.
- Crushed fresh ai ye placed over warts of 12 patients many times per day led to a falling off of the warts within 3-10 days.

**Toxicity, Contraindications and cautions:** use with caution in cases of blood heat or yin deficiency.

**Medicinal uses:**
- Warms the womb and stops bleeding: for prolonged menstrual bleeding and uterine bleeding due to cold from deficiency
• Warms the womb and pacifies the fetus: for restless fetus, lower abdominal pain and vaginal bleeding as in threatened miscarriage. Also used for Infertility due to cold womb.

• Disperses cold and alleviates pain: for cold abdominal pain, especially menstrual pain.

**Pharmacy and dosage**: 3-9g. Char to enhance both its warming and hemostatic properties. In its raw form it is relatively neutral and may be combined with other herbs that cool the blood (for blood heat).

**Major Combinations**:
• With e jiao (*Gelatinum Corii Asini*) for restless fetus and threatened miscarriage.
• With xiang fu (*Rhizoma Cyperi Rotundi*) for abdominal pain due to cold from deficiency and stagnant qi.
• With gan jiang (*Rhizoma Zingiberis Officinalis*) for abdominal pain due to cold, especially menstrual pain.
• With di fu zi (*Fructus Kochiae Scopariae*) for a variety of itching skin lesions due to damp-cold.

**REFERENCES**
Bensky, D. and Gamble, A.; Chinese Herbal Medicine Materia Medica; Eastland Press, Seattle; 1993
Image tcm.health-info.org
Chuan Xiong *Ligusticum chuanxiong*  
川芎

**Other names**: cnidium, szechuan lovage root, senkyu (Japanese), cheongung (Korean), *Ligusticum wallichii*

**Plant description**: aromatic, thinly sliced root that is orange in colour.

**Part used**: root

**Habitat, ecology and distribution**: Sichuan, Guizhou, Yunnan, Shaanxi, Hubei; harvested in summer when stems have a purple hue.

**History**: Materia Medica for Decoctions

**Constituents**: tetramethylpyrazine, perlolyrine, ferulic acid, chrysophanol, sedanoic acid, 4-hydroxy-3-butyphthalide

**Energetics Properties and Channels Entered**: pungent and warm, entering the liver, gallbladder and pericardium meridians

**Actions and Indications**: sedative, anti-hypertensive, smooth muscle stimulant, antibiotic

**Medical Research**:
- Decoctions of chuan xiong orally administered in a dosage of 25-50g/kg had a definite sedative effect in rats and mice. It prolonged the hypnotic effect of barbiturates, but did not counteract the effect of caffeine.
- Oral administration of decoctions of chuan xiong had a weak anti-hypertensive effect in animal experiments, but intravenous and intramuscular injections caused a significant reduction in blood pressure in anesthetized animals. Water extractions had the most pronounced effect on blood pressure. In long term experiments on dogs and rats, decoctions of this herb in doses of 4g/kg per day lowered blood pressure in renal hypertensives by 20mm Hg, but had no effect on experimental essential hypertensives.
- Very small amounts of a 10% solution of chuan xiong stimulated pregnant rabbit uterus specimens, while large amounts stopped contractile effects completely. Continued injection of a solution of this herb in pregnant rabbits and rats resulted in death of the fetus with out expulsion. Small amounts of a decoction of this herb inhibited the contraction of rabbit or guinea pig small intestine specimens, while large amounts brought all contraction to a halt.
• Chuan xiong has an in vitro inhibitory effect against many pathogenic bacteria such as *Shigella sonnei*, *Pseudomonas aeruginosa*, *Salmonella typhi*, and *Vibrio cholerae*. It also has an in vitro inhibitory effect against many dermatomycoses.

**Toxicity, Contraindications and cautions:** contraindicated in cases of yin deficiency with heat signs, headaches due to ascendant liver yang, qi deficiency, or excessive menstrual bleeding. Vomiting and dizziness may occur from over dosage.

**Medicinal uses:**
• Invigorates the blood and promotes the movement of qi: for any blood stasis pattern. This is an important herb in gynecology and is used for such problems as dysmenorrhea, amenorrhea, difficult labour, or lochioschesis. It is also indicated for patterns of stagnant qi and blood stasis with pain in the chest, flanks or hypochondria.

• Expels wind and alleviates pain: a leading herb for any externally contracted wind disorder characterized by headache, dizziness or painful obstruction. Also used for a variety of skin problems caused by wind.

• Headaches: moves the qi upward and alleviates pain. Depending with which other herbs it is combined; it can be used for headaches due to wind, heat, cold or blood deficiency.

**Pharmacy and dosage:** 3-6g; for irregular menstruation, up to 9g may be used.

**Major Combinations:**
• With fang feng (*Radix Ledebourielle Divaricatae*) and jing jie (*Herba seu Flos Schizonepetae Tenuifoliae*) for headache from externally contracted wind cold.
• With qiang huo (*Rhizoma et Radix Notopterygii*) and jiang can (*Bombyx Batryticatus*) for wind dampness lateral headache.
• With chai hu (*Radix Bupleuri*) and chi shao (*Radix Paeoniae Rubrae*) for headache and/or chest pain due to stagnant liver qi and blood.
• With dang gui (*Radix Angelicae Sinensis*) for irregular menstruation, dysmenorrhea, amenorrhea or late and scanty menstruation due to blood deficiency. This combination is also used for pain, numbness and paralysis from wind dampness and stagnant qi blocking the blood connecting channels, which greatly limits or prevents nourishment from reaching the sinews.
• With yi mu cao (*Herba Leonuri Heterophylli*) and tao ren (*Semen Persicae*) for problems due to post partum blood stasis.

**REFERENCES**
Bensky, D. and Gamble, A.; Chinese Herbal Medicine Materia Medica; Eastland Press, Seattle; 1993
Image tcm.health-info.org
Dan Shen  *Salvia miltiorrhizae*  

**Family:** Labiatae  

**Other Names:** Cinnabar root, Salvia root, zi dan shen, chi dan shen, tanjin (Japanese), Dan sam (Korean)  

**Parts used:** Root  

**Habitat, ecology and distribution:** Native to Mongolia and Manchuria. Hardy and tough perennial mint that can reach up to 32 inches tall with tooth edged oval leaves and purple flowers. Grows on sunny slopes of hills and light woodland clearings. Harvested in the late autumn through to spring of the next year.  

**History:** Divine Husbandman's Classic of the Materia Medica  

**Constituents:** quinones, diterpene keones, diterpene lactones, phenoles, baicalin, sitosterol, daucosterol  

**Energetics Properties and Channels entered:** Bitter and slightly cold, enters the heart, pericardium and liver  

**Actions & Indications:** Invigorates the blood, tonify's the blood, calms irritability due to blood heat  

**Medical research:**  
- Inhibits platelet aggregation  
- Animal trails have shown Dan shen to have cardiovascular benefits, particularly in patients with ischemic stroke or coronary artery disease/angina. More recent studies have focused on possible roles in liver disease (hepatitis and cirrhosis) and as an antioxidant.¹  
- Water soluble extracts of the herbal plant, *Salvia miltiorrhiza* (Dan shen) exhibited potent effect against HIV-1 integrase activity in vitro and viral replication in vivo.²  
- A small number of studies suggest that dan shen may provide benefits for treating disorders of the heart and blood vessels, including chest pain, heart attacks, and ischemic stroke.³  

**Toxicity, Contraindications and cautions:** Contraindicated during pregnancy, do not use with Li lu. Side effects may appear in some patients and gradually decrease without stopping the treatment such as: dry mouth, dizziness, general weakness, numb and swollen hands, shortness of breathe, anxiety, tachycardia, nausea, vomiting and GI symptoms. May also cause headaches. Caution in cases without stagnation.
Injection preparations of Dan shen have been reported to cause one known case of liver damage and two cases of shock.

**Medicinal uses:**
- Enters the blood level of the Heart, pericardium and liver channels. Invigorates blood, transforms stasis and tonify's the blood. Primarily used for gynecological disorders involving blood heat and blood stasis, and for joint pain.
- Invigorates blood and dispels stasis: for blood stasis in any part of the body
- Cools the blood and reduces abscesses: early stage of breast abscess and as an adjunctive treatment for sores
- Nourishes the blood and calms the spirit: for heat entering the ying and blood level or insufficient heart blood
- Clears heat and soothes irritability: for restlessness, irritability, palpitations and insomnia due to heat entering the ying level. Clears Deficiency heat from Heart and Kidney yin deficiency.

**Pharmacy & dosage**: 6-15 9

**Major Combinations:**
- With Tao Ren (Persicae semen) and Yi mu Cao (Leonuri Herba) for postpartum abdominal pain
- With Ru xiang (Olibanum) for pain and swelling due to blood stasis
- With Mu dan pi (Moutan Cortex) and Sheng di huang (Rehmanniae Radix) for high fever, irritability, spitting of blood, subcutaneous bleeding and nose bleed due to heat in ying level
- With Jin yin hua (Lonicerae Flos) and Lian Qiao (Forsythae Fructus) for early stages of breast abscess

**REFERENCES**
Bensky, D. and Gamble, A.; Chinese Herbal Medicine Materia Medica; Eastland Press, Seattle; 1993
Image futrosity.com
Yi Mu Cao *Leonurus heterophyllus*

益母草

**Other names:** kun cao, chong wei, Chinese motherwort, leonurus

**Plant description:** Good quality has thin stems and is green in colour. The entire plant (except root) of an annual herb with red and white flowers and a disagreeable odor.1

**Part used:** stems and leaves

**Habitat, ecology and distribution:** throughout China, harvested in summer and autumn when the stems and leaves are flourishing and the flowers have just opened.

**History:** Illustrated Classic of the Materia Medica

**Constituents:** leonurine, stachydrine, leonuridien, leonurinine, lauric acid, linolenic acid, sterol, stachose, 4-guanidino-1-butanol, 4-guanidino-butyric acid, vitamin A

**Energetics Properties and Channels Entered:** pungent, bitter, slightly cold, entering the heart, liver and bladder meridians.

**Actions and Indications:** anti hypertensive

**Medical Research:**

- In many animal experiments, yi my cao directly stimulated uterine specimens in a manner similar to, though weaker than, oxytocin. In one experiment an alkaloid from the herb had this effect in anesthetized animals.
- Treatment of the post partum uterus: decoctions of yi mu cao were as effective as ergotamine in causing the uterus to contract after deliver. While the onset of action was slower, it was safer.
- Intravenous injection of water extractions of yi mu cao has consistently lowered blood pressure in many animal experiments. This effect was of short duration.
- Leonurine stimulated the respiratory center in the brain, and an alkaloid from the herb inhibited the central nervous system in frogs.
- Decoctions of yi mu cao were given to 80 patients of varying ages with acute glomerulonephritis, together with normal care. If there was also infection, antibiotics were given as well. All patients were cured, the shortest with in five days, the longest within 36 days. Cases were followed for as long as 5 years without recurrence or sequellae.
Toxicity, Contraindications and cautions: contraindicated during pregnancy, use with caution in cases of yin or blood deficiency. Oral administration of yi mu cao in pregnant rabbits resulted in miscarriages. Otherwise no side effects were noted. Daily subcutaneous injection of this herb in rabbits in doses-of 30mg/kg for 2 weeks resulted in no side effects. The LD50 for intravenous injection of this herb in mice was 572mg/kg.

Medicinal uses:
- Invigorates the blood and regulates the menses: commonly used for gynecological disorders such as irregular menstruation, premenstrual abdominal pain, immobile abdominal masses, infertility, and post partum abdominal pain with lochioschesis.
- Invigorates the blood and reduces masses: for abdominal masses or infertility caused by stasis from blood deficiency.
- Promotes urination and reduces swelling: for acute systemic edema. Especially useful for that which is accompanied by blood in the urine.

Pharmacy and dosage: 9-60g; up to 120g may be used for treating edema from glomerulonephritis.

Major Combinations:
- With chi shao (Radix Paeoniae Rubrae), dang gui (Radix Angelicae Sinensis) and mu xiang (Radix Aucklandiae Lappae) for irregular menstruation, scanty menstruation, lower abdominal distention and pain and infertility due to blood stasis.
- With pu huang (Pollen Typhae) for lochioschesis.
- With bai mao gen (Rhizoma Imperatae Cylindricae) for edema accompanied by blood stasis. Recently this combination has been used to treat edema associated with nephritis.
- With huang jing (Rhizoma Polygonati), shi wei (Folium Pyrrosiae) and dong kui zi (Semen Abutili seu Malvae) for kidney stone and bloody urine.

REFERENCES
1 http://www.foodsnherbs.com/leonurus_(yi_mu_caa).htm
Image futurosity.com
Chi Shao *Peonia veitchii*  
赤芍  

**Other names:** chi shao yao, red peony root, sekishaku (Japanese), jeokjak (Korean)  

**Plant description:** good quality has an outer cortex that is easily peeled and deep, coarse wrinkles.  

**Part used:** root  

**Habitat, ecology and distribution:** *P. veitchii*: Sichuan, Yunnan, Gansu, Shaanxi, Qinghai; *P. lactiflora*: Inner Mongolia and throughout northeastern China; harvested in spring and autumn.  

**History:** Collection of Commentaries on the Classic of Materia Medica  

**Constituents:** paeoniflorin, tannin  

**Energetics Properties and Channels Entered:** sour, bitter and slightly cold, entering the liver and spleen meridians.  

**Actions and Indications:** antispasmodic, antihypertensive, vasodilator, anti-inflammatory, antibiotic, antipyretic.  

**Medical Research:**  
- The effect of chi shao on intestinal specimens has varied in different experiments, probably owing to different plant sources. Generally, in rabbits a large dosage was necessary before significant antispasmodic effects were observed. However, paeoniflorin had relatively strong antispasmodic effects on guinea pig and rat intestines as well as intestinal specimens. Paeoniflorin has also been shown to counteract the effect of oxytocin on the uterus of rats.  
- Paeoniflorin reduced the blood pressure of guinea pigs in a dose related manner. It also increased the coronary blood flow in dogs, although this effect was much less pronounced than that of nitroglycerin. Chi shao had a weak inhibitory effect on rabbit heart specimens, and a mild vasodilatory effect on visceral blood vessels in frogs.  
- Preparations of chi shao effectively counteracted convulsions from strychnine.  
- Paeoniflorin showed a mild anti-inflammatory effect and a protective function against stress ulcers in white rats. Paradoxically, it slightly raised the acidity of stomach secretions and improved appetite.  
- Decoctions of chi shao have been shown to have a very strong *in vitro* inhibitory effect against *Shigella sonnei*, and to inhibit the growth of *Staphylococcus aureus*, *herpes zoster* virus and various pathogenic dermatomycoses.
Paeoniflorin lowered the temperature of both white mice with normal temperatures and those with artificially induced fevers.

**Toxicity, Contraindications and cautions**: use with caution in cases of blood deficiency, LD50 for intravenous infection of paeoniflorin into white mice is 3530 mg/kg.

**Medicinal uses**:
- Invigorates the blood and dispels blood stasis: for dysmenorrhea, amenorrhea, abdominal pain and immobile abdominal masses. Also for the swelling and pain associated with traumatic injury, and the early stages of abscesses and boils.
- Clears heat and cools the blood: for heat entering the blood level with fever, purple tongue, skin blotches, red painful sores and bleeding due to the reckless movement associated with hot blood.
- Clears liver fire: for red swollen and painful eyes.

**Pharmacy and dosage**: 4.5-9g.

**Major Combinations**:
- With chuan xiong (*Radix Ligustici Chuanxiong*) for blood stasis induced gynecological disorders such as immobile abdominal masses and amenorrhea with abdominal pain. This combination is also used for abscesses, boils and trauma induced pain.
- With tao ren (*Semen Persicae*) for blood stasis induced menstrual disorders, especially those characterized by premature onset of period, excessive bleeding and the presence of purple thick clots.
- With xiang fu (*Rhizoma Cyperi Rotundi*) for flank pain, abdominal pain and dysmenorrhea due to obstruction of qi and blood.
- With ru xiang (*Gummi Olibanum*) and mo yao (*Myrrha*) for bruising, swelling and pain form traumatic injury. Add detoxifying herbs, such as jin yin hua (*Flos Lonicerae Japonicae*) and lian qiao (*Fructus Forsythiae Suspensae*) for pain and swelling associated with boils and abscesses.
- With ju hua (*Flos Chrysanthemi Morifolii*) and huang qin (*Radix Scutellariae Baicalensis*) for redness, swelling and pain in the eyes.

REFERENCES
Image tcmtreatment.com
**Tao Ren** *Prunus persica*

*桃仁*

**Other names**: tao he ren, guang tao ren, dan tao ren, peach kernel, persica

**Plant description**: Good quality is whole, white yellow and oval shaped.

**Part used**: kernel (seed)

**Habitat, ecology and distribution**: throughout China, harvested in July through August when fruit is ripe.

**History**: Collection of Commentaries on the Classic of Materia Medica

**Constituents**: amygdalin, emulsion, oleic acid, glyceric acid, linoleic acid

**Energetics Properties and Channels Entered**: bitter, sweet and neutral, entering the heart, large intestine, liver and lung meridians.

**Actions and Indications**: anticoagulant, anti-tubercular

**Medical Research**:
- Alcohol extractions of tao ren have a weak anticoagulant effect.
- Used in treating tuberculosis in white mice.

**Toxicity, Contraindications and cautions**: contraindicated during pregnancy. The equivalent of 4g of tao ren was given orally to rats on a daily basis for one week with out any observed effect on serum glucose, serum albumin, liver function studies or the histology of the major organs.

**Medicinal uses**:
- Breaks up blood stasis: an important herb used in resolving many kinds of problems associated with blood stasis, including menstrual disorders, abdominal pain, traumatic injury, flank pain, lung abscesses and intestinal abscesses with immobile abdominal mass
- Moistens the intestines and unblocks the bowels: for constipation due to dry intestines.

**Pharmacy and dosage**: 4.5-9g.
Major Combinations:
• With hong hua (Flos Carthami Tinctorii) for blood stasis induced dysmenorrhea and amenorrhea presenting clinically with abdominal pain, clotting, and a scanty flow. Add dang gui (Radix Angelicae Sinensis) and chi shao (Radix Paeoniae Rubrae) for pain due to trauma.
• With da huang (Radix et Rhizoma Rhei) and mang xiao (Mirabilitum) for pain and swelling associated with intestinal abscess. This combination is also used for trauma accompanied by constipation.
• With yi yi ren (Semen coicis Lachryma jobi) and dang gua ren (Semen Benincasae Hispidae) for lung abscess.
• With xing ren (Semen Purni Armeniacae) and huo ma ren (Semen Cannabis Sativae) for constipation due to deficiency and or stagnation.

REFERENCES
Image tcm.health-info.org
**Hong Hua Carthamus tinctorius**

红花

**Family:** Compositae

**Other names:** chuan hong hua, du hong hua, hong lan hua, safflower flower, zang/xi hong hua- Tibet, carthamus, fake saffron

**Plant description:** Good quality has long petals, a fresh red colour, and is soft.

**Part used:** flower

**Habitat, ecology and distribution:** Henan, Gebei, Zhejiang, Sichuan, Yunnan; harvested June through July when the colour of the flower is changing from yellow to red. Best picked in the morning of a cloudy day, before the dew has dried.

**History:** Illustrated Classic of Materia Medica

** Constituents:** carhamin, carhamone, neocarthamin, palmitic acid, stearic acid, arachic acid, oleic acid, linoleic acid, linolenic acid

**Energetics Properties and Channels Entered:** pungent and warm, entering the heart and liver meridians.

**Actions and Indications:** anti-hypertensive, circulatory, hemostatic, anti-inflammatory

**Medical Research:**
- Decoctions of hong hua showed a weak inhibitory effect on the heart of anesthetized animals and caused a reduction in blood pressure. They also caused vasoconstriction of peripheral blood vessels in the ear. In experiments on anesthetized dogs, decoction of this herb caused an increase in coronary blood flow and no significant effect on blood pressure.
- Decoctions of hong hua, together with other herbs that invigorate the blood and promote the movement of qi, were given in 44 cases of coronary artery disease for up to 4 months. Symptoms were significantly reduced in 49%, and there was marked improvement in ECG in 41% of the cases. Most improvement was seen as early as one month after the onset of treatment, and a total of 90% of the patients in the series were able to stop taking nitroglycerin on a regular basis.
- Decoctions of hong hua stimulated the uterus in many different kinds of animals.
- Oral administration of safflower oil lowered the serum cholesterol of rabbits with elevated levels.
- In one clinical series, 1% tinctures of hong hua were used in 775 cases of swelling and subcutaneous hemorrhage due to acute sprains. Complete cures were achieved in
347 cases, and another 399 were improved. Even in relatively severe cases the condition usually had cleared with in 3-5 days.

**Toxicity, Contraindications and cautions**: contraindicated during pregnancy. Xi hong hua (*Stigma Crocus Sativae*) or saffron form Tibet is much stronger and much more expensive than *Flos Carthami Tinctorii*. It is used in relatively severe cases, most often for painful obstruction of the chest. Animals given a meal containing 6% hong hua experienced no change; however when the dose was increased to 8-10% weight loss was experienced. A meal containing 2% xi hong hua caused weight loss in animals.

**Medicinal uses**:  
- Invigorates the blood and unblocks menstruation: for blood stasis patterns with amenorrhea, abdominal pain, post partum dizziness, lochioschesis and abdominal masses.
- Dispels blood stasis and alleviates pain: for blood stasis wounds and pain, non-suppurative sores, carbuncles and dark purplish erythema. Also for incomplete expression of the rash of measles or painful obstruction of the chest due to blood stasis.

**Pharmacy and dosage**: 3-9g, 0.9-1.5g when used to harmonize the blood. Added near the end in decoctions because it should not be cooked for a long time.

**Major Combinations**:  
- With chuan xiong (*Radix Ligustici chuanxiong*) for pain in the chest and abdomen due to blood stasis and stagnant qi.  
- With dang gui (*Radix Angelicae Sinensis*) and sum u (*Lignum Sappan*) for pain and swelling associated with trauma.  
- With yi mu cao (*Herba Leonuri Heterophylli*) for abdominal pain or post partum lochioschesis due to blood stasis.  
- With sheng di huang (*Radix Rehmanniae Glutinosae*), chi shao (*Radix Paeoniea Rubrae*) and lian qiao (*Fructus Forsythiae Suspensae*) for pain, redness and swelling of the eyes.  
- With zi cao (*Radix Arnebiae seu Lithospermi*) for measles presenting with purpuric rash. This combination is also used for carbuncles, boils and other toxic swellings.

REFERENCES
Image tcm.health-info.org
Niu Xi *Achyrantes bidentata*

牛膝

**Other names:** achyrantes root, huai niu xi, chuan niu xi, huai niu, literal English translation “cow knee joint”

**Plant description:** Good quality is long, thin and hard with a light yellow colour.

**Part used:** root

**Habitat, ecology and distribution:** Hebei, Shanxi, Shandong, Jiangsu, Liaoning; harvested in winter, once the stems and leaves have withered.

**History:** Divine Husbandman's Classic of Materia Medica

**Constituents:** triterpenoid saponins, ecdysterone, inokosterone

**Energetics Properties and Channels Entered:** bitter, sour and neutral, entering the liver and kidney meridians

**Actions and Indications:** stimulation and inhibition of smooth muscle, antihypertensive, analgesic

**Medical Research:**

- Varying from animal to animal, and sometimes depending on whether the animal is pregnant, preparations of the herb always caused contractions in rabbits and mice, while it caused relaxation in the nonpregnant uteri of cats, and contractions in pregnant cat uteri. Applied locally, it caused dilation of the cervical os in women.¹

- Decoctions of niu xi inhibited the motility of mice intestinal specimens, but increased contractions in guinea pig intestine. Intravenous injection of preparations of the herb into dogs and rabbits caused a temporary increase in gastric motility, followed by inhibition of the same.²

- Injection of either decoctions or alcohol extractions of niu xi into dogs, cats and rabbits resulted in a reduction in blood pressure due to both an inhibition of the heart and peripheral vasodilation.³

- Peritoneal injection of decoctions of niu xi into mice with artificial sprains had an analgesic effect that was much less than that of morphine.⁴

**Toxicity, Contraindications and cautions:** not be used in cases of diarrhea due to spleen deficiency, or in cases of excessive menstruation or spermatorrhea due to zheng qi deficiency. Contraindicated during pregnancy.
Medicinal uses:
• Invigorates the blood and expels blood stasis: for blood stasis patterns with such symptoms as dysmenorrhea, amenorrhea and lochioschesis.

• Strengthens sinews and bones and benefits the joints: for pain and soreness affecting the lower back and knees due to deficiency, as it tonifies and nourishes the liver and kidneys.

• Clears damp-heat in the lower burner: for cases of damp heat pouring downward manifesting as knee pain or lower back damp painful obstruction. It is also an auxiliary herb for painful urinary dysfunction or vaginal discharge. Especially useful for painful urinary dysfunction with stones and accompanied by lower back pain and bloody urine.

• Induces the downward movement of blood: for reckless movement of hot blood in the upper burner or yin deficiency with ascending fire. Manifestations include nosebleed, vomiting blood, toothaches and bleeding gums. Also for dizziness, headache and blurred vision due to ascendant liver yang.

• Used as an envoy to direct herbs to the lower part of the body

Pharmacy and dosage: 9-15g. Raw invigorates the blood and cooked is more tonifying.

Major Combinations:
• With hong hua (Flos Carlhami Tinctorii), dang gui (Radix Angelicae Sinensis) and rou gui (Cortex Cinnamomi Cassiae) for amenorrhea, dysmenorrhea and delayed menstruation due to blood stasis.
• With du zhong (Cortex Eucommiae Ulmoidis) for pain and weakness of the lower back and extremities due to kidney deficiency and for painful obstruction.
• With shi gao (gypsum) for pain, swelling and ulceration of the teeth, gums and tongue.
• With jin qian cao (Herba Lysirmachiae) for painful urinary dysfunction, especially in cases due to kidney stones accompanied by bloody urine and lower back pain.
• With dang gui (Radix Angelicae Sinensis) and huang qin (Radix Scutellariae Baicalensis) for hot painful urinary dysfunction.
• With gou teng (Ramulus cum Uncis Uncariae) and sang ji sheng (Ramulus Sangjisheng) for headache, dizziness and blurred vision associated with ascendant liver yang
• With sheng di huang (Radix Rehmanniaceae Glutinosae) and dai zhe shi (Haematitum) for pain and swelling of the gums due to yin deficiency with heat signs.

REFERENCES
1 Bensky, D. and Gamble, A.; Chinese Herbal Medicine Materia Medica; Eastland Press, Seattle, 1993; p.285
3 Bensky, D. and Gamble, A.; Chinese Herbal Medicine Materia Medica; Eastland Press, Seattle, 1993; p.285
Image tcm.health-info.org