

Section 2

温散寒湿剂

— Damp-Cold Dispelling Formulas

Xiǎo Huó Luò Dān (Minor Invigorate the Collaterals Special Pill)

小活絡丹

小活絡丹

Pinyin Name: *Xiao Huo Luo Dan*

Literal Name: Minor Invigorate the Collaterals Special Pill

Alternate Names: *Huo Luo Dan* (Invigorate the Collaterals Special Pill), Myrrh and Aconite Formula

Original Source: *Tai Ping Hui Min He Ji Ju Fang* (Imperial Grace Formulary of the Tai Ping Era) by the Imperial Medical Department in 1078-85

COMPOSITION

<i>Zhi Chuan Wu</i> (Radix Aconiti Praeparata), <i>pao</i> (blast-fried)	180g [6g]
<i>Zhi Cao Wu</i> (Radix Aconiti Kusnezoffii Praeparata), <i>pao</i> (blast-fried)	180g [6g]
<i>Tian Nan Xing</i> (Rhizoma Arisaematis), <i>pao</i> (blast-fried)	180g [6g]
<i>Ru Xiang</i> (Gummi Olibanum), <i>yan</i> (ground) to small particles	66g [5g]
<i>Mo Yao</i> (Myrrh), <i>yan</i> (ground) to small particles	66g [5g]
<i>Di Long</i> (Pheretima)	180g [6g]

DOSAGE / PREPARATION / ADMINISTRATION

The source text instructs to first blast-fry *Zhi Cao Wu* (Radix Aconiti Kusnezoffii Praeparata), *Zhi Chuan Wu* (Radix Aconiti Praeparata), and *Tian Nan Xing* (Rhizoma Arisaematis) to eliminate toxicity. Then, grind the ingredients into a fine powder and mix with grain-based liquor to form into small pills. The pills should resemble the size of *Wu Tong Zi* (Semen Firmianae), a small seed approximately 5 mm in diameter. Take 20 pills on an empty stomach at noon with cold, grain-based liquor or tea made from *Jing Jie* (Herba Schizonepetae).

Today, the ingredients are ground into a fine powder, sifted together, and formed into pills with honey. Take 1 pill [3g] twice daily, with aged, grain-based liquor or warm, boiled water. This formula may also be prepared as a decoction with the doses suggested in brackets.

CHINESE THERAPEUTIC ACTIONS

1. Dispels wind and dampness
2. Resolves phlegm and dredges the channels
3. Activates blood circulation and stops pain

CLINICAL MANIFESTATIONS

1. Obstruction of wind, cold, and dampness in the channels and collaterals: muscle spasms and cramps, limited mobility and difficult movement of the joints, painful extremities, and migratory pain.
2. *Zhong feng* (wind stroke) with obstruction of dampness, phlegm, and blood stasis in the channels and collaterals: numbness and pain in the extremities, and heaviness and pain in the lower back and legs.

CLINICAL APPLICATIONS

Arthritis, peri-arthritis of the shoulders, soft tissue injuries, sciatica, post-stroke sequelae, hemiplegia, and paralysis.

EXPLANATION

Xiao Huo Luo Dan (Minor Invigorate the Collaterals Special Pill) treats blocked qi and blood circulation caused by obstruction of wind, cold, and dampness in the channels and collaterals. The formula may be used for muscle and joint disorders with such symptoms such as spasms and cramps, limited mobility, difficult movement, and painful extremities. It may also be used for *zhong feng* (wind stroke) caused by obstruction of dampness, phlegm,

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Diagnosis	Signs and Symptoms	Treatment	Herbs
Obstruction of wind, cold, and dampness in the channels and collaterals	<ul style="list-style-type: none"> Spasms and cramps, limited mobility, difficult movement and painful extremities: obstruction of wind, cold, and dampness in the channels and collaterals Numbness and pain of the extremities: dampness and phlegm obstruction with blood stasis in the channels and collaterals 	<ul style="list-style-type: none"> Dispels wind, cold, and dampness Resolves phlegm and dredges the channels Activates blood circulation and stops pain 	<ul style="list-style-type: none"> <i>Zhi Chuan Wu</i> (Radix Aconiti Praeparata) and <i>Zhi Cao Wu</i> (Radix Aconiti Kusnezoffii Praeparata) dispel wind-cold, warm and dredge the collaterals, and relieve pain. <i>Tian Nan Xing</i> (Rhizoma Arisaematis) dries dampness and resolves phlegm. <i>Ru Xiang</i> (Gummi Olibanum) and <i>Mo Yao</i> (Myrrha) activate qi and blood circulation and remove blood stasis. <i>Di Long</i> (Pheretima) opens the channels and collaterals.

and blood stasis in the channels and collaterals, leading to numbness and pain of the extremities.

In this formula, *Zhi Chuan Wu* (Radix Aconiti Praeparata) and *Zhi Cao Wu* (Radix Aconiti Kusnezoffii Praeparata) dispel wind and dampness, and also warm and dredge the channels and collaterals. These two herbs also have a strong effect to dispel cold and relieve pain. *Tian Nan Xing* (Rhizoma Arisaematis) dries dampness and resolves phlegm in the channels and collaterals to relieve pain. *Ru Xiang* (Gummi Olibanum) and *Mo Yao* (Myrrha) activate qi and blood circulation and remove blood stasis. *Di Long* (Pheretima) opens the channels and collaterals. When taken with grain-based liquor, the herbs have a more powerful effect to dispel wind and cold, resolve dampness and phlegm, eliminate qi and blood stagnation, and open the channels and collaterals.

MODIFICATIONS

- For neuralgia or sciatica, add *Chi Shao* (Radix Paeoniae Rubra), *Wei Ling Xian* (Radix et Rhizoma Clematidis), and *Chuan Xiong* (Rhizoma Chuanxiong).
- For post-stroke complications, add *Dan Shen* (Radix et Rhizoma Salviae Miltiorrhizae) and *San Qi* (Radix et Rhizoma Notoginseng).
- For arthritis, add *Qiang Huo* (Rhizoma et Radix Notopterygii) and *Yi Tiao Gen* (Radix Moghaniae).
- If there is more wind, add *Da Qin Jiao Tang* (Major Gentiana Macrophylla Decoction).
- With Liver and Kidney yin deficiencies manifesting in weakness of the joints, add *Du Huo Ji Sheng Tang* (Angelica Pubescens and Taxillus Decoction).
- With severe pain, add *Yan Hu Suo* (Rhizoma Corydalis) and increase the doses of *Ru Xiang* (Gummi Olibanum) and *Mo Yao* (Myrrha).

CAUTIONS / CONTRAINDICATIONS

- Xiao Huo Luo Dan* is a potent formula designed for individuals who have a strong constitution and who are generally healthy. It should be used with caution in individuals with blood deficiency or yin-deficient heat.
- The use of this formula is contraindicated during pregnancy.

PHARMACOLOGICAL EFFECTS

- Analgesic:** Administration of *Xiao Huo Luo Dan* at 20-100 mg/kg was associated with a marked analgesic effect in mice.¹
- Sedative:** One study reported a dose-dependant sedative effect in mice.²
- Pharmacokinetic:** One study reported *Xiao Huo Luo Dan* to have a two-compartment model of distribution, with an average half-life of 13.16 hours.³

CLINICAL STUDIES AND RESEARCH

- Soft-tissue injuries:** Topical application of *Xiao Huo Luo Dan* was associated with excellent results in treating 50 patients with soft-tissue injuries. The topical preparation was made by soaking the pills in 75% ethanol then crushing the pills into paste. The herbal paste was applied to the affected area every other day for intact skin. If the wound was open, it was thoroughly cleaned and disinfected prior to application of the herbal paste. The study reported complete recovery in 49 of 50 patients within 3-5 applications of the herbal paste.⁴
- Sciatica:** Concurrent use of modified *Xiao Huo Luo Dan* via oral ingestion and topical application was associated with marked relief of sciatica. The treatment protocol was to cook the herbs in water and drink the decoction in two equally-divided doses daily. The herb residue was applied topically to the affected area. Each course of treatment was 20 days. Out of 32 patients, 20 had complete recovery,

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7 had significant improvement, 3 had slight improvement, and 2 had no change. The overall effectiveness was 93.75%.⁵

3. **Arthritis:** Topical application of modified *Xiao Huo Luo Dan* was effective in relieving pain in all 50 patients. The herbal formula contained unprocessed *Chuan Wu* (Radix Aconiti), unprocessed *Cao Wu* (Radix Aconiti Kusnezoffii), *Di Long* (Pheretima), unprocessed *Tian Nan Xing* (Rhizoma Arisaematis), *Ru Xiang* (Gummi Olibanum), *Mo Yao* (Myrrha), *Ma Qian Zi* (Semen Strychni), *Hong Hua* (Flos Carthami), *Shui Zhi* (Hirudo), and *Mu Gua* (Fructus Chaenomelis), all in equal portions. The herbs were ground into a fine powder, mixed with water to make a paste, and applied topically to the affected area. Of 50 patients, the study reported complete relief in 8 cases, significant improvement in 27 cases, and moderate improvement in 5 cases.⁶ Note: The treatment protocol for this study was to apply the herbs topically since unprocessed forms of *Chuan Wu* (Radix Aconiti), *Cao Wu* (Radix Aconiti Kusnezoffii), and *Tian Nan Xing* (Rhizoma Arisaematis) can be extremely toxic if ingested orally.

TOXICOLOGY

Overdose of *Xiao Huo Luo Dan* (Minor Invigorate the Collaterals Special Pill) has been associated with occasional toxicity. Reported side effects include numbness in the hands and feet, stiff tongue, dizziness, pale face, cold extremities, perspiration, nausea, vomiting, diarrhea, palpitations, arrhythmia, and loss of consciousness. Allergy and acute gastrointestinal bleeding have been reported as well. The toxicity is attributed to *Zhi Chuan Wu* (Radix Aconiti Praeparata), *Zhi Cao Wu* (Radix Aconiti Kusnezoffii Praeparata), and *Tian Nan Xing* (Rhizoma Arisaematis).^{7,8,9}

Toxicity associated with the use of this formula may be treated initially with gastric lavage. Use of an herbal decoction with *Gan Cao* (Radix et Rhizoma Glycyrrhizae) and *Lu Dou* (Semen Phaseoli Radiati) has also shown beneficial effects. Administration of intravenous fluids with dexamethasone (10mg twice daily) is also helpful.¹⁰

RELATED FORMULAS

Dà Huó Luò Dān

(Major Invigorate the Collaterals Special Pill)

大活絡丹

大活絡丹

Pinyin Name: *Da Huo Luo Dan*

Literal Name: Major Invigorate the Collaterals Special Pill

Original Source: *Lan Tai Gui Fan* (Guidelines from Lan-Tai) by Xu Da-Chun in 1764

<i>Jin Qian Bai Hua She</i> (Bungarus Parvus), <i>jin</i> (soaked) in liquor	60g
<i>Wu Shao She</i> (Zaocys), <i>jin</i> (soaked) in liquor	60g
<i>Wei Ling Xian</i> (Radix et Rhizoma Clematidis), <i>jin</i> (soaked) in liquor	60g
<i>Zhu Jie Xiang Fu</i> (Rhizoma Anemones Raddeanae), <i>jin</i> (soaked) in liquor	60g
<i>Zhi Cao Wu</i> (Radix Aconiti Kusnezoffii Praeparata)	60g
<i>Tian Ma</i> (Rhizoma Gastrodiae), <i>wei</i> (roasted)	60g
<i>Quan Xie</i> (Scorpio)	60g
<i>He Shou Wu</i> (Radix Polygoni Multiflori), <i>jin</i> (soaked) in a decoction of <i>Hei Dou</i> (Semen Sojae)	60g
<i>Gui Ban</i> (Plastrum Testudinis), <i>zhi</i> (fried with liquid)	60g
<i>Ma Huang</i> (Herba Ephedrae)	60g
<i>Mian Ma Guan Zhong</i> (Rhizoma Dryopteridis Crassirhizomatis)	60g
<i>Zhi Gan Cao</i> (Radix et Rhizoma Glycyrrhizae Praeparata cum Melle)	60g
<i>Qiang Huo</i> (Rhizoma et Radix Notopterygii)	60g
<i>Rou Gui</i> (Cortex Cinnamomi)	60g
<i>Huo Xiang</i> (Herba Agastaches)	60g
<i>Wu Yao</i> (Radix Linderae)	60g
<i>Huang Lian</i> (Rhizoma Coptidis)	60g
<i>Shu Di Huang</i> (Radix Rehmanniae Praeparata)	60g
<i>Da Huang</i> (Radix et Rhizoma Rhei), <i>zheng</i> (steamed)	60g
<i>Mu Xiang</i> (Radix Aucklandiae)	60g
<i>Chen Xiang</i> (Lignum Aquilariae Resinatum)	60g
<i>Xi Xin</i> (Radix et Rhizoma Asari)	30g
<i>Chi Shao</i> (Radix Paeoniae Rubra), oil removed	30g
<i>Ding Xiang</i> (Flos Caryophylli)	30g
<i>Ru Xiang</i> (Gummi Olibanum), oil removed	30g
<i>Mo Yao</i> (Myrrha), oil removed	30g
<i>Jiang Can</i> (Bombyx Batryticatus)	30g
<i>Tian Nan Xing</i> (Rhizoma Arisaematis), <i>zhi</i> (prepared) with ginger	30g
<i>Qing Pi</i> (Pericarpium Citri Reticulatae Viride)	30g
<i>Gu Sui Bu</i> (Rhizoma Drynariae)	30g
<i>Dou Kou</i> (Fructus Amomi Rotundus)	30g
<i>An Xi Xiang</i> (Benzoinum), <i>ao</i> (simmered) with liquor	30g
<i>Fu Zi</i> (Radix Aconiti Lateralis Praeparata), <i>zhi</i> (prepared) till black	30g
<i>Huang Qin</i> (Radix Scutellariae), <i>zheng</i> (steamed)	30g
<i>Fu Ling</i> (Poria)	30g
<i>Xiang Fu</i> (Rhizoma Cyperi), <i>jin</i> (soaked) in liquor and <i>bei</i> (stone-baked)	30g
<i>Xuan Shen</i> (Radix Scrophulariae)	30g
<i>Bai Zhu</i> (Rhizoma Atractylodis Macrocephalae)	30g
<i>Fang Feng</i> (Radix Saposhnikoviae)	75g
<i>Ge Gen</i> (Radix Puerariae Lobatae)	45g
<i>Hu Gu</i> (Os Tigris), <i>zhi</i> (fried with liquid)	45g
<i>Dang Gui</i> (Radix Angelicae Sinensis)	45g
<i>Xue Jie</i> (Sanguis Draconis)	21g

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<i>Di Long</i> (Pheretima), <i>zhi</i> (fried with liquid)	15g
<i>Xi Jiao</i> (Cornu Rhinoceri)	15g
<i>She Xiang</i> (Moschus)	15g
<i>Song Xiang</i> (Colophonium)	15g
<i>Niu Huang</i> (Calculus Bovis)	4.5g
<i>Bing Pian</i> (Borneolum Syntheticum)	4.5g
<i>Ren Shen</i> (Radix et Rhizoma Ginseng)	90g

<i>Ren Shen</i> (Radix et Rhizoma Ginseng)
<i>Dang Gui</i> (Radix Angelicae Sinensis)
<i>Bai Shao</i> (Radix Paeoniae Alba)
<i>Chuan Xiong</i> (Rhizoma Chuanxiong)
<i>Di Huang</i> (Radix Rehmanniae)
<i>Du Zhong</i> (Cortex Eucommiae)
<i>Fang Feng</i> (Radix Saposhnikoviae)

Note: *Xi Jiao* (Cornu Rhinoceri), *Hu Gu* (Os Tigris) and *She Xiang* (Moschus) are derived from endangered animals, and are rarely used as medicinal substances today. The discussion of this formula here is included primarily for academic purposes, and to reflect upon the historical use of these substances in its original formulation. In most herbal products today, these endangered substances have been removed completely, or have been replaced with substitutes having similar functions.

The source text states to grind all of the ingredients into powder, and form into pills with honey. The pills are coated with *Jin Bo* (gold foil), and should resemble *Long Yan He* (Semen Longan) in size. Take one pill with aged, grain-based liquor two times daily.

Da Huo Luo Dan (Major Invigorate the Collaterals Special Pill) dispels wind, tonifies qi and blood, opens the channels and collaterals, and relieves pain. Clinical applications include paralysis or hemiplegia in post-stroke patients, *wei bi* (atrophic painful obstruction), phlegm syncope, deep-rooted sores, and multiple abscesses.

Jiā Wèi Huó Luò Dān

(Augmented Invigorate the Collaterals Special Pill)

加味活絡丹
加味活絡丹

Pinyin Name: *Jia Wei Huo Luo Dan*

Literal Name: Augmented Invigorate the Collaterals Special Pill

Original Source: *An Hui Zhong Yi Xue Yuan* (Anhui University School of Medicine) in 1990

<i>Zhi Chuan Wu</i> (Radix Aconiti Praeparata)
<i>Zhi Cao Wu</i> (Radix Aconiti Kusnezoffii Praeparata)
<i>Gui Zhi</i> (Ramulus Cinnamomi)
<i>Sang Zhi</i> (Ramulus Mori)
<i>Du Huo</i> (Radix Angelicae Pubescentis)
<i>Sang Ji Sheng</i> (Herba Taxilli)
<i>Ji Xue Teng</i> (Caulis Spatholobi)
<i>Chuan Niu Xi</i> (Radix Cyathulae)
<i>Yan Hu Suo</i> (Rhizoma Corydalis)
<i>Qin Jiao</i> (Radix Gentianae Macrophyllae)
<i>Wei Ling Xian</i> (Radix et Rhizoma Clematidis)

Jia Wei Huo Luo Dan (Augmented Invigorate the Collaterals Special Pill) treats *bi zheng* (painful obstruction syndrome) characterized by cold and dampness. Its main actions are to warm and open the channels and collaterals, dispel cold and dampness, activate qi and blood circulation, and relieve pain. Clinical applications include arthritis, arthralgia, lumbago, sciatica, and general aches and pains characterized by cold.

AUTHORS' COMMENTS

Xiao Huo Luo Dan contains many warm and acrid herbs, making it suitable for cold *bi zheng* (painful obstruction syndrome) with tightness and cramping of the tendons, sinews, and joints. Patients may also experience numbness of the limbs. The tongue will be slightly purple with a white coating. This formula can also be used for post-stroke hemiplegia exhibiting excess signs. Key diagnostic symptoms include numbness, pain, and limited mobility.

Although wind and dampness are the pathogens that initially invade the muscles and joints, they often create other complications, such as qi, blood and phlegm stagnation. Therefore, treatment of *bi zheng* (painful obstruction syndrome) requires use of herbs that treat these associated conditions and complications. In this formula, strong herbs such as *Zhi Chuan Wu* (Radix Aconiti Praeparata) and *Zhi Cao Wu* (Radix Aconiti Kusnezoffii Praeparata) warm and dredge the collaterals, dispel cold and relieve pain. *Tian Nan Xing* (Rhizoma Arisaematis) dries dampness and resolves phlegm. *Ru Xiang* (Gummi Olibanum) and *Mo Yao* (Myrrha) are aromatic substances that activate qi and blood circulation and remove blood stasis. Lastly, *Di Long* (Pheretima) is used as a guiding herb to open the channels and collaterals.

Xiao Huo Luo Dan and *Da Huo Luo Dan* both treat the blockages of wind, cold and damp pathogens in the channels and collaterals. Hence they are named Minor Invigorate the Collaterals Special Pill and Major Invigorate the Collaterals Special Pill, respectively.

As the names imply, *Xiao Huo Luo Dan* (Minor Invigorate the Collaterals Special Pill) and *Da Huo Luo Dan* (Major

Xiǎo Huó Luò Dān (Minor Invigorate the Collaterals Special Pill)

Invigorate the Collaterals Special Pill) both invigorate and unblock the collaterals.

- *Xiao Huo Luo Dan* is more suitable for obstruction of wind, cold, and dampness, accumulation of phlegm, and stagnation of blood in the channels and collaterals (an excess condition) in individuals who are otherwise healthy. All of the herbs are aimed at such excess conditions.
- *Da Huo Luo Dan* treats obstruction of the collaterals (an excess condition) in individuals with underlying qi and blood deficiencies (a deficient condition). This formula uses qi and blood-tonifying herbs to support the underlying deficiencies, along with herbs to dispel wind and open the channels and collaterals.

References

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Dà Fáng Fēng Tāng (Major Saposhnikovia Decoction)

大防风湯

大防风汤

Pinyin Name: *Da Fang Feng Tang*

Literal Name: Major Saposhnikovia Decoction

Alternate Name: Major Siler Combination

Original Source: *Tai Ping Hui Min He Ji Ju Fang* (Imperial Grace Formulary of the Tai Ping Era) by the Imperial Medical Department in 1078-85

COMPOSITION

<i>Dang Gui</i> (Radix Angelicae Sinensis), <i>xi</i> (washed), <i>jin</i> (soaked) in liquor, and <i>chao</i> (dry-fried)	60g
<i>Shu Di Huang</i> (Radix Rehmanniae Praeparata), <i>xi</i> (washed)	60g
<i>Bai Shao</i> (Radix Paeoniae Alba)	60g
<i>Chuan Xiong</i> (Rhizoma Chuanxiong)	45g
<i>Ren Shen</i> (Radix et Rhizoma Ginseng)	30g
<i>Bai Zhu</i> (Rhizoma Atractylodis Macrocephalae)	60g
<i>Huang Qi</i> (Radix Astragali), <i>chao</i> (dry-fried)	60g
<i>Niu Xi</i> (Radix Achyranthis Bidentatae), <i>jin</i> (soaked) in liquor and <i>chao</i> (dry-fried)	30g
<i>Du Zhong</i> (Cortex Eucommiae), <i>chao</i> (dry-fried)	60g
<i>Fang Feng</i> (Radix Saposhnikoviae)	60g
<i>Qiang Huo</i> (Rhizoma et Radix Notopterygii)	30g
<i>Fu Zi</i> (Radix Aconiti Lateralis Praeparata), <i>pao</i> (blast-fried)	45g
<i>Zhi Gan Cao</i> (Radix et Rhizoma Glycyrrhizae Praeparata cum Melle)	30g

DOSAGE / PREPARATION / ADMINISTRATION

The source text instructs to grind the ingredients into powder. Cook 15g of the powder with 7 slices of *Sheng Jiang* (Rhizoma Zingiberis Recens) and 1 piece of *Da Zao*

(Fructus Jujubae) in 1.5 bowls of water until the liquid is reduced to 80% volume. Take the warm, strained decoction on an empty stomach before meals.