Section 2

Chinese Herbal Formulas and Applications

温散寒湿剂
— Damp-Cold Dispelling Formulas

Xiāo 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

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

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, periarthritis 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,
Xiao Huo Luo Dan (Minor Invigorate the Collaterals Special Pill)

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Signs and Symptoms</th>
<th>Treatment</th>
<th>Herbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obstruction of wind, cold, and dampness in the channels and collaterals</td>
<td>Spasms and cramps, limited mobility, difficult movement and painful extremities; obstruction of wind, cold, and dampness in the channels and collaterals</td>
<td>Dispels wind, cold, and dampness</td>
<td>Zhi Chuan Wu (Radix Aconiti Praeparata) and Zhi Cao Wu (Radix Aconiti Kusnezoffii Praeparata) dispel wind-cold, warm and dredge the collaterals, and relieve pain.</td>
</tr>
<tr>
<td></td>
<td>Numbness and pain of the extremities; dampness and phlegm obstruction with blood stasis in the channels and collaterals</td>
<td>Resolves phlegm and dredges the channels</td>
<td>Tian Nan Xing (Rhizoma Arisaematis) dries dampness and resolves phlegm.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Activates blood circulation and stops pain</td>
<td>Ru Xiang (Gummi Olibanum) and Mo Yao (Myrrha) activate qi and blood circulation and remove blood stasis.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Di Long (Pheretima) opens the channels and collaterals.</td>
</tr>
</tbody>
</table>

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.

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

1. Analgesic: One study reported a dose-dependant analgesic effect in mice.1
2. Sedative: One study reported a dose-dependant sedative effect in mice.2
3. 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

1. 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

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

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 (Phoretima), unprocessed Tian Nan Xing (Rhizoma Arisaematis), Ru Xiang (Gummi Olibanum), Mo Yao (Myrrha), Ma Qian Zi (Semen Strychni), Hong Hua (Flos Carthami), Shui Zhi (Hirundo), 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.² 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).²³⁹

Toxicity associated with the use of this formula may be treated initially with gastric lavage. Use of an herbal decoction with dexamethasone (10mg twice daily) is also helpful.²⁰

RELATED FORMULAS
Đà Huó Luò Dān (Minor Invigorate the Collaterals Special Pill)

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

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

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

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 syncope, deep-rooted sores, and multiple abscesses.

**Jia Wei Huo Luo Dan** (Augmented Invigorate the Collaterals Special Pill)

**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 (Murrha) 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 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.
Invigorate the Collaterals Special Pill (Xiao Huo Luo Dan) 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

---

### Dà Fáng Fēng Tāng (Major Saposhnikovia Decoction)

大防風湯

**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

<table>
<thead>
<tr>
<th>Herb</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dang Gui (Radix Angelicae Sinensis)</td>
<td>60g</td>
</tr>
<tr>
<td>Shu Di Huang (Radix Rehmanniae Praeparata)</td>
<td>60g</td>
</tr>
<tr>
<td>Bai Shao (Radix Paeoniae Alba)</td>
<td>60g</td>
</tr>
<tr>
<td>Chuan Xiong (Rhizoma Chuanxiong)</td>
<td>45g</td>
</tr>
<tr>
<td>Ren Shen (Radix et Rhizoma Ginseng)</td>
<td>30g</td>
</tr>
<tr>
<td>Bai Zhu (Rhizoma Atractylodis Macrocephalae)</td>
<td>60g</td>
</tr>
<tr>
<td>Huang Qi (Radix Astragali)</td>
<td>60g</td>
</tr>
<tr>
<td>Niu Xi (Radix Achyranthis Bidentatae)</td>
<td>30g</td>
</tr>
<tr>
<td>Du Zhong (Cortex Eucommiae)</td>
<td>60g</td>
</tr>
<tr>
<td>Fang Feng (Radix Saposhnikoviae)</td>
<td>60g</td>
</tr>
<tr>
<td>Qiang Hua (Rhizoma et Radix Notopterygii)</td>
<td>30g</td>
</tr>
<tr>
<td>Fu Zi (Radix Aconiti Lateralis Praeparata)</td>
<td>45g</td>
</tr>
<tr>
<td>Zhi Gan Cao (Radix et Rhizoma Glycyrrhizae Praeparata cum Melle)</td>
<td>30g</td>
</tr>
</tbody>
</table>

### 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.