1 Herbs to Tonify Deficiency

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INTRODUCTION

Identifying a Deficiency Pattern
Treating a Deficiency with herbs first requires recognizing which Deficiency Pattern is present. Deficiency Patterns are collections of disease signs that occur when there are certain kinds of imbalances in the body. As stated in the ancient text, *Huang Di Nei Jing*, “no disease occurs if *Yin* and *Yang* maintain a relative balance” but “disease occurs when there is loss of the balance between *Yin* and *Yang*.” The Eight Principles method further characterizes disease by using pairs of opposite Patterns, which include Exterior or Interior, Heat or Cold, Excess or Deficiency, and *Yang* or *Yin*. Deficiency Patterns are then divided into four categories: *Qi* Deficiency, Blood Deficiency, *Yin* Deficiency and *Yang* Deficiency (Table 1.1).

Deficiency Patterns are often seen in geriatric patients with chronic illnesses. Patients with Deficiency Patterns usually exhibit general weakness, fatigue, lethargy, a weak pulse, and a pale or red tongue. An individual patient’s specific combination of clinical signs, tongue appearance, and pulse quality help pinpoint which of the four Deficiency categories are occurring in the patient, indicating which treatments are most appropriate.

Treating a Deficiency Pattern
According to the *Huang Di Nei Jing*, “Deficiency is treated with tonification” to restore the equilibrium of *Yin* and *Yang*. There are four categories of Chinese herbs that tonify Deficiency: *Qi* Tonic, Blood Tonic, *Yin* Tonic and *Yang* Tonic (Table 1.1). Each herb category treats a specific Deficiency Pattern because the properties of the herbs counteract the particular deficiencies within that Pattern.

A *Qi* tonic focuses on the Upper Burner (*Shang Jiao*) and Middle Burner (*Zhong Jiao*) Deficiencies (Lung, Heart, and Spleen), which are often present in a *Qi* Deficiency Pattern. The Spleen generates *Qi* and the Lung distributes the *Qi*, so strengthening these two organs will promote the production and distribution of *Qi*, counteracting the *Qi* Deficiency. The herb Astragalus *Huang Qi* falls in the *Qi* Tonic category because it can tonify Spleen *Qi*, Lung *Qi*, and Heart *Qi*. A Blood tonic focuses on the Lower and the Middle Burners (Kidney and Liver) because the Kidney stores Essence (*Jing*) and the Liver stores Blood. This herbal tonic strengthens the Kidney and enriches the *Jing* stored there, and then the *Jing* transforms into Blood. This strengthening of the Liver further increases its supply and availability of Blood. The herb Rehmannia *Shu Di Huang* is a basic Blood tonic, because it tonifies Kidney *Jing* and Liver Blood, resulting in increased Blood. A *Yang* tonic, such as Morinda *Ba Ji Tian*, uses warm tonification because it needs to replace the missing Heat due to insufficient *Yang*. A *Yin* tonic, such as Lily *Bai He*, uses cool tonification because it replaces the missing coolness due to insufficient *Yin*. In all these cases, the tonic herbs increase the deficient component in order to bring it back into balance with the other components.

Generally speaking, tonifying herbs have several possible actions, including 1) enhancing the physiological activities of internal organs (*Qi* tonic), 2) moistening and nourishing the body (*Blood* and *Yin* tonic), 3) increasing disease resistance, 4) improving the healing process, 5) enhancing the immune response, and 6) promoting absorption of and better utilization of nutrients. Some of these herbs act similarly to western pharmaceuticals such as epinephrine, corticosteroids, hormones, and digoxin.

Tonic herbal formulas frequently include other herbs in addition to the tonic herbs. First, a pure tonic may generate Stagnation because it increases essential substances (*Qi*, *Blood*, *Yin*, or *Yang*). For this reason, tonic herbs are often combined with one or more herbs that move *Qi*-Blood to resolve Stagnation. For example, *Si Wu Tang*, a basic Blood tonic herbal formula, consists...
Table 1.1. Tonic and indications.

<table>
<thead>
<tr>
<th>Deficiency Category</th>
<th>Clinical Signs</th>
<th>Tonic Category</th>
<th>Tonic Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qi Deficiency</td>
<td>Weakness, fatigue, or shortness of breath</td>
<td>Qi Tonic</td>
<td>Energy: Warm/neutral</td>
</tr>
<tr>
<td></td>
<td>Depression, anorexia</td>
<td></td>
<td>Taste: Sweet</td>
</tr>
<tr>
<td></td>
<td>Chronic diarrhea, urinary leakage</td>
<td></td>
<td>Activity: Tonify the Upper/Middle Burner</td>
</tr>
<tr>
<td></td>
<td>Tongue: pale/wet</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pulse: weak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood Deficiency</td>
<td>Dry and cracked paws/hooves</td>
<td>Blood Tonic</td>
<td>Energy: Neutral</td>
</tr>
<tr>
<td></td>
<td>Flaky skin (large dandruff)</td>
<td></td>
<td>Taste: Sweet</td>
</tr>
<tr>
<td></td>
<td>Poor stamina</td>
<td></td>
<td>Activity: Tonify the Lower/ Middle Burner</td>
</tr>
<tr>
<td></td>
<td>Tongue: pale/dry</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pulse: thin/weak</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yin Deficiency</td>
<td>Cool-seeking, hot, panting, thirsty</td>
<td>Yin Tonic</td>
<td>Energy: Cool</td>
</tr>
<tr>
<td></td>
<td>Flaky skin (fine dandruff)</td>
<td></td>
<td>Taste: Sweet/bitter</td>
</tr>
<tr>
<td></td>
<td>Hyperactivity</td>
<td></td>
<td>Activity: Moisten Body Fluids/clear Heat</td>
</tr>
<tr>
<td></td>
<td>Tongue: red/dry</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pulse: thin/fast</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yang Deficiency</td>
<td>Qi Deficiency with Cold signs (warm-seeking, Cold ear/nose/back/extremity)</td>
<td>Yang Tonic</td>
<td>Energy: Warm/hot</td>
</tr>
<tr>
<td></td>
<td>Tongue: pale purple/swollen/wet</td>
<td></td>
<td>Taste: Sweet</td>
</tr>
<tr>
<td></td>
<td>Pulse: deep/slow/weak</td>
<td></td>
<td>Activity: Tonify Yang/warm the Interior</td>
</tr>
</tbody>
</table>

HERBS TO TONIFY QI

Qi Tonic Herbs treat Qi Deficiency Patterns by stimulating and invigorating the Zang-fu organs, especially the Spleen and Lung. Qi Deficiency Patterns are most commonly found in the Spleen and Lung because these two Zang organs are primarily responsible for 1) forming Qi (including Gu Qi and Zong Qi) from the food and air (universe) and 2) transporting and distributing Qi within the body. Table 1.2 describes the clinical signs of Spleen and Lung Qi Deficiency Patterns.

Most Qi tonic herbs have a neutral or warm temperature and a sweet taste, and they affect the Spleen and Lung Channels. Some Qi tonic herbs taste bitter and work to clear Heat or dry Dampness. Because Qi is partly responsible for generating and moving Blood, Qi tonic herbs are also used in treating Blood Deficiency Patterns. However, if a patient has a Qi Deficiency Pattern accompanied by Blood, Yin, or Yang Deficiency, additional herbs are combined with the Qi tonic herbs to tonify these other substances.

Use caution when administering Qi tonic herbs because they can promote several side effects, including 1) Qi Stagnation in the Upper Burner or the Middle Burner, 2) loss of appetite or nausea, and 3) creation or aggravation of Heat. Qi tonic herbs are contraindicated in patients with Heat conditions or Excess exogenous conditions. These herbs are also not recommended for patients with signs of Exterior conditions unless they are combined with herbs to release the Exterior.
Ginseng *Ren Shen* 人参

**Name:**
Pharmaceutical: Ginseng, Radix  
Botanical: Panax ginseng  
Common: Chinese ginseng  
Wade-Giles: Jen-Shen  
Translation: Man Root or Root of Person

**Energy/Taste:** Warm, sweet, slightly bitter

**Channel-Organ:** Spleen, Lung, Heart

**Actions:**
1. Replenish Qi, rescue Yuan Qi collapse, and strengthen Yang  
2. Tonify Spleen, Lung, and Heart Qi  
3. Promote fluid and relieve thirst  
4. Calm Shen

**Form and Preparation:** Powder or decoction; when administering this herb alone, it is best to double-boil and save the fluid instead of boiling it off.

**Dosage:**
Use double the dose for patients in shock.  
Horses and Cattle: 15–30 g  
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–10 g  
Dogs: 1–3 g  
Cats and Rabbits: 0.2–1 g

**Cautions and Contraindications:**
2. Avoid in patients with Yang rising clinical signs, including high blood pressure. Instead, use Codonopsis *Dang Shen* as a substitute.  
3. The herb is incompatible with iron, tea, caffeine, and turnips, so avoid diets that contain these substances.  
4. *Rhaphanus Lai Fu Zi* or *Trogopterus Wu Ling Zhi* may reduce Ginseng *Ren Shen*’s effect.

**Side Effects:**
1. Bleeding is a common sign of acute toxicity.  
2. Overdose or mistakenly using this herb for patients with Yin Deficiency or Yang rising can lead to headache or head-shaking, sweating, nosebleeds, insomnia (behavior issues at night), palpitations, and elevated blood pressure.  
3. Skin rash  
4. Restlessness; barking or behavior changes at night  
5. Depression or mania

**Clinical Applications:**
1. Collapse of Qi, Yuan Qi, and Yang due to severe Deficiency, loss of Blood, severe vomiting, or severe diarrhea

**Original Reference:** *Shen Nong Ben Cao Jing* (Shen Nong’s *Materia Medica*, 1st century BCE) 神农本草经

**Part Used:** Root
Clinical signs: Sweating, cold limbs, shortness of breath, weak and fading pulse
Use: Use alone or combine with Aconite Fu Zi
Classical herbal formula: Shen Fu Tang
2. Weakness of Stomach and Spleen Qi
Clinical signs: Poor appetite, lassitude, abdominal distension, diarrhea
Combine with: Atractylodes Bai Zhu, Poria Fu Ling, Glycyrrhiza Gan Cao
Classical herbal formula: Si Jun Zi Tang
3. Deficiency of Lung and Kidney Qi
Clinical signs: Shortness of breath due to asthma, spontaneous sweating, fatigue
Combine with: Gecko Ge Jie
Classical herbal formula: Ren Shen Ge Jie San
4. Deficiency of Lung and Heart Qi and Yin
Clinical signs: Dry throat, fatigue, palpitations
Combine with: Ophiopogon Mai Men Dong and Schisandra Wu Wei Zi
Classical herbal formula: Sheng Mai San
5. Deficiency of Spleen and Heart Qi
Clinical signs: Fatigue, palpitations, anxiety, Shen disturbance, edema or diarrhea
Combine with: Polygala Yuan Zhi and Poria Fu Ling
Classical herbal formula: Gui Pi Tang
6. Deficiency of Kidney Qi and Yang
Clinical signs: Male impotence or female infertility
Combine with: Cervus Lu Rong

History and Comments:
1. Ginseng Ren Shen was discovered thousands of years ago by accident. Two brothers were trapped on the big mountain Chang Bai Shan (Long White) in Northeast China because of a sudden snowstorm while they were hunting in the late fall. The snow was so heavy that there was no way for them to go home, and they had to stay on the deep mountain. Many days later, after they had eaten all their food, they dug in the soil to search for new food supplies. Surprisingly, they found a big root, which became their only food for the entire winter. After the snow melted the following spring, the brothers brought this herbal root home where they were welcomed by the villagers who had thought that they were dead. Since then, the people named this special plant with green leaves Ren Shen, which translates literally as “man root,” because this herb can reinforce Qi and empower a person. Therefore, this herb is the root of man and Essence of the body. The best quality Ren Shen is called Ye Shan Shen. Ye means “wild” and Shan means “a big mountain,” which is where Ginseng naturally grows. Shen is Ren Shen. Although Ye Shan Shen produces the best results, nearly all Ginseng on the market is cultivated because wild Ginseng is now rare due to overharvesting.
2. During the Qin Dynasty (221–206 BC), Dr. Fei Bai Xiong attended to a patient named Zhen. Despite his strong body and strong constitution, Zhen loved to take tonic herbs. He had consumed a special meal consisting of duck cooked with about 65 grams of Ginseng Ren Shen. Five days later, his vision significantly declined. Ten days later, he lost his vision completely. After many other doctors’ treatments failed, Zhen turned to Dr. Fei. Dr. Fei told Zhen that overeating Ginseng caused Qi Stagnation and Qi Stasis, which led to his blindness. Dr. Fei used Xie-fa (a reducing method) to treat Zhen. He instructed Zhen to drink pear juice. At first, Zhen had two to three loose bowel movements each day. After 10 days, the patient’s vision had increased. One month later, his vision was completely restored. This is the early story of the side effect of Ren Shen.
3. Chinese Ginseng is native to China, and the root of this slow-growing plant has been valued in Chinese medicine for more than 2,000 years. According to Shen Nong’s Materia Medica, Ginseng was known to “fill the five internal organs, calm the spirit of the soul, eliminate the evil influences, keep fitness level, maintain youthful appearance, and improve mental and physical performance.”
4. There are two types of Ginseng: Chinese Ginseng Ren Shen and American Ginseng Xi Yang Shen. They are both popular, but expensive, tonic herbs that taste sweet and bitter. Chinese Ginseng Ren Shen is the root of Panax Ginseng C.A. Mey, which originated in Northeastern China. Chinese Ginseng is one of the most powerful Qi tonic herbs in traditional Chinese medicine. Most Chinese Ginseng is produced in Ji Lin Province and thus called Ji Lin Shen. Ginseng produced in North Korea is called Korean Ginseng, Gao Li Shen. Red Ginseng (Hong Shen) has been steamed in rice wine and molasses to increase the effect of tonifying Qi and Yang and prolonging the shelf life. Otherwise, it is White Ginseng (Bai Shen).
5. American Ginseng Xi Yang Shen, which is the root of Panax quinquefolium L., is a powerful Yin tonic herb in addition to Qi tonic. This herb is primarily produced in North America, especially Wisconsin. Chinese Ginseng Ren Shen is warm and used to tonify Qi and to rescue Yuan (Source) Qi from collapse. When entering the Spleen, Lung, and Heart channels, it both tonifies the Spleen and Lung as well as calms Shen with cardiotonic effects. Chinese Ginseng is classically used to promote secretion of Body Fluids and relieve thirst. Because of its warm energy and potency, it is often used at a lower dosage or short-term duration. High dosage or chronic usage can lead to nosebleeds, hypertension, and Yin Deficiency. It is contraindicated for use in Yin-Deficient and hypertensive patients. On the other hand, American Ginseng Xi Yang Shen is cool and used to nourish Yin, replenish Body Fluids, and Clear Deficient Heat in addition to tonification of Qi.
**Pharmaceutical Ingredients:**

1. Volatile oils, triterpenoids, Aglycone (20S)-protopanaxadiol (Ginsenosides: Ra<sub>1</sub>, Ra<sub>2</sub>, Ra<sub>3</sub>, Rd, Rb<sub>1</sub>, Rb<sub>2</sub>, Rd; Notoginsenosides: R<sub>a</sub>, R<sub>b</sub>, R<sub>c</sub>, R<sub>d</sub>, Rf, Rg<sub>1</sub>; Malonylginsedosides: Rb<sub>1</sub>, Rb<sub>2</sub>, Rc, Rd)
2. Aglycone (20S)-protopanaxatriol (Ginsenosides: Re, Rf, Rg<sub>1</sub>; Notoginsenosides)
3. Aglycone oleanolic acid (Ginsenoside R<sub>0</sub>); Chikusetsusasaponin-V Rb<sub>1</sub>, Rb<sub>2</sub>, Rc, Rd, Re, Rg<sub>1</sub>)
4. Water-soluble polysaccharides (panaxane A to U)
5. Polyynes (falcarinol, falcarintriol)
6. Antioxidants
7. Fatty acids
8. Salicylic acid
9. Vanillin acid
10. Vitamins C, B<sub>1</sub>, B<sub>2</sub>, B<sub>12</sub>, and niacin acid
11. Small quantity of minerals (Mn, Cu, Co, As, Al, P, K)
12. Flavonoids

**Research:** Abstracts of over 3,000 scientific studies on Ginseng can be found on PubMed, a scientific article database. The research demonstrates the saponins called *ginsenosides* (panaxosides) to be the primary active ingredients in Panax species. Thus far, 13 saponins have been identified and given names such as Ra<sub>1</sub>, Rb<sub>1</sub>, and Rg<sub>1</sub>. Not surprisingly, this powerful tonic herb has a large variety of positive effects: promoting tissue healing, decreasing the body weight and total serum cholesterol, inhibiting cancer cells, and increasing endurance and performance.

**Codonopsis Dang Shen 胡參**

**Original Reference:** *Ben Cao Chong Xin (Thoroughly Revised Materia Medica by Wu Yi-Luo, 1751)*

**Part Used:** Root

**Name:**
- Pharmaceutical: Radix Codonopsis Pilosulae
- Botanical: Codonopsis pilosula
- Common: Pilose
- Wade-Giles: Tang-Shen
- Translation: Relative Root

**Energy/Taste:** Neutral, sweet

**Channel-Organ:** Spleen, Lung

**Actions:**
1. Tonify the Middle Burner, strengthen Qi
2. Produce Body Fluids, nourish Blood

**Form and Preparation:**
- Decoction or powder

**Dosage:**
- Horses and Cattle: 20–60 g
- Llamas, Alpacas, Goats, Sheep, and Pigs: 5–10 g
- Dogs: 2–5 g
Cats: 0.5–1 g  
Rabbits: 0.5–1 g  
Birds: 0.2–1.5 g

Cautions and Contraindications:
1. None known  
2. Due to its neutral energy, Codonopsis Dang Shen may be used for Yin Deficiency (False Heat).

Side Effects:
1. Side effects are rare.  
2. With an overdosage, a patient may experience discomfort in the chest or an irregular pulse.

Clinical Applications:
1. Deficient Qi of Stomach and Spleen  
   Clinical signs: Poor appetite, diarrhea, tired limbs, fatigue, vomiting, organ prolapse  
   Combine with: Atractylodes Bai Zhu and Poria Fu Ling  
   Classical herbal formula: Shen Ling Bai Zhu San  
2. Deficient Lung Qi  
   Clinical signs: Short breath, lassitude, cough, loss of voice, weak pulse  
   Combine with: Astragalus Huang Qi  
   Classical herbal formula: Bu Fei San  
3. Qi and Yin Deficiency  
   Clinical signs: Dizziness or disorientation, weakness, lassitude, increased thirst, cool-seeking  
   Combine with: Astragalus Huang Qi and Schisandra Wu Wei Zi

History and Comments:
1. Dang Shen was so named because it was first discovered at Shang Dang in Shanxi Province and its root looked like Ren Shen. The Shang Dang area was originally famous for its Ren Shen production, but by the Ming Dynasty (1368–1644 CE) Ren Shen was rare due to excessive harvesting. When the price of Shang Dang Ren Shen skyrocketed, unethical businessmen began to pass Dang Shen off as Ren Shen. Over decades, doctors realized Dang Shen was wonderful for tonifying Qi, even though it did not have Ren Shen’s warming and nourishing effects. Today, Dang Shen is used much more than Ren Shen in Chinese medicine. Who would have expected a fake to become the primary Chinese herb! Codonopsis Dang Shen is a neutral Qi tonic and is good as a general Qi Tonic.  
2. Codonopsis Dang Shen may be used as a general substitute for Ginseng in most tonic formulas. Generally, Codonopsis Dang Shen acts similarly to Ginseng Ren Shen, but not as strongly. When substituting Codonopsis Dang Shen for Ginseng Ren Shen, use Codonopsis Dang Shen at 3–4 times the Ginseng Ren Shen standard dose. In serious cases of collapsed Qi with devastated Yang, Ginseng is preferred over Codonopsis Dang Shen.

Pharmaceutical Ingredients:
1. Saponins  
2. α-spinasterol, amino acid, Stimasterol  
3. Alkaloids (codonopsine, codonopsinine)  
4. Glycosides (inulin, fructose, syringin, glucopyranoside, fructofuranoside, tangshenoside I, II, III, IV)  
5. Flavonoids (luteolin-7-glucoside, apigenin, apigenin-7-glucoside, luteolin, aynaroside, luteotin-7-cotinoside, luteoin-7-galactoside)  
6. Triterpenoids (oleanolic acid, echino cystic acid, albigeneric acid, taraxeryl acetate, taraxerol, friedelin)  
7. Essential oils (palmitic acid, hexanoic acid, octanoic acid, dodecanoic acid, tetradecicoic acid, octadecadi- ecoic acid)

Astragalus Huang Qi 黄芪
Dosage:
Horses and Cattle: 20–60 g
Camels: 30–80 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–15 g
Dogs: 3–10 g
Cats: 1–2 g
Rabbits: 0.5–1.5 g
Birds: 0.3–2 g

Cautions and Contraindications:
1. Yin Deficiency with Excess Heat
2. Food retention
3. Exterior Excess Patterns

Side Effects:
1. May cause skin rashes
2. May extend the gestational period
3. May increase body weight of the fetus

Clinical Applications:
1. Deficiency of Lung and Spleen Qi
   Clinical signs: Poor appetite, diarrhea, short breath, fatigue, weakness and lassitude
   Combine with: Codonopsis Dang Shen (or Ginseng Ren Shen) and Atractylodes Bai Zhu
   Classical herbal formula: Si Jun Zi Tang
2. Qi sinking due to Deficiency of Spleen Qi
   Clinical signs: Prolapse of the uterus, anus, and Stomach; excessive uterine bleeding
   Combined with: Codonopsis Dang Shen, Atractylodes Bai Zhu, Bupleurum Chai Hu, Cimicifuga Sheng Ma
   Classical herbal formula: Bu Zhong Yi Qi Tang
3. Deficiency of Wei Qi
   Combined with: Ledebouriella Fang Feng
   Classical herbal formula: Yu Ping Feng San
4. Edema due to Spleen dysfunction
   Clinical signs: Swelling of face or extremities due to superficial floating edema
   Combine with: Cinnamomum Gui Zhi, Stephania Han Fang Ji, Poria Fu Ling, Atractylodes Cang Zhu
5. Slowing-healing ulcerated wounds with pus
   Clinical signs: Suppurative, difficult to drain but once perforated will produce only a thin clear discharge
   Combine with: Manitis Chuan Shan Jia, Angelica Dang Gui
   Classical herbal formula: Yang He Tang

History and Comments:
1. During the Qing Dynasty (1644–1911), Dr. Xu treated a patient in critical condition. The patient had edema from head to foot, shortness of breath, and loss of voice, and was unable to urinate or have a bowel movement. Dr. Xu made Astragalus Huang Qi wine, which is 120 grams of Astragalus soaked in 1 cup of sweet rice wine. After drinking the herbal wine, the patient was able to breathe normally and...
he began urinating profusely, which significantly decreased the edema. Two months later, all clinical signs had resolved except edema in the patient’s foot. The patient lost patience and saw a different doctor. The new doctor criticized Dr. Xu’s therapy and gave the patient a stronger Damp-remover. The new herbal medicine almost killed the patient, so he returned to Dr. Xu’s clinic. Dr. Xu prescribed 2 kg of Huang Qi and the foot edema completely resolved.

2. According to Tang Shu (The Book of the Tang Dynasty, 618–907 CE), Astragalus Huang Qi was used to treat the Emperor’s mother. One day, Mother Liu suffered from a stroke and was unable to speak. The emperor hired a dozen doctors, but none could cure her. Finally the emperor called Dr. Xu Yin Zong, who was believed to possess immortal medical abilities. Mother Liu’s pulse was too deep to be felt. Dr. Xu diagnosed the Emperor’s Mother with a Yang Deficiency because the Qi and Blood could not flow well. She was unable to drink, so large quantities of an Astragalus Huang Qi and Ledebouriella Fang Feng herbal decoction were steamed underneath her bed until the herbal steam filled the whole room like a sauna. Mother Liu absorbed the herbs through her nose, mouth, and skin and made a complete recovery after the herbal sauna. Dr. Zhenheng Zhu, one of the greatest Traditional Chinese Medicine (TCM) masters of the Jin-Yuan Dynasty, later commented on this case that “Man’s mouth is connected to the ground and man’s nose is connected to the sky. The sky is light and clear, so the nose only receives shapeless things; the ground is deep and heavy, so the mouth only receives matters with shapes and forms. If the patient’s mouth channel is blocked, herbal soup which has a shape cannot pass through, but steam can enter the mouth and the nose and dissolve the illness. The Emperor’s mother could not have been saved if it weren’t for Dr. Xu’s great wisdom.”

3. Huang Qi has broad-ranged immunotonic and adaptagenic effects. It has been useful in cancer. For chronic nephrosis with proteinuria, a combination of Huang Qi and Dang Shen can decrease proteinuria.

**Pharmaceutical Ingredients:**

1. Isoastragaloside I–II, Cycloastragenol, Cyclosiversigenin, Fomononectic, kumatakenin
2. Astramembrannin II, Acetylastragaloside I, Soyasaponin I, tragacantha
3. Palmitic acid, linoleic acid, linolenic acid
4. Polysaccharide: astraganalan I–III
5. Protein (6.16–9.9%)
6. Selenium, Fe, Ca, O, Mg

**Atractylodes Bai Zhu 白术**

**Original Reference:** *Shen Nong Ben Cao Jing (Shen Nong’s Materia Medica, 1st century BCE)* 神农本草经

**Part Used:** Root

**Name:**
Pharmaceutical: Radix Atractylodes Macrocephalae
Botanical: Atractylodes macrocephalae
Common: White atractylodes
Wade-Giles: Pai-Chu
Translation: White Atractylodes

**Energy/Taste:** Warm, bitter, sweet, pungent

**Channel-Organ:** Spleen, Stomach

**Actions:**
1. Replenish Spleen Qi
2. Resolve Spleen Damp and circulate water
3. Calm the fetus
4. Stabilize the Exterior and stop sweating

**Form and Preparation:** Decoction or powder; stir-frying enhances its action to tonify Spleen Qi and stop diarrhea.
Dosage:
Horses and Cattle: 20–60g
Camels: 30–90g
Llamas, Alpacas, Goats, Sheep, and Pigs: 10–15g
Dogs: 3–10g
Cats: 1–2g
Rabbits: 0.5–1.5g
Birds: 0.3–2g

Cautions and Contraindications: Caution in Yin Deficiency with Internal Dryness due to Heat

Side Effects: None known

Clinical Applications:
1. Spleen Qi Deficiency
   Clinical signs: Poor appetite, diarrhea, epigastric distension, fatigue, vomiting, abdominal distension, fullness
   Combine with: Codonopsis Dang Shen (or Ginseng Ren Shen), Poria Fu Ling, and Glycyrrhiza Gan Cao
   Classical herbal formula: Si Jun Zi Tang
2. Water retention due to Spleen Deficiency
   Clinical signs: Edema, ascites, decreased urine
   Combine with: Areca Da Fu Pi and Poria Fu Ling
3. Prevention of abortion or restless fetus due to Spleen Qi Deficiency
   Combine with: Conodonopsis Dang Shen and Scutellaria Huang Qin
   Classical herbal formula: Bai Zhu San

History and Comments:
1. Ge Hong wrote about Atractylodes Bai Zhu in Bao Po Zi. During the last years of the Han Dynasty (206 BCE–220 CE), a young woman fled into the secluded mountains to escape her abusive husband. Wandering for many days and nights, she could not find any food. Dying from hunger and exhaustion, a mysterious old man appeared before her. He gave her a piece of Bai Zhu and taught her how to find it in the wild. Her body was filled and regained its strength after she had eaten the Bai Zhu for a few days. For 20 years, she continued to live in the mountains and eat the Bai Zhu. One day, she was picking berries by a lake when she saw a beautiful girl with flawless skin and radiant eyes. To her surprise, she realized this girl was her own reflection in the water. The woman went back to her home town, which caused quite a fright in her family. Her husband thought she was a ghost coming back for revenge, for how could she grow younger after 20 years?

2. During the Qing Dynasty (China’s last Dynasty, 1644–1912 CE) there was a governor of Hebei Province who suffered from Heart Qi Deficiency when he was young. Whenever he worked, doing even small errands, he would quickly collapse with fatigue and begin shivering. His doctor prescribed Da Zao Ren and Yuan Zhi, which caused some improvement but did not prevent the shivering from recurring. His condition would be good at one moment and poor in the next. One day, the young man happened to see a Taoist performing a Chinese game called Fu Ji (扶乩) at his friend’s home. The Taoist, while lightly holding a willow stylus that stood on a sand tray, murmured some mantras. After a while, the stylus started moving automatically, as if some divine force was answering the prayer. The Taoist asked several questions that had been perplexing his friend. In response, the stylus slowly drew symbols and Chinese characters on the sand. The Taoist interpreted the wise and insightful answers to each question. Amazed, the man begged the Taoist to consult the Spirit about his long-lingering illness. The Taoist read from the sand tray, “The symptoms occur in your Heart, but the source of the illness is rooted in your Spleen. The Spleen is so deficient that it stole its Mother’s Qi (the Heart). Take Bai Zhu frequently (to tonify Spleen Qi) and you will be fine.” He followed the instruction diligently and soon recovered completely.

3. The raw herb is best for resolving Damp. The fried herb is best for tonifying Spleen Qi. The carbonized herb is best for stopping diarrhea.
4. Atractylodes Cang Zhu is used mostly for diaphoresis and drying Dampness. Atractylodes Bai Zhu is used when Spleen Qi is weak but Dampness is not predominant.
5. There is a saying that “Ren Shen is in the North while Bai Zhu is in the South.” This refers to the highest quality Ginseng Ren Shen coming from Northern China while Southern China produces better Atractylodes Bai Zhu.
6. Bai Zhu can mildly decrease blood sugar levels. It also increases the white blood cell count in cancer patients with leukopenia due to chemotherapy or radiotherapy.

Pharmaceutical Ingredients:
1. Atractylolide, fructose, Synanthrin, Sesquiterpenelon
e-udesmol, hinesol
β-ethoxyatractylenolide, Atractylol, α-eudesmol, hinesol

2. Palmitic acid, anhydroatractyloide, Juniperacmphor, Atractyloide, fructose, Synanthrin, Sesquiterpenelon

3. Aspartic acid, serine, glutamic acid, glycine, alanice, valine, isoleucine, leucine

4. Tyrosine, phenylalanine, lysine, histidine, arginine, proline
Dioscorea *Shan Yao* 

Common: Batatatis, Chinese yam  
Wade-Giles: *Shan-Yao*  
Translation: Mountain Medicine  
Alternate: *Shao Yu* (Mountain Encountering)

**Energy/Taste:** Neutral, sweet  

**Channel-Organs:** Spleen, Lung, Kidney

**Actions:**
1. Tonify the Spleen *Qi*  
2. Tonify the Kidney *Qi* and *Jing*  
3. Tonify the Lung *Yin*

**Form and Preparation:** Decoction or powder; stir-frying with wheat bran enhances its action to tonify Spleen to stop diarrhea; raw will Tonify *Yin*.

**Dosage:**
- Horses and Cattle: 30–90 g  
- Llamas, Alpacas, Goats, Sheep, and Pigs: 10–30 g  
- Dogs: 5–15 g  
- Cats: 1–3 g  
- Rabbits: 1–1.5 g  
- Birds: 1–5 g

**Cautions and Contraindications:** Caution for Excessive Dampness and Stagnation

**Side Effects:** None known

**Clinical Applications:**
1. **Spleen Qi Deficiency**  
   *Clinical signs:* Poor appetite, diarrhea, fatigue  
   *Combine with:* Ginseng *Ren Shen* or Codonopsis *Dang Shen*, Atractylodes *Bai Zhu*, Poria *Fu Ling*  
   *Classical herbal formula:* *Shen Ling Bai Zhu San*
2. **Chronic cough due to deficient Lung *Yin* and Kidney *Qi**  
   *Combine with:* Ophiopogon *Mai Men Dong*, Glehnia *Bei Sha Shen*, Schisandra *Wu Wei Zi*
3. **Diabetes (Wasting and Polydipsia)**  
   *Clinical signs:* Extreme thirst, hunger, urination, fatigue  
   *Combine with:* Astragalus *Huang Qi*, Trichosanthes *Tian Hua Fen*, Rehmannia *Sheng Di Huang*, Pueraria *Ge Gen*  
   *Herbal formula:* *Xiao Ke Fang*

**Original Reference:** *Shen Nong Ben Cao Jing* (*Shen Nong’s Materia Medica*, 1st century BCE)  

**Part Used:** Root  

**Name:**  
- Pharmaceutical: Rhizome Dioscoreae  
- Botanical: Dioscorea opposita

*Original Reference:* *Shen Nong Ben Cao Jing* (*Shen Nong’s Materia Medica*, 1st century BCE)  

**Part Used:** Root  

**Name:**  
- Pharmaceutical: Rhizome Dioscoreae  
- Botanical: Dioscorea opposita
4. Urinary leakage due to Kidney Deficiency
   Combine with: Alpinia Yi Zhi Ren and Mantidis Sang Piao Xiao

**History and Comments:**
1. The City of Jiao Zuo in the Henan Province was the home of the Kingdom of Ye in the early Ming Dynasty (1368–1644 CE). The Kingdom Ye was often bullied by its neighbors. In one winter battle, Ye’s army was heavily outnumbered by the enemy and was chased deep into the mountains. The weather was bitterly cold, snow swirled through the air, and the provisions had run out. Despair began growing in the troops. Out of desperation, a soldier dug up some roots from a snow-covered field and gulped them down. To his surprise, the roots were sweet, juicy, and quite delicious. This news was greeted with cheers as it spread quickly through the army. The soldiers consumed the roots for several days, and they found their strength and vigor had returned. Many wounded soldiers had healed. Even the horses that had eaten the vines of the plant became much sturdier than before. The army rushed down from the mountain like lions, broke through the enemy’s encirclement, and recovered their lost lands. At the celebration dinner, the soldiers named the plant Shan (山, “mountain”) Yu (遇, “encounter”). Somehow this later changed into Shao Yao because Yao means medicine and sounds more proper. Today, Jiao Zuo still produces the best quality Shan Yao in the world. This area was also famous for its Rehmannia Sheng Di Huang, Achyranthes Huai Niu Xi (Cyathula Chuan Niu Xi) and Chrysanthemum Ju Hua production.
2. This herb is neutral, neither hot nor cold. It can treat both Kidney Yin and Yang Deficiency. It can be used long-term, often in foods as well as teas, powders, and pills. It is often used in Spleen tonics with Atractylodes Bai Zhu and Ginseng Ren Shen and in Kidney tonics with Poria Fu Ling.
3. Shan Yao has been very effective for neonatal diarrhea and has successfully treated ulcers in the gums and mouth. Shan Yao also improves the digestive system, promotes urination, lowers blood sugar, lowers blood pressure, and has antiaging effects.

**Pharmaceutical Ingredients:**
1. Saponin, choline, allantoin, batasine
2. Manna, Choline, Abscisins, Phytic acid, 16% Starch, Dopamine
3. Amylase, glycoprotein
4. Vitamin C, polyphenoloxidase
5. Arginine, glutamic acid, aspartic acid
6. Fe, Cu, Zn, Co, Cy Glycyrhiza Gan Cao 甘草
Part Used: Root

Name:
Pharmaceutical: Radix Glycyrrhiza
Botanical: Glycyrrhiza uralensis; G. inflata; G. glabra (Licorice)
Common: Licorice Root
Wade-Giles: Kan-Tsao
Translation: Sweet Herb
Alternate: Guo Lao

Energy/Taste: Neutral, sweet

Channel-Organ: Heart, Lung, Spleen, Stomach, and all other organs (12 Channels)

Actions:
1. Tonify the Spleen and Qi
2. Moisten the Lung and stop coughing
3. Moderate spasms and relieve pain
4. Regulate and harmonize herbs
5. Clear Heat and relieve toxicities

Form and Preparation: Decoction or powder; stir-fry with honey to tonify Spleen Qi and moisten Lung; raw is slightly cold to clear Heat and remove toxins.

Dosage:
Horses and Cattle: 15–60 g
Camels: 45–100 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 3–10 g
Dogs: 1–5 g
Cats: 0.5–2 g
Rabbits: 0.5–1.5 g
Birds: 0.3–3 g

Cautions and Contraindications:
1. Excessive Damp; nausea, abdominal distension
2. Do not use in diuretic formulas for the Lower Burner.
3. Incompatible with Genkwa Yuan Hua, Sargassum Hai Zao, Euphorbia Da Ji, and Euphorbia Gan Sui

Side Effects:
1. Long-term use or overdose causes edema because it contains potassium and leads to a potassium/sodium imbalance. It also causes hypertension, weakness of the limbs, spasm or numbness, headache or head-shaking, and dizziness or disorientation.
2. Long-term use or overdose may cause hypertension and congestive heart failure in geriatric patients, especially those that have heart disease or renal disease.
3. Chronic usage causes milk production in non-pregnant animals.

Clinical Applications
1. Spleen and Stomach Qi Deficiency
Clinical signs: Poor appetite, diarrhea, fatigue
Combine with: Codonopsis Dang Shen (or Ginseng Ren Shen), Atractylodes Bai Zhu, Poria Fu Ling
Classical herbal formula: Si Jun Zi Tang
2. Heart Qi Deficiency
Clinical signs: Palpitations, irregular pulse, pale tongue
Combine with: Ginseng Ren Shen
Classical herbal formula: Zhi Gan Cao Tang
3. Cough and asthma due to either Heat or Cold in the Lungs
Combine with: Armeniaca Xing Ren and Ephedra Ma Huang
Classical herbal formula: Ma Xing Shi Gan Tang
4. Used raw for carbuncles, furuncles, and sore throat due to toxic Heat
Combine with: Platycodon Jie Geng, Scrophularia Xuan Shen, Arctium Niu Bang Zi, Lonicera Jin Yin Hua and Forsythia Lian Qiao.
5. Abdominal pain due to Stomach spasms or muscle spasms of the limbs
Combine with: Paeonia Bai Shao Yao
Classical Herbal formula: Shao Yao Gan Cao Tang
6. Moderating and harmonizing the actions of other herbs
For example: Glycyrrhiza Gan Cao can reduce the warm and harsh effects of Aconite Fu Zi and the cold and purgative effect of Rheum Da Huang. Because of its strong sweet taste, Gan Cao makes any herbal formula more palatable.
7. An antidote for general food or drug poisons
Combine with: Phaseolus Lu Dou

History and Comments:
1. In the Ming Dynasty (1368–1644 CE), Emperor Chengzu greatly trusted Sheng Yin, his personal physician. When Sheng Yin cured the Emperor's severe rheumatism, the emperor appointed him as the head of the imperial physicians for more than 30 years. When walking into the imperial palace pharmacy early one morning, Sheng Yin suddenly developed a headache and dizziness. He then collapsed and lost consciousness. Because the doctors at the Emperor's Hospital did not know what had happened to him, they did not know what to administer to him. The Emperor made a public request for immediate assistance with Dr. Sheng Yin's treatment. A folk doctor showed up at the palace and offered to treat Dr. Sheng by administering an herbal decoction. After a while, Dr. Sheng woke up. The surprised Emperor asked the folk doctor about his
treatment. The folk doctor answered, “Dr. Sheng had not eaten breakfast before entering the herbal pharmacy. He collapsed because his Stomach Qi was too weak to resist the various herbal and poison Qi. Only Gan Cao can relieve various kinds of evil Qi and harmonize the herbal medicines. I used a high concentration of Gan Cao to treat Dr. Sheng. That was not a secret prescription.” Dr. Sheng confirmed what the folk doctor said, including not having eaten yet that morning. To show his appreciation for what this folk doctor had accomplished, the Emperor gave the folk doctor a full bag of money.

2. Gan Cao has both mineralocorticoid and glucocorticoid effects and increases both the duration and strength of the effects of cortisone. Gan Cao also decreases secretion of gastric acid and has anti-ulcer effects.

**Pharmaceutical Ingredients:**

1. Triterpenoids (6–14% glycyrrhizin of the herb, glycyrrhizic acid, glycyrrhetinic acid, glycyrrhetic acid)
2. Flavonoids (liquiritin, isoliquiritin, liquiritigenin, uratenol-3-methylether, uralene)
3. Deoxyglycyrrhetic acid I,II, liquiritic acid, glycyrrhetol, glabrolide
4. Herniarin, umbelliferone, ferulic acid
5. Biotic, mannitol

**Jujube Da Zao 大枣**

**Original Reference:** Shen Nong Ben Cao Jing (Shen Nong’s Materia Medica, 1st century BCE)

**Part Used:** Fruit

**Name:**

Pharmaceutical: Fructus Ziziphi Jujubae (Fructus Ziziphus Sativae)

Botanical: Ziziphus jujube; Z. sativa

Common: Date

Wade-Giles: Ta-Ts’ao

Translation: Big Date

**Energy/Taste:** Neutral, sweet

**Channel-Organ:** Spleen, Stomach

**Actions:**

1. Tonify Spleen Qi
2. Moderate the actions of other herbs
3. Nourish Blood, calm the mind, clear Heat, and relieve toxicities

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**Form and Preparation:** Decoction or powder; slice before water decoction.

**Dosage:**

- Horses and Cattle: 30–60 g
- Llamas, Alpacas, Goats, Sheep, and Pigs: 10–15 g
- Dogs: 1–5 g
- Cats: 0.5–2 g
- Rabbits: 0.5–1.5 g
- Birds: 0.5–3 g

**Cautions and Contraindications:** Use caution in Excessive Damp conditions, which present with nausea, abdominal distension, food retention, cough due to Phlegm-Heat, intestinal parasites, and Damp Phlegm

**Side Effects:** None known

**Clinical Applications:**

1. Spleen Qi Deficiency

   **Clinical signs:** Lassitude, poor appetite, diarrhea

   **Combine with:** Ginseng Ren Shen or Codonopsis Dang Shen, Atractylodes Bai Zhu

2. Moderates the actions of other herbs

   **Combine with:** Diuretic purgatives (Euphorbia Da Ji, Euphorbia Gan Sui) to moderate harshness and prevent injury to the Spleen and Stomach

   **Classical herbal formula:** Shi Zao Tang

3. Shen Disturbance due to Heart Blood/Yin Deficiency

   **Combine with:** Asinum Gelatinum E Jiao

**Comments:** Two types of Jujubes are available: Hong Zao (red date) and Hei Zao (black date). The black date has a stronger action.

**Ganoderma Ling Zhi 灵芝**

**Original Reference:** Shen Nong Ben Cao Jing, the oldest and most famous medical herbal text ranked Ganoderma Ling Zhi as the number one herb, ahead of Ginseng Ren Shen.

**Part Used:** Spore

**Name:**

Pharmaceutical: Ganoderma

Botanical: Ganoderma lucidum

Common: Ganoderma, or reishi mushroom

Wade-Giles: Ling-Chih

Translation: Spiritual Mushroom

**Energy/Taste:** Neutral, sweet

**Channel-Organ:** Heart, Lung, Liver, Kidney
Chapter 1: Herbs to Tonify Deficiency

**Actions:**
1. Nourish Heart to calm Shen
2. Tonify Qi and Blood
3. Stop cough and asthma

**Form and Preparation:** Syrup, tincture, tablet, or powder

**Dosage:**
- Horses and Cattle: 15–30 g
- Llamas, Alpacas, Goats, Sheep, and Pigs: 5–10 g
- Dogs: 1–3 g
- Cats and Rabbits: 0.2–1 g

**Cautions and Contraindications:** None known

**Side Effects:**
1. No side effects have been found with oral administration.
2. The injectable form of Ling Zhi may cause an acute allergic reaction (hives, shortness of breath, vomiting) 20–30 minutes after injection.

**Clinical Applications:**
1. Restlessness due to Heart Qi/Blood Deficiency
2. Chronic cough and asthma
3. Fatigue, congestive heart failure, immunodeficiency, irregular pulse
4. Prevention of heart or brain diseases

**Comments:**
1. There are wild, cultivated, or synthetic forms of Ling Zhi, which is an herbal mushroom known to have great health benefits.
2. Polysaccharides of Ling Zhi have antitumor, immune modulating, blood pressure lowering and antiaging effects. Ganoderic acids help alleviate common allergies by inhibiting histamine release and improving oxygen utilization and Liver functions.

**Pseudostellaria Tai Zi Shen**

**Original Reference:** Zhong Guo Yao Yong Zhi Wu Zi (China Medical Botanical Encyclopedia, by Pei Jian in 1939)

**Part Used:** Root

**Name:**
- Pharmaceutical: Radix Pseudostellariae Heterophyllae
- Botanical: Pseudostellaria heterophylla
- Common: Prince’s Ginseng
- Wade-Giles: Tieh-Tzu-Shen
- Translation: Prince Root

**Energy/Taste:** Neutral, sweet, slightly bitter

**Channel-Organ:** Spleen, Heart, Lung

**Actions:**
1. Tonify Qi and replenish Body Fluids
2. Strengthen the Spleen

**Form and Preparation:** Decoction or powder

**Dosage:**
- Horses and Cattle: 30–60 g
- Llamas, Alpacas, Goats, Sheep, and Pigs: 10–30 g
- Dogs: 2–5 g
- Cats and Rabbits: 0.5–1 g

**Cautions and Contraindications:** None known

**Side Effects:** None known

**Clinical Applications:**
Deficiency of Qi and Yin of Heart and Lungs

**Clinical signs:** Fatigue, difficulty breathing, thirst

**Combine with:** Ophiopogon Mai Men Dong and Schisandra Wu Wei Zi

**Comments:**
1. Like Codonopsis Dang Shen, Tai Zi Shen is a neutral Qi tonic, but it is less tonic and more fluid generating.
2. Similar to American Ginseng Xi Yang Shen, Tai Zi Shen has Qi and Yin tonic effects, but Tai Zi Shen is milder and more often used for young patients.
3. Tai Zi Shen is often used for Deficiency cough, especially with Dryness (and Yin Deficiency). It can stimulate the production and activities of lymphocytes.

**Gynostemma Jiao Gu Lan**

**Original Reference:** Jiu Huang Ben Cao (Materia Medica for Relief of Famine) by Zhu Su in 1404

**Part Used:** Root, stem, or whole herb

**Name:**
- Pharmaceutical: Herba Gynostemma
- Botanical: Gynostemma pentaphyllam Makino
- Common: Gynostemma
- Wade-Giles: Chiao-Gu-lan
- Translation: Binding Band Blue

**Energy/Taste:** Cold, sweet, bitter

**Channel-Organ:** Spleen, Lung

**Actions:**
1. Tonify Qi and strengthen the Spleen
2. Transform Phlegm and stop cough
3. Clear Heat, detoxify
**Form and Preparation:** Decoction or powder

**Dosage:**
- Horses and Cattle: 20–60 g
- Camels: 30–80 g
- Llamas, Alpacas, Goats, Sheep, and Pigs: 5–15 g
- Dogs: 3–10 g
- Cats: 0.5–2 g
- Rabbits: 0.5–1.5 g
- Birds: 0.2–2 g

**Cautions and Contraindications:** None known

**Side Effects:** None known

**Clinical Applications:**
1. **Spleen Qi Deficiency**
   - *Clinical signs:* Fatigue, anorexia, diarrhea
   - *Combined with:* Atractylodes Bai Zhu, Poria Fu Ling
2. **Stomach Yin Deficiency and Spleen Qi Deficiency**
   - *Clinical signs:* Increased thirst, red tongue, Stomach ulcers, fatigue, diarrhea
   - *Combined with:* Pseudostellaria Tai Zi Shen, Dioscorea Shan Yao
3. **Cough or asthma due to Lung Qi Deficiency and Lung Yin Deficiency**
   - *Clinical signs:* Dry cough, red tongue, general weakness, shortness of breath
   - *Combined with:* Fritillaria Chuan Bei Mu and Lily Bai He

**Comments:**
1. *Jiao Gu Lan* increases performance, longevity, and immune response, and has anticancer effects.
2. *Jiao Gu Lan* is useful for the treatment of hyperlipoproteinemia in renal disease patients and thrombocytopenia.

**Rhodiola Hong Jing Tian**

Original Reference: *Si Bu Yi Dian* (The Four Medical Tantras) by Elder Yuthog Yonten Gonpo in 708–833

**Part Used:** Root, stem

**Name:**
- Pharmaceutical: Radix et Rhizoma Rhodiola
- Botanical: Rhodiola rosea Limn
- Common: Rhodiola
- Wade-Giles: *Hong-Ching-Tien*
- Translation: Red Sight Sky

**Energy/Taste:** Cold, sweet

**Channel-Organ:** Spleen, Lung

**Actions:**
1. Tonify Qi and strengthen the Spleen
2. Clear the Lung and transform Phlegm
3. Activate Blood and resolve Stagnation

**Form and Preparation:** Decoction or syrup

**Dosage:**
- Horses and Cattle: 30–60 g
- Llamas, Alpacas, Goats, Sheep, and Pigs: 10–30 g
- Dogs: 2–5 g
- Cats and Rabbits: 0.5–1 g

**Cautions and Contraindications:** None known

**Side Effects:** None known

**Clinical Applications:**
1. **Spleen Qi Deficiency**
   - *Clinical signs:* Fatigue, weakness of limbs
   - *Combined with:* Other Qi tonics but often used alone
2. **Excessive genital/uterine discharge due to Spleen Deficiency**
   - *Combined with:* Atractylodes Bai Zhu and Dioscorea Shan Yao
3. **Dry cough due to Lung Yin Deficiency with Heat**
   - *Combined with:* Adenophora Nan Sha Shen and Lily Bai He or used alone

**Comments:**
1. *Hong Jing Tian* has antihypoxia, antifatigue, and anticold effects.
2. *Hong Jing Tian* is useful for the treatment of hyperlipoproteinemia in patients with renal disease and also high altitude sickness.
3. *Hong Jing Tian* can be used for the treatment of Blood Stagnation due to traumatic injuries.

**Maltose Yi Tang**

Original Reference: *Ming Yi Bie Lu* (Miscellaneous Records of Famous Physicians) by Tao Hong-Jing, North and South Kingdoms (5th century)

**Part Used:** Whole part of maltose

**Name:**
- Pharmaceutical: Maltosum
- Botanical: Oryza sativa; Triticum aestivum; Granorum saccharon
- Common: Maltose, barley malt sugar
- Wade-Giles: *I-T'ang*
- Translation: Happy Sugar
Energy/Taste: Slightly warm, sweet

Channel-Organ: Spleen, Stomach, Lung

Actions:
1. Tonify Qi of the Middle Burner
2. Relax spasms to relieve pain
3. Moist the Lung to stop cough

Form and Preparation: Decoction or powder form

Dosage:
Horses and Cattle: 20–60 g
Camels: 30–80 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–15 g
Dogs: 3–10 g
Cats: 0.5–2 g
Rabbits: 0.5–1.5 g
Birds: 0.2–2 g

Cautions and Contraindications: Excessive Damp in the Middle Burner (abdominal fullness, vomiting, and diarrhea)

Side Effects: None known

Clinical Applications:
1. Spleen Qi Deficiency with colic
   Clinical signs: Abdominal pain that responds well to pressure and is alleviated after eating
   Combine with: Paeonia Bai Shao and Glycyrrhiza Gan Cao, or use alone
2. Chronic cough due to Lung Qi and/or Lung Yin Deficiency
   Combine with: Fritillaria Chuan Bei Mu and Morus Sang Ye
3. Constipation
   Combine with: Angelica Dang Gui and Cannabis Huo Ma Ren or use alone
4. Antidote to poisoning with Aconite Chuan Wu or Aconite Cao Wu

Comments:
1. Oral administration of honey is a good adjunct therapy for asthma, constipation, and ulcerated gingivitis and stomatitis.
2. Topical application of honey promotes healing of wounds due to ulceration, burns, and trauma.
3. Honey increases gastrointestinal motility, inhibits bacteria, promotes healing of wounds, and protects the Liver.

HERBS TO TONIFY BLOOD

Herbs that tonify Blood are used for Blood Deficiency Patterns. The general clinical signs of Deficient Blood include anemia, dry skin or dandruff, pale gums and lips, diminished vision, lethargy, lack of stamina, poor hoof or toenail growth, palpitations, pale and dry tongue, and thin pulse. Blood Deficiency Patterns are
not always associated with anemia, but they may arise from a variety of problems, including emotional stress, Kidney Deficiency (renal failure), Spleen Qi Deficiency, hemorrhage (trauma, parturition), heart failure, and chronic hepatitis. The Liver and Heart are most affected by Blood Deficiency (Table 1.3). Liver Blood Deficiency may cause poor growth of toenails/hooves or tendons/ligaments, dry paws/hooves, poor vision and seeing spots (fly-biting seizure activity), or Internal Wind (seizure activity). Animals with Heart Blood Deficiency often present with palpitations, insomnia (behavior issues at night), fatigue, anxiety, and nervousness.

A few Blood tonic herbs can directly stimulate red Blood cell production; however, most work by strengthening the body and improving nutrition, indirectly increasing the number of circulating Blood cells.3

The close relationship between Qi and Blood is represented by these sayings: “Qi is the General of Blood” and “Blood is the mother of Qi.” In health, Qi generates Blood and causes it to circulate while Blood is the vehicle transporting Qi to the whole body. In disease, deficient Qi fails to move and generate Blood, leading to Blood Deficiency and Blood Stagnation. For this reason, a Blood Deficiency Pattern may be treated with Blood tonic formulas, which include Qi tonic herbs. Blood tonic formulas may also contain Yin tonic herbs, because nourishing Yin and Body Fluid can also reinforce Blood.

Herbs to tonify Blood are rich and excessively sweet. Long-term use or overdosage can easily cause Stagnation and Spleen Qi Deficiency. These herbs may have side effects such as indigestion, poor appetite, diarrhea, and epigastric distension. Thus, herbs to move Qi-Blood and strengthen the Spleen are often added to counteract these effects.
Original Reference: *Shen Nong Ben Cao Jing* (Shen Nong’s *Materia Medica*, 1st century BCE)

Part Used: Root

Name:
- Pharmaceutical: Angelicae Sinensis, Radix
- Botanical: Angelica sinensis
- Common: Angelica
- Wade-Giles: Tang-Kuei
- Translation: Should Return

Energy/Taste: Warm, sweet, pungent

Channel-Organ: Liver, Heart, Spleen

Actions:
1. Nourish and replenish Blood
2. Invigorate Blood, stop pain
3. Moisten intestines
4. Regulate female reproductive organs

Form and Preparation: Decoction, powder form, Food Therapy

Dosage:
- Horses and Cattle: 15–60 g
- Camels: 35–75 g
- Llamas, Alpacas, Goats, Sheep, and Pigs: 5–15 g
- Dogs: 1–5 g
- Cats: 0.5–1 g
- Rabbits: 0.5–1.5 g
- Birds: 0.3–2 g

Cautions and Contraindications:
1. Spleen Qi Deficiency with diarrhea
2. Excess Damp leads to nausea and diarrhea
3. Prohibited during heavy bleeding

Side Effects: None known

Clinical Applications:
1. General Blood Deficiency
   - Clinical signs: Pale complexion, dizziness or disorientation, palpitations, poor vision, dry skin, insomnia (behavior issues at night)

Combine with: Paeonia Bai Shao, Rehmannia Shu Di Huang, and Astragalus Huang Qi

Classical herbal formula: Si Wu Tang

2. Blood Stagnation due to traumatic injury
   - Combine with: Carthamus Hong Hua, Persica Tao Ren, Olibanum Ru Xiang, and Myrrh Mo Yao
   - Classical herbal formula: Tao Hong Si Wu Tang

3. Constipation due to Dryness in the intestines
   - Combine with: Cistanche Rou Cong Rong, Cannabis Huo Ma Ren, and Polygonum He Shou Wu
   - Classical herbal formula: Dang Gui Cong Rong Tang

4. Pain due to Wind-Damp obstruction in the channels (chronic arthritis)
   - Combine with: Cinnamomum Gui Zhi, Paeonia Bai Shao, and Millettia Ji Xue Teng
   - Classical herbal formula: Du Huo Ji Sheng Tang

History and Comments:
1. Angelica *Dang Gui* is a key herb for maintaining women’s health and well-being, due to its ability to nourish Blood and resolve Stagnation. The name *Dang Gui* came from a romantic story: Once upon a time, a young boy named Ji fell in love with a beautiful girl, Qin. They married and lived happily together where the Wei River originated from the Mountain Min in the Si-chuan Province. In time, Qin gave birth to their child, but Qin suffered serious postpartum hemorrhaging. They visited many doctors, but none could help them. One day, Ji ran into an old Taoist from the Mountain E-mei (one of the four mountain ranges in China that Buddhists consider sacred) in Si-chuan Province. The old Taoist told Ji that he cultivated hundreds of herbs in his garden at E-mei. These herbs could cure hundreds of diseases, including Qin’s hemorrhaging. Ji said farewell to his wife and joined the old Taoist on the thousand-mile hike to the garden. After a seemingly endless journey, they arrived at E-mei. Ji was immediately enchanted by the view. Mountain peaks rose from the enveloping sea of clouds and the exotic flowers and grasses adorning the valley filled the air with a pleasant aroma. The old Taoist showed Ji a plant with purple stems and white flowers. He said to Ji, “This is the herb you need, but you must follow my instructions carefully. Any tiny mistake will ruin the whole plant. You must gather the seeds after the flowers wither and plant them at the beginning of autumn. Then, dig out the seedlings at the end of autumn, preserve them through the winter and transplant them in the spring. Water, weed and fertilize with extreme caution.” For 3 years, Ji followed the instructions devotedly, nursing the plants day and night until they were mature. One day the old Taoist came to Ji telling him, “Your wife needs you. You should go home now!” Thus, the herb’s name comes from the word *Dang* (当: meaning
“should”) and Gui (归 meaning “return”). When Ji arrived home, he saw his wife was dying. Ji immediately prepared Dang Gui soup and fed it to his wife. Upon drinking, her eyes brightened and she soon recovered. The couple cultivated many acres of Dang Gui and generously shared the herb. Ever since, Dang Gui has grown along the Wei River, and its sweet fragrance can be smelled many miles away every summer.

2. Different portions of the herb have differing therapeutic properties. The root tails (Angelica Dang Gui Wei) are better for moving Blood, but they are prohibited during pregnancy. The root head (Angelica Dang Gui Tou) is used for nourishing Blood. The whole root (Angelica Quan Dang Gui) is most commonly used for both invigorating and nourishing Blood.

3. Soaking the herb in wine enhances the herb’s invigorating function. Frying the herb in vinegar enhances its ability to move Blood. Toasting the herb into ash increases its ability to warm the channels and stop bleeding.

4. Angelica Dang Gui is best combined with Astragalus Huang Qi to build Blood.

5. Dang Gui causes an increase in uterine contractions. This may be the mechanism underlying its effectiveness in treating uterine retention. The herb does not appear to have any estrogenic effect.

Pharmaceutical Ingredients: 1-4
2. Ferulic acid, scopletin, butanedioic acid, uracil, adenine
3. Vitamins A, B12, E
4. Palmitic acid, stearic acid, myristic acid, oleic acid, linoleic acid
**Original Reference:** Ben Cao Shi Yi (Supplement to Materia Medica) by Chen Cang-Qi in 8th century

**Part Used:** Root; steam the herb in wine until both the inside and outside turn black and moist.

**Name:**
Pharmaceutical: Rehmanniae Glutinosae Conquitae, Radix
Botanical: Rehmannia glutinosa Libosch
Common: Prepared Rehmannia
Wade-Giles: Shu-Ti-Hwang
Translation: Cooked Earth Yellow

**Energy/Taste:** Warm, sweet

**Channel-Organ:** Liver, Kidney

**Actions:**
1. Nourish Blood
2. Nourish Yin
3. Tonify Essence and marrow

**Form and Preparation:** Decoction or powder form

**Dosage:**
Horses and Cattle: 45–60 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–15 g
Dogs: 2–10 g
Cats: 1–3 g

**Cautions and Contraindications:**
1. Profuse Phlegm or Damp due to Spleen Qi Deficiency
2. Traditionally avoided with garlic, onions, or turnips

**Side Effects:** Overuse can lead to loss of appetite, abdominal distention, and diarrhea.

**Clinical Applications:**
1. Deficiency of Blood
   *Clinical signs:* Pale gums/lips, dry skin/paws/hooves, vertigo or dizziness (disorientation), palpitation, insomnia (behavior issues at night)
   *Combine with:* Angelica Dang Gui and Paeonia Bai Shao, Ligusticum Chuan Xiong
   *Classical herbal formula:* Si Wu Tang
2. Deficiency of Kidney and Liver Yin
   *Clinical signs:* Cool-seeking, panting, poor vision, ear-ringing (head-shaking), dizziness or disorientation, diabetes, back pain, impotence, or afternoon fever
   *Combine with:* Cornus Shan Zhu Yu and Dioscorea Shan Yao

**Classical herbal formula:** Liu Wei Di Huang Wan

1. Deficiency of Jing and Blood
   *Clinical signs:* Back pain, weakness of the hindquarters, dizziness or disorientation, ear-ringing (head-shaking), diminished hearing function, premature graying of the hair, infertility.
   *Combine with:* Epimedium Yin Yang Huo
   *Herbal formula:* Yin Yang Huo San

**History and Comments:**
1. Rehmannia Di Huang was called Di Shui (Essence of the Earth) in Ben Cao Gang Mu (Materia Medica Compendium) by Dr. Li Shi Zhen in 1590. During the Ming Dynasty, the famous doctor Zhang Jing-yue was particularly fond of using Di Huang to treat illnesses. His 1624 text Jing-Yue Quan Shu (Collected Treatises of Zhang Jing-Yue) included many references to Di Huang. “Disturbed Shen caused by Yin Deficiency cannot be consolidated without Di Huang. Raised Fire caused by Yin Deficiency cannot be restrained without Di Huang. Restlessness caused by Yin Deficiency cannot be eased without Di Huang. Irritability caused by Yin Deficiency cannot be calmed without Di Huang. Water metabolism disorders caused by Yin Deficiency cannot be controlled without Di Huang. Deprived Jing and Blood caused by Yin Deficiency cannot be nourished without Di Huang.” It is not surprising that he earned his reputation as “Master Di Huang” in his later years!
2. The prepared herb is commonly referred to as Rehmannia Shu Di Huang to distinguish it from unprepared Rehmannia Sheng Di Huang. Shu Di Huang is warm and good for Blood tonification, while Sheng Di Huang is cool and good for Blood Heat, but both nourish Yin.
3. Shu Di Huang, or Prepared Rehmannia, is soaked, steamed, and dried in wine numerous times until it is soft and pliable.
4. Rehmannia Di Huang is a very heavy, greasy herb that causes Stagnation. Amomum Sha Ren, Alisma Ze Xie, or Leonurus Yi Mu Cao can neutralize this effect.
5. Shu Di Huang can lower blood sugar levels significantly, protect neurons, and improve memory and brain function.

**Pharmaceutical Ingredients:**
1. Catalpol, 6-o-acetylcatalpol, aucubin, melittoside, rehmanniosides A, B, C, D
2. Rehmaglutins A, B, C, D
3. Glutinoside, rehmannans A, B, C
4. Stachyose, D-mannitol
5. Leonuride, monomelittoside, dyhydrocatalpol
Paeonia Bai Shao Yao 白芍药

**Name:**
Pharmaceutical: Paeoniae Lactiflorae, Radix
Botanical: Paeonia lactiflora
Common: White peony
Wade-Giles: Pai-Shao
Translation: White Peony

**Energy/Taste:** Slightly cold, bitter, sour

**Channel-Organ:** Liver, Spleen

**Actions:**
1. Tonify Blood, consolidate Yin
2. Smoothen Liver Qi and stop pain
3. Cool Blood and suppress the Liver Yang

**Form and Preparation:** Decoction or powder

**Dosage:**
Horses and Cattle: 15–60 g
Camels: 30–100 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 6–15 g
Dogs: 1–3 g
Cats: 0.5–1 g
Rabbits: 0.5–1.5 g
Birds: 0.2–2 g

**Cautions and Contraindications:**
1. Caution in cases of diarrhea due to Spleen or Kidney Yang Deficiency
2. Incompatible with Veratum Li Lu
3. Antagonizes Dendrobium Shi Hu and Mirabilimum Mang Xiao and counteracts Amyda Bie Jia and Cirsium Da Ji

**Side Effects:** None known

**Clinical Applications:**
1. Blood Deficiency Patterns
   - Clinical signs: Dry skin, dry pale tongue, anemia
   - Combine with: Angelica Dang Gui, Rehmannia Shu Di Huang, Ligusticum Chuan Xiong
   - Classical herbal formula: Si Wu Tang
2. Liver Qi Stagnation and Liver Qi Stagnation with Heat
   - Clinical signs: Purple tongue, wiry pulse, depression, breast distension, hypochondriac pain, spasms or pain in extremities
   - Combine with: Bupleurum Chai Hu and Cyperus Xiang Fu
   - Classical herbal formula: Chai Hu Shu Gan San

**Original Reference:** *Shen Nong Ben Cao Jing* (Shen Nong’s *Materia Medica*, 1st century BCE) 神农本草经

**Part Used:** Root
3. Liver Yang Rising

Clinical signs: Headache or head-shaking, ear-ringing or fly-biting seizure, irritability, aggression, quick anger, dizziness or disorientation

Combine with: Cyathula Niu Xi, Uncaria Gou Teng, Chrysanthemum Ju Hua, and Rehmannia Shu Di Huang

Classical herbal formula: Tian Ma Gou Teng Yin

4. Muscle pain and spasms, epigastric and abdominal pain

Combine with: Glycyrrhiza Gan Cao

Classical herbal formula: Shao Yao Gan Cao Tang

5. Deficiency of Yin and Blood leading to floating Yang and Shen disturbance

Combine with: Draconis Long Gu and Ostrea Mu Li

Classical herbal formula: An Shen Fang

History and Comments:

1. Paeonia Bai Shao Yao is often called Bai Shao. Paeonia Bai Shao comes from the inner part of the root. Paeonia Chi Shao comes from the outer part of the root and is used for Blood invigoration.

2. Paeonia Bai Shao is one of only two cool Blood tonics. It is an important herb for regulating the Liver.

3. Hua Tuo, a famous physician during the Eastern Han Dynasty and Three Kingdoms (25 CE–280 CE), was so widely respected that his name and image adorn numerous medical products in China. A group of frequently used acupuncture points (Hua Tuo Jia Ji) also includes his name. The Qi Gong exercise he invented (the Frolics of the Five Animals) involves imitating the movements of tigers, deer, bears, apes, and birds. Hua Tuo is considered to be China’s first surgeon. Unfortunately, he had no significant successors until the modern era, when surgery was reintroduced by Western doctors. Hua Tuo was also known to plant thousands of herbs in his garden to study their medicinal properties. When he received a pot of pretty white flowers (called Bai Shao Hua) from a friend, he planted it under his window. The next spring, when the flowers blossomed, Hua Tuo tasted the flowers and leaves. He found nothing indicating any medical usefulness, so he ignored the plant. One autumn night, while Hua Tuo was writing a book, he heard someone crying outside his window. He looked out and saw a beautiful girl dressed in green and white standing in his yard and weeping. He hurried outside, but he couldn’t find the girl anywhere. All he saw was Bai Shao Hua growing where he had seen the girl standing. When he returned to his desk, he heard the cry again, and again he stepped out to find the girl had disappeared. After this occurred several times, he was completely confused. So he woke up his wife, who said to him, “By your hand, almost all the plants around our house have become useful medicines and have saved numerous lives. Only the plant with white flowers has remained idle and lonely. Maybe you have wrongfully judged it.” Hua Tuo said, “I have tested it many times and found no use for its flowers, leaves, and stems.” “Then what about its root?” asked his wife. The exhausted Hua Tuo did not respond and fell right to sleep. The next morning, Hua Tuo’s wife accidentally cut her hand while cooking. Blood gushed out like a small fountain. Hua Tuo immediately used his best medicine with little success. His wife suggested, “why not try the root of Bai Shao Hua?” The suggestion was taken seriously this time. Hua Tuo smashed the root of Bai Shao Hua and applied it to the wound. The bleeding stopped and the pain diminished rapidly. After a few days, the wound healed with no scar. Hua Tuo renamed the plant Bai Shao Yao because Yao literally means “medicine.” Bai Shao Yao remained the name from then on.

4. Shao Yao has a strong analgesic and antispasm effect. The classical Herbal Formula Shao Yao Gan Cao Tang was effective for the treatment of facial spasms. It is also a basic formula for muscle spasms and muscle pain with the following modification:

   a. For the forelimbs: add Cinnamomum Gui Zhi and Morus Sang Zhi
   b. For the hind limbs: add Dipsacus Xu Duan and Cyathula Niu Xi
   c. For the neck: add Pueraria Ge Gen and Ligusticum Chuan Xiong
   d. For the chest: add Bupleurum Chai Hu and Platycodon Jie Geng
   e. For the abdominal area: add Citrus Fo Shou and Atractylodes Bai Zhu

Pharmaceutical Ingredients: 1–4

1. Paeoniflorin, albiflorin, oxypaeoniflorin, benzoylpaoniflorin, paeronin, hydroxypaeoniflorin, triterpenoids
Polygonum *He Shou Wu* 何首鸟

**Common:** Fleece flower root  
**Wade-Giles:** Ho-Shou-Wu  
**Translation:** Mr. Head Black

**Energy/Taste:** Slightly warm, bitter, sweet, astringent

**Channel-Organ:** Liver, Kidney

**Actions:**
1. Tonify the Liver Blood and replenish the Kidney jīng (prepared)  
2. Dispel toxins, moisten intestines to benefit bowel movements (raw)

**Form and Preparation:** Steam with black soy bean juice until it turns black.

**Dosage:**  
Horses and Cattle: 30–90 g  
Camels: 30–100 g  
Llamas, Alpacas, Goats, Sheep, and Pigs: 10–15 g  
Dogs: 1–6 g  
Cats: 0.5–2 g  
Rabbits: 0.5–1.5 g  
Birds: 0.3–3 g

**Cautions and Contraindications:**
1. Excessive Phlegm or Damp or Spleen Qi Deficiency with diarrhea  
2. Do not cook in iron or steel pots.  
3. According to some traditional sources, this herb should not be taken with onions, chives, or garlic.

**Side Effects:** It may cause diarrhea, colic, nausea, and vomiting.

**Clinical Applications:**
1. Deficiency of Blood Patterns  
   Clinical signs: Dandruff, dry or cracked hooves or feet, pale gums and lips, dizziness or disorientation, poor vision, spots before eyes (fly-biting seizure activities) or ear-ringing (head-shaking), insomnia (behavior issues at night), premature gray hair, weakness in the lower back and stifles, numbness and soreness in the extremities  
   Combine with: Rehmannia Shu Di Huang, Ligustrum Nü Zhen Zi, Lycium Gou Qi Zi, Cuscuta Tu Si Zi, Loranthus Sang Ji Shen, and Cyathula Niu Xi

2. Deficiency of jīng  
   Clinical signs: Early graying of hair, weak lower back and stifles, weak limbs, reduced sexual function, premature aging, infertility  
   Combine with: Rehmannia Shu Di Huang, Ligustrum Nü Zhen Zi, Lycium Gou Qi Zi, Cuscuta Tu Si Zi, Psoralea Bu Gu Zhi, and Angelica Dang Gui

**Classical herbal formula:** Yin Yang Huo San

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**Original Reference:** *Ri Hua-Zi Ben Cao* (Materia Medica of Ri Hua-Zi) by Ri Hua-Zi in 713

**Part Used:** Root

**Name:**  
Pharmaceutical: Polygoni Multiflori, Radix  
Botanical: Polygonum multiflorum
3. Constipation due to Dryness in the intestines and Deficiency of Blood

Clinical signs: Constipation in older patients
Combine with: Angelica Dang Gui and Cannabis Huo Ma Ren

4. Toxic carbuncles

Clinical signs: Carbuncles, sores, scrofula, goiter, neck lumps
Combine with: Prunella Xia Ku Cao, Scrophularia Xuan Shen, Forsythia Lian Qiao, and Fritillaria Chuan Bei Mu

History and Comments:

1. Polygonum He Shou Wu was discovered during the Tang Dynasty (618–907 CE) in Shun-yi County, Beijing, by a drunkard named He Tian-Er. Tian-Er had various health problems and a weak constitution. This 58-year-old man still did not have a child. Frustrated with himself one night, he drank too much and fell face down on his way home through the mountains. As if in a dream, he saw two vines, 3 feet apart, reaching out and caressing each other. Their branches intertwined together for a while, then loosened, and then intertwined again. Tian-Er couldn’t believe his eyes and dug out the vines. He was even more astonished to see the roots: One looked exactly like an adult male and the other like an adult female. Tian-Er showed the roots to everyone passing by but no one knew what they were. Finally, an old wise man who came from the heart of the mountain told him, “These incredible vines may be gifts from God. Why don’t you use them since you are unable to have children?” So Tian went back home, ground the roots into power, and took 5 grams (1 Qian) with wine every day. After 7 days, his sexual desire improved. He doubled the dosage and felt increasingly vigorous. After several years, all his old illnesses were gone and his white hair had turned black. Within 10 years, he fathered a number of sons and changed his name to Neng-si (which means “capable of reproduction”). One of his sons, Yan-xiu, continued to take this herbal medication. Yan-xiu also had a son he named Shou-wu. Father and son lived to be 160 years old and the grandson lived to be 130. The herb was named Shou Wu after the grandson to honor the family for their discovery of this magical plant.

2. Polygonum He Shou Wu is often called Shou Wu. Shou Wu is honored for its benefit for longevity and sexual vitality. It is a good tonic for Liver and Kidney Yin as well as Liver Blood. Polygonum He Shou Wu is also a good tonic for geriatric animals.

3. Combine Polygonum He Shou Wu with Longan Long Yan Rou and Lycium Gou Qi Zi and soak them in Beijing White Wine Bai Jiu for 49 days. Use this to prevent graying hair and premature aging.

4. Polygonum He Shou Wu reduces the Blood cholesterol level in rabbits with experimentally induced hypercholesterolemia. It also reduces the absorption of cholesterol from the intestinal tract of rabbits.

5. As a daily food additive of 0.4–2.0%, He Shou Wu powder increases longevity in birds.

Pharmaceutical Ingredients:

1. Chrysophanol, emodin, senniside, physcion, questin, citrosein questinol, 2-acetylemodin, chein, chrysophanol anthrone, rhapontin, tricin, calcium
2. Fe, Zn, Cu
3. Polygonimitin B, C

Asinum Gelatinum E Jiao

Original Reference: Shen Nong Ben Cao Jing (Shen Nong’s Materia Medica, 1st century BCE) 神农本草经

Part Used: Glue or gelatin made from inner tallow of donkey skin

Name:
Pharmaceutical: Asini, Gelatinum Corii (previously: Gelatinum Asini; Colla corii asini)
Zoological: Equus asinus
Common: Donkey-hide gelatin
Wade-Giles: A-Chiao
Translation: Ass-hide glue

Energy/Taste: Neutral, sweet

Channel-Organ: Lung, Liver, Kidney
Actions:
1. Tonify Blood
2. Stop bleeding
3. Nourish Yin and moisten the Lung

Form and Preparation: Dissolve first and then add into decoction, melt by boiling water, or dissolve in yellow rice wine.

Dosage:
Horses and Cattle: 15–60 g
Camels: 30–100 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 10–15 g
Dogs: 2–8 g
Cats: 1–2 g
Rabbits: 0.5–1.5 g
Birds: 0.3–3 g

Cautions and Contraindications:
1. Exterior Pattern with Interior Stagnation
2. Counteracts Rheum Da Huang, according to traditional sources

Side Effects: Overuse may cause poor appetite, diarrhea, and indigestion.

Clinical Applications:
1. Blood Deficiency
   Clinical signs: Anemia, dizziness or disorientation, poor vision, palpitations
   Combine with: Ginseng Ren Shen or Codonopsis Dang Shen, Angelica Dang Gui, Rehmannia Shu Di Huang and Astragalus Huang Qi
2. Various types of bleeding
   Clinical signs: Epistaxis, Lung bleeding, uterine bleeding, bleeding during pregnancy, vomiting Blood, bloody stool
   Combine with: Agrimony Xian He Cao and Imperata Bai Mao Gen for epistaxis
   Combine with: Bletilla Bai Ji for the Lung bleeding
   Combine with: Artemisia Ai Ye, Rehmannia Sheng Di Huang, Angelica Dang Gui for uterine bleeding
   Combine with: Sophora Huai Hua and Sanguisorba Di Yu for intestinal bleeding
   Combine with: Artemisia Ai Ye for fetus restlessness and uterine bleeding during pregnancy
3. Yin consumed by fever
   Clinical signs: Irritability, insomnia (behavior issues at night), spasms in the limbs
   Combine with: Coptis Huang Lian, Paeonia Bai Shao, egg yolk
   Classical herbal formula: Huang Lian E Jiao Tang
4. Chronic cough due to Deficiency of Yin
   Clinical signs: Dry cough, dry mouth, Bloody or sticky Phlegm
   Combine with: Ophiopogon Mai Men Dong, Morus Sang Ye, Armeniaca Xing Ren
   Classical herbal formula: Qing Zao Jiu Fei Tang
5. Yin Deficiency with muscle spasms and contractures
   Combine with: Testudines Gui Ban, Ostrea Mu Li
   Classical Formula: Da Ding Feng Zhu

History and Comments:
1. Asinum Gelatinum E Jiao comes in prepared blocks. It can be taken alone, cooked with other herbs, or dissolved in boiling water before adding to other herbs.
2. Asinum Gelatinum E Jiao is greasy and can cause Stagnation.
3. Over two thousand years ago, an unusual epidemic swept the Shan-dong province. The disease symptoms started with a pale face and loss of body weight and then progressed to mobility loss. Those affected also developed dyspnea and coughing, which was rapidly followed by vomiting Blood until death. Hundreds of prosperous towns and villages quickly turned into deserted and forlorn areas. After her parents died due to this disease, a smart and brave girl named E-Jiao vowed to find a cure to help her fellow villagers. She journeyed alone to the Tai Mountain, one of the four sacred mountain ranges in China. In the mountains, she met an old man with white hair and ruddy cheeks. He told her, “The disease is curable, but the medicine is difficult to obtain. It is extracted from the skin of the vicious black donkey.” E-Jiao was so happy to hear about a cure that she knelt down to the old man saying, “I am willing to stop the disease even if I must risk my life. Master, please accept me as your student!” With a smile, the old man nodded his approval. In 49 days, E-Jiao learned 49 sword movements. She waved farewell to the master and journeyed toward the isolated mountain where the black donkey was hiding. When E-Jiao encountered the black donkey, they fought a long hard battle. The sky darkened and obscured everything on the ground, but E-Jiao was victorious at last. E-Jiao stewed the donkey skin for 49 days, using up 64 buckets of spring water and 81 bundles of mulberry firewood, until the precious, sparkling donkey-skin gelatin was revealed. When she returned home, E-Jiao dispensed the gelatin to every patient she encountered. The gelatin cured them all and the Shan-dong area gradually recovered its prosperity. Donkey-skin gelatin was later named E Jiao to show the people's deep gratitude toward this courageous, lovely girl.
4. E Jiao increases the concentration of RBCs and hemoglobin. It also increases the absorption and retention of calcium in the Blood.
Pharmaceutical Ingredients:
1. Collagen
2. Amino acid (lysine, arginine, histadine, glycine, cysteine)
3. Na, K, Ca, Mg, Al, Zn

Longan 龙眼肉
Original Reference: Shen Nong Ben Cao Jing (Shen Nong’s Materia Medica, 1st century BCE) 神农本草经

Part Used: Fleshy part of the fruit

Name:
Pharmaceutical: Euphoriae Longanae, Arillus
Botanical: Euphoria Longan
Common: Longan
Wade-Giles: Lung-Yen-Jou
Translation: Dragon Eyes Meat
Alternate: Gui Yuan (Rou)

Energy/Taste: Warm, sweet

Channel-Organ: Heart, Spleen

Actions:
1. Tonify Heart Blood and calm Shen
2. Tonify Spleen Qi and strengthen postpartum weakness

Form and Preparation: Slice before adding to decoction, soak in wine, and use as Food Therapy.

Dosage:
Horses and Cattle: 25–60 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 10–15 g
Dogs: 2–8 g
Cats: 0.5–2 g
Rabbits: 0.5–1.5 g
Birds: 0.3–3 g

Cautions and Contraindications:
1. Phlegm-Damp in the Stomach
2. Phlegm-Heat in the Stomach

Side Effects:
1. Overeating can cause nausea or nosebleeds.
2. Excessive consumption will damage the Spleen.

Clinical Applications:
1. Heart Blood Deficiency and Spleen Qi Deficiency
   Clinical signs: Insomnia (behavior issues at night), poor memory, palpitations, nervousness, dizziness or disorientation, anemia
   Combine with: Ginseng Ren Shen or Codonopsis Dang Shen, Astragalus Huang Qi, Angelica Dang Gui, Ziziphus Suan Zao Ren or Acorus Shi Chang Pu
   Classical herbal formula: Gui Pi Tang
2. General weakness for geriatric patients
   Combine with: Other tonics or use alone soaked in wine or as Food Therapy

Morus Sang Shen 桑椹
Original Reference: Tang Ben Cao (Tang Materia Medica) by Su Jing et al. in Tang Dynasty (618–907 CE) 唐本草

Part Used: Mature fruit, whole fruit clusters

Name:
Pharmaceutical: Mori Albae, Fructus
Botanical: Morus Alba
Common: Mulberry fruit
Wade-Giles: Sang-Chen
Translation: Morus Fruit

Energy/Taste: Sweet, cold

Channel-Organ: Heart, Liver, Kidney

Actions:
1. Nourish Yin and Blood
2. Generate Body Fluids to reduce thirst
3. Moisten intestines to move feces

Form and Preparation: Powder or decoction; single or combined with other tonics or as Food Therapy

Dosage:
Horses and Cattle: 30–90 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 10–30 g
Dogs: 2–8 g
Cats: 0.5–2 g
Rabbits: 0.5–1.5 g
Birds: 0.3–3 g

Cautions and Contraindications: Caution with diarrhea due to Spleen Deficiency or Cold

Side Effects: Overuse may cause diarrhea.

Clinical Applications:
1. Deficiency of Yin, Blood, and Jing
   Clinical signs: Dizziness or disorientation, poor vision, headache (head-shaking), ear-ringing (fly-biting seizure), insomnia (behavior issues at night), premature graying of hair
Combine with: Polygonum *He Shou Wu*, Ligustrum *Nü Zhen Zi*, and Eclipta *Han Lian Cao*

Classical herbal formula: *Shou Wu Yan Shou Dan*

2. Deficient Body Fluid or Diabetes causing thirst and dry mouth

*Clinical signs*: Thirst, fatigue, increased urination

*Combine with*: Trichosanthes *Tian Hua Fen*, Ophiopogon *Mai Men Dong*, Ligustrum *Nü Zhen Zi*

3. Constipation from dry intestines due to *Yin* and Blood Deficiency

*Combine with*: Polygonum *He Shou Wu*, Cannabis *Huo Ma Ren*, and Sesame *Hei Zhi Ma*

**HERBS TO NOURISH YIN**

The herbs to nourish *Yin* are used primarily to tonify the *Yin* of the Lung, Stomach, Liver, or Kidney. Most are sweet and cold. Therefore, the herbs in this section are also called Sweet-Cold *Yin* Tonics. In addition to tonification of *Yin*, they can promote Body Fluid production to alleviate thirst, moisten the Interior (Large Intestines) to resolve Dryness, nourish Blood, calm *Shen*, stop bleeding, and clear Heat. Because *Yin* tonic herbs are sweet, cold, enriching, and stagnant, they are inappropriate for patients with Spleen *Qi* Deficiency, internal Dampness or Phlegm, and abdominal distention or diarrhea, unless these properties are counteracted by other herals in the formula. Contraindications of *Yin* Tonic herbs include 1) Deficient Spleen *Qi*, 2) Internal Phlegm or Damp, 3) Abdominal distention, and 4) Diarrhea.

These cold *Yin* tonic herbs may be used to treat Internal-Heat Patterns caused by Deficient *Yin* such as *Yin* Deficiency with Heat (False Heat, or Deficient Heat) Patterns. *Yin* Deficiency generally occurs after chronic febrile disorders, during other chronic diseases, or as a side effect of other therapies (including corticosteroid and interferon therapy, radiotherapy, or chemotherapy). *Yin* Deficiency can affect the Lung, Stomach, Liver, Kidney, and Heart. Common *Yin* Deficiency signs are cool-seeking, panting, red/dry tongue, thin pulse, hot ears and body, and low-grade fever. Table 1.4 lists each organ’s *Yin* Deficiency clinical signs.

Practitioners have observed organ-specific effects with *Yin* tonics. Some *Yin* tonic herbs can have a dual-organ effect. Herbs that tonify Lung *Yin* may also tonify

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Clinical Signs</th>
<th>Examples of <em>Yin</em> Tonic</th>
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<tr>
<td>Lung <em>Yin</em> Deficiency</td>
<td>Dry cough&lt;br&gt;Loss of voice&lt;br&gt;Thirst, dry mouth&lt;br&gt;Scanty Phlegm, thick and sticky sputum in some cases&lt;br&gt;Dry skin&lt;br&gt;Sore throat&lt;br&gt;If progressed, bloody cough, low-grade fever</td>
<td>Glehnia <em>Bei Sha Shen</em></td>
</tr>
<tr>
<td>Heart <em>Yin</em> Deficiency</td>
<td>Insomnia (behavioral changes at night)&lt;br&gt;Muscle spasms or crying during sleep&lt;br&gt;Restlessness or anxiety&lt;br&gt;Palpitations&lt;br&gt;Poor memory, forgetfulness, or disorientation</td>
<td>Lily <em>Bai He</em></td>
</tr>
<tr>
<td>Stomach <em>Yin</em> Deficiency</td>
<td>Poor appetite or hungry all the time&lt;br&gt;Thirst&lt;br&gt;Nonproductive vomit&lt;br&gt;Constipation&lt;br&gt;Dry mouth and throat&lt;br&gt;Peeling coating of the tongue</td>
<td>Dendrobium <em>Shi Hu</em></td>
</tr>
<tr>
<td>Liver <em>Yin</em> Deficiency</td>
<td>Poor vision, or night blindness&lt;br&gt;Dry and dull eyes&lt;br&gt;Dry nails or skin&lt;br&gt;Headache or tinnitus (head-shaking or fly-biting seizure)&lt;br&gt;Vertigo or disorientation&lt;br&gt;Insomnia or behavior issue at night</td>
<td>Lycium <em>Gou Qi Zi</em></td>
</tr>
<tr>
<td>Kidney <em>Yin</em> Deficiency</td>
<td>Dizziness or disorientation&lt;br&gt;Tinnitus (head-shaking or fly-biting seizure)&lt;br&gt;Weak back and knees&lt;br&gt;Hot feet&lt;br&gt;Low-grade fevers&lt;br&gt;Diminished sexual function or infertility&lt;br&gt;Chronic degenerative joint disease (DJD), degenerative disc disease, or bony changes&lt;br&gt;Involved in many chronic diseases</td>
<td>Testudinis <em>Gui Ban</em></td>
</tr>
</tbody>
</table>
the Stomach, and herbs that nourish Kidney Yin may also nourish Liver Yin. Because Yin is derived from Yang, using a small amount of Yang tonic herbs in combination with the Yin tonic may produce superior results when tonifying Kidney Yin.

**Glehnia Bei Sha Shen** 北沙参

**Form and Preparation:** Decoction or powder

**Dosage:**
- Horses and Cattle: 30–60g
- Camels: 35–75 g
- Llamas, Alpacas, Goats, Sheep, and Pigs: 10–15 g
- Dogs: 1–5 g
- Cats: 0.5–1 g
- Rabbits: 0.5–1.5 g
- Birds: 0.3–2 g

**Cautions and Contraindications:**
1. Damp Phlegm due to Lung Qi Deficiency and Cold
2. Incompatible with Veratrum Li Lu
3. According to traditional sources, this herb antagonizes Stephania Han Fang Ji.

**Side Effects:** Contact dermatitis (skin rash, itching, ocular discharge, fever) has resulted after exposure to Bei Shan Shen powder in a few cases.

**Clinical Applications:**
1. Dry cough due to Heat in the Lung with Yin Deficiency
   - Clinical signs: Dry and chronic cough that is worse at night, Bloody cough, dry and red tongue, thirst, decreased appetite or constipation in the aftermath of febrile disease
   - Combine with: Ophiopogon Mai Men Dong, Rehmannia Sheng Di Huang, and Polygonatum Yu Zhu and Dendrobium Shi Hu
   - Classical herbal formula: Bai He Gu Jin Tang
2. Stomach Yin Deficiency
   - Clinical signs: Dry tongue, thirst, constipation, peeled coating of the tongue, constant hunger or poor appetite
   - Combine with: Dioscorea Shan Yao, Polygonatum Huang Jing and Pseudostellaria Tai Zi Shen

**History and Comments:**
1. Glehnia (Bei Sha Shen) and Adenophora (Adenophora tetraphylla, Nan Sha Shen) are both called Sha Shen and may be used interchangeably. Both can be used for Lung and/or Stomach Yin Deficiency. The two types of Sha Shen were not clearly differentiated until the 17th century by Zhang Lu. Bei Sha Shen (Northern sand root) has a stronger Yin tonic effect. Nan Sha Shen (Southern sand root) is better at transforming Phlegm and stopping cough.
2. If just Sha Shen is given, it is referred to as Glehnia (Bei Sha Shen).
3. Sha Shen, Ginseng Ren Shen, Scrophularia Xuan Shen, Salvia Dan Shen, and Sophora Ku Shen are the Five Shens. According to Tao Hong-Jing (456–536 CE, a
famous Taoist and pharmacologist in the Northern and Southern Dynasties), these herbs had different shapes but similar effects; therefore, all were named *Shens*. However, the medical saint Li Shi-zhen (1368–1644 CE), who lived during the *Ming* Dynasty, had very different opinions on this issue. He commented, “*Ren Shen* is sweet, bitter and warm. It is also heavy and dense. It can replenish Spleen and Stomach and tonify *Yuan* (Source) *Qi*, therefore is best for treating Internal *Qi* Deficiency. By contrast, *Sha Shen* is sweet, bland and cold. It is light in weight. *Sha Shen* can tonify Lung and thereby benefit the Kidney. The former reinforces *Yang* and cultivates *Yin*; the latter reinforces *Yin* to restrain *Yang*. The difference is too great to be ignored.”

**Pharmaceutical Ingredients:**\(^1-^4\)
Phellopterin, bergapten, psoralen, xanthotoxin, marmesin, bergaptin, imperatorin, isoimperatorin, cnidilin

**Adenophora *Nan Sha Shen* 南沙参**

**Energy/Taste:** Slightly cold, sweet

**Channel-Organ:** Lung, Stomach

**Actions:**
1. Moist the Lung, nourish *Yin*
2. Clear the Stomach, generate Body Fluids
3. Tonify *Qi* and transform Phlegm

**Form and Preparation:** Decoction or powder

**Dosage:**
- Horses and Cattle: 30–60 g
- Camels: 35–75 g
- Llamas, Alpacas, Goats, Sheep, and Pigs: 10–15 g
- Dogs: 1–5 g
- Cats: 0.5–1 g
- Rabbits: 0.5–1.5 g
- Birds: 0.3–2 g

**Cautions and Contraindications:** Incompatible with *Veratrum Li Lu*

**Side Effects:** None known

**Clinical Applications:**
1. Dry cough with sticky Phlegm due to Lung *Yin* and *Qi* Deficiency
   *Clinical signs:* Dry cough, hoarse voice, sticky Phlegm, dry throat, shortness of breath, dyspnea, fatigue
   *Combine with:* *Ophiopogon Mai Men Dong* and *Fritillaria Chuan Bei Mu*
2. Stomach *Yin* Deficiency with *Qi* Deficiency
   *Clinical signs:* Dry tongue, poor appetite or hunger, general weakness after chronic febrile diseases
   *Combine with:* *Ophiopogon Mai Men Dong*, *Rehmannia Sheng Di Huang*, and *Polygonatum Yu Zhu* and *Dendrobium Shi Hu*

**History and Comments:**
1. *Glehnia (Bei Sha Shen)* and *Adenophora (Adenophora tetraphylla, Nan Sha Shen)* are both called *Sha Shen* and may be used interchangeably. Both can be used for Lung and/or Stomach *Yin* Deficiency. *Nan Sha Shen* has a weaker *Yin* tonifying effect than *Glehnia Bei Sha Shen*, but *Nan Sha Shen* also tonifies *Qi* and transforms Phlegm. *Glehnia Bei Sha Shen* is more suitable for *Yin* Deficiency with Heat, whereas *Adenophora Nan Sha Shen* seems preferable when there is sticky Phlegm with both *Yin* and *Qi* Deficiency.

**Original Reference:** *Shen Nong Ben Cao Jing* (*Shen Nong’s Materia Medica*, 1st century BCE) 神农本草经

**Part Used:** Root

**Name:**
Pharmaceutical: Adenophorae, Radix
Botanical: Adenophora tetraphylla (Thunb.)
Common: Adenophora root

Wade-Giles: *Nan-Sha-Shen*
Translation: South Sand Root
2. *Bei Sha Shen* is brittle. *Nan Sha Shen* is pliable and has properties similar to *Quinquefolium Xi Yang Shen*.

3. *Nan Sha Shen* combined with *Ophiopogon Mai Men Dong* and *Lonicera Jin Yin Hua* is very effective for the treatment of esophagitis.

**Pharmaceutical Ingredients:**

1. Taraxerone, β-sitosterol, β-sitostereol-o-β-d-glucopyranoside
2. Syringinoside, linoleic acid, ikshusterol, sessile folic 3-o-isovalerate, camphene, eucalyptol, camphor, azulene, bornyl acetate, daucosterol

**Lycium Gou Qi Zi** 枸杞子

**Energy/Taste:** Neutral, sweet

**Channel-Organs:** Liver, Kidney, Lung

**Actions:**
1. Tonify Kidney *Yin* and *Jing*
2. Nourish Liver *Yin* and Blood, brighten the eyes
3. Moisten the Lung

**Form and Preparation:** Single use, combined with others, or use as Food Therapy treats

**Dosage:**
- Horses and Cattle: 30–60 g
- Camels: 35–75 g
- Llamas, Alpacas, Goats, Sheep, and Pigs: 10–15 g
- Dogs: 2–8 g
- Cats: 1–2 g
- Rabbits: 0.5–1.5 g
- Birds: 0.2–3 g

**Cautions and Contraindications:**
1. Spleen *Qi* or *Yang* Deficiency with Damp and diarrhea
2. Excess Heat Patterns

**Side Effects:** It may cause diarrhea.

**Clinical Applications:**
1. Eye problems due to Deficiency of *Yin, Jing*, and Blood
   - *Clinical signs:* Dizziness or disorientation, poor eye vision, dry eyes, uveitis, cataracts, glaucoma
   - *Combine with:* Chrysanthemum *Ju Hua* and *Rehmannia Shu Di Huang*
   - *Classical herbal formula:* *Qi Ju Di Huang Wan*
2. Endocrine disorder due to Liver and Kidney *Yin* Deficiency
   - *Clinical signs and Disorders:* Diabetes, Cushing’s disease, hot feet
   - *Combine with:* Rehmannia *Shu Di Huang*, *Polygonum He Shou Wu*, and *Eucommia Du Zhong*, *Asparagus Tian Men Dong* and *Cuscuta Tu Si Zi*
   - *Herbal formula:* *Xiao Ke Fang*
3. Premature aging due to Kidney *Jing* Deficiency
   - *Clinical signs:* Infertility, early onset of intervertebral disc disease and degenerative joint disease, sore back, weakness in the hind limbs, dizziness or disorientation, urinary incontinence, premature graying of hair

**Original Reference:** *Shen Nong Ben Cao Jing* (*Shen Nong’s Materia Medica*, 1st century BCE) 神农本草经

**Part Used:** Fruit

**Name:**
- Pharmaceutical: Lycii, *Fructus*
- Botanical: *Lycium barbarum; L. chinense*
- Common: Wolfberry
- Wade-Giles: *Kou-Chi-Tzu*
- Translation: Wolfberry fruit
Combine with: Polygonum He Shou Wu, Epimedium Yin Yang Huo, and Cuscuta Tu Si Zi

**Herbal formula: Yin Yang Huo San**

4. Consumptive cough due to the Lung Yin Deficiency

*Clinical signs:* Dry cough, barking cough, sticky Phlegm

Combine with: Ophiopogon Mai Men Dong, Anemarrhena Zhi Mu, Fritillaria Chuan Bei Mu

5. Liver Qi Stagnation with Liver Yang Rising due to Yin Deficiency

*Clinical signs:* Flank pain, acid regurgitation, dry mouth and bitterness in mouth, hypertension

Combine with: Angelica Dang Gui, Glehnia Bei Sha Shen, Melia Chuan Lian Zi

### History and Comments:

1. During the Northern Song Dynasty (618–907 CE), an emissary from the court went to the West River, Ning-xia, on a governmental business trip. On his way he met a pretty girl about 17 years old. The girl held a long cane in her hands and was chasing a gray-haired old man. The emissary stopped the girl and asked her, “How can you insult an old man like this?” “This is my great-grandson,” answered the girl angrily. “He disregarded the family rules, and I must give him a lesson.” The emissary asked, “What rule has he violated?” The lady replied, “We have a traditional family medicine, but he refused to take it. As you can see, he became so senile and doddering at such a young age.” “May I ask how old you are?” the emissary questioned in awe. “I am already 372.” “What’s the secret of your longevity?” the emissary asked, eager to know the answer. “No big secret—just taking a single herb frequently. It has different names in each season. In spring, we call it Tian Jin. In summer, it is called Gou Qi. In fall, the folks call it Di Gu; in winter its name is Xian Ren Zang. You can obtain and take it in all four seasons and experience longevity with nature.” The emissary jotted it down and this secret has been handed down to present times.

2. Lycium Gou Qi Zi is honored as a tonic for longevity. It is a good tonic for Liver and Kidney Yin and Jing as well as Liver Blood. It is combined with Polygonum He Shou Wu and Longan Long Yan Yan Rou and soaked in wine for 2 weeks to use as a tonic.

3. Lycium Di Gu Pi is the root bark of this plant. Di Gu Pi is sweet and cold. Because it cools Blood and clears Heat, it is a good treatment for Yin Deficiency Bi syndrome.

4. Gou Qi Zi has a protective effect on the hepatic cells, reduces Blood cholesterol, and lowers blood pressure. It also induces a therapeutic effect for the treatment of hyperlipidemia and chronic hepatitis, obesity, and male infertility.

### Pharmaceutical Ingredients:

1. Betaine, solavetivone, zeaxanthin, physalien, β-sitosterol, linoleic acid
2. Na, Ca, K, Mg, Cu, Zn, Fe
   - Vitamins B1, B2, C, carotene

**Lily Bai He 百合**
Chapter 1: Herbs to Tonify Deficiency

Llamas, Alpacas, Goats, Sheep, and Pigs: 5–10 g
Dogs: 2–5 g
Rabbits: 0.5–1.5 g
Birds: 0.2–2 g

Cautions and Contraindications:
1. Cough due to Wind-Cold invasion because it is cold
2. Diarrhea due to Spleen Qi/Yang Deficiency

Side Effects: It may cause diarrhea.

Clinical Applications:
1. Lung Yin Deficiency with Heat
   Clinical signs: Very chronic cough, dry cough, Bloody or sticky, stubborn Phlegm
   Combine with: Scrophularia Xuan Shen, Fritillaria Chuan Bei Mu, Rehmannia Sheng Di Huang, Tussilago Kuan Dong Hua
   Classical herbal formula: Bai He Gu Jin Tang
2. Residual Heat following fever
   Clinical signs: Irritability, palpitations, insomnia (behavior issues at night), restlessness
   Combine with: Rehmannia Sheng Di huang and Anemarrhena Zhi Mu

History and Comments:
1. Bai (百), means a hundred, He (何) means harmony. The name Bai He means everything has peace and harmony. Bai He has had an important role in several societies. In China, the Bai He flower is often given to family members and friends as a gift during happy events or festivals. In ancient France, Bai He represented the majesty of the royal house. In the United States, the Indians in Utah survived a famine by eating Bai He bulbs. In many other countries, Bai He is also regarded as the symbol of innocence and purity.
2. Bai He consists of the scales from the bulb. It has an antiallergenic effect and alleviates histamine-induced asthma. It can be applied externally to treat swellings and ulcers.

Pharmaceutical Ingredients:
1. Colchicine, starch, protein, lipids, polysaccharides
2. Regaloside A, D, 3, 6-O-diferuloylsucrose, 1-O-feruloyglycerol, 1-O-p-coumaroylglycerol, 26-O-β-d-glucopyranosylrutin, 3-β-α-l-rhamnopyranosyl-β-d-glucopyranoside, brownnioside, deacyl-brownnoside, β1-solamargine
3. Sugars, organ acids
4. Ca, Mg, Fe, Al, K, Zn

Original Reference: Shen Nong Ben Cao Jing (Shen Nong’s Materia Medica, 1st century BCE) 神农本草经

Part Used: Pulpy bulb

Name:
Pharmaceutical: Lilii, Bulbus
Botanical: Lilium lancifolium; L. brownii; L. pumilum; L. longiflorum
Common: Lily bulb
Wade-Giles: Pai-Ho
Translation: Hundred Closing

Energy/Taste: Slightly cold, sweet

Channel-Organ: Lung, Heart

Actions:
1. Moisten the Lung to stop cough
2. Clear Heart Heat and calm Shen

Form and Preparation: Powder or decoction; stirring with honey enhances its effect to moisten the Lung.

Dosage:
Horses and Cattle: 30–60 g
Camels: 35–75 g
Ophiopogon *Mai Men Dong* 麦门冬

**Original Reference:** *Shen Nong Ben Cao Jing* (Shen Nong's *Materia Medica*, 1st century BCE) 神农本草经

**Part Used:** Root (tuber); sliced tuber with core removed

**Name:**
- Pharmaceutical: Ophiopogonis Japonici, Tuber
- Botanical: Ophiopogon japonicus
- Common: Ophiopogon tuber
- Wade-Giles: Mai-Men-T‘ung
- Translation: Wheat Door of Winter

**Energy/Taste:** Slightly cold, sweet, slightly bitter

**Channel-Organ:** Lung, Heart, Stomach

**Actions:**
1. Moisten Lung, nourish *Yin*
2. Nourish Stomach *Yin* and generate Body Fluids
3. Eliminate Heart Heat and irritability
4. Moisten intestines and promote bowel movements

**Form and Preparation:** It is sold as whole tubers or cut with the center removed to reduce bitterness. It is considered more potent when sliced because the core is inactive as a *Yin* tonic. The core is actually slightly agitating.

**Dosage:**
- Horses and Cattle: 20–60 g
- Camels: 35–75 g
- Llamas, Alpacas, Goats, Sheep, and Pigs: 10–20 g
- Dogs: 2–8 g
- Cats: 0.5–1 g
- Rabbits: 0.5–1.5 g
- Birds: 0.2–2 g

**Cautions and Contraindications:**
1. Cough due to Wind-Cold invasion
2. Excessive Phlegm or Damp
3. Diarrhea
4. According to some traditional sources, this herb antagonizes Tussilago *Kuan Dong Hua* and counteracts Sophora *Ku Shen* and Tremella *Bai Mu Er*.

**Side Effects:** It may cause diarrhea.

**Clinical Applications:**
1. Dryness and Heat in the Lung due to Lung *Yin* Deficiency
   - Clinical signs: Dry cough with scanty or sticky sputum, or Blood
   - Combine with: Adenophora *Nan Sha Shen*, Asparagus *Tian Men Dong*, Fritillaria *Chuan Bei Mu*, Rehmannia *Sheng Di Huang*, and Glehnia *Sha Shen*, Loranthus *Sang Ji Sheng*, Armeniaca *Xing Ren*, Asinum *Gelatinum E Jiao*
   - Classical herbal formula: *Qing Zao Jiu Fei Tang*
2. Stomach *Yin* Deficiency
   - Clinical signs: Vomiting, colic, gastric ulcers, constant hunger or no appetite, dry tongue, thirst, sore throat
   - Combine with: Polygonatum *Yu Zhu*, Glehnia *Sha Shen*, Rehmannia *Sheng Di Huang*
   - Classical herbal formula: *Yu Nü Jian* (Jade Lady)
3. Pathological Heat in *Ying* level or in the later stage of a febrile disease with *Yin* Deficiency
Clinical signs: Systemic fever, irritability, insomnia (behavior issues at night), with dry mouth and increased thirst
Combine with: Rehmannia Sheng Di Huang and Coptis Huang Lian, Bambusa Zhu Ye
Classical herbal formula: Qing Ying Tang

4. Heart Yin Deficiency
Clinical signs: Irritability, restlessness, behavioral changes (especially at night), arrhythmia
Combine with: Rehmannia Sheng Di Huang and Ziziphus Suan Zao Ren, Scrophularia Xuan Shen
Classical herbal formula: An Shen Fang

5. Constipation due to Dryness and Heat in the intestines or with fever
Combine with: Scrophularia Xuan Shen and Rehmannia Sheng Di Huang
Classical herbal formula: Zeng Ye Tang

History and Comments:
1. The first story about Mai Men Dong includes Qin Shi Huang, the first emperor who united China during Qin Dynasty (221 to 209 BCE). One day, a small bird carrying a plant in its beak flew into the palace and dropped the herb right onto Emperor Qin’s desk. The elegant herb had beautiful lavender flowers and long, narrow green leaves. The emperor asked Gui Gu Zi about the herb. Gui Gu Zi, a famous military tactician and sly diplomat, answered carefully: “This is the herb of immortality from the Ying Island of the East Sea. When a person dies, cover him with this herb on the third day, and he will come back to life immediately. One herb can revive one person.” Because the Emperor Qin believed Gui Gu Zi, he sent his emissary Xu Fu along with three thousand virgin boys and three thousand virgin girls to the East Sea to search for the herb of immortality. They finally found and brought this plant back to the emperor.

2. Although Mai Men Dong cannot bring a dead emperor to life, it is able to moisten the Metal (Lung) and purify the Water (Kidney). When Mai Men Dong is combined with Ren Shen and Wu Wei Zi, it forms the classical herbal formula Sheng Mai Yin, which translates literally as “reviving the pulse.”

3. Good quality Ophiopogon Mai Men Dong is thick, large, soft, aromatic, chewy, sweet, and light yellowish white in color. The herb may be stir-fried in wine to reduce its coolness.

4. Mai Men Dong is the best herb for thirst, whether used alone or combined with Lu Gen. It is often combined with other herbs for the following treatments:
   a. Treat deficient Lung Yin: Combine with Asparagus Tian Men Dong or Lily Bai He
   b. Benefit Liver Yin: Combine with Glehnia Bei Sha Shen

Original Reference: Shen Nong Ben Cao Jing (Shen Nong’s Materia Medica, 1st century BCE) 神农本草经

Part Used: Root

Name:
Pharmaceutical: Asparagus Cochinchenensis, Tuber
Botanical: Asparagus cochinchinensis
Common: Asparagus root
Wade-Giles: T’ien-Men-Tung
Translation: Heaven’s Door to Winter

Energy/Taste: Very cold, sweet, bitter

Channel-Organ: Lung, Kidney
Actions:
1. Nourish Yin and clear Heat
2. Moisten the Lung and nourish the Kidney

Form and Preparation: Powder or decoction

Dosage:
Horses and Cattle: 30–60 g
Camels: 45–90 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–20 g
Dogs: 1–3 g
Cats: 0.5–1 g
Rabbits: 0.5–1.5 g
Birds: 0.2–2 g

Cautions and Contraindications:
1. Spleen Qi Deficiency or Interior Dampness or Phlegm (poor appetite and/or diarrhea)
2. Cough due to Wind-Cold invasion

Side Effects: It may cause diarrhea.

Clinical Applications:
1. Lung Yin and Kidney Yin Deficiency
   Clinical signs: Dry cough with scanty or sticky sputum or Blood, chronic cough in a geriatric patient
   Combine with: Ophiopogon Mai Men Dong
2. Thirst and dry mouth due to consumption of Yin by fever or diabetes
   Combine with: Rehmannia Sheng Di Huang and Codonopsis Dang Shen, or Pseudostellaria Tai Zi Shen, Ginseng Ren Shen
3. Constipation due to Dryness in intestines
   Combine with: Angelica Dang Gui, Cistanche Rou Cong Rong, Rehmannia Sheng Di Huang, Cannabis Huo Ma Ren
4. Stomatitis due to Deficient Stomach Yin with Fire
   Combine with: Coptis Huang Lian or Scutellaria Huang Qin

History and Comments:
1. Because Taoists considered Tian Men Dong to have similar functions as Mai Men Dong, they gave it a similar name. This herb is described in the highly influential text Bao Pu Zì (The Master Embracing Simplicity) written by Ge Hong, an early 4th century Taoist master. Ge Hong researched the art of transcendence and immortality, including topics such as alchemy, health preservation, meditation, breathing techniques, exorcism, sexual practices, and talismanic charms. He advised Taoists to start taking Tian Men Dong beginning with their very first stage toward transcendence. Tian Men Dong could be steamed or boiled and then consumed twice daily to completely replace rice, wheat, beans, corn, and millet in the diet. It could also be pounded into a powder and drunk in wine. Alternatively, one could squeeze out the juice and condense it into an ointment. Taking Tian Men Dong for 100 days continuously can significantly improve one's stamina and vitality, which is much faster than using other herbs such as Atractylodes Bai Zhu and Polygonatum Huang Jing. Taking the herb for 200 days in a row can strengthen bones and muscles, and preserve one's youth.
2. Another story about Tian Men Dong was recorded in Lie Xian Zhan (Biographies of the Ranked Immortals) written by Liu Xiang in the West Han Dynasty (206 BCE–25 CE). According to this text, when the Immortal named Chi-song-zi used Tian Men Dong persistently, his teeth and hair regenerated at 150 years of age and he lived over 300 years.
3. Er Dong (Two Winters) is the combination of Asparagus Tian Men Dong (Heaven’s Door to Winter) and Ophiopogon Mai Men Dong (Wheat Door of Winter). Both these herbs have similar actions of nourishing Lung and Stomach Yin, moistening the Lung to stop cough, and clearing Heat. A practitioner may combine these herbs or may substitute each for the other. However, these herbs do have some differences. Tian Men Dong is much colder, clears Heat more strongly, nourishes Kidney Yin, and treats False Heat. Mai Men Dong, on other hand, nourishes Heart Yin, calms Shen, and treats Shen Disturbance due to Heart Yin Deficiency.
4. Good quality Tian Men Dong is thick, dense, translucent, and yellow-white. It is often combined with honey to moisten the Lung and relieve cough. It is also used with other Yin tonics to treat False Heat in the Upper Burner (Shang Jiao).
5. Tian Men Dong has an antimutation and anticancer effect. It can also be effective for the treatment of uterine bleeding.

Pharmaceutical Ingredients:1–4
1. Asparagine, β-sitosterol, 5-methoxy-methylfurfural
2. Steroidal saponin, smilagenin, xylose, glucose, neokeotose

Quinquefolium Xi Yang Shen 西洋参
Original Reference: Ben Cao Cong Xin (Thoroughly Revised Materia Medica) by Wu Yi-Lu in 1751

Part Used: Root

Name:
Pharmaceutical: Panacis Quinquefolii, Radix
Botanical: Panax quinquefolium
Common: American Ginseng
Wade-Giles: Hsi-Yang-Shen
Translation: Western (Foreign) Ginseng
Energy/Taste: Cool, bitter, slightly sweet
Channel-Organ: Heart, Lung, Kidney

Actions:
1. Tonify Qi
2. Nourish Yin
3. Clear Heat and generate Body Fluids

Form and Preparation: Powder or decoction; single use or combined with other herbs, but cooked separately

Dosage:
Horses and Cattle: 20–60g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–20g
Dogs: 0.5–3 g
Rabbits: 0.5–1.5 g
Cats: 0.5–1 g
Birds: 0.2–2 g

Cautions and Contraindications:
1. Incompatible with Veratri Li Lu
2. During exogenous invasions (Wind-Cold or Wind-Heat)
3. Do not cook in iron pots.

Side Effects: Oral medication may cause skin allergic reaction.

Clinical Applications:
1. Deficiency of both Qi and Yin due to fever or other chronic illness
   Clinical signs: Thirst, fatigue, irritability and restlessness, shortness of breath, weak pulse
   Combine with: Rehmannia Sheng Di Huang, Ophiopogon Mai Men Dong, Dendrobium Shi Hu
2. Cough or asthma due to both Lung Yin and Qi Deficiency
   Clinical signs: Difficult breathing, dry cough
   Combine with: Ophiopogon Mai Men Dong, Asinum Gelatinum E Jiao, Anemarrhena Zhi Mu and Fritillaria Chuan Bei Mu
3. Heart Qi and Yin Deficiency
   Clinical signs: Palpitations, restlessness, insomnia (behavior issues at night), anxiety, chest pain
   Combine with: Ophiopogon Mai Men Dong and Glycyrrhiza Gan Cao
4. Diabetes due to Qi and Yin Deficiency
   Clinical signs: Polyuria, urination immediately after drinking water, glucosuria, fatigue, weak back and rear limbs, cool-seeking behavior
   Combine with: Atractylodes Bai Zhu, Astragalus Huang Qi, and Glehnia Bei Sha Shen
5. Spleen Qi and Yin Deficiency
   Clinical signs: Poor appetite, fatigue, diarrhea, thirst, excessive worry

Combine with: Pseudostellaria Tai Zi Shen, Dioscorea Shan Yao and Massa Fermentata Shen Qu

6. Blood in stool due to intestinal Heat
   Combine with: Longan Long Yan Rou

History and Comments:
1. American Ginseng Quinquefolium Xi Yang Shen has been used in TCM since 1716. About 90% of American Ginseng Xi Yang Shen comes from Wisconsin. Cultivated roots are harvested when the plants are from 3 to 6 years old. Wild roots can be found in Wisconsin, New York, and North Carolina. Wild Ginseng is best used as a general tonic and is more tonifying than cultivated Ginseng. Cultivated Ginseng is good for treating Heat conditions.
2. Both American Ginseng Xi Yang Shen (Quinquefolium) and Chinese Ginseng Ren Shen tonify Qi and are used for Qi Deficiency. Ren Shen, a warm herb, is a strong Qi tonic frequently used to treat severe Qi Deficiency and to resuscitate patients with Yang collapse. Quinquefolium Xi Yang Shen, a cool herb, is a first choice Qi and Yin tonic for long-term use due to its adaptogenic properties. American Ginseng Xi Yang Shen is typically preferred in patients who develop aggravated Heat and Qi congestion when using Chinese Ginseng Ren Shen.
3. Quinquefolium Xi Yang Shen is as expensive as Chinese Ginseng Ren Shen. Practitioners may substitute Pseudostellaria Tai Zi Shen for Xi Yang Shen and use Codonopsis Dansheng to replace Ren Shen.
4. The roots of Ren Shen and Xi Yang Shen look similar, but there are some distinguishing characteristics. A 6–7-year-old Chinese Ginseng root is about 60 cm long with fewer branches (accessory roots) than the shorter (about 30 cm) American Ginseng root. Chinese Ginseng leaves are round-ovale, and American Ginseng leaves appear more long-ovale. Chinese Ginseng seeds are larger (1,000 seeds weigh 32–35 grams) than American Ginseng seeds (1,000 seeds weigh 23–25 grams).

Pharmaceutical Ingredients:1–4
1. Quinquenoside R1, ginsenoside Rb1, Rb2, Rb3, Rc, Rd, Re, Rf2, Rg, Ro
2. Pseudo-ginsenoside F11, quinquefolins A, B, C
3. Essential oils, rutin

Dendrobium Shi Hu 石斛
Original Reference: Shen Nong Ben Cao Jing (Shen Nong’s Materia Medica, 1st century BCE) 神农本草经

Part Used: Stem

Name:
Pharmaceutical: Dendrobii, Herba
Botanical: Dendrobium loddidesii; D. chrysanthym; D. fimbriatum; D. nobile; D. candium; D. officinale
Common: Dendrobium
Wade-Giles: Shih-Hu
Translation: Stone Bushel

Energy/Taste: Cool, sweet, bitter

Channel-Organ: Lung, Stomach, Kidney

Actions:
1. Tonify Yin and clear Heat
2. Promote production of Body Fluids
3. Nourish Stomach Yin Deficiency
4. Brighten the vision and strengthen the lower back

Form and Preparation: Powder or decoction; cook first for 10 minutes before adding other herbs.

Dosage:
Horses and Cattle: 15–60 g
Camels: 30–100 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–20 g
Dogs: 2–5 g
Cats: 0.5–3 g
Rabbits: 0.5–1.5 g
Birds: 0.2–2 g

Cautions and Contraindications:
1. In early stage of fever because it preserves/retains external Pathogenic Qi
2. Abdominal distention and thick greasy tongue coating, because it assists Dampness
3. According to some traditional sources, this herb antagonizes Croton Ba Dou and counteracts Omphalia Lei Wan.

Side Effects: It may cause diarrhea.

Polygonatum Yu Zhu 玉竹

Original Reference: Shen Nong Ben Cao Jing (Shen Nong’s Materia Medica, 1st century BCE) 神农本草经

Part Used: Rhizome; this rhizome has a yellow color, whereas Polygonatum Huang Jing is black and has an appearance very similar to cooked Rehmannia Shu Di Huang.

Name:
Pharmaceutical: Polygonati Odorati, Rhizoma
Botanical: Polygonatum officinalis; P. odoratum
Common: Solomon’s seal
Wade-Giles: Yu-Chu
Translation: Jade Bamboo

Energy/Taste: Slightly cool, sweet

Channel-Organ: Lung, Stomach

Actions:
1. Nourish Lung Yin
2. Generate Body Fluids and assist the Stomach
3. Extinguish Wind and soften and moisten the sinews

Form and Preparation: Powder or decoction

Dosage:
Horses and Cattle: 15–60 g
Camels: 30–100 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–20 g
Dogs: 2–5 g
Cats: 0.5–3 g
Rabbits: 0.5–1.5 g
Birds: 0.2–2 g

Cautions and Contraindications:
1. Spleen Qi Deficiency
2. Phlegm-Damp in the Stomach or Lung
3. Stomach Qi Stagnation

Side Effects: It may cause diarrhea.

Polygonatum Huang Jing 黄精

Original Reference: Ming Yi Bie Lu (Miscellaneous Records of Famous Physicians) by Tao Hong-Jing during North and South Kingdoms (5th century) 名医别录

Part Used: Rhizome

Name:
Pharmaceutical: Rhizoma Polygonati
Botanical: Polygonatum sibiricum; P. kingnianum; P. cyrtonema
Common: Polygonatum
Wade-Giles: Huang-Ching
Translation: Yellow Essence

Energy/Taste: Neutral, sweet

Channel-Organ: Lung, Spleen, Kidney

Actions:
1. Nourish Lung Yin
2. Tonify the Spleen Qi
3. Tonify the Kidneys and augment the Essence

Form and Preparation: Powder or decoction

Dosage:
Horses and Cattle: 15–60 g
Camels: 30–100 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–20 g
Dogs: 2–5 g
Cats: 0.5–3 g
Rabbits: 0.5–1.5 g
Birds: 0.3–3 g

Cautions and Contraindications:
1. Spleen Qi Deficiency with Damp and poor digestion or diarrhea due to Cold in the Spleen and Stomach
2. Cough with profuse sputum

Side Effects: It may cause diarrhea.

Clinical Applications:
1. Deficiency of Qi and Yin following febrile diseases
   Clinical signs: Exhaustion, poor appetite, dry cough, dry throat and mouth with thirst
   Combine with: Ginseng Ren Shen or Codonopsis Dang Shen, Ophiopogon Mai Men Dong, Adenophora Nan Sha Shen, Pseudostellaria Tai Zi Shen, and Fritillaria Chuan Bei Mu
2. General debility due to Deficiency of Qi and Blood
   Clinical signs: Decreased appetite, weakness and soreness of the back and stifles, jaundice, muscular atrophy, fatigue
   Combine with: Lycium Gou Qi Zi, Angelica Dang Gui, and Ligustrum Nü Zhen Zi for Heat in feet and low back pain.
3. Diabetes
   Combine with: Astragalus Huang Qi and Dioscorea Shan Yao, Ophiopogon Mai Men Dong, Trichosanthes Tian Hua Fen, and Rehmannia Sheng Di Huang
4. Deficiency of Liver and Kidney Yin
   Combine with: Dipsacus Xu Duan
5. Spleen and Stomach Yin Deficiency
   Combine with: Glehnia Sha Shen, Ophiopogon Mai Men Dong, Oryza Gu Ya

Comments: Most often used for treatment of general debility and recovery from chronic disease (i.e., bronchitis, diabetes, renal failure).

Ligustrum Nü Zhen Zi 女贞子
Original Reference: Shen Nong Ben Cao Jing (Shen Nong’s Materia Medica, 1st century BCE) 神农本草经

Part Used: Seed

Name:
Pharmaceutical: LiGustri Lucidi, Fructus
Botanical: Ligustrum lucidum
Common: Ligustrum
Wade-Giles: Nü-Chen-Tzu
Translation: Female Virtue Seed

Energy/Taste: Cool, sweet

Channel-Organ: Liver, Kidney

Actions:
1. Tonify Liver and Kidney Yin
2. Clear Liver Heat to brighten eyes
3. Darken the hair
4. Strengthen the stifles
5. Preserve Jing

Form and Preparation: Decoction or powder

Dosage:
Horses and Cattle: 15–60 g
Camels: 30–100 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–20 g
Dogs: 2–5 g
Cats: 0.5–3 g
Rabbits: 0.5–1.5 g
Birds: 0.3–3 g

Cautions and Contraindications:
1. Diarrhea due to Spleen Qi Deficiency
2. Yang Deficiency

Side Effects: It may cause diarrhea.

Clinical Applications:
1. Deficient Liver and Kidney Yin
   Clinical signs: Dry eyes, poor vision, ear-ringing (head-shaking), sore back and legs, nocturnal emissions, graying of hair
   Combine with: Morus Sang Shen, Lycium Gou Qi Zi, Eclipta Han Lian Cao, Rehmannia Shu Di Huang
2. Deficiency of Yin with Heat, including Blood Heat
   Clinical signs: Dry mouth, hot palms and soles, dry eyes, rashes, bleeding
   Combine with: Lycium Di Gu Pi, Moutan Mu Dan Pi, Rehmannia Sheng Di Huang
3. Kidney Yin Deficiency
   Clinical signs: Dizziness or disorientation, weakness, soreness of the lower back and stifles
   Combine with: Psoralea Bu Gu Zhi or Cuscuta Tu Si Zi

Comments:
1. Ligustrum Nü Zhen Zi is often combined with Eclipta Han Lian Cao, Morus Sang Shen, or Lycium Gou Qi Zi to benefit Liver Yin. It is also combined with Psoralea Bu Gu Zhi or Cuscuta Tu Si Zi to tonify Kidney Qi.
2. It is used to enhance immune function, when combined with Astragalus Huang Qi during chemotherapy, and also as a longevity herb in folk medicine.
3. It is useful to treat cataracts and retinitis.
**Testudinis Gui Ban** 龟板

**Original Reference:** *Shen Nong Ben Cao Jing* (*Shen Nong’s Materia Medica*, 1st century BCE)

**Part Used:** Plastron (tortoise underbelly)

**Name:**
Pharmaceutical: Plastrum Testudinis  
Zoological: Chinemys reevesii (freshwater tortoise)  
Common: Fresh-water turtle shell  
Wade-Giles: *Kuei-Pan*  
Translation: Tortoise Hard Plank

**Energy/Taste:** Cool, sweet, salty

**Channel-Organ:** Liver, Kidney

**Actions:**
1. Nourish *Yin* to anchor *Yang*
2. Tonify Kidney to strengthen bones
3. Stop bleeding due to *Yin* Deficiency with Heat
4. Nourish Blood and tonify Heart

**Form and Preparation:** Powder or decoction; cook 10–20 minutes before adding other herbs to decoction.

**Dosage:**
Horses and Cattle: 15–60 g  
Camels: 30–100 g  
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–20 g  
Dogs: 2–5 g  
Cats: 0.5–3 g  
Rabbits: 0.5–1.5 g  
Birds: 0.2–2 g

**Cautions and Contraindications:**
1. Caution during pregnancy  
2. Do not use during Wind invasions.  
3. Phlegm conditions  
4. Cold Damp in Stomach or diarrhea due to *Yang* Deficiency  
5. According to some traditional sources, this substance antagonizes *Glehnia Sha Shen* and *Ginseng Ren Shen*.

**Side Effects:** None known

**Comments:**
1. *Gui Ban* is available cooked into glue as *Gui Ban Jiao*. It has a stronger effect for tonifying *Yin* and Blood.
2. *Gui Ban* is an important tonic because it aids the upward flow of *Qi* from the Lower Burner (*Xia Jiao*) while tonifying *Yin* and settling the unruly *Yang*. It is often combined with *Cervus Lu Rong* (deer antler) as a Kidney *Qi* tonic.

**Amyda Bie Jia** 龜甲

**Original Reference:** *Shen Nong Ben Cao Jing* (*Shen Nong's Materia Medica*, 1st century BCE)

**Part Used:** Bony shell

**Name:**
Pharmaceutical: Amyda sinensis, Carapax (*Trionyx sinensis*)  
Zoological: Carapax Amydae; C. Trionycis  
Common: Turtle shell  
Wade-Giles: *Pieh-chia*  
Translation: Chinese Soft-shelled Turtle Shell

**Energy/Taste:** Cold, salty

**Channel-Organ:** Liver, Kidney

**Actions:**
1. Nourish *Yin*, anchor *Yang*
2. Soften hardness, remove nodules

**Form and Preparation:** Powder or decoction; cook 30 minutes before adding other ingredients.

**Dosage:**
Horses and Cattle: 15–60 g  
Camels: 30–100 g  
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–20 g  
Dogs: 2–5 g  
Cats: 0.5–3 g  
Rabbits: 0.5–1.5 g  
Birds: 0.2–2 g

**Cautions and Contraindications:**
1. Caution during pregnancy  
2. Deficiency and Cold in the Spleen leading to diarrhea  
3. When an Exterior disorder has not been fully restored  
4. According to some traditional sources, this substance antagonizes *Alum Ming Fan*.

**Side Effects:** None known

**Comments:**
1. Good quality *Bie Jia* is large, clean, and without meat. It is very useful for diabetes.
2. Raw *Bie Jia* enriches *Yin* and anchors *Yang*; fried *Bie Jia* in vinegar softens and reduces hard swellings or nodules.
Eclipta Han Lian Cao 旱莲草
Original Reference: Xin Xiu Ben Cao (Newly Revised Materia Medica) by Su Jing et al. during Tang Dynasty (618–907 CE) 新修本草

Part Used: Aboveground parts of the plant

Name:
Pharmaceutical: Ecliptae Prostratae, Herba
Botanical: Eclipta prostrata
Common: Eclipta
Wade-Giles: Han-Lien-Ts‘ao
Translation: Lotus Grass

Energy/Taste: Cold, sweet, sour

Channel-Organ: Liver, Kidney

Actions:
1. Nourish Kidney Yin
2. Cool Blood, stop bleeding

Form and Preparation: Decoction or powder

Dosage:
Horses and Cattle: 15–60 g
Camels: 30–100 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–20 g
Dogs: 2–5 g
Cats: 0.5–3 g
Rabbits: 0.5–1.5 g
Birds: 0.2–2 g

Cautions and Contraindications:
1. It can damage Spleen and Stomach Qi.
2. It is contraindicated in diarrhea due to Cold and Qi Deficiency in Spleen or Kidney.

Side Effects: None known

Clinical Applications:
1. Lung Yin Deficiency with Heat
   Clinical signs: Coughing Blood, Lung abscesses
   Combine with: Lily Bai He, Glehnia Sha Shen, crystal sugar Bing Tang
2. Debility after a long illness
   Combine with: Jujube Da Zao
3. Palpitations and shortness of breath
   Combine with: Pseudostellaria Tai Zi Shen, crystal sugar Bing Tang

Comments: Bai Mu Er is a mild Yin tonic for Lung Yin and Stomach Yin Deficiencies. It is often used as Food Therapy and may take time to achieve a therapeutic effect.

Sesame Hei Zhi Ma 黑芝麻
Original Reference: Shen Nong Ben Cao Jing (Shen Nong’s Materia Medica, 1st century BCE)

Part Used: Seed

Name:
Pharmaceutical: Sesami Indici, Semen
Botanical: Sesamum indicum (Black Sesame)
Common: Black sesame seed
Wade-Giles: Hei-Chih-Ma
Translation: Black Sesame

Energy/Taste: Neutral, sweet

Channel-Organ: Liver, Kidney, Lung, Large Intestine

Clinical Applications:
1. Lung Yin Deficiency with Heat
   Clinical signs: Coughing Blood, Lung abscesses
   Combine with: Lily Bai He, Glehnia Sha Shen, crystal sugar Bing Tang
2. Debility after a long illness
   Combine with: Jujube Da Zao
3. Palpitations and shortness of breath
   Combine with: Pseudostellaria Tai Zi Shen, crystal sugar Bing Tang

Comments: Shen Nong Ben Cao Jing lists this herb as a therapy for various conditions, including lung disorders and debility, highlighting its diverse therapeutic applications.
Actions:
1. Nourish Yin, Jing, and Blood
2. Moisten the intestine and promote bowel movements

Form and Preparation: Decoction or powder; often used as a Food Therapy

Dosage:
Horses and Cattle: 15–60 g
Camels: 30–100 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–20 g
Dogs: 2–5 g
Cats: 0.5–3 g
Rabbits: 0.5–1.5 g
Birds: 0.2–2 g

Cautions and Contraindications: Diarrhea due to Spleen Qi Deficiency

Side Effects: None known

Clinical Applications:
1. Deficient Yin, Jing, and Blood
   Clinical signs: Dry and dandruff skin, gray hair, premature aging, seizure, behavioral changes, poor vision
   Combine with: Morus Sang Ye, Angelica Dang Gui, and Cistanche Rou Cong Rong
2. Constipation due to deficient Yin
   Combine with: Biota Bai Zi Ren or Cannabis Huo Ma Ren
   Combine with: Angelica Dang Gui, Cistanche Rou Cong Rong, Biota Bai Zi Ren

Comments: Sesame Hei Zhi Ma can be combined with chicken egg as Food Therapy for chronic constipation due to deficient Yin.

HERBS TO TONIFY YANG

The herbs to tonify Yang are also known as herbs that warm or assist the Yang. They are used for Yang Deficiency Patterns, which include Heart Yang Deficiency, Spleen Yang Deficiency, and Kidney Yang Deficiency. Because the Kidney controls the Ming-Men (the gate of life), which is the basis of the whole body’s Yang (or global Yang), various Yang Deficiency Patterns originate from or at least are associated with the Kidney. Therefore, tonifying Yang generally means tonifying Kidney Yang.

The main clinical signs of Kidney Yang Deficiency include 1) cold back or extremities, aversion to cold, withdrawal into oneself, or warm-seeking behavior; 2) sore or weak lower back, stifles, bones, or muscles; 3) exhaustion, impotence, or infertility; 4) polyuria or urinary incontinence; 5) asthma, dyspnea, or wheezing; 6) pale tongue with a white coating; and 7) deep, weak pulse. Kidney Yang is the source of the global Yang. Kidney Yang Deficiency may lead to Heart or Spleen Yang Deficiency. On the other hand, chronic Deficient Heart or Spleen Yang gradually consumes Kidney Yang, which leads to Kidney Yang Deficiency. Yang Deficiency Pattern differentiation and examples of Yang tonic herbs are listed in Table 1.5.

Generally, the herbs to tonify the Yang are warm and dry in nature. They regulate adrenal cortex functions and energy metabolism, promote growth and sexual function, and strengthen the immune system. Yang tonic herbs can include animal, plant, and mineral sources:

1. Animal products generally have a strong effect but are expensive. Examples include Gecko, Deer horn, Cordyceps fungi, and Pipefish. Some animals such as seahorses are endangered and prohibited for use.

### Table 1.5. Comparison of common Yang Deficiency Patterns and Yang tonic herbs.

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Clinical Signs</th>
<th>Examples of Yang Tonic Herbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kidney Yang Deficiency</td>
<td>Cold back or extremities, aversion to Cold, withdrawal into oneself, or warm-seeking behavior</td>
<td>Morinda Ba Ji Tian</td>
</tr>
<tr>
<td></td>
<td>Sore or weak lower back knees, or bones and muscles;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exhaustion, impotence, or infertility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polyuria or incontinence of urine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asthma, dyspnea, or wheezing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tongue: pale or purple with white coating</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pulse: slow/deep/weak</td>
<td></td>
</tr>
<tr>
<td>Heart Yang Deficiency</td>
<td>Shortness of breath, worse if exercise</td>
<td>Eleutherococcus Wu Jia Shen</td>
</tr>
<tr>
<td></td>
<td>Palpitation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Restlessness, or anxiety</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coolness of ears, nose, trunk/limbs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ascites</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tongue: pale or purple</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pulse: feeble, irregularly or regularly intermittent</td>
<td></td>
</tr>
<tr>
<td>Spleen Yang Deficiency</td>
<td>Anorexia</td>
<td>Psoralea Bu Gu Zhi</td>
</tr>
<tr>
<td></td>
<td>Daybreak diarrhea</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chronic loose stools, colic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tongue: wet, swollen with teeth marks</td>
<td></td>
</tr>
</tbody>
</table>
2. Examples of plant sources include Psoralea Bu Gu Zhi, Morinda Ba Ji Tian, and Eucommia Du Zhong.

3. Mineral sources include Actinolite Yang Qi Shi.

The warm, dry nature of herbs to tonify Yang can damage Body Fluids and consume Yin. Overuse of Yang tonics may generate internal Heat, which leads to Yin Deficiency. Therefore, these herbs are contraindicated in patients with Heat conditions and Yin Deficiency unless other herbs are included in a formula to counteract these effects.

Epimedium Yin Yang Huo 涼羊藿

Original Reference: Shen Nong Ben Cao Jing (Shen Nong’s Materia Medica, 1st century BCE) 神农本草经

Part Used: Above-ground part, or leaf and stem

Name:
Pharmaceutical: Epimedii, Herba
Botanical: Epimedium brevocornum; E. grandiflorum; E. sagitatum
Common: Epimedium
Wade-Giles: Yin-Yang-huo
Translation: Horny Goat Plant
Alternate: Xian Ling Pi

Energy/Taste: Warm, pungent, sweet

Channel-Organ: Liver, Kidney

Actions:
1. Tonify Kidney Yang, strengthen Yang-Qi
2. Expel Wind and eliminate Dampness

Form and Preparation: Powder or decoction

Dosage:
Horses and Cattle: 15–30g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–10g
Camels: 30–50g
Dogs: 1–3 g
Cats: 0.3–1 g
Rabbits: 0.5–1.5 g
Birds: 0.1–1.5 g

Cautions and Contraindications:
1. Caution during pregnancy
2. Deficient Yin with Heat
3. This herb should not be taken as a decoction over prolonged periods.

Side Effects:
1. In very large doses it can cause respiratory arrest.
2. Long-term use may lead to Heat and Dryness.

Clinical Applications:
1. Kidney Yang Deficiency
   Clinical signs: Infertility, frequent urination (dribbling)
   Combine with: Schisandra Wu Wei Zi, Lycium Gou Qi Zi, and Astragalus Huang Qi or use as a single herb
   Herbal formula: Yin Yang Huo San
2. Wind-Damp-Cold Bi syndromes
   Clinical signs: Pain; numbness in the back, stifles, and limbs; arthritis
   Combine with: Clematis Wei Ling Xian, Loranthus Sang Ji Sheng, Eucommia Du Zhong, Cinnamomum Gui Zhi
3. Accumulation of Lung Phlegm with difficulty breathing
   *Combine with:* Platycodon *Jie Geng*

4. Ascites due to Heart *Yang* and Kidney *Yang* Deficiency
   *Clinical signs:* Shortness of breath, cold limbs
   *Combine with:* Curculigo *Xian Mao*, Ginseng *Ren Shen*, Aconite *Fu Zi* and Angelica *Dang Gui*

**History and Comments:**

1. During the *Tang* Dynasty (618–907 CE), a goat farmer owned 1 buck and 15 does that had not produced offspring for many years. Annoyed by this situation, the farmer asked a wise man for advice. The wise man suggested that the farmer feed an herb called *Xian Ling Pi* to his goats. The farmer fed the herb to the goats and was pleased when the animals began to breed. However, his enthusiasm waned a little when the animals' libido responded too positively. The male goat became so lustful that he mated with the female goats relentlessly day and night hundreds of times. Thus, he had to discontinue the herbal medication to balance the buck’s libido. Upon hearing the news, other farmers also began feeding *Xian Ling Pi*, in smaller amounts, to encourage their goats to mate. The farmers changed the herb’s name to *Yin Yang Huo* because its leaves looked like *Huo* (ageratum) and it could stimulate *Yin* (libido) in the *Yang* (goat).

2. Epimedium *Yin Yang Huo* is also called *Xian Ling Pi*. When combined with Curculigo *Xian Mao*, it is called *Er Xian Tang* and may be a component of a larger prescription.

3. When prepared, the leaf edges of *Yin Yang Huo* should be trimmed because they are considered slightly toxic. Good quality Epimedium *Yin Yang Huo* is intact, yellow green, and has many leaves.

4. *Yin Yang Huo* increases semen production. It increases sexual activity, increases sperm production, stimulates the sensory nerves, and increases sexual desire.

5. *Yin Yang Huo* increases the immune response. It is externally used for eye infections. It is also very useful for sports injuries with spasms or fractures.

**Pharmaceutical Ingredients:**

1. Flavonoids (icariine, des-o-methylicariine, β-anhydroicaritine, des-o-methyl-β-anhydroicaritine, icarisid I, isoquercetin, icariin, icariin-3-o-d-rhamnoside)
2. Epimedin A, B, C, querceti, epimedokoreanoside, campesterol
3. β-sitosterol, ikarisoside A
4. Hyperin, sagittatoside A, B, C

**Cistanche Rou Cong Rong** 肉苁蓉

**Original Reference:** *Shen Nong Ben Cao Jing* (*Shen Nong’s Materia Medica*, 1st century BCE)

**Part Used:** Stem

**Name:**
Pharmaceutical: Cistanches Deserticolae, Rhizoma
Botanical: Cistanche deserticola; C. salsa
Common: Broomrape
Wade-Giles: *Jou-Tsung-Jung*
Translation: Natural Compliant Flesh
Alternate: *Dian Da Yun*

**Energy/Taste:** Warm, sweet, salty

**Channel-Organ:** Kidney, Large Intestine

**Actions:**
1. Tonify Kidney *Jing*, strengthen *Yang*
2. Moisten Large Intestine to promote bowel movements
3. Warm uterus, strengthen reproductive functions
Form and Preparation: Powder or decoction

Dosage:
It can tonify Yang without drying the body, and its actions are moderate and smooth. Therefore, the dosage should be large.
Horses and Cattle: 30–60 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–30 g
Camels: 30–90 g
Dogs: 2–5 g
Cats: 1–3 g
Rabbits: 0.5–1.5 g
Birds: 0.3–2 g

Cautions and Contraindications:
1. Deficiency of Yin with Heat
2. Diarrhea
3. Constipation due to Excess Heat

Side Effects: It may cause diarrhea.

Clinical Applications:
1. Constipation due to Dryness in intestines and Yin Deficiency, especially in geriatric animals
   Combine with: Cannabis Huo Ma Ren, and Angelica Dang Gui
   Herbal formula: Dang Gui Cong Yong San
2. Kidney Yang Deficiency
   Clinical signs: Female or male infertility, lack of sexual desire, impotence, premature ejaculation, frequent urination or urinary dribbling, pale and swollen tongue, deep and weak pulse
   Combine with: Rehmannia Shu Di Huang, Cornus Shan Zhu Yu, Cuscuta Tu Si Zi, and Schisandra Wu Wei Zi
3. Cold (Painful) Bi syndrome in the lower back or hind limbs, with hindquarter weakness
   Combine with: Morinda Ba Ji Tian and Eucommia Du Zhong
4. Prevention for threatened abortion due to deficient Kidney Qi
   Combine with: Eucommia Du Zhong

History and Comments:
1. In 1190 CE, 13 tribes headed by Zha Mu He were attacking Mongolia. During the fighting, the great King Genghis Khan and his 30,000-man army were trapped on a sandy hill covered with Suo Suo, a common desert shrub. Meanwhile, Zha Mu He tortured captives by tossing them into 70 large caldrons filled with boiling water. God, infuriated by Zha Mu He's cruelty, sent his horse to help Genghis Khan. The divine horse leapt down from the heaven and appeared above the sandhill. Looking skyward, the horse gave a long neigh and caused his blood to sprinkle the roots of the Suo Suo shrubs. Suddenly, some purple plants sprouted from the spot and within minutes, these plants grew into armlike fleshy stems about 1 foot tall. King Genghis Khan and his soldiers knelt down to thank God and then ate the plant. They immediately felt a burst of power flow through their bodies. The King and his army rushed down the sandhill and effortlessly destroyed the enemy. Subsequently, King Genghis Khan and his mounted Mongol army swept out from the steppes of Asia to conquer two-thirds of the known world. Today, Rou Cong Rong is classified as a Class-Two Rare and Endangered Plant in China; however, lucky travelers can still spot it occasionally in the desert of Northwest China.
2. Rou literally means “meat” or “flesh” because of its nature to provide rich nourishment. Cong Rong means “staying relaxed and comfortable.” Rou Cong Rong is a warm tonic herb that can replenish Blood and Kidney Qi without harsh actions, demonstrating the Cong Rong part of its name. Because Cistanche Rou Cong Rong is a very mild tonic for both Yang and Yin, it is commonly used in geriatric patients.
3. Rou Cong Rong is an effective immune stimulant when combined with Epimedium Yin Yang Huo.

Pharmaceutical Ingredients:
1. β-sitosterol, succinic acid, caffeic acid, amino acids
2. Potassium, sodium, calcium, zinc, magnesium, and iron
Morinda Ba Ji Tian 巴戟天

Common: Morinda root
Wade-Giles: Pa-Chi-T’ien
Translation: Clinging Halberd of Heaven

Energy/Taste: Slightly warm, pungent, sweet

Channel-Organ: Kidney, Liver

Actions:
1. Tonify the Kidney and strengthen Yang
2. Dispel Wind and transform Damp
3. Strengthen the sinews and bones
4. Increase mental powers
5. Quiet and soothe the Five Organs

Form and Preparation: Powder or decoction

Dosage:
Horses and Cattle: 15–30 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–10 g
Camels: 30–60 g
Dogs: 1–5 g
Cats: 0.5–2 g
Rabbits: 0.5–1.5 g
Birds: 0.1–1.5 g

Cautions and Contraindications:
1. Deficient Yin with Heat or Damp-Heat
2. According to some traditional sources, this herb antagonizes Salvia Dan Shen.
3. It is considered slightly toxic and is often combined with Glycyrrhiza Gan Cao to help neutralize its toxicity.

Side Effects: It may cause Internal Fire or Heat.

Clinical Applications:
1. Soreness and weakness of the back and hind limbs due to a Deficiency of Kidney Yang
   Combine with: Dipsacus Xu Duan and Eucommia Du Zhong
   Classical herbal formula: Ba Ji San
2. Wind-Cold-Damp pain in lumbar region, hip, stifle, and hock, with difficulty walking
   Combine with: Cibotium Gou Ji, Loranthus Sang Ji Sheng and Cyathula Niu Xi; or Eucommia Du Zhong, Dipsacus Xu Duan and Cyathula Niu Xi.
3. Deficiency of Kidney Yang
   Clinical signs: Infertility, impotence, premature ejaculation, infertility, ear-ringing (head-shaking)
   Combine with: Ginseng Ren Shen, Cistanche Rou Cong Rong, and Cuscuta Tu Si Zi or Epimedium Yin Yang Huo, Dioscorea Shan Yao

Original Reference: Shen Nong Ben Cao Jing (Shen Nong’s Materia Medica, 1st century BCE) 神农本草经

Part Used: Root

Name:
Pharmaceutical: Morindae Officinalis, Radix
Botanical: Morinda officinalis
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4. Urinary incontinence or increased frequency
   Combine with: Psoralea Bu Gu Zhi and Rubus Fu Pen Zi, Alpinia Yi Zhi Ren

5. To strengthen bone degeneration and help in repair of bone fractures
   Combine with: Dipsacus Xu Duan

History and Comments:
1. *Ba Ji Tian* was accidentally used and helped Zhuge Liang’s army. Zhuge Liang (181–234 CE) was the most famous statesman and strategic general in Chinese history. He was the Chief Chancellor of the Shu Kingdom (known as Si-chuan today) during the Three Kingdoms period (220–280 CE). Zhuge Liang marched south to conquer the barbaric tribes and devised a clever plan to capture the tribal King. He commanded General Zhang Yi to lead one thousand soldiers to hide in a valley. The troops were to move in behind the barbarian tribes entering the valley and prevent their escape, trapping them. Zhuge Liang sent Zhang Yi to his task with a final warning that “Anyone who fails to execute the plan will be beheaded.” When the troops failed their task, Zhang Yi was afraid that he and his subordinates would all be killed. Attempting to avert mortal punishment, he wrote a report explaining the reason for the failure. He explained that a 3-day storm cut off provisions from the troops waiting in ambush in the valley. The cold and hungry soldiers ate the roots of the nearby grasses. One herb (*Ba Ji Tian*) with a white and purple root, tender texture, fleshy appearance, and a sweet, slightly spicy taste was particularly popular among the men. It deterred hunger and kept them warm, so everyone enjoyed eating it. However, after eating the herb for several days, all the soldiers suffered from an embarrassing ailment. Every man had a long-lasting erection he could hardly bear, and he could not stop groaning. The groaning sound from the one thousand soldiers reverberated in the valley like a roaring wind, which scared away the enemy. Thus, the army won the battle but did not capture all the barbaric tribe members. When Zhuge Liang heard the story, he summarized the battle by writing: “*Ba Ji* pointed to the sky, gave man’s power, and made the enemy run away. We all would enjoy having this problem.” *Ba Ji* literally refers to a halberd, which is an ancient spearlike weapon. When the two characters are reversed to form “*Ji Ba*,” it becomes a Chinese slang term referring to a man’s penis. “*Tian*” literally means sky. Therefore the herb’s name “*Ba Ji Tian*” became a testament to the Chief Counselor’s sense of humor. Since that time, “*Ba Ji Tian*” has often been used in formulas that tonify the Kidney Yang.

2. Good quality *Ba Ji Tian* is thick, large, interconnected, and purple. *Ba Ji Tian* is taken as a tonic to strengthen the mind and vertebral column. It also is good for both female and male fertility.

3. It lowers blood pressure.

4. Combined with Cornus Shan Zhu Yu, it can be effective for renal diseases.

Pharmaceutical Ingredients:
1. Rudiodin, rudiodin-1-methylether, physcion, monotropein, asperulosidetetraacetate, palmitic acid, nonadecane
2. Morindin, monotropein, asperuloside tetraacetate, β-sitosterol, vitamin C
3. Monosaccharide, polysaccharide
4. Cardiac glycoside, flavone, amino acid, anthraquinone
5. K, Ca, Mg

*Psoralea Bu Gu Zhi* 补骨脂

Original Reference: *Kai Bao Ben Cao* (Materia Medica of the Kai Bao Era) by Ma Zhi in 973 开宝本草

Part Used: Fruit-seed

Name:
Pharmaceutical: Psoraleae Corylifoliae, Fructus Botanical: *Psoralea corylifolia*
Common: Psoralea seed  
Wade-Giles: Pu-Ku-Chih  
Translation: Tonify Bone Resin

Energy/Taste: Very warm, pungent, bitter

Channel-Organ: Kidney, Spleen

Actions:
1. Tonify the Kidney and strengthen Yang
2. Hold Essence and prevent incontinence
3. Warm Spleen and stop diarrhea

Form and Preparation: Powder or decoction

Dosage:
Horses and Cattle: 15–45 g  
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–10 g  
Camels: 30–60 g  
Dogs: 1–5 g  
Cats: 0.5–2 g  
Rabbits: 0.5–1.5 g  
Birds: 0.3–2 g

Cautions and Contraindications:
1. Deficiency of Yin with Heat  
2. Constipation

Side Effects:
1. It may cause constipation.  
2. In very large doses, it may cause Kidney toxicity.

Clinical Applications
1. Diarrhea due to Deficiency of Kidney and Spleen Yang  
   Clinical signs: Chronic diarrhea, or diarrhea before dawn (daybreak diarrhea)  
   Combine with: Evodia Wu Zhu Yu, Myristica Rou Dou Kou, and Schisandra Wu Wei Zi  
   Classical herbal formula: Si Shen Wan
2. Weakness of limbs and bones, difficulty moving, getting up, or laying down  
   Combine with: Cuscuta Tu Si Zi, Cistanche Rou Cong Rong, Eucommia Wu Wei Zi  
   Classical herbal formula: Ba Ji San
3. Urinary or fecal incontinence (or dribbling) due to Kidney and Spleen Yang Deficiency  
   Combine with: Cuscuta Tu Si Zi and Alpinia Yi Zhi Ren
4. Failure of the Kidneys to grasp Lung Qi  
   Clinical signs: Shortness of breath, wheezing, heaves, asthma  
   Combine with: Ginkgo Bai Guo and Juglans Hu Tao Ren

History and Comments:
1. During the Tang Dynasty (618–907 CE), a 75-year-old senior court officer named Zheng was sent to the Hai-nan Province as a new governor. Hai-nan's chilly and damp environment made the governor very sick. The local TCM doctors diagnosed Zheng with a severe Yang Qi Deficiency. Based on this diagnosis, he took many tonic Yang herbal medicines, but he did not improve. Seven years later (812 CE), a barefoot monk recommended a new herbal medicine. The governor doubted the remedy and did not take it. Recognizing Mr. Zheng's suspicions, the monk made three more visits to persuade Zheng to try the medication. The governor finally relented and started taking the new herbal medication. One week later, Mr. Zheng's energy level improved. After another month of medication, all of his clinical signs disappeared. He recovered completely, returning to the same health status he enjoyed when he had first arrived in Hai-nan. In 815 CE, Mr. Zheng left Hai-nan for Beijing. He continued using this herbal recipe (Gu Tao San), and he shared his experiences with others. Gu Tao San can be made by grinding 10 ounces each of Psoralea Bu Gu Zhi and Walnut He Tao Ren into a fine powder and mixing it with honey. Mix 1 teaspoon of this recipe with 1 teaspoon of warm wine or water, and administer orally once daily in the morning. Feed rice after the medication to harmonize the Stomach. Gu Tao San can extend the life span, tonify Qi, benefit the Liver and Heart, and strengthen tendons and bones.
2. Psoralea Bu Gu Zhi is a common Yang tonic for geriatric patients. It is often stir-fried in salt to increase its tonification effect on the Kidney.
3. Psoralea Bu Gu Zhi contracts the uterus, shortens bleeding time and prevents excessive loss of Blood, and it is often used for uterine bleeding.

Pharmaceutical Ingredients:
1. Angelicin, psoralen, isopsoralen, psoralidin, isopsoralidin
2. Corylifolinin, corylidin, isobavahin, bavachinin, bavachalcone, bavachromen, isoneobavachalin
3. Dihydrofuranochalcone, bakuchalcone, chalcone
4. Coumestrol, daidzin, 8-methoxypsoralen, bakuchiol, psoraldehyde, limonene, terpineol
Eucommia *Du Zhong* 杜仲

**Wade-Giles:** *Tu-Chung*  
Translation: Eucommia bark  

**Energy/Taste:** Warm, sweet, pungent  

**Channel-Organ:** Liver, Kidney  

**Actions:**  
1. Tonify the Liver and Kidney  
2. Strengthen the tendons, sinews, and bones  
3. Calm the fetus to prevent abortion  

**Form and Preparation:** Powder or decoction; stir-fried is better than raw Eucommia.  

**Dosage:**  
- Horses and Cattle: 15–60g  
- Llamas, Alpacas, Goats, Sheep, and Pigs: 5–10g  
- Dogs: 2–5g  
- Cats: 1–2g  
- Rabbits: 0.5–1.5g  
- Birds: 0.3–2g  

**Cautions and Contraindications:**  
1. Deficiency of *Yin* with Heat  
2. Antagonizes Scrophularia *Xuan Shen*  

**Side Effects:** It may injure *Yin*.  

**Clinical Applications:**  
1. Weakness and pain in the back and hind limbs due to the Liver-Kidney Deficiency  
   Clinical signs: Sore or painful lower back and stifles, fatigue, urinary incontinence  
   Combine with: Psoralea *Bu Gu Zhi*, Cyathula *Niu Xi*, and Juglans *Hu Tao Ren* or Morinda *Ba Ji Tian* and Cistanche *Rou Cong Rong*. To reinforce effect on tendons, combine with Polygonum *He Shou Wu*.  
   Classical herbal formula: *Ba Ji San*  
2. Threatened abortion or restless fetus, due to weak Kidney Qi  
   Clinical signs: Lower abdominal pain, uterine bleeding  
   Combine with: Dipsacus *Xu Duan*, Loranthus *Sang Ji Sheng* and Dioscorea *Shan Yao* or Cuscuta *Tu Si Zi*, Loranthus *Sang Ji Sheng*  
3. Hypertension due to Liver *Yin* Deficiency with rising Yang  
   Combine with: Cyathula *Niu Xi*, Prunella *Xia Ku Cao*, Loranthus *Sang Ji Sheng*, and Paeonia *Bai Shao*  

**History and Comments:**  
1. Long ago in the mountainous region of West Sichuan, the barren soil frequently failed to produce sufficient
food for the farmers to make a living with their harvest. A farmer named Du Zhong suffered from chronic lower back pain, but he took a job chopping wood in order to supplement his income. After 2 hours, he was sore and soaked with sweat. Taking a break, he took off his clothes and leaned his back against a tree. To his surprise, his lower back pain was significantly relieved after leaning on the tree. Every day after work he repeated the same routine. Eventually, his lower back pain completely disappeared. Remembering that his 80-year-old mother also had chronic back soreness, but was too weak to walk to the tree, he removed bark from the tree and took it home. He wrapped this bark around his mother’s lumbar area. Sure enough, his mother’s sore back also improved. The herb was named after the man who discovered it.

2. During the Ming Dynasty (1368–1644 CE), a young boy complained of leg and hip pain soon after getting married. His legs felt too weak to walk. A local doctor diagnosed Dampness in his hip and leg and gave the boy herbs to take. After experiencing no improvement with this doctor, the boy saw Dr. Suan, who diagnosed the boy with Kidney Qi Deficiency, resulting in leg and hip pain. Only one herb was needed to cure the patient. Dr. Suan prescribed an herbal decoction containing 30 grams of Eucommia Du Zhong sliced 1 inch long and cooked in a mixture of half wine and half water. After taking this herbal soup for 3 days, this boy was able to walk. After another 3 days of treatment, all his clinical signs were gone and the boy was completely cured. Dr. Suan explained that due to his new marriage and young age, the young boy’s excessive sexual activity damaged his Kidney Qi, which led to pain and weakness of his limbs. Du Zhong is the best choice for this condition.

3. Eucommia Du Zhong is a primary Yang tonic for treating the back, hindquarters, and rear limbs. The four big indications for using Du Zhong are Lower Burner Deficiency, Lower Burner Dampness, stiff pain, and back weakness and pain.

4. When good quality Du Zhong (bark) is cracked, it will reveal a dense mass of strong, thin, white fibers. The leaves of this plant have the same white stretchy fibers and the same active ingredients, but in a smaller quantity than the bark.

5. Eucommia Du Zhong is safe during pregnancy for weakness and back pain.

6. Eucommia Du Zhong can lower blood pressure significantly. Its leaves are especially good for high blood pressure.

**Pharmaceutical Ingredients:**

1. Syringaresinol, pinoresinol, eucommian A, Gutta-percha, eucommiol

2. Iridoidal glycosides (aucubin, ulmoside, genipin, geniposide)

3. Triterpenoides (betulin, ursoic acid, β-sitosterol)

4. Alkaloids, proteins, amino acid, organic acid, vitamins, microelements

**Dipsacus Xu Duan 续断**

**Original Reference:** Shen Nong Ben Cao Jing (Shen Nong’s Materia Medica, 1st century BCE) 神农本草经

**Part Used:** Root

**Name:**
Pharmaceutical: Radix Dipsaci Asperi
Botanical: Dipsacus asper
Common: Dipsacus root
Wade-Giles: Hsu-Tuan
Translation: Restore the Broken
Alternate: Chuan Duan

**Energy/Taste:** Slightly warm, bitter, sweet, pungent

**Channel-Organ:** Liver, Kidney

**Actions:**
1. Tonify the Liver and Kidney to strengthen the sinews/tendons and bones
2. Promote Blood circulation
3. Stop uterine bleeding and calm the fetus
**Form and Preparation:** Decoction, powder, or topical application as tincture or paste

**Dosage:**
- Horses and Cattle: 25 – 60 g
- Llamas, Alpacas, Goats, Sheep, and Pigs: 5 – 15 g
- Camels: 30 – 60 g
- Dogs: 1 – 5 g
- Cats: 0.5 – 2 g
- Rabbits: 0.5 – 1.5 g
- Birds: 0.3 – 2 g

**Cautions and Contraindications:**
1. Yin Deficiency with Heat
2. According to some traditional sources, it antagonizes Lei Wan.
3. Caution during pregnancy and cases of diarrhea, because it stimulates bowel movements

**Side Effects:** None known

**Clinical Applications:**
1. Pain in the back and weakness of the hindquarters due to Liver and Kidney Yang Qi Deficiency
   *Combine with:* Eucommia Du Zhong, Loranthus Sang Ji Sheng, Cyathula Niu Xi, and Dioscorea Bei Xie
2. Derangement of Chong and Ren channels due to Deficiency of Liver and Kidney
   *Clinical signs:* Uterine bleeding, excessive genital discharge during the estrous cycle, restless fetus and abortion threat
   *Combine with:* Eucommia Du Zhong, Loranthus Sang Ji Sheng, Cuscuta Tu Si Zi, Asinum Gelatinum E Jiao, Artemisia Ai Ye, Atragalus Huang Qi and Angelica Dang Gui, and Sanguisorba Di Yu
3. Joint pain or stiffness, deformed bones, bone fractures, and injuries to bone and tendons
   *Combine with:* Morinda Ba Ji Tian or Eucommia Du Zhong, Polygonum He Shou Wu, Drynaria Gu Sui Bu, and Eupolyphaga Tu Bie Chong

**History and Comments:**
1. *Xu Duan* is the root of Dipsacus. It is also called Shu Zhe (restoring what is broken) and Jie Gu (setting broken bones). As its name suggests, the herb’s main functions are stimulating Blood circulation, strengthening bones and tendons, and tonifying Qi. These indications are familiar to most TCM practitioners, but few know that *Xu Duan* can also be used to treat diarrhea and control bleeding during pregnancy. Li Shi-zhen recorded a story about *Xu Duan* in the Materia Medica Compendium (Ben Cao Gang Mu). During the Song Dynasty in China (about one thousand years ago), the governor of the Jian County, Zhang Su-Qian, suffered from chronic bloody diarrhea for a very long time. He visited many local doctors and tried numerous formulas, but he did not improve. One of the best TCM doctors was traveling around the country and handling difficult cases, as was common for the best doctors in ancient China to do. He visited the governor’s region and the governor became his patient. This unnamed doctor prescribed the following recipe: 2 grams of *Xu Duan* powder and 5 grams of *Peng Wei San*, decocted, and taken twice a day. Governor Zhang’s diarrhea stopped after taking this herbal soup for 1 day. The governor was so happy that he gave the doctor 10 pounds of gold to express his thanks. Five years later, a diarrhea epidemic outbreak occurred in Hui Ji County. Thousands of people were affected and hundreds lost their lives. Upon hearing this news, Governor Zhang sent his son out on the fastest horse they could find to deliver the formula to the Hui Ji officials. Once again, the herbal soup worked amazingly well. Most people were cured after about 2 weeks of treatment. For children especially, the diarrhea usually ceased after drinking the herbal soup once or twice. The people in Hui Ji were very grateful to Governor Zhang and they recorded his good deeds in the county’s epic book. From these records, Dr. Li Shi-zhen rediscovered the function of *Xu Duan*, 500 years later.
2. Good quality Dipsacus *Xu Duan* is thick, pliant, yellowish red on the outside, and gray-green on the inside.
3. Toasting *Xu Duan* in vinegar enhances its actions of moving Blood. Stir-frying the herb in salt increases its actions of tonifying the Kidney. Stir-frying it with wine aids tonification of the Liver and Kidney. The fried herb is used for uterine bleeding.
4. *Xu Duan* promotes healing and repairs of tendons and bones and is often used for pain due to trauma or degenerative joint disease, because it tonifies the Kidney and Liver without causing Stagnation.

**Pharmaceutical Ingredients:**
1. β-sitosterol, hederagenin, ursal aldehyde, ursolic acid
2. Sucrose, daucosterol, triterpenoidal saponin
3. Ca, Mg, Fe, Mn, Zn, Cu
Cuscuta **Tu Si Zi** 蔽丝子

**Dogs:** 1–5 g  
**Cats:** 0.5–2 g  
**Rabbits:** 0.5–1.5 g  
**Birds:** 0.1–1.5 g

**Cautions and Contraindications:** It can tonify both Yang and Yin, but is slightly more of a Yang tonic than a Yin tonic. Therefore, it is not recommended to use this herb in Yin Deficiency, dry stool, or concentrated urine Patterns.

**Side Effects:** None known

**Clinical Applications:**
1. **Deficiency of Kidney Yang, Yin, and Jing**  
   Clinical signs: Sore back, weakness of the hind limbs, urinary incontinence, infertility, impotence, premature ejaculation  
   Combine with: Eucommia *Du Zhong*, Dioscorea *Shan Yao*, *Psoralea Bu Gu Zhi*, Cibotium *Gou Ji*, and Cervus *Lu Rong*  
   Herbal formula: *Yin Yang Huo San.*

2. **Deficient Kidney and Liver causing vision disorders**  
   Clinical signs: Weak vision, red eyes, an early stage of glaucoma or cataracts  
   Combine with: *Lycium Gou Qi Zi*, *Plantago Che Qian Zi*, and *Ligustrum Nü Zhen Zi*  

3. **Chronic diarrhea due to Deficiency of Spleen Yang**  
   Combine with: *Codonopsis Dang Shen*, *Atractylodes Bai Zhu* and *Dioscorea Shan Yao*

**History and Comments:**
1. According to legend, *Tu Si Zi* was accidentally discovered by a man who was hired to care for some rabbits. A greedy farmer raised many kinds of rabbits ranging from white to black and long-haired to short-haired. He hired a man to care of the rabbits. The hired man’s contract stated that the farmer would deduct a quarter of his wages if one rabbit died. One day the hired man found a rabbit with a broken back, and fearing lost wages, he hid the injured rabbit in a soy bean field. However, the farmer realized a rabbit was missing. He told the hired man to find the rabbit or face lost wages. The rabbit caretaker brought back the injured rabbit from the soy bean field. Surprisingly, he found the rabbit was almost healed. One day, while investigating this miracle, the caretaker followed the injured rabbit to the soy bean field. The rabbit began eating the seeds of a yellow, silky plant. A couple of days later, the rabbit had completely healed. The rabbit man realized that he had just discovered a miracle drug to treat lumbar injuries. He took some seeds to his father who had been bedridden for 3 years following a lumbar injury. His father started walking...
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again just 10 days after eating the seeds. The rabbit caretaker later specialized in treating lumbar injuries. He called the miracle drug Tu (Rabbit) Si (Silky) Zi (Seed).

2. Tu Si Zi was recorded as a tonic herbal medicine in Sheng Nong Ben Cao Jing: “It can tonify Deficiency, move Qi, balance health, brighten eyes.”

3. It has therapeutic effects on cataracts in rats.

Pharmaceutical Ingredients: 
1. Sterols (Cholesterol, campesterol, β-sitosterol, stigmasterol, β-amyrin)
2. Glycosides, saccharides, alkaloids, anthraquinone, coumarin
3. Flavonoids (quercetin, astragaline, hyperin)
4. Ca, Mg, Fe, Mn, Zn, Cu

Cervus Lu Rong 鹿茸

Original Reference: Shen Nong Ben Cao Jing (Shen Nong’s Materia Medica, 1st century BCE)

Part Used: Hairy young horn of male deer over 3 years old (that starts to have new velvet)

Name:
Pharmaceutical: Cornu Parvi, Cervi (previously: Cornu Cervi Pantotrichum)
Zoological: Cervus nippon; C. elaphus
Common: Deer antler
Wade-Giles: Lu-Jung
Translation: Hairy deer horn

Energy/Taste: Warm, sweet, salty

Channel-Organ: Liver, Kidney

Actions:
1. Tonify the Kidney Yang
2. Nourish Essence and Blood
3. Strengthen tendons and bones

Form and Preparation: Often use fine powder; start with a low dose and slowly increase to avoid Liver Yang Rising.

Dosage:
Horses and Cattle: 5–15 g
Dogs: 0.5–1 g
Cats: 0.1–0.5 g
Birds: 0.1–1 g

Cautions and Contraindications:
1. Deficient Yin with hyperactive Yang
2. Excess Heat, Blood Heat, Stomach fire, Lung Phlegm-Heat, and Fever

Side Effects:
1. Overdose leads to Yin Deficiency (red eyes, panting, cool-seeking, dizziness, disorientation).
2. It assists and raises Yang, or Heat in the Blood; thus, it may cause bleeding.

Clinical Applications:
1. Kidney Yang Deficiency
   Clinical signs: Weak body, cold extremities, warm-seeking behavior, infertility, impotence, frequent urination, sore back and limbs, loss of hearing
   Combine with: Ginseng Ren Shen, Rehmannia Shu Di Huang, and Cuscuta Tu Si Zi
   Classical herbal formula: Shen Rong Gu Ben Wan
2. Deficiency of Jing and Blood
   Clinical signs: Sore and weak bones and tendons, impotence, poor growth or development of young
   Combine with: Dioscorea Shan Yao, Cornus Shan Zhu Yu, and Rehmannia Shu Di Huang

History and Comments:
1. There are four products from deer horn: Lu Rong, Lu Jiao, Lu Jiao Jiao, Lu Jiao Shuang:
   • Lu Rong is a young deer antler.
   • Lu Jiao is a mature deer antler. It tonifies the Kidney and assists Yang, but is weaker than Lu Rong.
   • Lu Jiao Jiao is the glue or gelatin made from cooking the deer horn for a long time. This herb can stop bleeding and tonify the Liver and the Kidney. Its Yang tonic action is weaker than Lu Jiao.
• *Lu Jiao Shuang* is the residual frosting after making *Lu Jiao Jiao*. It is similar in function to *Lu Jiao Jiao* and is cheaper, but it is less effective.

2. *Cervus Lu Rong* is harvested from captive deer in the spring when Blood is rushing through the antlers and they are covered in felt. The deer are not killed. The horn is boiled and dried twice, and the hairs are burned off. It is then soaked in white wine and sliced into very thin pieces.

3. *Cervus Lu Rong* is highly valued for its ability to promote *Yang*, Blood, and *Jing*. It is very expensive. It is often administered alone, double-boiled as a tonic. The powder remaining after cutting *Cervus Lu Rong* into thin slices is available in capsule form.

4. *Cervus Lu Rong* is the tender, unossified horn of the male spotted deer or red deer. Kou Zong-shi (a master of herbal medicine in the Song Dynasty (960–1279 CE) once commented, “Among all the things that contain Blood, flesh grows the fastest, tendons come second, and bones grow the slowest; that’s why it takes a human being 20 years to have his bones fully formed. But, the deer’s horn is an exception. The horns can grow to over 20 lbs within 2 months, which is 2 oz a day. No other bones can grow at that speed. Grass and trees cannot even grow that fast. The deer’s horn is able to tonify Blood in the bones, strengthen *Yang*, and nourish marrow. All the *Yang* Channels converge at the head and then flow up to the angle. How can any other Blood compare to that in the horns?”

5. The medical value of *Lu Rong*, according to folklore, was found by three brothers. The eldest of the three was mean, the second eldest was sly, and the youngest was kind and brave. One day they went hunting. The youngest walked in front. The second was in the middle, and the eldest followed. Suddenly, a strange sound came out from the forest. The eldest and the second eldest brothers fled as fast as they could to hide behind a tree. The youngest brother went forward and saw a red deer in the high grass. He took out his bow and caught the deer. The second eldest brother suggested, “Our eldest brother is the head of our family and should get the head of the deer; our little brother came last to our family and should get the tail; I am in the middle so I should get the body.” After the middle and eldest argued, they finally divided the deer’s body and left only the head to their youngest brother. According to the village rules, the quarry is shared with the neighbors. The youngest brother made soup with the deer head and horns. He had not removed the horns as was typically done because the head was too small. He offered soup to all his neighbors. After drinking the soup, everyone felt invigorated and energized. With many repeated testings, they confirmed that the tender horns of the deer did have tonifying medical effects. Since these horns are usually covered with a coat of *Rong* (dense, fluffy hairs), they were called *Lu* (deer) *Rong* by the villagers.

**Pharmaceutical Ingredients:**\(^1\)–\(^4\)
1. Proline, lysine, serine, uracil, hypoxanthine, urea, uridine, niacin
2. Gelatin 25%, calcium phosphate 50–60%, calcium carbonate, amino acid
3. Lysophosphatidylcholine (myristic acid, palmitic acid, pentadecanoic acid, palmitoleic acid, stearic acid, oleic acid, linoleic acid, daturic acid
4. Amines (spermine, spermidine, putrescine)
5. Chondroitin sulfate A
6. Gangliosides
7. Androgen, estradiol

**Cervus Lu Jiao Jiao** 鹿角胶

**Original Reference:** *Shen Nong Ben Cao Jing* (Shen Nong’s Materia Medica, 1st century, BCE) 神农本草经

**Part Used:** Deer horn glue, made from cooking for a long time

**Name:**
Pharmaceutical: Cervi, Gelatinum Cornu
Common: Deer antler glue
Wade-Giles: *Lu-chiao-chiao*
Translation: Deer Antler Glue

**Energy/Taste:** Warm, salty, sweet

**Channel-Organ:** Kidney, Liver

**Actions:**
1. Tonify Liver and Kidney
2. Replenish Blood and *Jing*
3. Stop bleeding

**Form and Preparation:** Use in melted form; it is usually melted in yellow wine.

**Dosage:**
Horses and Cattle: 15–30 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–10 g
Camels: 30–60 g
Dogs: 1–5 g
Cats: 0.5–2 g
Rabbits: 0.5–1.5 g
Birds: 0.1–1.5 g

**Cautions and Contraindications:** *Yin* Deficiency with Heat

**Side Effects:** Overdose leads to *Yin* Deficiency (red eyes, panting, cool-seeking, dizziness, disorientation).
**Gecko Ge Jie 蟾蜍**  
**Original Reference:** Lei Gong Pao Zhi Lun (Lei’s Method of Preparing Drugs) by Lei Xiao, 5th century 雷公炮炙论

**Part Used:** Dried body

**Name:**  
Pharmaceutical: Gecko  
Botanical: Gecko gecko L. (Toad headed lizard)  
Common: Gecko lizard  
Wade-Giles: Ko-Chieh  
Translation: Male Female

**Energy/Taste:** Neutral, salty,

**Channel-Organ:** Lung, Kidney

**Actions:**  
1. Tonify Lung Qi and Kidney Yang  
2. Stop asthma and cough  
3. Nourish Essence and Blood

**Form and Preparation:** Use powder often.

**Dosage:** Horse and Cattle: 1–2 pairs

**Cautions and Contraindications:**  
1. Cough or asthma due to Internal Heat or invasion of Wind-Cold or Wind-Heat  
2. Do not use in large doses over a long period.

**Side Effects:** None known

**Clinical Applications:**  
1. Cough and asthma due to Lung Qi and Kidney Yang Deficiency  
   *Combine with:* Ginseng Ren Shen or Codonopsis Dang Shen, Armeniaca Xing Ren, and Fritillaria Chuan Bei Mu  
   *Classical herbal formula:* Ren Shen Ge Jie San  
2. Infertility or urinary dribbling due to Deficiency of Kidney Yang and Qi

**History and Comments:**  
1. Ge-Jie is like singing, in which the male’s voice forms the “Ge” note and the female’s voice creates the “jie” note. Therefore, the male gecko is called “Ge” (brother) and usually has coarse scales, a big mouth, a small body, and a big tail. The female gecko is called “jie” (sister) and often has fine scales, a pointed mouth, a big body, and a small tail. Male and female gekkos mate for life and are called “Ge Jie”, which sounds like the English word gecko. Ancient Chinese people thought that Gecko Ge Jies possessed some mythical power and called them “the heavenly toads.”

2. The adult Gecko Ge Jie can grow up to 4 to 5 inches long, half of which is the tail. They have a unique defense mechanism whereby they can drop off their tail, if they feel threatened or are grabbed by the tail. Traditional Chinese medicine considers the tail the most important part of a Gecko Ge Jie. Without an intact tail, a Gecko Ge Jie does not have much medical effect. Gecko Ge Jies are also loyal lovers. The Ge and the Jie may chirp at each other for days before they mate. Totally absorbed in their love, they will not notice anything else, even if someone approaches and catches them during mating. Their embracing bodies are very difficult to separate after death. It is said that some curious people had caught a pair of Ge Jies and made two candles using their ground powder: one candle with the male and the other with the female. The flames of the two candles would not remain separate but instead converged into one!

3. The internal organs and eyes are removed from the gecko lizard and are spread wide on bamboo pieces to dry. The head and feet are removed prior to preparation. The gecko can be cooked with rice or mixed in decoction, but is commonly used in powder form.

4. Gecko Ge Jie is slightly toxic. It should not be used in large quantities over extended periods of time.

5. Gecko Ge Jie is clinically proven to aid male and female infertility.

**Pharmaceutical Ingredients:**  
1. Cholesterol, cholesterol ester, triglyceride, glycolipid, lecithin, steroids  
2. Lectins (phosphatidylethanolamine, phosphatidyl acid, lysophosphatidyl cholin)  
3. Alcholes (glysin, proline, glutamate, alanine, arginine, aspartic acid, lysine)  
4. Carnoside, carnitine, Guanine, albumen  
5. Fatty acid, Ca, Mg, Fe, Zn, P, Na
Drynaria *Gu Sui Bu* 骨碎补

**Part Used:** Rhizome

**Name:** Pharmaceutical: *Drynariae, Rhizoma*  
Botanical: *Drynaria fortunei; D. baronii*  
Common: *Drynaria rhizome*  
Wade-Giles: *Ku-Sui-Pu*  
Translation: Bone Broken Mender  
Alternate: *Mao Jiang*

**Energy/Taste:** Warm, bitter

**Channel-Organ:** Liver, Kidney

**Actions:**  
1. Tonify the Kidney and nourish the Liver  
2. Invigorate the Blood to promote healing of wounds and mending of the sinews and bones

**Form and Preparation:** Orally or topically

**Dosage:**  
Horses and Cattle: 15–45 g  
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–10 g  
Camels: 30–60 g

Dogs: 1–5 g  
Cats: 0.5–2 g  
Rabbits: 0.5–1.5 g  
Birds: 0.3–3 g

**Cautions and Contraindications:**  
1. Deficient *Yin* with Heat  
2. Do not use without clinical signs of Blood Stagnation.

**Side Effects:** It may injure *Yin.*

**Clinical Applications:**  
1. Kidney *Yang* Deficiency  
   - **Clinical signs:** Back pain and weak limbs, arthritic joints, hip dysplasia, deafness, loose tooth or toothache, chronic diarrhea  
   - **Combine with:** *Psoralea Bu Gu Zhi,* *Cyathula Niu Xi,* *Juglans Hu Tao Ren,* *Rehmannia Shu Di Huang,* *Dioscorea Shan Yao* and *Cornus Shan Zhu Yu*

2. Swelling, pain or fractures due to external trauma or tendon-bone injury  
   - **Combine with:** *Dipsacus Xu Duan,* *Olibanum Ru Xuang,* *Myrrh Mo Yao,* and *Testudines Gui Ban*  
   - **Classical herbal formula:** *Jie Gu San*

**History and Comments:**  
1. As the name indicates, *Gu* (bone) *Sui* (broken) *Bu* (mend) is mainly used for mending fractures and broken bones. During the *Tang* Dynasty (618–907 CE), Emperor Li and his Queen were out hunting. Suddenly, a leopard ran out from the forest. The startled Queen fell from her horse. Her ankle was fractured and bleeding. A local folk doctor picked an herb from the ground and applied it topically around the Queen’s wound. This herb stopped the bleeding and immediately relieved the pain. A month later, the Queen’s fracture had also healed from applying the herb topically. Emperor Li was so happy and named this herb *Gu Shui Bu.*

2. Li Shi-Zhen records a case about *Bu Gui Bu* in the *Materia Medica Compendium* (*Ben Cao Gang Mu*). During the *Wei* Dynasty (220–265 CE), a governor’s young son was dying from persistent diarrhea. He had not responded to any of the many Spleen tonic treatments they tried thus far. So they tried a new treatment strategy in which *Gu Sui Bu* powder was put into a pig kidney, which was then stewed over a low fire. After the child ate the kidney with the herb, his diarrhea immediately stopped. *Li Shi-zhen* analyzed this case and stated that, “The Kidney was in charge of both fecal and urinary excretion. Persistent diarrhea must be caused by Kidney Deficiency, so it couldn’t be cured by targeting the Spleen and Stomach alone.”
3. Drynaria *Gu Sui Bu* is known for treating tendon and bone injuries. It can be used topically for corns and warts as well as bleeding wounds. It also stimulates the growth of hair and can be topically applied for the treatment of alopecia as a tincture.

**Pharmaceutical Ingredients:**
1. Naringin, naringenin
2. Sugar

**Alpinia Yi Zhi Ren** 益智仁

**Original Reference:** *Ben Cao Shi Yi (Supplement to Materia Medica)* by Chen Cang-Qi, 8th century

**Part Used:** Mature seed

**Name:**
Pharmaceutical: Alpiniae Oxyphyllae, Fructus Botanical: Alpinia oxyphylla (Black Cardamon) Common: Black caradmon

**Wade-Giles:** *I-Chih-Jen*
Translation: Benefit Intelligence Nut

**Energy/Taste:** Warm, pungent

**Channel-Organ:** Spleen, Kidney

**Actions:**
1. Warm the Spleen to stop diarrhea and excessive salivation
2. Warm the Kidney to stop urinary incontinence

**Form and Preparation:** Powder or decoction

**Dosage:**
Horses and Cattle: 15–45 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–10 g
Dogs: 1–5 g
Cats: 0.5–2 g
Rabbits: 0.5–1.5 g
Birds: 0.1–1.5 g

**Cautions and Contraindications:**
1. Dysuria
2. Deficiency of *Yin* with Heat

**Side Effects:** It may damage *Yin* and assist *Yang*-Fire.

**Cordyceps Dong Chong Xia Cao** 冬虫夏草

**Original Reference:** *Ben Cao Cong Xin (Thoroughly Revised Materia Medica)* by Wu Yi-Luo, 1751

**Part Used:** Fungus and the caterpillar larva carcass on which it grows

**Name:**

**Wade-Giles:** *Tung-Ch'ung-Hsia-Ts'ao*
Translation: Winter Bug Summer Herb

**Energy/Taste:** Warm, sweet

**Channel-Organ:** Kidney, Lung

**Actions:**
1. Tonify the Kidney and Lung
2. Stop bleeding and remove Phlegm
Form and Preparation: Single or combined; it is also a good tonic Food Therapy; cook in a stew with fish, chicken, duck, or pork for a good tonic.

Dosage:
Horses and Cattle: 5–20 g
Dogs: 0.5–3 g
Cats: 0.2–0.5 g
Rabbits: 0.1–0.5 g
Birds: 0.1–0.5 g

Cautions and Contraindications: It should be used with caution during exogenous invasions.

Side Effects: Because it strengthens both the Yin and Yang and is a very safe substance, it can be taken over a long period of time. No side effects have been noted.

History and Comments:
1. A fungus (Cordyceps sinensis Sacc.) parasitizes the caterpillar larvae (Hepialus armoricanus or Holotrichia koraiensis). The larva with the cordyceps fungus becomes a carcass in the winter and hibernates in the ground. The fruiting body of the fungus emerges from the head of the larva in the summertime and resembles a grass sprout; thus, it is called “winter-bug, summer-grass,” or Dong Chong Xie Cao.
2. It is often harvested in the early summer when the fungus has merged but before the larval body has disintegrated. It is found on high mountain peaks over 3,800 meters above sea level. It is one of the very few Chinese medicines that consists of two symbiotic living substances (fungus and larva). It is known in English as the Chinese Caterpillar Mushroom. Originating in loose, leafy fertile soils in the cool forested hills and mountains of Sichuan and southern Tibet, it is now also found in other provinces, such as Yunnan and Shaanxi. In autumn, this mushroom grows underground from the anterior end of previously infected host larvae and eventually surfaces during the course of the following summer, when it can be harvested as a remedy. Cultivated mycelia (cordyceps biomass) are also available today and have been shown to be equally as effective therapeutically as the natural mushroom.
3. Good quality is indicated by the fungus being intact with a short, sticklike appearance and a bright yellow, fat, full, and round insect part with a yellowish white cross-section.
4. It is commonly used for back pain, hindquarter weakness, and infertility due to Kidney Yang Deficiency and also asthma and cough due to Lung Qi and Kidney Yang Deficiency. It also enhances immune functions.

Cynomorium Suo Yang 鎖陽
Original Reference: Ben Cao Cong Xin (Thoroughly Revised Materia Medica) by Wu Yi-Luo, 1751

Part Used: Fleshy stem

Name:
Pharmaceutical: Cynomorii Songarici, Herba
Botanical: Cynomorium Songaricum
Common: Cynomorium stem
Wade-Giles: Suo-Yang
Translation: Lock Yang

Energy/Taste: Warm, sweet

Channel-Organ: Liver, Kidney, Large Intestine

Actions:
1. Tonify Kidney Yang
2. Moisten Intestines

Form and Preparation: Powder or decoction

Dosage:
Horses and Cattle: 20–45 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–15 g
Camels: 30–60 g
Dogs: 2–6 g
Cats: 0.5–2 g
Rabbits: 0.5–1.5 g
Birds: 0.3–3 g

Cautions and Contraindications:
1. Deficient Kidney Yin with Heat
2. Diarrhea from Spleen Qi Deficiency or constipation from Excess Heat

Side Effects: It may increase internal Fire, cause diarrhea, and damage Yin.

Curculigo Xian Mao 仙茅
Original Reference: Kai Bao Ben Cao (Materia Medica of the Kai Bao Era) by Ma Zhi in 973 CE

Part Used: Rhizome

Name:
Pharmaceutical: Curculiginis Orchioidis, Rhizoma
Botanical: Curculigo orchioides
Common: Golden eye-grass rhizome
Wade-Giles: Hs‘ian Mao
Translation: Immortal Grass
Energy/Taste: Hot, pungent, toxic

Channel-Organ: Kidney, Liver

Actions:
1. Warm Kidney and strengthen Yang
2. Dispel Cold and Damp

Form and Preparation: Powder or decoction

Dosage: Because of toxicity, long-term use is not recommended.
Horses and Cattle: 15–30 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–10 g
Dogs: 0.5–2 g
Cats: 0.2–0.5 g
Rabbits: 0.1–0.5 g
Birds: 0.1–1.0 g

Cautions and Contraindications:
1. Deficient Yin with Heat
2. It should not be used during pregnancy.

Side Effects:
Toxic reactions such as swelling of the tongue can occur and can be alleviated by taking a decoction of Rheum Da Huang, Coptis Huang Lian, and Scutellaria Huang Qin.

Walnut He Tao Ren 核桃仁
Original Reference: Kai Bao Ben Cao (Materia Medica of the Kai Bao Era) by Ma Zhi, 973 CE 开宝本草

Part Used: Nut

Name:
Pharmaceutical: Juglandis Regiae Semen
Botanical: Juglans regia L.
Common: Walnut nut
Wade-Giles: He-Tao-Ren
Translation: Core peach pit
Alternate: Hu Tao Ren

Energy/Taste: Warm, sweet

Channel-Organ: Kidney, Lung, Large Intestine

Actions:
1. Tonify Kidney and warm Lung
2. Moisten intestines to benefit bowel movements

Form and Preparation: Single or combined; good tonic Food Therapy; stir-fry and use for urinary tract stones or crystals.

Dosage: Horses and Cattle: 15–45 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–10 g
Camels: 30–90 g
Dogs: 1–5 g
Cats: 0.5–2 g
Rabbits: 0.5–1.5 g
Birds: 0.1–1.5 g

Cautions and Contraindications: Use with caution during diarrhea

Trigonella Hu Lu Ba 胡芦巴
Original Reference: Jia You Ben Cao (Materia Medica of the Jia You Era) by Zhang Yu-xi and Su Song, 1061 嘉佑本草

Part Used: Seed

Name:
Pharmaceutical: Trigonellae Foeni-graeci Semen
Botanical: Trigonella Foenum-graecum L.
Common: Fenugreek seed
Wade-Giles: Fu-Lu-Pa

Energy/Taste: Warm, bitter

Channel-Organ: Kidney

Actions:
1. Tonify Kidney and warm Yang
2. Dispel Cold and stop pain

Form and Preparation: Decoction or powder

Dosage: Horses and Cattle: 15–45 g
Llamas, Alpacas, Goats, Sheep, and Pigs: 5–10 g
Camels: 30–60 g
Dogs: 1–5 g
Cats: 0.5–2 g
Rabbits: 0.5–1.5 g
Birds: 0.1–1.5 g

Cautions and Contraindications: Caution during Damp-Heat or False Heat

Side Effects: None known
### Actinolite Yang Qi Shi 阳起石

**Original Reference:** *Shen Nong Ben Cao Jing (Shen Nong's Materia Medica, 1st century BCE)* 神农本草经

**Part Used:** Mineral

**Name:**
- Pharmaceutical: Actinolitum
- Common: Actinolite
- Wade-Giles: Yang-Chee-She
- Translation: Yang-raising Stone

**Energy/Taste:** Warm, salty

**Original Reference:**
- *Shen Nong Ben Cao Jing* (Shen Nong’s Materia Medica, 1st century BCE)

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### Table 1.6. Herbs to tonify Deficiency: A quick overview and comparison.

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<th>Special Actions</th>
<th>Common Characteristics</th>
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<td>The number 1 power of Qi Tonic</td>
<td>Taste: Sweet</td>
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<td>Rescue Yuan Qi for resuscitation</td>
<td>Channel-organ: Spleen, Lung</td>
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<td>Neutral Qi tonic, safer to use</td>
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<td>Indication: Qi Deficiency</td>
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<td><strong>Bai Zhu</strong></td>
<td>The number 1 herb of tonifying Spleen Qi</td>
<td>Energy: Neutral</td>
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<td></td>
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<td>Feng Mi</td>
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<td>Hong Jing Tian</td>
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<td>Moisten Lung to stop cough</td>
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<td>Moisten Lung to stop cough</td>
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<td>Moisten large intestine to benefit bowel movements</td>
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<td><strong>Angelica Dang Gui</strong></td>
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<td>Taste: Sweet and rich, may cause Qi Stagnation, generate Damp</td>
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<td></td>
<td>Moisten large intestine to benefit bowel movements</td>
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<td>Nourish Yin to tranquilize Liver Yang</td>
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<td>Tonify Kidney Jing</td>
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<td>Moisten large intestine to benefit bowel movements.</td>
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<th>Yang Tonics</th>
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<th>Common Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tonify Kidney Yang Qi and</td>
<td>Dispel Wind-Damp, strengthen tendons and bones</td>
<td>Taste: Sweet</td>
</tr>
<tr>
<td>promote sexual functions</td>
<td>Tonify Yin, Moisten intestines</td>
<td>Energy: Warm and dry</td>
</tr>
<tr>
<td>Yin Yang Hu</td>
<td>Nourish Jing and Liver, brighten the eyes</td>
<td>Action: Tonify Yang, Warm Kidney</td>
</tr>
<tr>
<td>Rou Cong Long</td>
<td>Nourish Jing and Blood, strong Yang tonic</td>
<td>Indication: Yang Deficiency</td>
</tr>
<tr>
<td>Tu Si Zi</td>
<td>Nourish Kidney Jing and Liver Blood</td>
<td>Contraindication: Yin Deficiency, Excess</td>
</tr>
<tr>
<td>Lu Rong</td>
<td>Moisten intestines, benefit bowel movements</td>
<td>Heat</td>
</tr>
<tr>
<td>Lu Jiao Jiao</td>
<td>Warm uterus and hindquarter</td>
<td>Cautions: May damage Yin</td>
</tr>
<tr>
<td>Suo Yang</td>
<td>Strengthen back, calm fetus</td>
<td>Generally regulates functions of adrenal</td>
</tr>
<tr>
<td>Yang Qi Shi</td>
<td>Strengthen joints, repair broken bones and tendons</td>
<td>cortex, regulates energy metabolism,</td>
</tr>
<tr>
<td>Tonify Liver and Kidney,</td>
<td>Move Blood, repair broken bones and tendons</td>
<td>promotes sexual functions, promotes</td>
</tr>
<tr>
<td>strengthen tendons and bones</td>
<td></td>
<td>growth and strengthens resistance</td>
</tr>
<tr>
<td>Du Zhong</td>
<td></td>
<td>Kidney dominates the Yang of the whole</td>
</tr>
<tr>
<td>Xu Duan</td>
<td></td>
<td>body; the therapy of tonifying Yang always</td>
</tr>
<tr>
<td>Gu Sui Bu</td>
<td></td>
<td>begins with tonifying the Kidney.</td>
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<tr>
<td>Tonify Lung and Kidney, stop</td>
<td></td>
<td></td>
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<tr>
<td>asthma and cough</td>
<td></td>
<td></td>
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<tr>
<td>Ge Jie</td>
<td></td>
<td></td>
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<tr>
<td>He Tao Ren</td>
<td></td>
<td></td>
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<tr>
<td>Dong Chong Xia Cao</td>
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<td></td>
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<tr>
<td>Tonify Kidney, dispel Cold, relieve</td>
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<td></td>
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<tr>
<td>Bi syndrome</td>
<td></td>
<td></td>
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<tr>
<td>Bu Ji Tian</td>
<td>Strengthen back</td>
<td></td>
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<tr>
<td>Xian Mao</td>
<td>Tonify Jing, nourish Liver</td>
<td></td>
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<tr>
<td>Hu Lu Ba</td>
<td>Dispel internal Cold and stop colic</td>
<td></td>
</tr>
<tr>
<td>Tonify Kidney Qi to stop urinary</td>
<td></td>
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<tr>
<td>incontinence and anchor Jing</td>
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<tr>
<td>Bu Gu Zhi</td>
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<tr>
<td>Yi Zhi Ren</td>
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<tr>
<td>Sha Yuan Zi</td>
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</tbody>
</table>

#### History and Comments:
- It is good for infertility due to Kidney Yang Qi Deficiency or Cold Bi syndrome.

#### SUMMARY OF HERBS THAT TONIFY DEFICIENCY
- Table 1.6 summarizes and compares the herbs that tonify Deficiency.

#### Rabbits: 0.5–1 g
- Birds: 0.1–1.5 g

#### Cautions and Contraindications:
1. Caution in False Heat
2. Long-term usage is not recommended.

#### Side Effects:
- None known
REFERENCES