Ling Zhi Lung Formula (Ling Zhi Fei Pian) is a modern formulation based on research in China and the US.

**GENERAL SIGNS/SYMPTOMS**
Asthma, wheezing, labored breathing (often worse with exertion), cough.

**ACTIONS**
1. Drains phlegm and fluid from the lungs
2. Rectifies lung qi, stops wheezing, and settles cough
3. Strengthens lung qi, nourishes blood
4. Invigorates qi and blood circulation through the skin
5. Calms shen

**INGREDIENTS**

<table>
<thead>
<tr>
<th>PINYIN</th>
<th>LATIN</th>
<th>ENGLISH</th>
<th>PERCENT OF FORMULA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ling Zhi (chief)</td>
<td>Ganoderma</td>
<td>Reishi</td>
<td>46%</td>
</tr>
<tr>
<td>Ku Shen (deputy)</td>
<td>Sophorae Flavescentis Radix</td>
<td>Shrubby Sophora Root</td>
<td>21%</td>
</tr>
<tr>
<td>Ting Li Zi (deputy)</td>
<td>Lepidii Semen/Lepidium Semen</td>
<td>Lepidium Seed</td>
<td>13%</td>
</tr>
<tr>
<td>Hong Zao, Da Zao (assistant)</td>
<td>Jujubae Fructus</td>
<td>Jujube Fruit, Chinese Red Date</td>
<td>13%</td>
</tr>
<tr>
<td>Gan Cao (assistant)</td>
<td>Glycyrrhizae Radix</td>
<td>Chinese Licorice Root</td>
<td>7%</td>
</tr>
</tbody>
</table>

**GENERAL INDICATIONS / MODERN APPLICATIONS**
- Abscess, lung
- Dyspnea
- Allergies
- Eczema
- Asthma
- Influenza, post-illness with damage to qi
- Breathing, labored with exertion
- Cough
- Scleroderma
- Wheezing
- Skin disease (deficiency-type)

**FORMULA DISCUSSION**

Ling Zhi Lung Formula (Ling Zhi Fei Pian) is a modern combination of a classic formula from Zhang Zhong-Ji’s book, *Essential Prescriptions of the Golden Cabinet (Jin Gui Yao Lue)* plus a formula developed in modern research.\(^1\) Zhang’s formula consisted of two ingredients, lepidium seed (*ting li zi*) and jujube date (*da zao*), which combine to aggressively drain phlegm and fluid from the lungs without injuring them. Lepidium and Jujube Decoction to Drain the Lung (*Ting Li Da Zao Xie Fei Tang*) was frequently prescribed by Zhang to treat lung abscess or wheezing/panting due to an invasion into the lungs by water rheum or phlegm rheum. The inclusion of this two-ingredient classic formula in Ling Zhi Lung Formula (Ling Zhi Fei Pian) boosts its power to drain the lungs of the excess fluids associated with asthmatic breathing. The modern formula serving as the base of Ling Zhi Lung Formula (Ling Zhi Fei Pian) consists of three ingredients, which have been demonstrated to be nearly as effective as prednisone for treating asthma, without the associated side-effects.\(^2\)

In brief, Ling Zhi Lung Formula (Ling Zhi Fei Pian) is all about treating asthma, but because this goal involves a great deal more than simply “arresting wheezing,” the formula’s various actions combine to treat several non-asthmatic conditions. For instance, asthma (or just restricted lung qi) can lower blood-oxygen levels, therefore the shen is frequently affected by trapped lung qi: Ling Zhi Lung Formula (Ling Zhi Fei Pian) has a strong action to benefit the shen. Free-coursing lung qi is also important for the maintenance of healthy skin; by draining the pathogens that limit the coursing of lung qi and by nourishing the blood, Ling Zhi Lung Formula (Ling Zhi Fei Pian) can help certain skin conditions like eczema and scleroderma.\(^3\)

Ling Zhi Lung Formula (Ling Zhi Fei Pian) is an effective substitute for Minor Bluegreen Dragon Decoction (*Xiao Qing Long Tang*), which is no longer available in the United States due to the inclusion of two banned substances: ephedra (*ma huang*) and asarum (*xi xin*). Traditionally, Xiao Qing Long Tang was used to treat wind-cold with fluid accumulation in the lungs. In modern times, this formula has become a staple for treating asthma and wheezing due to phlegm-cold in the lungs by warming the interior and transforming fluids. One of the problems facing Chinese herbalists in the
**FORMULA ACTIONS**
- Drains phlegm and fluid from lungs
- Rectifies lung qi, stops wheezing, settles cough
- Strengthens lung qi and nourishes blood
- Invigorates qi and blood circulation through the skin
- Calms

**TONGUE**
Normal or thick coating.

**PULSE**
May be superficial with acute asthma. Often pulse will be tight or slippery in the right *cun* and *guan* positions.

**CONTRAINDICATIONS / CAUTIONS**
Do not use if condition is due to lung fire, or if the wheezing is due to pneumonia. If significant yin deficiency is presenting, Ling Zhi Lung Formula (Ling Zhi Fei Pian) may be overly drying. (See “Dosage” section below for how to compensate for this.)

**DOSE**

**Acute conditions:** For adults, 3-5 tablets as needed, up to five doses in 24 hours. Reduce frequency to three times daily after symptoms have abated by 50% or more. If condition does not noticeably improve within the first 24 hours, re-evaluate the diagnosis or refer to appropriate medical professional.

**Sub-acute or chronic conditions:** At the first signs of a developing asthmatic condition, take 3-5 tablets as needed, 2-3 times per day, until resolved (up to 3 weeks).

**As a corrective:** Take daily for 6-12 months to correct some cases of asthma and restore lung function.

**With underlying yin deficiency:** Ling Zhi Lung Formula can be overly drying when there is moderate to severe yin deficiency. When this is the case, take 3-4 tablets of Ling Zhi Lung Formula with 2 tablets of Eight Immortals Formula (Ba Xian Chang Shou Wan) as needed for acute cases. For chronic asthma/asthmatic cough, take 2 tablets of each, 3 times a day.

US with the loss of *ma huang* has been finding another herb that has the ability to dilate the lung and relieve wheezing reliably. Modern research has shown that ganoderma (*ling zhi*) and sophora root (*ku shen*), especially in combination, are extremely effective at relaxing the bronchiole and relieving asthma.

**Synergy of Ingredients**
The modern formula serving as the base of Ling Zhi Lung Formula (Ling Zhi Fei Pian) consists of three ingredients in precise proportions to each other; these are ganoderma (*ling zhi*), sophora root (*ku shen*), and licorice root (*gan cao*). A legendary herb for longevity, ganoderma (*ling zhi*) makes up nearly half the formula. It is the chief ingredient of Ling Zhi Lung Formula (Ling Zhi Fei Pian) and is often used as a single-herb treatment for asthma or for *shen*-disturbance from weak heart qi. Ganoderma (*ling zhi*) supplements qi and blood in the heart and lungs, transforms phlegm, and, according to the Shennong Ben Cao Jing, it can even be used to increase intelligence.

The first deputy is sophora root (*ku shen*). By itself it drains out heat and dampness through the urine. It has a strong descending nature, and when used with substances that enter the lung, like ganoderma (*ling zhi*), lepidium seed (*ting li zi*), and licorice root (*gan cao*) it helps to drain heat and phlegm from the lung and to re-direct the lung qi downward. Sophora root (*ku shen*) strengthens the ability of the formula to treat skin disorders and is often used for itching and parasites. Sophora root (*ku shen*) has been featured in studies that focus on investigating the effectiveness of certain Chinese herbs for the management of asthma. One important study showed that sophora root (*ku shen*), when taken daily for three years (three times per day for first 3 months, two times per day for the next 6 months, then once a day for the next 27 months), was able to eliminate dependency on inhaled corticosteroids in 100% of the participants, and dependency on β2 agonists was eliminated in 97% of the participants with no side effects reported by participants or detected by clinical chemistry.” In the same study, participants’ overall improvement in Peak Expiratory Flow Rate (PEF rate) improved by 21%.

The assistant in the base formula is licorice root (*gan cao*). *Gan cao* is one of the best known and most studied substances in the Chinese materia medica. Like sophora root (*ku shen*) and ganoderma (*ling zhi*), it has been used as a stand-alone herb for cough and asthma. In its unprepared form, as is utilized in Ling Zhi Lung Formula (Ling Zhi Fei Pian), the emphasis of its actions are to drain fire and resolve toxin, but it nevertheless retains its ability to supplement lung and spleen qi, nourish the heart, and calm *shen*. Licorice root (*gan cao*) has a remarkable ability to moisten the lungs, and it is by virtue of this action that *gan cao* helps to protect the lungs from the over-drying that can occur whenever one is strongly draining fluids from the upper or middle burner.

The two-ingredient formula from Essential Prescriptions of the Golden Cabinet (*Jin Gui Yao Lue*) together serve as an assistant to the three-ingredient base formula. Looked at from the perspective of their individual contributions to the whole (five-ingredient) formula, lepidium seed (*ting li zi*) serves as a deputy and red jujube date (*da zao*) as an assistant. As stated above, Zhang Zhong-Jing frequently prescribed this two-ingredient formula to eliminate lung abscess and to aggressively drain water or phlegm rheum...
from the lungs. Less frequently, he recommended Ting Li Da Zao Xie Fei Tang to treat superficial edema and nasal congestion with clear discharge. The actions of lepidium seed (ting li zi), when not mitigated by red jujube date (da zao), can be harshly drying, especially for the mucosa in the face. But the red jujube date (da zao) is usually sufficient to protect the lungs from the effects of the lepidium seed (ting li zi). In the present formulation, this protective quality is supported by the actions of both licorice root (gan cao) and the chief herb.

**Modern Applications**

Research studies have been done on ovalbumin sensitized mice (whose characteristics are similar to those seen in humans with allergic asthma) using three ingredients: ganoderma (ling zhi), sophora root (ku shen), and licorice root (gan cao). This base formula is used to treat allergic asthma and has been shown to rival prednisone in mice with no adverse side effects.\(^7\)

- The research showed the peak expiratory flow remained normal or slightly higher in ovalbumin sensitized mice, indicating no bronchoconstriction and demonstrating that the treatment abolished early-phase airway reaction. These herbs also significantly reduced histamine, leukotriene C4 levels, and IgE levels, all of which help reduce the severity of asthma.

- This formula also reduced late-phase airway reaction and reduction of airway inflammation. Airway pressure time index levels were essentially the same as in normal mice. Eosinophils in broncho-alveolar lavage fluid were significantly lower. Few goblet cells were noted in the airways, and a reduction of airway inflammation was observed.

- Asthma attacks occur when Th2 (type-2 helper T cells, a white blood cell subset) secrete cytokines that inflame and irritate the lungs, causing wheezing. The herbs used in this study were shown to suppress Th2 activity.

- Contracted airway smooth muscle constricts the airway during an asthma attack. This base formula reduces airway smooth muscle contractility.

- Prostaglandin I\(_2\) (PGI\(_2\)) is an effective vasodilator and has anti-inflammatory effects that can inhibit allergic inflammation. Research shows that these herbs increase PGI\(_2\) production while not increasing PGE\(_2\), TXA\(_2\), PGF\(_{2\alpha}\).

Lepidium and Jujube Decoction to Drain the Lungs (Ting Li Da Zao Xie Fei Tang), which constitutes the second part of Ling Zhi Lung Formula (Ling Zhi Fei Pian) consists of two herbs: lepidium seed (ting li zi) and red jujube date (da zao). Lepidium seed (ting li zi) drains the lungs and expels phlegm. Due to its bitter nature, it is combined with da zao to protect yin and the stomach. Together they are very effective at descending lung qi and stopping wheezing. This combination is also beneficial for edema (often in the face), hypertension, and coronary heart disease.

A study was conducted using a modified Lepidium and Jujube Decoction to Drain the Lungs (Ting Li Da Zao Xie Fei Tang) to treat 64 children with asthma. The formula was modified with fritillaria (zhe bei mu), ephedra (ma huang), perilla seed (zi su zi), peucedanum root (qian hu), and houttuynia (yu xing cao). The children presented with wheezing, shortness of breath, cough, pink tongue with a thin yellow coat, and a floating, slippery pulse. Results showed 48 cases cured, 14 cases showed improvement, and 2 cases were deemed invalid with no improvement, a total effective rate of 97%\(^{vi}\).

**Ling Zhi Lung Formula** (Ling Zhi Fei Pian) was developed in an effort to replace asthma formulas which contained banned substances—ephedra (ma huang) and asarum (xi xin). In the trial stages of the development of the formula, five formulations—none containing any banned substance—were tested with the same five subjects. The five subjects were given one formula at a time for several weeks each until all five formulas had been tested thoroughly under several conditions. The present formulation, Ling Zhi Lung Formula (Ling Zhi Fei Pian), was the unanimous favorite among the subjects for its effectiveness.

**Formula Comparisons**

**Eight Immortals Formula** (Ba Xian Chang Shou Wan) and Ling Zhi Lung Formula (Ling Zhi Fei Pian) can both treat chronic asthma. The main difference is the underlying pattern. **Eight Immortals Formula** is better for treating chronic asthma with a yin deficient constitution, while Ling Zhi Lung Formula is better when there is no yin deficiency or when the yin deficiency is mild. **Ling Zhi Lung Formula** protects the yin of the lung, but it is weak to nourish the yin. At the same time, Ling Zhi Lung Formula is stronger to directly support lung qi.

**Lily Preserve Metal Formula** (Bai He Gu Jin Tang) also can treat asthmatic wheezing and cough, but it is most effectively used when the lung yin has been damaged by a recent febrile disease and there is lingering phlegm. It is not usually used for acute asthma or even chronic asthma, like Ling Zhi Lung Formula, but rather as an agent that nourishes damaged yin and expels lingering pathogens causing temporary asthmatic breathing and cough.

**Perilla Seed Decoction for Directing Qi Downward** (Su Zi Jiang Qi Tang) and Ling Zhi Lung Formula (Ling Zhi Lung Formula)
Ling Zhi Lung Formula (Ling Zhi Fei Pian) are both used for wheezing and cough with thin watery sputum and shortness of breath. Both formulas have similar actions to descend lung qi, arrest wheezing, and stop cough. They differ dramatically by the herbs chosen to perform these functions, and somewhat by their strategies for accomplishing their results. Both formulas have multiple herbs with the primary function to stop wheezing and cough. In Perilla Seed Decoction for Directing Qi Downward, perilla seed (su zi), licorice root (gan cao), and peucedanum (qian hu) are used. In Ling Zhi Lung Formula ganoderma (ling zhi), sophora root (ku shen), licorice root (gan cao), and lepidium seed (ting li zi) are used for this function. These two formulas differ in how they transform fluids. Perilla Fruit Decoction for Directing Qi Downward uses pi-nellia (ban xia) to transform phlegm and magnolia bark (huo po) is used to dry damp. Ling Zhi Lung Formula differs in that its actions are partly supportive and partly draining/clearing. Perilla Fruit Decoction for Directing Qi Downward resolves phlegm by drying, dislodging and descending phlegm, while Ling Zhi Lung Formula strengthens the lungs and drains the phlegm-fluids out.

Useful Combinations

Ling Zhi Lung Formula (Ling Zhi Fei Pian) is usually used by itself to treat asthmatic breathing and cough, but there are some combinations that may be useful.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>For acute asthma with yin deficient constitution</td>
<td>Combine with Eight Immortals Formula.</td>
</tr>
<tr>
<td>For asthma triggered by a viral invasion (most effective at the first signs of the external invasion)</td>
<td>Combine with Viola Clear Fire Formula.</td>
</tr>
<tr>
<td>For wheezing accompanied with excessive water retention due to water metabolism dysfunction</td>
<td>Combine with Poria 5 Formula.</td>
</tr>
<tr>
<td>For chronic asthma with a qi and yin deficiency pattern</td>
<td>Combine with Sheng Mai Formula.</td>
</tr>
<tr>
<td>For asthma accompanied with excessive watery saliva or irregular pulse</td>
<td>Combine with Baked Licorice Formula.</td>
</tr>
<tr>
<td>For wheezing and cough when presented with yin deficient signs and symptoms like dry mouth and dry cough, or in an acute febrile condition that is damaging yin</td>
<td>Combine with Lily Preserve Metal Formula.</td>
</tr>
</tbody>
</table>

Endnotes


2. Li, ibid.


