Chapter 1

— Exterior-Releasing Formulas



张仲景 Zhāng Zhòng-Jǐng



张仲景Zhāng Zhòng-Jǐng, also known as 张机Zhāng Jī, 150 – 219 CE.

张仲景 Zhāng Zhòng-Jǐng

Zhang Zhong-Jing, also known as Zhang Ji, was born near the end of the Eastern Han dynasty. During the transition from the collapse of the Eastern Han to the beginning of the Three Kingdoms era, China was ravaged by constant civil war, and people suffered from crime, poverty, infection and death. During a ten-year period near the end of the Eastern Han, two-thirds of the population fell ill and died. Seventy percent of the fatalities were due to *shang han* (cold damage). Although Zhang was from a wealthy family of over 200 members, even his family members could not escape the common fate and many succumbed to the epidemic. Greatly affected by the loss of his family members and the devastating impact of widespread losses in the community and nation, Zhang dedicated his entire life to studying and practicing medicine.



Zhang Zhong-Jing with his manuscripts.

伤寒杂病论Shang Han Za Bing Lun (Discussion of Cold-Induced Disorders and Miscellaneous Diseases) is the most famous work by Zhang. This original work later was divided by Wang Shu-He into two volumes: 伤寒论Shang Han Lun (Discussion of Cold-Induced Disorders) and 全匮要略 Jin Gui Yao Lue (Essentials from the Golden Cabinet).

- Shang Han Lun (Discussion of Cold-Induced Disorders) emphasized external disorders, and classified them according to Liu Jing Bian Zheng (Six Stages Differentiation).
- *Jin Gui Yao Lue* (Essentials from the Golden Cabinet) focused on internal and miscellaneous diseases, and classified them according to *Ba Gang Bian Zheng* (Eight Principle Differentiation).

Zhang's work clearly established the relationships among disease, progression, complications, treatment strategies, dosage forms, and herbal formulas. Zhang Zhong-Jing forever changed the practice of traditional Chinese medicine. Over 1,700 years after their original publication, his works are still studied as required textbooks in schools of Traditional Chinese Medicine around the world. Many of the formulas he used are still considered to be the standard herbal treatment, such as *Bai Hu Tang* (White Tiger Decoction) for fever, *Bai Tou Weng Tang* (Pulsatilla Decoction) for dysentery, *Yin Chen Hao Tang* (Artemisia Scoparia Decoction) for jaundice, and *Gua Lou Xie Bai Ban Xia Tang* (Trichosanthes Fruit, Chinese Chive, and Pinellia Decoction) for chest pain.

Because of his lasting influence, Zhang Zhong-Jing has always been remembered as 医冬the Sage of Medicine.

Dynasties & Kingdoms Xia Dynasty 夏 Shang Dynasty 商 Zhou Dynasty 周 Qin Dynasty 泰	Year 2100-1600 BCE 1600-1100 BCE 1100-221 BCE 221-207 BCE
Han Dynasty 漢	206 BCE-220
Three Kingdoms 三國 Western Jin Dynasty 西晉 Eastern Jin Dynasty 東晉 Northern and Southern Dynasties 北南朝 Sui Dynasty 唐 Tiang Dynasty 唐 Five Dynasty 唐 Five Dynasty 宋 Liao Dynasty 洙 Jin Dynasty 洙 Jin Dynasty 次 Jin Dynasty 次 Jin Dynasty 元	220-280 265-316 317-420 420-581 581-618 618-907 907-960 960-1279 916-1125 1115-1234 1271-1368
Ming Dynasty 明 Qing Dynasty 请 Republic of China 中華民國 People's Republic of China 中華人民共和國	1368-1644 1644-1911

Examples of formulas of Zhang Zhong-Jing that are in common use today include:

- Gui Zhi Tang (Cinnamon Twig Decoction)
- Da Cheng Qi Tang (Major Order the Qi Decoction)
- Xiao Chai Hu Tang (Minor Bupleurum Decoction)
- Bai Hu Tang (White Tiger Decoction)
- Li Zhong Wan (Regulate the Middle Pill)
- Jin Gui Shen Qi Wan (Kidney Qi Pill from the Golden Cabinet)
- Mai Men Dong Tang (Ophiopogonis Decoction)
- Wu Mei Wan (Mume Pill)



伤寒论Shang Han Lun (Discussion of Cold-Induced Disorders)



全匮要略Jin Gui Yao Lue (Essentials from the Golden Cabinet)

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— Exterior-Releasing Formulas

Definition: Exterior-releasing formulas induce perspiration, release exterior factors from the skin and muscles, and/or promote the eruption of measles. This method of treatment is known as han fa (sweating), one of the ba fa (eight treatment methods) described in the Huang Di Nei Jing (Yellow Emperor's Inner Classic) in the first or second century A.D. The eight treatment methods are outlined in Part I, Chapter 2, of this text.

he term "exterior syndrome" refers to the invasion at superficial parts of the body by one or more of the *liu yin* (six exogenous factors), namely wind, cold, summer-heat, dampness, dryness, and fire. These six exogenous factors attack superficial areas of the body via the skin, mouth or nose. This causes a number of exterior signs and symptoms, such as aversion to cold, fever, headache, muscle aches, a thin, white or yellow tongue coating, and a superficial pulse. While

most exterior-releasing formulas are indicated for either wind-cold or wind-heat syndromes, they also treat other disorders, such as abscesses and sores, edema, dysentery or malaria, measles, and the early stages of *wen bing* (warm disease).

At this early stage of illness, which the disease factor is located at the exterior, the treatment plan should focus on expelling the disease factor from the skin and muscle levels. The exterior-releasing method is the most appropriate method for achieving this goal. If the $liu\ yin$ (six exogenous factors) are not released from the exterior, they may proceed inward to attack the zang (solid) and fu (hollow) organs, which leads to more serious illness. Thus, treat exterior conditions immediately with exterior-releasing formulas, to prevent complications and deterioration.

The exterior-releasing method is the most appropriate way to expel disease factors from the skin and muscle layers.

SUBCATEGORIES OF ACTION

Since the range of exterior factors interacts with individual constitutional differences, the course and severity of exterior invasion illnesses vary widely. Exterior-releasing formulas are divided into three subcategories, to reflect the characteristics of the herbal formulas appropriate for treatment according to the nature of the disorder and patient constitution.

1. Acrid and Warm Exterior-Releasing Formulas

These formulas treat exterior wind-cold syndromes. Common symptoms when wind and cold invade include aversion to cold, fever, headache, neck and/or shoulder stiffness, soreness and pain of the muscles and extremities, the absence of thirst, no perspiration (or, fever and aversion to cold that persist after perspiration), a thin, white tongue coating, and a superficial, tight or superficial, moderate pulse.

Herbs commonly used to release exterior wind-cold include *Ma Huang* (Herba Ephedrae), *Gui Zhi* (Ramulus Cinnamomi), *Fang Feng* (Radix Saposhnikoviae), *Jing Jie* (Herba Schizonepetae), and *Zi Su Ye* (Folium Perillae). Formulas commonly used to release exterior wind-cold include *Ma Huang Tang* (Ephedra Decoction), *Gui Zhi Tang* (Cinnamon Twig Decoction), *Xiao Qing Long Tang* (Minor Bluegreen Dragon Decoction), and *Jiu Wei Qiang Huo Tang* (Nine-Herb Decoction with Notopterygium).

2. Acrid and Cold Exterior-Releasing Formulas

These formulas treat exterior wind-heat syndromes marked by the following commonly seen clinical manifestations: fever, perspiration, slight aversion to wind and cold, headache, thirst, a sore throat, cough, a thin, white or thin, yellow tongue coating, and a superficial, rapid pulse.

Herbs commonly used to release exterior wind-heat include Bo He (Herba Menthae), Niu Bang Zi (Fructus Arctii), Sang Ye (Folium Mori), Ju Hua (Flos Chrysanthemi), and Ge Gen (Radix Puerariae Lobatae). Formulas commonly used to release exterior wind-heat include Sang Ju Yin (Mulberry Leaf and Chrysanthemum Decoction), Yin Qiao San (Honeysuckle and Forsythia Powder), and Ma Huang Xing Ren Gan Cao Shi Gao Tang (Ephedra, Apricot Kernel, Licorice, and Gypsum Decoction).

3. Supporting [the Upright] and Releasing [the Exterior] Formulas

These formulas are used for constitutionally-deficient patients who are attacked by liu yin (six exogenous factors). This situation presents two dilemmas. First, exterior-releasing formulas induce diaphoresis to dispel exterior exogenous factors, but may, in the process, damage yin and body fluids, especially in individuals who already have underlying deficiencies. Second, individuals who have underlying deficiencies often do not have enough zheng (upright) qi and body fluids (sweat), and are often unable to push out the exterior pathogens, even when they take exterior-releasing

Therefore, in order to safely dispel exterior pathogenic factors in deficiency patients, the underlying constitution must be supported simultaneously. Supporting and releasing formulas usually consist of both exterior-releasing herbs and qi- or yang-tonifying herbs, to accomplish both goals.

Herbs commonly used to support zheng (upright) qi include Ren Shen (Radix et Rhizoma Ginseng) and Gan Cao (Radix et Rhizoma Glycyrrhizae). Formulas that simultaneously support the upright and release the exterior include Bai Du San (Overcome Pathogenic Influences Powder), Zai Zao San (Renewal Powder), and Cong Bai Qi Wei Yin (Scallion Decoction with Seven Ingredients).

CAUTIONS / CONTRAINDICATIONS

- Exterior-releasing formulas are generally taken as warm decoctions to induce perspiration. Mild perspiration over the whole body is ideal. The body may be covered with a blanket to ensure and facilitate perspiration. However, profuse sweating should be avoided, since it may deplete qi and yin, and, in severe cases, cause qi or yang collapse.
- After taking the decoction, avoid exposure to wind to prevent recurrent attacks.
- Avoid foods that are raw, cold, oily or greasy, as they may decrease absorption and compromise the therapeutic effects of these formulas.
- If interior symptoms are observed along with exterior symptoms, the normal treatment plan is to treat the exterior first, then the interior condition second, or treat both interior and exterior conditions at the same time.
- · Exterior-releasing formulas are contraindicated if the disease factor has fully progressed into the measles, deficiency-type edema, and dehydration from vomiting or diarrhea.

interior. These formulas are also contraindicated in the presence of ulcerated sores, erupted

PROCESSING

Many exterior-releasing formulas contain acrid herbs to induce sweating. These formulas should not be overcooked, since the essential oils that give these herbs their acrid, aromatic, and diaphoretic effects evaporate very easily. Therefore, many exterior-releasing herbs are post-decocted, added for the last five to ten minutes of cooking.

Profuse sweating may deplete qi and yin, and, in severe cases, cause qi or yang collapse.

PHARMACOLOGICAL EFFECTS & CLINICAL APPLICATIONS

While exterior-releasing formulas have a wide range of clinical applications, they are primarily used to treat various respiratory and infectious disorders.

Essential oils, which give these herbs their acrid, aromatic, and diaphoretic effects, evaporate very easily.

- 1. **Cough**: Many exterior-releasing formulas have antitussive effects to suppress cough. *Ma Huang Tang* (Ephedra Decoction) arrests stubborn coughing that manifests after recovery from an exterior condition. *Ma Huang Xing Ren Gan Cao Shi Gao Tang* (Ephedra, Apricot Kernel, Licorice, and Gypsum Decoction) alleviates coughing and dyspnea in cases of asthma or respiratory tract infection. As an active ingredient in both formulas, *Ku Xing Ren* (Semen Armeniacae Amarum) has an inhibitory effect on the respiratory center of the brain, thereby producing antitussive and antiasthmatic effects.
- 2. Wheezing and dyspnea: Xiao Qing Long Tang (Minor Bluegreen Dragon Decoction) and Da Qing Long Tang (Major Bluegreen Dragon Decoction) are exterior-releasing formulas used to treat wheezing and dyspnea. Several clinical studies have shown Xiao Qing Long Tang (Minor Bluegreen Dragon Decoction) to be effective in treating wheezing and dyspnea in patients with acute and chronic bronchial asthma.⁴ Other studies indicate that Da Qing Long Tang (Major Bluegreen Dragon Decoction) effectively treats wheezing and dyspnea arising from chronic tracheitis.⁵
- 3. **Asthma**: Many exterior-releasing formulas have marked antiasthmatic effects, and may be used to treat asthma.^{6,7} The proposed mechanisms of action include: 1) stimulating beta-adrenoceptors to achieve bronchorelaxation; and 2) inhibiting infiltration of eosinophils into the airway.^{8,9} Two formulas that can treat asthma are: *Xiao Qing Long Tang* (Minor Bluegreen Dragon Decoction) and *She Gan Ma Huang Tang* (Belamcanda and Ephedra Decoction).
- 4. **Bronchitis**: Many exterior-releasing formulas are effective in treatment of bronchitis and related symptoms. *Xiao Qing Long Tang* (Minor Bluegreen Dragon Decoction) has both antibiotic and antiasthmatic effects, and is an excellent formula for treating bronchitis in both children and adults. ^{10,11,12,13,14} *Ma Huang Xing Ren Gan Cao Shi Gao Tang* (Ephedra, Apricot Kernel, Licorice, and Gypsum Decoction) treats both acute and chronic bronchitis, ^{15,16} with antitussive qualities to suppress cough, ¹⁷ bronchodilating effects to relieve wheezing and dyspnea, ¹⁸ and antiallergic influence to reduce swelling and inflammation. ¹⁹
- 5. **Pneumonia**: Exterior-releasing formulas can treat both the cause and symptoms of pneumonia. For example, *Xiao Qing Long Tang* (Minor Bluegreen Dragon Decoction) and *Yin Qiao San* (Honeysuckle and Forsythia Powder) have antibiotic effects to treat lung infections. ^{20,21} In addition, *Xiao Qing Long Tang* (Minor Bluegreen Dragon Decoction), *Yin Qiao San* (Honeysuckle and Forsythia Powder), and *Ma Huang Xing Ren Gan Cao Shi Gao Tang* (Ephedra, Apricot Kernel, Licorice, and Gypsum Decoction) address associated symptoms of pneumonia, such as aversion to cold, fever, cough, dyspnea, chest congestion, and the presence of sputum. ^{22,23}
- 6. **Respiratory tract disorders**: Exterior-releasing formulas treat various types of respiratory tract disorders. In addition to the examples listed above, indications include rhinitis, ²⁴ allergic rhinitis, ^{25,26} nasosinusitis, ²⁷ tonsillitis, ^{28,29} pharyngitis, ^{30,31} and others.
- 7. Nasal disorders: Exterior wind-releasing formulas effectively treat various nasal disorders, such as sinusitis,³² rhinitis,³³ and nasal polyps.³⁴ The mechanisms of action are attributed to antiallergic effects,³⁶ mast cell stabilizing effects,³⁶ and anti-inflammatory action, that suppress inflammation of the nasal mucosa.³⁷ Two representative formulas for treatment of nasal disorders are *Cang Er Zi San* (Xanthium Powder) and *Xin Yi San* (Magnolia Flower Powder).
- 8. **Fever**: Many formulas in this category have antipyretic effects to treat fever. The mechanisms of the antipyretic effects vary. *Ma Huang Tang* (Ephedra Decoction) and *Gui Zhi Tang* (Cinnamon Twig Decoction) have regulatory effects on body temperature to reduce fever. ^{38,39} *Ge Gen Tang* (Kudzu Decoction) lowers body temperature by suppressing interferon-induced interleukin-1alpha production. ⁴⁰ *Yin Qiao San* (Honeysuckle and Forsythia Powder) has a broad spectrum of antibiotic effects to treat infection and fever. ^{41,42}

- 9. Common cold and influenza: Exterior-releasing formulas are frequently used to treat viral infections such as common cold and influenza, with answers to both cause and symptoms. *Ge Gen Tang* (Kudzu Decoction) has antiviral effects to treat infection, and antipyretic and anti-inflammatory effects to alleviate fever and muscle aches and pains. Alata A
- 10. **Infectious disorders**: In addition to the infections listed above, exterior-releasing formulas effectively treat herpes zoster,⁵⁰ measles,⁵¹ viral myocarditis,⁵² infectious meningitis, and many other disorders.

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