

The History of Chinese herbal Medicine

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It is impossible to know exactly when the Chinese started to use herbal medicine. Historical records begin with references with Shen Nong (supernatural farmer) who lived about 4700 years ago (Chan, 1939). According to legends, Shen Nong taught people how to prepare field and plant crops. He has also tasted many kinds of herbal medicines and tried to understand the nature and effect of each medicine. Some day he was poisoned as many as 70 times, he used other plants to detoxify and survived. Then he taught people how to use those plants.

After using and accumulating information about herbal medicine for thousands of years, the first book of Chinese herbal medicine, *Shen Nong Ben Cao Jing* (*Ben* means root and *Cao* means shoot) was written about 2500 years after the death of Shen Nong. The authors named the book after Shen Nong to call attention from people (Zhu Jianping). The book recorded 365 medicines, in which 252 are plants, 67 are animals, and 46 are minerals. Most of these medicines are still being used today and retain the same name used in *Shen Nong Ben Cao Jing*. The medicines were classified into three classes. Medicines in the upper group are non-toxic, nurture life, and improve human health. Medicines in the middle group are non-toxic or toxic. They nurture “nature” or vitality and bring health to normal condition. Medicines in the lower group are toxic and were used to fight the most virulent disease. There are also some medicines called “guides” which prepare the way for the main medicine.

Shen Nong Ben Cao Jing described the different names, taste, nature, site of production, and uses of each medicine. The natures of medicines included cold, cool, warm, or hot. Medicines were described as tasting sweet, bitter, sour, salty, or pungent. The nature and taste of medicine are extremely important in prescription. For illness with a cool nature (Yin diseases) the formula will be warm (Yang medicines). For disorders with a hot nature (Yang diseases) the formula will be cold (Yin medicines). Herbs with different tastes have different action organs and functions. The book also described how to process, mix, and formulate medicines. A formula must have adequate proportions of each of the three classes and guide(s). The formulae restore and improve Yin Yang balance of the human body while fighting against diseases.

Another fundamental book of herbal medicine and disease treatments, *Huang Di Nei Jing – The Yellow Emperor’s Classic of Internal Medicine*, was written at about the same time as *Shen Nong Ben Cao Jing*. *Huang Di Nei Jing* emphasized the theory of traditional medicine, etiology, diagnosis, and remedial treatments. The book used Yin Yang and five-elements theory to explain disease. Yin is a negative, passive force and is symbolized by water while Yang is a positive, active force and is symbolized by fire. Everything consists of a Yin part and a Yang part. They are mutually dependent forces; one cannot exist without the other. The relative balance of Yin and Yang in the human body is essential to human health. Once the balance is lost, diseases can enter the body. Herbal medicine not only suppresses disease, but also restores the balance of Yin and Yang.

Another important concept in Chinese herbal medicine is *Qi*. Chinese herbal medicine practitioners believe that all forms of life in the universe are animated by an essential life force or vital energy called *Qi*. There are many kinds of *Qi*, for example, Yin *Qi* and Yang *Qi*. The quantity, quality, and balance of a person’s Yin *Qi* and Yang *Qi* are very important to sustaining life and are as variable as weather and location. “Evil *Qi*” will hurt humans and cause disease when the balance of Yin *Qi* and Yang *Qi* are lost.

Even today herbal medicine practitioners in China concentrate more on the overall human body condition than specific germs. They believe that germs gather and thrive only in weakened parts of the body of patients. So the true cure for disease is not simply to kill the causal organisms, but to counteract conditions that permit disease to invade, and to restore relative balance of Yin and Yang of the weakened organs (Reid, 1993).

The diagnosis part of *The Yellow Emperor’s Classic of Internal Medicine* mainly described pulse law. In “pulse law”, the pulse of patient’s hand is felt by three finger of doctor. The pulse of right hand is connected to the lung, stomach, and spleen. The pulse of left hand of the patient is connected to the heart, liver, and kidney. The organs are considered to be functional rather



Fig. 1 Yin and Yang

The white part in the middle is Yang, and the dark part is Yin. Yin and Yang is in perfect balance. There is Yin inside Yang (dark dot) and Yang inside Yin (white dot). Around the circle is called "Eight GUA". It is generated by Yin Yang and used to predict.

than anatomical (Zhu Jianping). The pulse itself has four states: floating, sinking, slow, and rapid (Chan, 1939). Suitable herbal medicines are prescribed according to diagnosis results. China's first famous doctor, Bian Que, lived about 500 B.C. According to China's first history book, *Shi Ji*, he was reputed to be an excellent diagnostician. He was very good at diagnosing by "looking, listening, asking, and pulse taking". Pulse taking became the standard method for Chinese herbal medicine doctors after Bian Que and is still being used today.

Another extremely important book in Chinese herbal medicine history is *Shang Han Lun* – *Discussion of Cold Induced Disease*, which was written by Zhang Zhong-Jing around 1800 years ago. He devoted his life to the study of fever related diseases that killed many of his family members. After studying and practicing for dozens of years, he wrote the book *Shang Han Lun* that became the fundamental text for prescribing traditional herbal medicines. The book not only contains over 100 effective formulas (many of them still used today), but the text implied a theoretical framework that led to hundreds of books analyzing, explaining, and reforming it. The book explained diagnosis in very exact details, including details of making and using each formula. Doctors that followed him have used the book as a guide to diagnosis and prescription. For example, the broth of cinnamon tree (*Cinnamomum cassia*) was used to treat patients with fever, sweating, feeling cold and nausea, heavy breathing, and a floating and rapid pulse. The broth is made from the cinnamon tree, Chinese white peony (*Paeonia lactiflora*), Chinese licorice (*Glycyrrhiza uralensis*), ginger (*Zingiber officinale*), Chinese jujube (*Ziziphus jujube*), and two other plants. The broth of joint fir (*Ephedra sinica*) was used to treat patients with fever but no sweating, feeling cold and headache, heavy breathing, and a floating and slow pulse. It contains joint fir, cinnamon tree, Chinese licorice, and almond. Joint fir is the source of ephedrine, which is currently used across the world as allergy medication (Tayler, 1965).

Anesthesia was invented by the first famous Chinese surgeon, Hua Tuo. He used narcotic soup to numb his patient for the treatment of internal diseases and superficial wounds. The anesthetic included *Datura metel*, *Rhododendron sinense*, and *Aconitum sp.* (Aconite) (Reid, 1983). Unfortunately, Hua Tuo was killed by an emperor at that time. His wife burned most of his papers. As a result, the tradition of using surgery was not carried on afterward in China until it was reintroduced from the West. Hua Tuo preferred to use a small number of acupuncture points

and formulas comprised of only a few herbs. He also practiced Qi Gong and taught the "frolics of the five animals", a practice still used today.

Many books on herbal medicine were written after *Shen Nong Ben Cao Jing*, most of which did not survive to today (<http://www.gy-net.com/zhonghuabencao/bencao/index4b1.htm>). One of the most famous books that did survive today, *Ben Cao Jing Jin Zhu – Revised and noted Ben Cao* was written by Tao Hongjing in the 6th century. The book increased the number of available medicines to 730 and classified medicines as minerals, wild plants, animals, fruit and vegetables, cereals, and medicines with unknown use.

Tang Dynasty (617 - 906 A.D.) saw the greatest development period in Chinese history. The medicine book, *Xin Xiu Ben Cao - The New Edition of Ben Cao*, was edited by more than 20 persons from the state government. *Xin Xiu Ben Cao* was based on the book by Tao Hongjing. The group worked on the book from 657 to 659 A.D and cataloged 884 medicines. During editing, state government asked every person in the kingdom to contribute to the book. The medicines from each county were described, illustrated, and the information was sent to the state government. The information was then analyzed according to old medicine books and the experiences of those editors. They completed three books, but only 20 of the 52 volumes of *Xin Xiu Ben Cao* survived. Since then, almost every dynasty had a new edition of medicine books. The first emperor of Tang dynasty also established first herbal medicine school in China in 629 A.D. (Reid, 1993).

In the Song Dynasty (959 - 1278 A.D.), the Chinese invented the printing techniques that make mass production of books possible. The official edition of medicines of the dynasty, *Kai Bao Ben Cao*, was the first printing published medicine book in China. The first official organization, The Bureau of Book Edition and Publication, was also established and many old books were published by the organization. Mass production allowed more books to survive through time and war. Also, many doctors could have a book and were better educated.

Li Shizhen wrote the most important book in Chinese herbal medicine: *Ben Cao Gang Mu*. He worked on the book for about thirty years. He consulted over 800 books, collected specimens

from the herbal producing areas, and talked to local people about the use of the herbs. The book was published in 1593 and contained 52 volumes. The book recorded 1892 medicines, in which 1094 are derived from plants, 444 from animals. It also contains 11096 formulas, in which over 8000 of the formulas was written by Li Shizhen himself. The book includes detailed descriptions of properties, origins, morphology, collecting methods, herb processing, pharmacological effects, and combined use in formulas. Li Shizhen also corrected a lot of wrong use of medicines in other books.

Li Shizhen was also one of the greatest naturalists in China. His book has been used not only as a pharmacopoeia, but also as a treatise on botany, zoology, mineralogy and metallurgy. For example, the classification system of *Ben Cao Gang Mu* is very interesting. Li Shizhen classified the medicines as plants, animals, and minerals. Then plants were classified as herbs, vegetables, woods, fruits, and crops. Those groups are further classified to smaller groups. For example, herbs were subdivided into nine groups, one of which is called "Xi Cao". The "Xi Cao" has 53 plants, in which 21 belong to the sunflower family (<http://www.tcm1.com/ysbj/zyyx/z.htm>; Li Shizhen). The animals were classified as worms and insects, fishes, amphibians, birds, animals, and humans. This was a very advanced classification system at that time although some animals are misclassified compared to the system we are using today. The book is so useful that it has been translated to many languages.

After *Ben Cao Gang Mu*, people continued to add new medicines. For example, *A Supplement to Ben Cao Gang Mu* was written by Zhao Xuemin in 1765. The book listed 716 new medicines that were not included in *Ben Cao Gang Mu*. Some medicines were imported from abroad (<http://www.newchinesemedic.com/en/history5.html>).

Although the scientific nature of Chinese herbal medicine theory and uses has been frequently questioned by the West, nobody can deny its great therapeutic efficacy (Veith, 1966). Western medicines have dominated China since the 1980s, but traditional medicines are still being extensively used. Traditional medicine universities and research institutes have been established to study the traditional knowledge. There are many traditional medicine hospitals and thousands of traditional medicine doctors, especially in the countryside of China. People believe that traditional medicine doctors concentrate more on the human than on disease, that the traditional

medicines have less side effect, and that the traditional way is more effective on some kinds of diseases, like chronic diseases. The thousands years practice will continue to exist and being studied for a long time as more and more people recognize its importance.

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