

Principles of diet therapy in ancient Chinese medicine: 'Huang Di Nei Jing'

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Huang Di Nei Jing, the first systematic Chinese medical book, was compiled from the observations of imperial herbal doctors in the Qin and Han periods (221 BC – 220 AD). From this classic traditional source may be derived the concept of a balanced and complete diet and probably the world's first dietary guidelines. Basic to the tradition are *han*, *re*, *wen* and *bu* foods, respectively 'cold', 'hot', 'neutral', 'strengthening'. Basic to Chinese cuisine are *jan* and *tsai* – 'cereal' (the rice staple and main meal) and 'dishes' to accompany the rice. Chinese traditional medicine, as in *Huang Di Nei Jing*, considers the nourishment of body and mind. It also emphasises that herbal medicine and food have the same origin. Diet was essential to the prevention of disease which a glossary of Chinese terms is given at the end of the paper in the Chinese tradition, was superior to treatment.

Introduction

The written history of Chinese medicine can be traced back 2000 years. *Huang Di Nei Jing* (1), which literally means 'The Yellow Emperor's book of medicine', one of the first classical Chinese medical books, was written during the Qin (221 BC – 207 BC) and Han (206 BC – 220 AD) periods. Traditional Chinese medicine contributed enormously to the health of the Chinese and its main theories were exchanged with many countries around Asia¹⁻³.

*Huang Di Nei Jing*⁴ was the first systematic medical book to be published in Chinese. It stemmed from the accumulation over centuries of clinical experience and epidemiological observations by the imperial herbal doctors. The theory of Chinese medicine was influenced by ancient Chinese philosophy, especially that of cosmology and movement of the universe. It had been hypothesised that things were composed of five elements – gold (2), wood (3), water (4), fire (5) and earth (6) – and that all material was in a process of change between the universe and the human body. Doctors believed that each individual is both a part of the universe and a complete unit, so that a cosmic view of health was required.

Within this philosophy, phenomena were understood in terms of contradictory relations, for example, the sun versus the moon, the sky versus the earth, the day versus the night, the male versus the female and the positive versus the negative. Ancient doctors analysed the physical signs and symptoms of a case by differentiating the appearances into two opposite categories, for example, into *yin* (7) (dark) and *yang* (8) (bright), *han* (9) (cold) and *re* (10) (hot), *xu* (11) (weak) and *shi* (12) (strong), *superficial* (13) (exterior) and *internal* (14) (interior). It was thought that these extremes

existed at the same time and were interchangeable, moving to the opposite extreme when conditions changed; for example, water became air when temperature rose. This was expressed as 'things at one extreme must go to the opposite extreme' (15).

A healer needed to understand the mind (heart) and the functions of organs before a particular treatment could be given – a Chinese psychosocial and biomedical view of health and disorder. The importance of preventive medicine was also stressed. 'The saint can cure not only those who are sick but has the ability to cure those who are not sick' (16) it was said. The prevention of disease was considered superior to the curing of disease.

Although the theory of traditional Chinese medicine survives to this day, it has evolved and developed into several schools over the last 2000 years. The present paper reviews the basic principles of the *Huang Di Nei Jing*.

The concept of a 'balanced diet' and 'a complete diet'

The imperial herbal doctors, concurring with Confucian schools, paid a lot of attention to the 'attainment of nourishment' (17) by selecting appropriate food in a way which was somewhat philosophical. By 'appropriate' (18) amounts of food was meant not too much or too little, otherwise it was thought that one health extreme or the other could result. Because there was no knowledge of energy or nutrients, the word 'appropriate' probably referred to having various food sources in the diet (ie a wide variety of foods).

In *Huang Di Nei Jing*, Chapter 81, section 22, there were these following recommendations for food intake: (1) Poisons (presumably substances like antibiotics to rid or destroy unwanted principles in the body) and medicines provide cure. (2) Five cereals (rice, sesame seeds, soya beans, wheat, millet) provide nourishment.

(3) Five fruits (dates, plum, chestnut, apricot, peach) produce complementarity. (4) Five animals (beef, dog meat, pork, mutton, chicken) give advantage. (5) Five vegetables (marrow, chive, bean sprouts, shallot, onion) are for supplementarity. (6) In addition, if the food tastes and smells good, eat it to replenish the body's needs. These were probably the first dietary guidelines in the world, in which fulfilment of both 'the nutritional' and the 'organic needs' of the body was sought.

The first part of the quotation means that medicines should be used to effect a cure. The following four parts of the statement describe basic food groups and reflect principles, like having a variety of cereal like foods in order to nourish the body. The number 'five' (as in holding out a hand with five digits) does not mean a number per se, but signifies the varieties of cereal, fruit, animal and vegetable derived food. Cereals were considered basic and staple foods for nourishment in daily life, and fruits were placed second because they compensated for shortages in whatever cereals provided. Animal-derived foods, like meats and meat products were seen to be important for the human body, with its resemblance to the animal. Vegetables were perceived in the ancient Chinese diet to provide an extended range of substances. The end of the quotation, 'if it tastes and smells good then eat it', indicates the importance of freshness, preparation and hygiene of foods.

With modernization and time, people and their circumstances change and cultural exchanges between countries include those of food and technology. Sometimes cultures integrate. Thus the food produced in the Chinese restaurants of today will not be representative of the traditional diet because it will have been modified to suit the taste of people in various locations and countries. However, it has been shown in the 1988 National Nutrition Survey of China, that most people living in the countryside and cities still follow traditional food patterns⁵. The occurrence of certain degenerative diseases in China is lower than that in industrialized countries, which may in part be attributable to diet, which in turn is related to the conceptual framework for eating.

The concept of 'han' (cold) (19) and 're' (hot) (20)

'Han' and 'Re'

Han and *re* are often translated to mean 'cold' and 'hot' (see Table). However, both *han* and *re* mean more than these literal translations suggest. They refer, not only to the body's status, but also to its function, reaction and symptoms. For example, when a person has ingested cold food, he/she may respond with related characteristics. Thus, *han* food may cause diarrhoea and *re* food may cause constipation; *han* foods may cause nausea while *re* foods may cause gut problems such as heartburn. On the other hand, *han* food could combat constipation and *re* food diarrhoea. These symptoms do not relate to food temperatures, but to the relationship between food and the human body^{6,7}.

Whilst food was believed to provide our bodies with nourishment, the body reacted or responded to food in different ways. For example, if a person eats too much meat, its metabolic effects through 'acid' production may

be 'uncomfortable'. This is what is described as *re*. However, not all meats are characterised as *re* and not all *re* are meat. Modern nutritional science concentrates on the nutrient components of foods and on the metabolism of nutrients. It rarely acknowledges that there are both nutrient and non-nutrient substances in food which might affect the body. Unripened guava may cause constipation and this may be explained by contemporary food chemistry in terms of tannic acid; this phenomenon is traditionally described as *re*. Ripened guava does not have the same effect and therefore is not considered as *re*. Efforts are now underway to link contemporary science with traditional Chinese food and health concepts. It has been argued that food which contains more or less cation than anion can create a situation of either *han* or *re*, although such a generalization is still difficult to accept at a point in nutrition science where the effects of any one cation or anion are recognized as complex. Most fruit and vegetables are considered as *han* which means that food high in dietary fibre belongs to the *han* category. That both *han* food and foods containing dietary fibre can cause 'emptying of the bowels' is a proximation of the two streams of thought.

Water

Chinese medicine also characterized the source or location of *water* like spring water, well water, or water from a stream, pond or river as *han* or *re* because the mineral composition of these waters is different, causing different biological consequences. Water which contained a lot of magnesium has been considered as *han*.

Table. *Han*, *re*, *wen* and *bu* foods of traditional Chinese medicine.

Han (cold)	Re (hot)	Wen (neutral)	Bu (strengthening)
Kelp	Ginger	Rice	Ginseng
Wheat	Pepper	Beans	Deer Velvet
Vegetables	Mutton	Fish	Dates
Pork	Unripened guava	Beef	

'Wen', 'Wang', and 'Bu'

Food that is in-between *han* and *re* was considered 'neutral' (21), see Table. Rice is an example of a 'neutral' food. 'Neutral' and slightly *re* foods are considered as *wen* (22), which has the characteristic of a 'tonic' (*wang*). *Wen* food is usually compensated for by *bu* (23) food to avoid nutrient insufficiency. According to Chinese medicine, wheats are slightly *han*, beans are 'neutral', most fish are 'neutral' (halibut, trout, carp, yellow fish, eel, garoupa, etc), beef is *wen*, mutton is very *re* and pork is slightly *han*. Usually *han* food is cooked with some *re* food to neutralize it. For example, vegetables (a *han* food) are usually cooked with ginger or pepper (*re* foods) to neutralise them. In the old days, the Chinese noticed that a food or food substance behaved differently, depending on what it was eaten with. More recently, similar observations have been made by Wahlqvist et al⁸ and Jenkins and Wolever⁹ to show that a given amount of carbohydrate or carbohydrate-containing food can cause very different glycaemic responses. Such contemporary nutrition science con-

cepts may be regarded as analogous of traditional Chinese food concepts.

The 'fan' and 'tsai' principle – the concept of 'cereal' (24) and 'dishes' (25)

The traditional Chinese meal contains two parts – the staple food, ie 'cereal', *fan* and the rest of the meal, referred to as 'dishes', *tsai*. Cereal is the staple food in the Chinese diet and this may include rice, wheat, corn, sorghum and millet. The word 'dishes' (26) in Chinese is nowadays the same as that for vegetables, because Chinese dishes mostly contain vegetables, with other kinds of food added as ingredients. Therefore, the word has come to include meat, fish, egg, vegetables, beans and more. It also means 'accompanying food' (27) which indicates that 'dishes' is only a side dish to accompany the main course – rice. The traditional Chinese diet is, by weight, more than 50% carbohydrate from cereal, and dishes are comprised of more than 50% vegetable with the remainder coming from animal sources. Thence the notion, 'cereals are for nourishment'.

The concept of 'nourishing the body' (28) and 'nourishing the mind' (29)

The first chapter of *Huang Di Nei Jing* points out that diet and life should have a physical and psychological balance. It says 'Control your diet, regulate your life, do not carry out unnecessary tasks, and then you will have a healthy body and a good spirit. If you carry this out all the time, you will live until you are a hundred years old' (30).

A lesser ambition, for those unable to carry out this admonition would be to 'Eat delicious food, do the same things as friends, entertain like others, but without aspiring higher'. One should be satisfied with what one has at present and be happy: one should enjoy one's meals, improve and work as hard as one can, and take care of the family's physical and psychological needs. This is what is meant by 'nourish one's mind'. If food is only used to nourish the body, the mind may not be satisfied.

Herbal medicine and food come from the same origin' (31)

Chinese herbal medicines are part of the normal diet. Chinese scholars believed that what we eat and drink should provide nutrients and other substances that the body needs. Some medicines may be used as part of a normal diet to maintain a healthy life. There are some interesting examples of this concept which merit identification.

- 1 Certain foods have preventive effects in a normal diet. For example, *linzhi* (32), a kind of mushroom, is believed to contain substances which may prolong

life expectancy, and therefore ought to be included in a normal diet.

- 2 Even in ancient times, it was believed that liver could cure night blindness, seaweeds could cure goitre, and that black beans could cure anaemia and therefore that these should be added to a normal diet. No knowledge of vitamin A, iodine or iron was available for these assertions.
- 3 Those herbal medicines used in a normal diet were considered as foods. Those which were used for treatment of disease were referred to as medicine. Chinese yam, rice, ginger, and green onions are examples of items which may be ingested as food or medicine.
- 4 Herbal medicines which were used as medicine were sometimes also cooked as food in a combined dish. They were used as *bu*, for example ginseng (33) and dates (34). These foods or medicines were used according to the needs of the patient or healthy person. However, some have become so popular that they are part of a regular diet.

In traditional Chinese medicine, 'nourishing the body with nutrition' is very important. The classical medical book *Huang Di Nei Jing*, and other medical books, regarded nutrition as the essence of a Chinese person's life. The principles of Chinese medicine were in reality based on clinical experience and epidemiological observation. Reviewing the thinking behind Chinese medicine helps us understand its principles. The use of preventive medicine in a normal diet is an important early Chinese concept. Chinese have traditionally regarded food as containing both nutrient and equally valuable non-nutrient substances which link food and health in an inextricable way.

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PRINCIPLES OF DIET THERAPY IN ANCIENT
CHINESE MEDICINE

Glossary of Chinese terms:

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|---|----------|------------|
| 1: (黃帝內經) | 2: (金) | 3: (木) |
| 4: (水) | 5: (火) | 6: (土) |
| 7: (陰) | 8: (陽) | 9: (寒) |
| 10: (熱) | 11: (虛) | 12: (實) |
| 13: (表) | 14: (裡) | 15: (物極必反) |
| 16: (聖人治已病不治) | 17: (營養) | 18: (中庸) |
| 19: (寒) | 20: (熱) | 21: (中性) |
| 22: (溫) | 23: (補) | 24: (散) |
| 25: (藥) | 26: (藥) | 27: (藥) |
| 28: (養生) | 29: (養志) | |
| 30: (飲食有節,起居有常,不妄作勞,故能形與神俱,而盡終其天年,度百歲乃去)。 | | |
| 31: (醫國語) | 32: (煙草) | 33: (人參) |
| 34: (大棗) | | |

Ref 4: 黃帝內經 天津科技出版社 1986.

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Ref 6: 本草綱目, 人民衛生出版社 1982

Ref 7: 食療本草, 中國醫藥科技出版社, 1990

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中國古代醫學飲食治療精義

何志謙

本文概述以“黃帝內經”所主的古代飲食治療思想，以“毒藥攻邪，五穀為養，五果為助，五畜為益，五菜為充。合氣味以服之，以補精益氣。”分析二千年前的膳食指導原則，和當年實際已存在均衡膳食的思想，這種思想是辯證的。中國古代不僅注意食物對人的滋養作用，也注意食物中營養素以外物質對人體的作用及人對這些物質的反應，因而有寒與熱之說，古代還提出養生與養志的均衡，提出醫食同源的基本；主食與副食，即飯與餼的關係等，這些提出在今天有研究的價值。

