## Chapter 10 The Development of Eastern Medicine (Donguihak) and the Traditional Korean Diet



Abstract Koreans share ancient culture with the Chinese, and within Korean philosophy one finds the Yin-yang and Wuxing (Five Agents, or Five Phases) theories of Chinese medicine blended with Daoism and Northeast Asian shamanism. This chapter elucidate the Korean folk beliefs and Daoist thought. Traditional Korean Medicine (TKM), as distinct from Traditional Chinese Medicine (TCM), refers to that which developed as a native practice on the Korean Peninsula. It grew out of the native Daoist ideas, to which TCM was added to create a medical practice with characteristic hues of Korea. The history of early development of traditional Korean medicine (Donguihak) and some important literatures, such as Dongui Bogam (Treasured Mirror of Eastern Medicine) and Dongui Susebowon (Longevity and Life Preservation in Eastern Medicine) together with the Great Bibliography of Korean Food Classics including Sallim Gyeongje (Farm Management) and Imwon simnyukji (Encyclopedia of rural life) were introduced in this chapter. The theory of nutrients in Eastern medicine and the development of dietary cures were discussed and the formation of the traditional diet, *cheopbansang* (meal settings), was introduced.

Throughout human history people have consistently sought to alleviate hunger and repel disease and sickness. As techniques for hunting, fishing, and agriculture developed, the volume of foodstuffs expanded, and fire, pottery, salt, and the use of containers provided means for supplying, fermenting, and storing food. Essential survival wisdom was borne of discovering which of nature's panoply of flora was edible and which was not, and those who excelled in this area were revered as gods. Shennong, the Divine Farmer, is the most well-known food deity in the East. The ability to cure illness was also a skill honored as divine. People particularly adroit in healing often became chiefs or kings. In the mythology of China's Sanhuang Wudi, or Three Sovereigns and Five Emperors, the Yellow Emperor (Huangdi) was esteemed as a god because he taught the people diagnostic methods and medicinal cures; the foundational Eastern medicine classic *Huangdi neijing* (The Yellow Emperor's classic of internal medicine) is attributed to him.

As descendants of the Dongyi tribes, who lived anciently in what is now northeastern China (Manchuria) and the Korean Peninsula, Koreans share ancient culture with the Chinese, and within Korean philosophy one finds the Yin-yang and *Wuxing* (Five Agents, or Five Phases) theories of Eastern medicine blended with Daoism and Northeast Asian shamanism.

#### **10.1** Folk Beliefs and Daoist Thought

## 10.1.1 Daoist Ideology

*Musok* is a native Korean tradition that incorporates various religious elements into shamanistic practices that may have originated as far north as Siberia. The prehistoric Bangudae Petroglyphs in Ulsan (5000–1500 BCE, southern Korean Peninsula; see Fig. 2.4) include a picture of a shaman dancing. Scholars concur that shamanism likely stemmed from rituals performed by clan and priest chiefs during the theocratic beginnings of state formation, after the advent of agriculture. Korean shamanism seems to begin during the Gojoseon period (2333–108 BCE). In the founding myth of Dangun Wanggeom, the term "Wanggeom" refers to the political and religious chief (Yoon 2015). Of particular interest in the Dangun Wanggeom state foundation story is the expression of Daoist elements inherited from earlier times. *Gii* (Wonders), the title of the first volume of *Samguk yusa* (Memorabilia of the Three Kingdoms, Ilyon 1285), records the following about the founding of the Gojoseon kingdom:

In ancient times Hwanin (Heavenly King) had a young son whose name was Hwanung. The boy wished to descend from heaven and live in the human world. His father, after examining three great mountains, chose T'aebaek-san (the Baekdu Mountains in north Korea) as a suitable place for his heavenly son to bring happiness to human beings. He gave Hwanung three heavenly treasures, and commanded him to rule over his people....

Bear-woman could find no husband, so she prayed under the sandalwood tree to be blessed with a child. Hwanung heard her prayers and married her. She conceived and bore a son who was called Tangun Wanggom [Dangun Wanggom]....

Later Tangun moved his capital to Asadal on T'aebaek-san and ruled 1500 years, until king Wu of Chou [Zhou—an ancient Chinese dynasty] placed Kija [Gija] on the throne [traditional date 1122 B.C.]. When Kija arrived, Tangun moved to Changtang-kyong [Jangdanggyeong] and then returned to Asadal, where he became a mountain god at the age of 1,908" (Ha Tae-Hung, trans., *Samguk Yusa: Legends and History of the Three Kingdoms of Ancient Korea*, 19).

This and other similar records provide the basis for the Three Gods ideology (*samsin sasang*) held by the Korean people: beginning in Gojoseon, a god of heaven (Hwanung), a goddess of earth (Ungnyeo), and a son of the gods (Dangun) comprised the divine trinity. In the Dangun myth the concept of *Hongik Ingan*, or Devotion to Human Welfare, is a key philosophy of the Three Gods ideology. This native philosophy provided fertile soil for the later acceptance of Daoism in Korea as it was introduced by China. The religious aspect of Daoism, based on a belief system of immortals (Chi. *shenxian*, or *xian*; Kor. *sinseon*), is generally understood to have originated in China. Some scholars suggest, however, that

there is evidence pointing to the emergence of religious Daoism among the Han Korean peoples of Northeast Asia, including the appearance of Dangun as a mountain god in temple shrines, and the story of the first Qin emperor sending Xu Fu to search for the elixir of life in the sacred mountains of the east, that is, Mt. Geumgang, Mt. Jiri, and Mt. Halla, all three of which are found on the Korean Peninsula and Jeju Island (Lee 1984).

#### 10.1.2 Formal Daoism in China

Daoism emerged from a native folk belief shared by the Dongyi tribes living in the Shandong Province (now part of China) region that the quintessential goals of living are good health and long life. Daoism emphasizes the need to harmonize the triumvirate of *jing*, *qi*, and *shen* (Kor. *jeong*, *gi*, and *sin*), or "life essence," "vital energy," and "spirit/mind," with the belief that the ultimate quest of existence is that of immortality. Daoists believe this state may be achieved through corporeal discipline, including adherence to such alchemical physical techniques as regulating breath, libido, and food.

The Daoist way of life draws from folk Daoism that emerged from ancient native beliefs, teachings of the legendary Yellow Emperor of China (themselves rooted in Northeast Asian indigenous customs), and the later philosophies of Laozi (604?–531 BCE, author of Dao De Jing), and Zhang Ling (c. 34–156 CE, a reform figure in Daoism). The increasing reverence of legendary beings as supernatural immortals developed into a formal Daoism distinct from folk beliefs. Formal Daoism grew out of the modification and expansion of methods and techniques employed to reach immortal status. Inheriting further modulation through the influence of the newly rising Buddhist religion, Daoism eventually transformed into a religious practice akin to the current form.

As the ultimate goals of Daoism are focused on long life and freedom from disease, medical techniques for the preservation of health proved a vital part of religious practice. In Daoist idiom, these include the following five principles: byeokgok (Chi. bigu, grain avoidance), bogi (Chi. fuer, medicinal diet), josik (Chi. diaoxi, breath regulation), doin (Chi. daoyin, energy work; precursor to qigong), and bangjung (Chi. fangzhong, bedchamber arts). Daoist philosophy posits that the spirit is fettered by the physical body, and the physical body is sustained by food materials, therefore, to live a long life, one should reduce the amount of food ingested. Longevity is also aided by avoiding cooked foods. This method is called "byeokgok." "Bogi" refers to the partaking of certain medicinal foods or chemicals to achieve immortality or long life. Medicines used for that purpose include ores, such as arsenic trisulfide and mercury sulfide, as well as plants, such as rehmannia and yeongji (Jap. reishi) mushroom. Medicines are divided according to their efficacy into upper, middle, and lower levels. Upper medicinals are counted as those which extend one's life toward immortality, middle medicinals nourish life, and lower medicinals treat illnesses and exorcise demons. Upper medicinals

comprise remedies considered to be elixirs of life. Numerous types of elixirs exist, and the early fourth-century scholar Ge Hong describes them in detail in his Daoist classic, *Baopuzi*.

The mystery of breathwork, deliberately inhaling and exhaling in specified ways, aligns with the principles of yin and yang. It is often said that healthy individuals are full of vitality. The view that *gi* (Chi. *qi*) is the root of human vitality speaks to the Daoist notion that if gi is lost, life cannot continue, and therefore it must be preserved. "Josik," the term for Daoist breathwork, includes the forms *taesik*, *pyegi, tonap*, and *haenggi*, each of which represents a unique deep breathing method. The word "doin," along with josik, seeks to preserve gi within the body through a practice similar to massage. Particularly effective for prolonging life, doin methods have been practiced by many people seeking to improve their health.

"Bangjung" deals with the mystery of reproductive function and includes "methods of breathing for vitality" (*heupjeongbeop*) and "sexual technique" (*bangjungsul*), both of which involve absorption of the vital energy of the opposite sex. *Baopuzi* emphatically states, "Regardless of the number of remedies you take, you will not live a long life if you do not understand the secrets of the bedchamber. Those who seek immortality must strive to acquire these methods." This principle aims to harmonize the two energies within the body, yin and yang. The several physical restrictions involved in bangjung techniques figure collectively as an important part of the journey toward attaining a spiritual life.

#### 10.1.3 Folk Daoism in Korea

According to *Samguk sagi* (History of the Three Kingdoms, Kim Bu-Sik, 1145), formal Daoism was introduced to Korea in the 7th year of the reign of King Yeongnyu of Goguryeo (618–642). At the time, it consisted of a devotional Daoism meant to be an official platform for prayers offered to prevent national calamities. *Haedong jeondorok* (Korean proselytizing record, anonymous early 1600s), a Daoist book, asserts that Daoism was brought to Korea by Choi Chi-Won, a Korean scholar who lived in Tang China (618–906) for several years before returning to the Silla kingdom.

During the Goryeo dynasty, the popularity of Daoism waned as the societal influence of Buddhism increased, but it continued to carry significant social import. In the 5th year of King Yejong's reign (1110), a Daoist adherent from the Northern Song dynasty (China) sent a chart detailing Daoist practices to the king, which influenced him to establish a Daoist temple, Bogwongwan, as an institutional place to pray for the safety of the nation. Also, during this era the practice of *sugyeongsin* (guarding oneself against destructive forces on the 57th day of the 60-day cycle), which was based on the Daoist theory of *samsi* (Chi. *sanshi*, "three corpses"), became widespread. The "three corpses" are demon spirits that reside within the human body; on the 57th day (gyeongsin) they leave the body while the host sleeps and ascend to heaven to relate to the gods every sin committed by their host during

the previous 60 days, upon which the "Director of Destinies" decrees the number of days that will be reduced from that person's life, based on the severity of their sins. To prevent the demon spirits from leaving their bodies and reporting their offences, people began to stay awake all night on the 57th day. According to *Dongguk tonggam* (Comprehensive mirror of Korea, Seo Geo-Jeong et al. 1485), "In accordance with Daoist teachings, on the day to guard against gyeongsin people customarily gathered to drink together so they would not fall asleep during the night." A verse in *Yongbieocheonga* (Songs of the dragons flying to heaven, Jeong In-Ji et al. 1447) depicts an annual banquet prepared by the people on the final gyeongsin of each year. However, when criticism was raised against the vices of men and women drinking, singing, dancing, and gambling together all night, King Seongjong of Joseon (r. 1469–1495) abolished the ritual (Lee 1984).

Along with Daoism's promotion of techniques that support health and longevity come curing methods, or regimens. In his theoretical work, author Kim Si-Seup (a scholar turned monk, 1435–1493) rebuts the concept of attempting to achieve perennial youth and long life, but he nevertheless elucidates key points of Daoist training in the "Sujin" and "Yongho" sections of his work Japjeo (Miscellaneous jottings). Toegye Yi Hwang (1501–1570), one of the two most prominent Joseon statesmen and Confucian philosophers, strongly reflects Daoist thought in his theory of human nature, and culling from the Ming dynasty text Jiuxian huorenxinfa (The old way of living), he compiled Hwalinsimbang (Way of living) as a manual of techniques geared toward achieving longevity. These include life preservation (hwalin), life cultivation (yangsaeng), mind governance, life-force guidance, and healthy foods. Within life preservation, Yi Hwang emphasizes that the cause of all disease hangs on governance of the mind/heart, famously asserting that composed and patient mindset practices such as junghwatang (a "stew" of 30 mindsets) and hwagihwan (chewing slowly on a "pill" to quell one's anger) should be prescribed like medicine (Kim 1989).

Yi I (1536–1584), the other foremost Confucian scholar of the Joseon dynasty, wrote a medical book in which he considered the methods of Daoism. Although he did not subscribe to the Daoist tenet of immortality, he did accept, within reason, the notion that partaking of certain Daoist practices and medicines may be effective in prolonging life (Encyclopedia of Korean folk culture, 1991).

In his book *Bokchang bigyeol* (The secret teaching of Bokchang), also known as *Yongho bigyeol* (The secret teaching of dragon and tiger), Joseon-dynasty philosopher Jeong Ryeom (1506–1549) explains Daoist methods of transforming the body through inner work, or "inner alchemy" (*naedan*), including how to retain one's vital force while on the path of life and how to fortify oneself to prevent "wind diseases" (*pungsa*) from taking hold, thereby maintaining health and preserving life. As these life-preservation theories and practical health measures became increasingly refined, they greatly impacted the medical system of the Joseon dynasty.

*Dongui bogam* (Principles and practice of Eastern medicine, Heo Jun 1610) accepts many Daoist principles as part of the Korean medical system, including teachings that honor the promotion of health via practicum, and even Daoist alchemical techniques. Traditional Korean Medicine understands the human body

as a complete microcosm, and thus health and life are to be approached with the premise that the mind and body are one (Hong 1990). Heo Jun was the most noted physician of the Joseon dynasty (1392–1897) and a scholar of positivism. Unlike traditional bibliographers, who mechanically edited Chinese literature, he systematically and exhaustively compiled medical literature from China and used his experiences to synthesize existing ethnopharmacology based on principles of Korean folk Daoism. This effort resulted in *Dongui bogam* (in 25 volumes), the bible of Traditional Korean Medicine. This classic is held in high esteem in China and Japan, and even in Europe and the United States.

## 10.1.4 The Nutritional Science and Famine Foods of Daoism

The familial standards espoused by Southern Song Neo-Confucian master Zhu Xi (1126–1271), in which the philosophies of filial piety and comfort in old age form the basis of human morality, were upheld throughout the Joseon dynasty. The study of comfort in old age became a field of philosophical pursuit, and Confucian scholars in Joseon pored over Chinese texts that treated the subject, including *Shanju siyao* (Four essentials for dwelling in the mountains) and *Shouqin yanglao xinshu* (New book on caring for parents and the elderly) from the Yuan dynasty (1279–1368), as well as *Shouyang congshu* (Collected works on longevity and maintaining life) from the Ming dynasty (1368–1644). In the 12th year of Crown Prince Gwanghae's reign (1620), Yi Chang-Jeong published *Suchin chongseoryujip* (Collected works on the care of one's health), a compilation of Chinese texts concerned with various aspects of health care, edited to exclude errors and geographical differences. This work was popular in Korea and China and was published in Japan, in 1669 (Lee 1984).

Regarding caring for the elderly, *Dongui bogam* posits that growing old arises from the decline of blood (flow), and that illnesses brought on by changeable weather should be avoided. Therefore, bitter or cold medicines, as well as medicines used for severe vomiting or diarrhea, should be prohibited in old age. Caring for the elderly also entails supplying foods that contain specific nutrients. The food, medicine, and dietary therapies recommended for the elderly are given considerable treatment in a number of Joseon texts, including *Imwonsinnyukji* (Encyclopedia of rural life), *Chisaeng yoram* (Necessary information on food and farming), *Sallim gyeongje* (Farm management), *Jeungbo sallim gyeongje* (Farm management supplement), and *Jukgyo pyeollam* (Handbook on planting in the Jukgyo region).

The introduction and application of the Daoist principle byeokgok (refraining from eating grain) was instrumental in the development of famine foods, that is, in times when grain was scarce. *Guhwang chwalyo* (Necessary items for famine relief, 1554) and *Guhwang boyubang* (Methods of supplementing food for famine relief, 1660) introduce a significant number of recipes to help people weather famine that either use no grain at all, or add only a handful of grain to a given dish. A few of these dishes are described below (Lee 1984).

#### Solip (Pine Needles)

In times of famine pine needles are best, but juice from elm bark can be taken to prevent constipation. Pine needles calm the five major organs and aid the stomach to feel less hungry. To prepare pine needles for consumption, first steam them, and then dry. Once dry, grind them into flour and put the flour in a sack. Set the sack in running water for 3–4 days, then pull it out and let the contents dry in the sun or on a heated floor. Grinding once more will prevent a bitter flavor from developing. Take 540 mL of pine needle flour prepared as above, mix with 180 mL of rice flour, and add 1.8 L of elm bark juice to make a porridge that will stave off hunger if you must skip a meal. This recipe will also bring you longevity.

#### Kong and Daema (Soybeans and Hemp)

Wash, steam, and dry 9 L of soybeans three times and then remove the hulls and grind into flour. Pour 5.4–9 L of hemp seeds into hot water and let rest overnight. Scoop out the seeds, dry them in the sun, then steam. Do this three times and then remove the hulls and grind into flour. Make glutinous rice porridge and mix evenly with the two flours to make dough balls about the size of a fist. Place these in a steamer in the evening and stoke the fire until midnight. At dawn remove from heat and place the food into an earthenware jar with a tight-fitting lid to keep moist. Eat one to two pieces at a time to fill the belly and do not eat the entirety of your other food. After partaking the first time, eat no rice for 7 days. After partaking the second time, fast from rice for 49 days. Your appearance will become more beautiful, no longer gaunt from want of food.

#### Kongnamul (Bean Sprouts)

If you grind bean sprouts into flour and eat, you will be able to endure your hunger, even without eating grains.

#### Millap (Beeswax)

Daoist scripture reveals that the best part of the *byeokgok* method (refraining from eating grain) is chewing beeswax because it keeps hunger at bay all day. If you chew yellow beeswax that has been steamed and mixed with roasted nonglutinous rice, it will beautify your skin and allow you to fast from grains. When you wish to eat rice again, eat walnuts instead.

## Songji (Pine Resin)

Pine resin holds no toxicity, calms the organs, and reduces fever. If you eat it regularly you will age well and live long. Make a fine powder of pure pine resin and mix 3.75–7.5 g once a day into rice porridge; if you make 375 g or more you will not go hungry, but if you are still hungry, eat more pine resin. After a year or more your eyesight will grow increasingly clear, to the point that you will be able to discern objects in the dark. If you take pine resin over a long period of time, it will lengthen your years and benefit your life.

Ironically, many "elixirs of immortality" ingested by adherents wishing to become Daoist immortals or to live an extraordinarily long life contained highly toxic ingredients, such as mercury or lead. The foods mentioned above, meant to be ingested when fasting or as substitutes in times of scarcity, are extremely dangerous from the viewpoint of modern science. The experience of "hippies" in 1970s Europe who followed a faddish diet of uncooked grains and vegetables, becoming severely malnourished as a result, reminds one of how group malnutrition can be a societal problem. However, insofar as Daoist practice and training emphasizes the importance of preventative measures for a long and healthy life, such as deep breathing, physical exercise, massage, and moderation in eating, it can be appreciated as beneficial to modern people.

## **10.2** Traditional Korean Medicine (*Donguihak*)

Traditional Korean Medicine (Eastern Medicine, *Donguihak*), as distinct from Traditional Chinese Medicine (TCM), refers to that which developed as a native practice on the Korean Peninsula. It grew out of the aforementioned native Daoist ideas, to which TCM was added to create a medical practice with characteristic hues of Korea.

## 10.2.1 Ancient Chinese Medicine

China's ancient medicinal practices originate in two major records. The first entails a question-and-answer dialogue the Yellow Emperor engages with his ministers Qi Bo (a physician who tested herbs for a *Materia medica*) and Sou Qu (astronomer and astrologist) regarding principles of human life such as lifespan, procreation, health, physiology, pathology, disease, and treatments, as recorded in *Huangdi neijing* (The Yellow Emperor's classic of internal medicine) (Ni 1995). The second is *Shennong ben cao jing* (The Divine Farmer's classic of herbal medicine), which relates the mythological Shennong's attempt to personally test all the plants, animals, and minerals in nature by ingesting them himself, thus encountering 70 poisons per

day in the effort to discover the character, energy, flavor, and efficacy of each food item. It is unclear who wrote the original texts of these two works and when. It is surmised that during the Spring and Autumn period (c. 771–476 BCE) practitioners of alchemy called *fang shi* gathered all the medical knowledge available at the time, and, calling upon the authority of the Yellow Emperor and Shennong, committed oral traditions to paper. Later, during the Eastern Han dynasty (25–220 CE), TCM sage Zhang Zhongjing (150–219 CE) recorded practical clinical treatments for the first time in two books, *Shanghan lun* (Treatise on cold damage) and *Jin gui yao lue* (Essential prescriptions of the golden chamber). Soon thereafter the physician Mi Huangfu (215–282) wrote *Zhen jiu jia yi jing* (Systematic classic of acupuncture and moxibustion), which compiled and reclassified all of China's acupuncture theories to date, and in about 500 CE, the Daoist master Tao Hongjing (456–536) wrote *Ben cao ji zhu* (Collected commentaries on the *Materia medica*), the first systematic text on pharmacology.

From ancient times, TCM has been rooted in the Eastern cultural concepts of yin-yang and the Five Phases. The theory of yin-yang observes and infers that all of nature, including human beings, are subject to the relativity, complementarity, and contiguity of the principles of yin and yang. The yin-yang dichotomy consists of reciprocity in all things, for example, dark/light, woman/man, inside/outside, center/ periphery, weak/strong, empty/full, cold/hot, rise/fall, plant/animal, death/life, wet/dry, large/small, sparse/packed, electron/proton, etc. Yin/yang is a relational concept hinging on the balanced interdependence between replenishment and transformation on the one hand, and suppression and refutation on the other; there is no absolute yin or yang, as yin is relative to yang and vice-versa.

The theory of the Five Phases proposes that the properties of all nature can be divided into five phases: wood, fire, earth, metal, and water, and that generalizing the interrelationship of these agents can explain or predict the method of their interactions. This concept differs from a seemingly similar philosophy from Ancient

Fig. 10.1 Generation and suppression relationships between the Five Phases. The Five Phases are linked by the relationship between generation (---) and suppression (- - -). Generation: Water causes trees to grow, wood allows fire to burn, fire makes ash/earth, earth is the source of metal, when metal is heated, it flows like water. Suppression: Water douses fire, metal ax chops wood, wood plow churns the earth, earthen dam prevents water flow



Phases	Taste	Color	Weather	Season	Direction
Wood	Sour	Bright blue	Windy	Spring	East
Fire	Bitter	Deep red	Hot	Summer	South
Earth	Sweet	Yellow	Humid	Late summer	Middle
Metal	Spicy	White	Dry	Fall	West
Water	Salty	Black	Cold	Winter	North
Phases	Organ	Digestion	Sensory organs	Body	Emotions
Wood	Liver	Bile	Eyes	Tendons	Anger
Fire	Heart	Small intestine	Tongue	Blood vessels	Joy
Earth	Spleen	Stomach	Mouth	Flesh	Love
Metal	Lung	Large intestine	Nose	Hide/skin	Sadness
Water	Kidney	Bladder	Ears	Bones	Fear

Table 10.1 Classification of the qualities of matter according to Five Phases Theory

Greece, which proposes that all things are composed of the base material elements earth, air, fire, and water. In Traditional Chinese Medicine, the Five Phases do not refer to physical objects, but rather to phases of mutual interaction. Figure 10.1 diagrams the simultaneous layering of interactions between the Five Phases, which effects a relationship of generation and suppression (Magner 1992; Lee 2018). Table 10.1 organizes the categories within the Five Phases theory. According to the table, for example, sour taste, liver, bile, and eyes pertain to the wood phase. In terms of generation (*sangsaeng*) and suppression (*sanggeuk*), sour taste helps the function of the heart (fire), but suppresses the function of the spleen (earth).

Together, the theories of yin-yang and the Five Phases represent a creative philosophical system that explains the genesis and operation of all things through the inherent harmony of the yin-yang and Five Phases dualities. The first written record of this philosophy may be found in oracle bone script (shell and bone writing), proto-Chinese divination characters that hark back to the progenitor Bo Yi (c. 3000 BCE). Regardless of origin, ancient Chinese society utilized the theoretical system and medical techniques found in *Zhou yi* (Changes of the Zhou dynasty, also known as *Yi jing*, Book of changes, tenth to fourth centuries BCE) for centuries (Lee 2018). These ideas also form the philosophical backdrop of Traditional Korean Medicine.

The oldest medical text in China, *Huangdi neijing*, includes detailed descriptions of the theories of yin-yang, the Five Phases, the sexagenary cycle, and other ideas that explain the relationship between humans and the universe, and these are employed to diagnose and treat disease (Ni 1995). An application of the yin-yang theory included in *Su wen*, a version of *Huangdi neijing* edited and annotated in 762 CE, can be found in the following excerpt: "When chilled, make yourself warm; when cold, make yourself hot; when warm, cool yourself; when hot, make yourself cold." These concepts informed the foundational medical treatments prescribed for chills, cold, warmth, and heat.

The introduction of *Huangdi neijing* to Korea in the third year of King Pyeongwon of Goguryeo (561 CE) piqued scholarly interest in Traditional Chinese Medicine. More books on the topic were imported from China during the Three Kingdoms period and the ensuing Goryeo dynasty. The medical knowledge flowing in from China also came to be applied in Korea. TCM was appreciably more scientific than the Korean shamanic and native Dao-based medical practices, and it exerted a huge influence on Korea's understanding of natural science and health care methods.

## 10.2.2 Early Development of Traditional Korean Medicine

Toward the end of Gojoseon (2333?–108 BCE) the closeness between the people of Korea and China, facilitated by frequent exchanges, allowed for ancient medical practices in the two countries to exert a measure of mutual influence. An example of this can be found in a line from *Huangdi neijing*, which reads, "The art of stone acupuncture comes from the East [Korea]." (Incidentally, this suggests that from the time of Gojoseon primitive medical techniques included stone and bone acupuncture).

A number of Korean herbs and their efficacy, along with medicines produced in Korea and their prescriptions, are listed in *Shennong ben cao jing* (Shennong *Materia medica*), a Chinese record from 200 to 250 CE. Medical prescriptions from *Silla beopsabang* (Healing protocols of Silla Buddhist monks) and *Baekje sinjipbang* (New collection of prescriptions from Baekje) (Silla and Baekje were two of the kingdoms during the Three Kingdoms of Korea period) appear in the Japanese medical text *Ishinpo*, the oldest medical text in Japan (Tamba Yasuyori 984 CE). Records such as these offer a glimpse of the spread of Korean medicinal practice in both China and Japan.

Ancient Korean medicine developed into pharmacological treatments through trial and error over time. Three texts on prescriptions appeared during the Three Kingdoms period: *Goguryeo nosabang* (Goguryeo medicinal remedies), *Baekje sinjipbang*, and *Silla beopsabang*; during the Goryeo dynasty similar texts included *Jejung iphyobang* (Efficacious remedies culled from many varieties), *Hyangyak sinjipbang* (Native prescriptions for emergency remedies) and *Dongin gyeongheombang* (Korean folk remedies) (Lee 1981).

King Sejong of the Joseon dynasty (r. 1418–1450) rallied his ministers, including No Jung-Rye and Pak Yun-Deok, to collect all published medical treatments from the Three Kingdoms period and the Goryeo dynasty, as well as all folk treatments, to ensure Korea was in step with the current medical reasoning in China. This massive work presents all known treatments employed throughout Korean history, from the royal palace to the lower class, to the tune of 1,000,706 prescriptions and 1476 methods of acupuncture and moxibustion. It was compiled over the course of 3 years, in 85 volumes, and published in 1433 as *Hyangyak jipseongbang* (Compilation of native prescriptions). It was the most exhaustive medical text in Korea to

date. King Sejong was not satisfied with the limited scope of *Hyangyak jipseongbang*, however; his aim was to provide a firmer foundation for the development of Korean medicine by amassing all available medical knowledge in Korea and China, to begin with. To that end the king ordered 16 scholars, including Yu Seong-Won and Jeon Sun-Ui, to search for more Korean medical texts and all Chinese medical texts—153 published works in total—and further, to survey Indian Buddhist texts. The effort resulted in *Uibang yuchwi* (Classified collection of medical prescriptions), in 266 volumes. This work, a collection of all the known Eastern medical theories and prescriptions in one place, provides general summaries and categorizes disease symptoms into 80 topics in a stand-alone Korean medical system (*Donguihak*). This extensive work is a valuable resource for its full account of Traditional Korean Medicine at that time. In 1596 King Seonjo ordered Yang Ye-Su, Heo Jun, and others to establish a Bureau of Compilations at the Medical Center in order to compile yet another definitive medical book, *Dongui bogam*.

## 10.2.3 Dongui Bogam (Principles and Practice of Eastern Medicine)

The historical development of Korean medical techniques (*dongui*) and preventative health measures were compiled by Heo Jun in his seminal work, Dongui bogam (1610). Heo Jun emphasizes the tripartite conceptual philosophy underpinning TKM, that is, *jeong* (life essence), gi (vital energy), and sin (spirit/mind). These, paired with the physiological functions of the internal organs and their disease symptoms, consistently underscore the importance of treating the inner body, a singular approach not seen in other medical texts. The spirit of medical practice soon pivoted on health preservation, while taking medication as a cure came to play a secondary role. The primary method of preserving health involved replenishing the four elements composing the body-life essence, vital energy, spirit/mind, and hyeol (blood)-by eating constitutionally prescribed foods. The Internal Body section reads, "The foundational practices of Daoism are purity and cultivation of self, and the fundamentals of the medical world are herbal medicine, acupuncture, and moxibustion. In this manner, Daoism treats the whole body, while medicine treats specific parts of the body." Heo Jun's text succeeds in combining native Korean healing prescriptions with concepts from Traditional Chinese Medicine, which in turn led to the development of inventive medical techniques.

*Dongui bogam* consists of 25 books in 23 volumes, the content of which is divided into the following broad categories: *Internal body, External body, Various disorders, Herbal remedies,* and *Acupuncture*. Section 1 of *Internal body,* "The physical body," includes the following topics: The beginning of form and qi; The origin of conception; The four great elements of form: earth, water, fire, and wind; The rise and fall of human qi; The infertility of the elderly; Differences in lifespans; Lifespan is dependent on form and qi; The human body can be compared to a nation;

The three energy centers (*danjeon*); The three passages on the back of the body; The nurturing of essence (qi) and spirit; In antiquity there were true men, ultimate men, holy men, and wise men; Discussion of natural truth in antiquity; Living according to the four seasons; and Treating disease with the Dao. Additional ways of preserving one's health are also described. Sections 2–4 include the topics blood, dreams, voice, the five viscera and six bowels, and urine and feces, along with symptoms and treatment methods. *External body* discusses the body's outward appearance, with symptoms and treatments of various external systems. *Various disorders* elaborates on disorders and their treatment that are not covered in either *Internal body* or *External body*. *Herbal remedies* contains a depiction of native Korean and Chinese herbs used for treatments; the basis for each prescription is quoted from other medical literature. Difficult Chinese characters are annotated in Korean (hangeul).

Behind the systematic composition of *Dongui bogam* lies a complete rejection of fanciful and unreliable medical theories, which were not uncommon in Korea at the time. The project represented an effort to muster all the knowledge of the East Asian medical world, to present the underlying logic of medicine, and to promote an attitude of respect for the Daoist approach to preserving health. Through this process, the author of *Dongui bogam* established a unique and independent theory that became Traditional Korean Medicine. Accordingly, this text has since garnered global attention as an original work on Eastern medicine (Lee 1994).

## 10.2.4 Dongui susebowon (Longevity and Life Preservation in Eastern Medicine)

Traditional Korean Medicine continued to develop in the eighteenth to nineteenth centuries. In his treatise *Dongui susebowon*, published in the 31st year of Gojong's reign (1894) in Hamheung, South Hamgyong Province (North Korea), the physician Lee Je-Ma created a unique philosophy of medicine called *Sasang uihak* (literally, "four constitutions medicine," known in English as Sasang Constitutional Medicine, or SCM). This theory offers four constitutional types of human beings: greater yang (taevang), lesser yang (sovang), greater eum (taeeum), and lesser eum (soeum) ("eum" is the Korean word for "yin"), and proposes that treatment of the same disease will differ depending on the physiological needs of a given patient. Lee Je-Ma emphasizes that dietary therapy can be successfully informed by SCM. The original text, consisting of two books in four volumes of woodblock print, is currently stored in the Korea University library. The seven chapters covered in this record discuss methods of medical treatment relevant to the following areas: life theory, four modalities theory, expansion theory, vitality theory, compatibility of medicine and herbology theory, preventative medicine theory, and four constitutions theory.

In the four modalities theory, the four constitutions are defined and classified according to the size of four organs: people with large lungs and small livers are deemed *taeyang*; those with large livers and small lungs are *taeeum*; those with large spleens and small kidneys are *soyang*; and those with large spleens and small kidneys are *soeum*. SCM branches away from Traditional Chinese Medicine's privileging of yin-yang and the Five Phases principles, offering instead an innovative approach to health care that emphasizes one's physical constitution and mindbody connection. (For more details on SCM, see Chap. 12.)

SCM focuses on preventative health care that is based on individual physiological characteristics. In the past in Korea, and frequently today, dietetics, medical science, and physical education have been divided into the separate fields of nutrition, medicine, and exercise. Engaging in any of these areas to excess leads to repeated health problems, such as obesity and metabolic disease, prescription drug addictions, and physical injuries. SCM's holistic approach to treating all areas of a person's life at once helps prevent such modern pitfalls, demonstrating that this theory was conceptually far ahead of its time (Lee 1994).

# **10.3** The Great Bibliography of Korean Food Classics (*Hanguk sikgyeongdaejeon*)

In 1981, Professor Lee Sung-Woo of Hanyang University published an opus on the history of Korean foodways called Hanguk sikgyeongdaejeon. Lee investigated every relevant Korean and Japanese book held in libraries, public or private, in search of source materials. A modern reference work specializing in Korea's traditional dietary life had not been published at the national level, and many of the texts he collected existed only as manuscripts held in private families, whom he visited as part of his extensive research. The bibliography contains the following sections: "A comprehensive synthesis of dietary life" (an encyclopedia of family foods; 30 books), "Food production" (general agriculture, seasonal farming, veterinary treatments and animal husbandry, marine products; 298 books), "Cooking and cuisine" (general cooking and food manufacture, alcoholic drinks, tea; 100 books), "Famine relief and potatoes" (39 books), "Nutrition and applied nutrition" (comprehensive medicine, medicinal herbs, folk cures, infectious diseases, gynecology and pediatrics, health care, ginseng, medicine; 327 books), "Dietary lifestyle" (customs, seasonality, local produce and economic geography, Joseon experiences and guides, conventions and manners, collected classifications, linguistics, poetry and prose, and other; 467 books), along with 12 supplementary books, for a total of 1273 books, including 1243 papers and articles of commentary on each field (Lee 1981).

*Hanguk sikgyeongdaejeon* is of great value in historical studies for its wealth of detailed bibliographic information, including the location of each original work. Individual entries are formatted to include profiles of the editors and compilers of a given work, the year or estimated year of completion, historical background of the era in which the work was written, the state of publication, and the influence the work has had on future generations. Lee Sung-Woo translates the forewords and

postscripts into modern Korean, summarizes contents, and writes scholarly articles on the book topics. He also summarizes the content and book particulars of relevant Chinese and Japanese works. The bibliography is a tremendous resource for scholars of Korean food culture and production, food manufacture techniques, and theories of nutrition as health care. *Sallim gyeongje* (Farm management) and *Imwonsimnyukji* (Encyclopedia of rural life), two major texts recorded in this bibliography, are described in detail below (Lee 1994).

## 10.3.1 Sallim gyeongje (Farm Management)

Knowledge of the advantageous use of natural products and how the geography and climatic conditions of Korea could influence those materials accumulated in literature over the years. At the dawn of the seventeenth century, this knowledge began to be systematically recorded by Silhak (Practical Learning) scholars. In the 41st year of King Sukjong's reign (1715) Hong Man-Seon published Sallim gyeongje, Korea's first agriculture encyclopedia. Taking texts such as China's Jujia biyong (Household essentials) and the seventeenth-century Korean works Nongsajikseol (Straight talk on farming), Sasichanyocho (Necessities for four seasons), Hanjeongnok (The free lifestyle of seclusion), Guhwang chwalyo (Necessary items for famine relief), and Dongui bogam, Hong Man-Seon recorded all the skills needed for daily farm life, including agriculture, food manufacture and storage, cooking, and medical treatments, culling and editing the entirety of relevant knowledge to date. The author added explanations where necessary, along with local techniques, regional names, and hangeul (Korean) annotations of Chinese characters. He took particular care to specify the literature quoted in each article, making this a representative eighteenthcentury work of scientific writing. Consisting of four books in four volumes, Sallim gyeongje is divided into the following 16 topics: bokgeo (methods for choosing a homesite), seopsaeng (health care), chinong (farming methods), chipo (vegetable cultivation), jongsu (forest management), yanghwa (flower cultivation), yangjam (silkworm breeding), mogyang (animal husbandry), chiseon (cooking and processing methods), gugeup (handling emergencies), chiyak (use of medicinal herbs), guhwang (methods for surviving famine), pion (methods for eradicating an epidemic), *pichung* (methods for eradicating harmful insects), *iyak* (use of medications), taekgil (methods for choosing auspicious days), and japbang (other).

The original *Sallim gyeongje* text was transcribed and distributed broadly, and later generations provided supplementary information or expunged outdated ideas from the text. *Jeungbo sallim gyeongje* (Farm management supplement), compiled by Yu Jung-Im, appeared in the 42nd year of King Yeongjo (1766). This work almost doubles the size of the original text with additional information, totaling 12 books in 16 volumes and expanding the number of topics to 28. Compared to *Sallim gyeongje*, however, the supplement suffers from a systemic lack of focus and omission of references.

## 10.3.2 Imwonsimnyukji (Encyclopedia of Rural Life)

After *Sallim gyeongje*, several works on agriculture, food, and hygiene were published, including *Jeungbo sallim gyeongje* and Seo Ho-Su's *Haedong nongseo* (Korean agriculture, 1799). These were synthesized into an 1827 publication by Seo Ho-Su's son, Seo Yu-Gu, in the work *Imwonsimnyukji*, a classic that compiles all nineteenth-century East Asian agriculture techniques. The author writes the following in the introduction of the book:

Broadly speaking, the two main activities of life consist of going out and staying in: one ventures out as a public servant to do one's duty in the important work of helping to improve the world and bring relief to the people, and one returns home to the equally important work of eating to maintain strength and cultivating one's goals. Due to the critical and practical need for public service and religion, a multitude of literary production is devoted to those topics. Very few books treat the subject of home life, however, despite it being the place where refined persons nurture their life's purpose. *Sallim gyeongje* [Farm management] is the sole record in this country to discuss the topic in detail. Unfortunately, the content of *Sallim gyeongje* is disorganized and redundant, as well as too narrow in scope, which results in numerous critical omissions. In *Imwonsimnyukji*, however, anything related to home life from any source has been researched and categorized, which is why it has been given the name "imwon" [forest and garden], meaning rural life. As the name indicates, this book proffers all necessary information for home life, and nothing relating to the realm of public service.

The necessary knowledge for farming families is divided into 16 well-organized topics, each of which begins with a general introduction before going into detail. The agricultural techniques of Korea, China, and Japan, as well as those of the West that had been introduced in China, are included. Of further value to academics are the 900 disparate sources quoted. A brief summary of the topics found in *Imwonsimnyukji* follows.

- 1. Farming (*Bolliji*): Explains the scale and gauge methods of measuring land surface area in Korea and China, land survey methods, advantages of size, embankment repair, field dam methods of irrigation, soil and its management, and land quality in various regions of Korea. Diagrams the subdivisions of seasons as related to farming, delineating differences in agricultural seasonal subdivisions based on longitude and latitude. Also discusses farm development and cultivation practice, including fertilization methods, seed selection and storage, how to grow various kinds of grain, including rice, barley, and sorghum, the etymology of grain, and natural challenges to cultivation and how to contain them.
- Edible plants and herbs (*Gwanhyuji*): Describes how to grow vegetables, cucurbits, and medicinal herbs, with an itemized discussion of 33 kinds of vegetables, 8 kinds of cucurbits, and 20 kinds of medicinal herbs; includes historical evidence.
- 3. Floriculture (*Yewonji*): Describes the general method of cultivating flowers and presents further details for 65 types of flowering plants, including premium plants, soil, cultivation seasons and methods, and varieties. Brings historical

research to bear on tree peonies, peonies, orchids, chrysanthemums, and other types of flowers.

- 4. Trees, shrubs, and vines (*Manhakji*): Describes 31 kinds of fruiting tree and their cultivation, 14 kinds of flowering vines, including *chamoe* (Korean melon), watermelon, and grape, 25 kinds of trees, such as pine and oak, and 13 kinds of shrubs and other plants, including tea and tobacco, and how to cultivate them.
- 5. Silk and fabrics (*Jeongongji*): Describes how to raise silkworms and cultivate cotton and hemp, along with thread-making and spinning techniques.
- 6. Weather and climate (*Wiseonji*): Discusses annual climate patterns month by month and the relationship between climate and farming, as well as divination techniques used to interpret the relationship between celestial bodies and weather conditions according to changes in natural systems.
- 7. Stock farming and fishery (Jeoneoji): Covers ranching, hunting, and fishing.
- 8. Pots and cutting boards (*Jeongjoji*): The topic of food manufacture and cooking methods covers food ingredients, prepared foods, drinks, treats, pickled vegetables, meat production, seasonings, brewing, and seasonal foods, all of which are described and categorized into nine fields. Of particular interest is that 11 kinds of water, 36 kinds of grain, 72 kinds of vegetables, 13 kinds of birds, 34 kinds of fish, and 8 kinds of seasonings are recorded as food ingredients. Recipes for 53 kinds of pickles and kimchi, as well as 36 kinds of soy sauce and doenjang (fermented soybean paste), are also described. Records of food production or cooking that specify different kinds of water for particular culinary uses are rare in the world. The first paragraph of the section on food substances lists different types of water and their functions.
- 9. Architecture and home goods (*Seomyongji*): Describes house-building methods and materials, including tools used for good fortune, stoneware, cooking implements, brewing crocks, and the making and usage of bedding, clothing, and other ornaments. The author laments that Korean techniques have not developed apace with other countries and strongly advocates progress be made in this field.
- 10. Well-being and health (*Boyangji*): Enumerates aspects of health care that merit attention, including nutritious foods, methods of caring for mind and body, food preparation, medicinal treatments, methods for helping the elderly convalesce, and infant care; presents a monthly calendar of personal health care suggestions specific to each season.
- 11. Medicine and famine relief foods (*Injeji*): This is the largest of the 16 topics, as the author reviews the entire pharmacopoeia of Eastern medicine. In the introduction to this topic, the author emphasizes that medical divination and shamanic rituals are fabrications, and that ailments can and should be cured using medicine.
- 12. Household ceremonies (*Hyangyeji*): Depicts the annual festivals and ceremonies held in rural communities.
- 13. Reading and hobbies (*Yuyeji*): Explains every kind of art learned by scholars, including reading, arithmetic, calligraphy, painting, and music.

- 14. Leisure time (*Iunji*): Describes tools used in daily life, such as writing supplies and incense burners, as well as hobbies, including antiques collecting, printing, décor, scenic touring, and playacting.
- 15. Geology (*Sangtaekji*): Discusses the geography of Korea, including mountains and water features, and methods for choosing a place to live.
- 16. Economy and business (*Yegyuji*): Covers economic issues, including the national economy, domestic economy, distribution issues, commercial economy, agricultural economy, and ways to practice frugality and moderation, such as conserving metal, clothing, and food.

## **10.4** The Theory of Nutrients in Eastern Medicine and the Development of Dietary Cures

According to the yin-yang and Five Phases theories, the nutrition and functionality of all foods can be divided by their qualities and taste. Yin-yang encompasses the qualities, or properties, of food. Cold food properties are categorized as yin, neutral and warm as yang. Yin foods provide nutrients and similar substances, whereas yang foods function as energy, like calories. The flavors of food are characterized by the Five Agents—sour, bitter, sweet, spicy, salty—and are connected by an interwoven relationship of suppression to and generation vis-à-vis the body's organs, feelings, and actions, and even the surrounding environment. A traditional Korean person's fundamental thoughts about nutrition and health care, then, involve a balanced, health-supporting diet comprised of the yin and yang qualities of food, balanced further by a harmonious blend of Five Phases flavors. A meal that is one-sided in terms of qualities or taste would not be acceptable for one's health (Lee and Kwon 2003).

Table 10.2 configures an example of a traditional meal from the perspective of yin-yang and the Five Phases. One bowl of rice and mugwort doenjang soup, cabbage kimchi, balloon flower greens, broiled fish, and garlic chive pancake together contain ingredients that combine in equal measure to create a balanced diet that adheres to the yin-yang and Five Phases theories (Kim 1995).

	Wood (sour)	Fire (bitter)	Earth (sweet)	Metal (spicy)	Water (salty)
Yang	Chives	Mugwort	Shepherd's purse, flour	Leek, garlic, ginger, pepper, sesame seeds	Salt
Neutral			Water, rice, soy- beans, croaker		
Yin	Vinegar	Balloon flower root, fern	Cabbage	Onion	Soy sauce, doenjang

Table 10.2 Analysis of a Korean meal according to yin-yang and the Five Phases

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If a person develops an ailment, medical treatment will entail adjusting that person's intake of energetically cold, cool, warm, or hot foods in order to balance the diet. If the disease is due to an abundance of cold, then warming foods will be prescribed; if the disease is due to an excess of heat, then cooling foods will be added to the diet. Such food-based remedies developed over time using Eastern philosophy's health-care principles, coupled with the yin-yang and Five Phases theories.

### **10.5** Formation of the Traditional Korean Diet

As Eastern theories of medicine developed and became a prevalent way of life in the eighteenth to nineteenth centuries, the standard Korean diet became systematized in the form of *cheopbansang* (table settings), the details of which can be found in a number of historical documents. *Siuijeonseo* (a nineteenth-century anonymous cookbook) provides a drawing of a standard table setting and its composition. The basic requirement of every table setting comprises rice, soup, and kimchi. The number of additional dishes placed on the table determines whether the setting will be called *samcheop bansang* (3-dish table; i.e., 3 dishes in addition to rice, soup, and kimchi), *ocheop bansang* (5-dish table), or *chilcheop bansang* (7-dish table), and so on (Yoon 1993). The extravagant 12-dish table setting was reserved for the king's table. Figure 10.2 shows an example of 5-dish table setting.

Many authors list the kinds of foods composing a table setting, but do not approach quantitative angles. In his book Joseon singmul gaeron (A review of Korean food, 1944), Professor Kim Ho-Jik presents the composition of a 7-dish table setting, but also discusses the amounts of each food item placed on the table. Table 10.3 offers an attempted nutritional evaluation of the traditional Korean diet based on the example of Kim Ho-Jik's 7-dish table setting (Lee and Ryu 1988). The basic setting of rice, soup, and kimchi provides 40% of the recommended daily allowance (RDA) for calories and 48.7% of RDA for protein for a Korean adult male. The 3-dish table setting typically adds standard side dishes such as seasoned spinach, roasted beef (bulgogi), and seasoned dried anchovy, which in this case provides 47.2% RDA for calories and 98.3% RDA for protein. From the perspective of the modern diet, the 3-dish table setting provides a remarkably balanced diet, supplying sufficient calories, vitamins, and minerals. Specifically, calories from carbohydrates in the basic table and 3-dish table setting are relatively high, at 77% and 64.4%, respectively. Calories from fat stand at 8.3% and 11.6%, respectively. Even at a feast table (5-dish table), the amount of fat calories comes to only 12%(Lee and Ryu 1988).

Table 10.4 displays the dietary goals of the traditional Korean diet for an adult male. With a daily energy intake of 2000–2500 kcal, including 80–90 g of protein, 73–77% of calories come from carbohydrates and 15–18% from protein, 20–30% of which comes from animal protein, and 10–12% from fat. This was considered to be





Fig. 10.2 Example of 5-dish table setting

an ideal diet for the Korean adult male in the late Joseon dynasty (Lee and Kwon 2003).

In his 1940 book *Joseon yorihak* (Korean gastronomy), Hong, Seon-Pyo recommends the following dietary guidelines:

- 1. Eat a little when you feel hungry.
- 2. Chew comparatively hard foods longer.
- 3. Stop eating before you feel full.
- 4. Eat many raw foods.

Added to the above are eighth principles for choosing healthy food ingredients:

- 1. Fresh food.
- 2. Raw food.
- 3. Natural food.
- 4. Long-lived plants and animals.

Type of table setting	Basic table setting	3-dish table setting	5-dish table setting	7-dish table setting
Typical foods	Rice, soup, kimchi	Basic table + sea- soned spinach, bulgogi beef, dried anchovy	3-dish setting + stew, boiled meat slices, pol- lack roe	5-dish setting + oyster pancake and cubed radish kimchi
Total calories (kcal)	995 (40.0)	1181 (47.2)	1320 (52.8)	1672 (66.8)
Carbohydrates(%)	77.0	64.4	60.1	53.4
Protein (%)	14.7	24.0	28.0	27.7
Fat (%)	8.3	11.6	11.9	18.9
Total protein (g)	36.5 (48.7)	70.7 (94.3)	92.5 (123.3)	115.5 (154.0)
Animal protein (g)	28.7	59.5	69.0	72.3
Calcium (mg)	161.1 (26.9)	216.3 (36.1)	255 (42.5)	596 (99.3)
Iron (mg)	12.1 (121.9)	23 (230)	26.8 (268)	40.3 (403)
Vitamin A (IU)	426.6 (17.1)	8761.6 (350.5)	9129 (365.2)	9965 (398.6)
Vitamin B1 (mg)	0.62 (47.6)	0.86 (66.2)	1.08 (83.1)	2.16 (166.2)
Vitamin B2 (mg)	1.92 (127.9)	3.03 (202.2)	3.44 (229.3)	4.35 (290.4)
Niacin (mg)	11.6 (68.3)	28.9 (169.9)	37.1 (218.2)	45.8 (269.4)
Vitamin C (mg)	19.7 (35.9)	83.7 (152.2)	86.4 (157.2)	99.6 (181.2)

Table 10.3 Analysis of the nutritional value of traditional Korean table settings

() Percentage of RDA for a Korean adult male

Recommended daily allowance for adult males	Carbohydrate (75%)		
Calories: 2000–2500 kcal	Carbonydrate (75%)		
Protein: 80–90 g			
Calorie composition			
Carbohydrates: 73–77%			
Protein: 15–18%			
Fat: 10–12%	Protein (15%) Fat (10%)		
Protein composition			
Animal protein: 20–30%			

 Table 10.4
 Goals of the traditional Korean diet

- 5. Dense food.
- 6. Young plants and animals.
- 7. Local food.
- 8. Not too acrid.

Hong also advises using salt and refined sugar in moderation. The guidelines and principles written in the 1940s, when degenerative metabolic diseases and cancer were not widely known, suggested excellent principles for a dietary regimen compared to modern dietary guidelines in Korea, which have been adopted from those in Europe and the United States (Lee and Kwon 2003).

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