

UNIT 1

Medicine

- ▶ 视其外应，以知其内藏，则知所病矣。

—《黄帝内经》

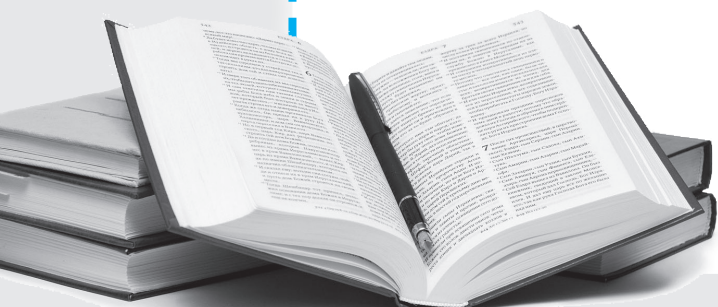
By observing the phenomena of the internal organs, the doctor can know how the organs are doing and can identify where the disease locates.

—from The Yellow Emperor's Internal Canon of Medicine

- ▶ *To study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all.*

—William Osler

(1849–1919, Canadian physician and one of the founding professors of Johns Hopkins Hospital)



Exploring the Topic



Video

When you are sick or take medication, will you choose Western medicine or Chinese herbal therapy? And which will your parents or grandparents choose?

In the long history of human civilization, Chinese and Western medicine have evolved different traditions in the treatment of diseases. As a Chinese immersed in the atmosphere of traditional Chinese medicine, you may have seldom doubted the effect of herbal therapy, but what are others' views of the Chinese tradition? What might be your response if someone claims that traditional Chinese medicine is not a science? Do you know the basic differences between Chinese and Western medicine?

In this unit, you are going to read about the increasing popularity that traditional Chinese medicine has gained around the world and learn about the key differences between Chinese and Western medicine. Being aware of the key features of both Chinese and Western medicine can help you better understand their status in the medical profession, which may lead you to develop a more critical view of their respective role in disease prevention and treatment.

After learning this unit, you are expected to be able to answer the following questions:

- How well is traditional Chinese medicine currently received by the rest of the world?
- What are the key features of Chinese and Western medicine?
- What are the advantages of Chinese medicine as opposed to Western medicine?
- In what way has Chinese medicine contributed to the world?

Understanding the Text



Key Words

Text A

Learning from China

Melinda Liu

- ① “A Western doctor would say you are perfectly healthy, but you are not!” proclaims Nan Lu, a doctor of traditional Chinese medicine in New York’s Chinatown. Dr. Lu has just examined a reporter’s tongue and taken her pulse — or rather pulses, one for each of 12 organs. The diagnosis: an “energy leak” from the heart, causing insomnia. “The heart governs the mind,” Lu explains. “You have too many thoughts. You can’t get them out of your brain when you want to sleep.” This feels like a palm reading, but the doctor’s description is accurate. “OK,” says the reporter. “What’s the remedy?” According to Lu, it will require acupuncture, *qigong* (Chinese yoga), meditation, dietary modifications and herbal remedies — in short, major lifestyle changes. The journalist leaves with three herbal formulas containing green orange peel, sour date seed and **licorice root**¹ along with dozens of exotic ingredients, and promises to come back for a *qigong* class. Acupuncture? She’ll think about it.
- ② If traditional Chinese medicine feels unscientific to the Western mind, that should come as no surprise. Its foundations were laid down more than 2,000 years ago in ***The Yellow Emperor’s Internal Canon of Medicine***². Yet modern science is starting to verify that some of these age-old remedies really work. A recent major conference in Beijing brought together 1,500 researchers from 28 countries. Together the scientists presented more than 1,000



¹ 甘草, in China, licorice root has been used in accordance with principles of Chinese *qi* medical theories as a tonic and expectorant for its rejuvenating properties.

² 《黄帝内经》, an ancient Chinese medical text that has been treated as the fundamental doctrinal source of Chinese medicine. The work is composed of two texts, each of 81 chapters in a question-and-answer format between the mythical Yellow Emperor and six of his equally legendary ministers.

research papers, most of them using strict Western rules of evidence to evaluate the safety, efficacy and biological mechanisms of traditional Chinese treatments. The beauty of the research is that it seems strongest in areas where Western medicine is weakest — namely, chronic illness. “Even in China, no one says, ‘Get me to an herbalist’ after a car crash,” says Dr. David Eisenberg, director of **Harvard Medical School’s Osher Center**¹ for complementary and integrative medicine. But the Chinese do routinely seek out traditional cures for recurring migraines, arthritis, menopausal symptoms, chronic digestive disorders, and even inoperable cancers. The evidence is promising enough that Western researchers have begun looking to China for potential new therapies.

- ③ Of all the Chinese treatments, acupuncture has been the focus of most research in the West. It has been tested, with mixed results, for conditions ranging from asthma to ringing of the ears. So far, the strongest evidence is that it relieves pain and nausea. Numerous lines of research show that it boosts levels of the body’s own opiates, called endorphins. This would help explain its effect on pain. It also appears to increase the brain chemical serotonin, which confers a sense of well-being. At the aforementioned conference, Dr. Han Jisheng of Peking University presented a study suggesting that acupuncture could even lessen drug cravings. In a study of 611 Chinese heroin addicts in rehab, acupuncture with low-level electrical stimulation reduced the relapse rate to less than 80 percent after nine months — compared with nearly 90 percent for most Chinese addicts.
- ④ What’s most puzzling is why the 2,000 acupuncture points on so-called meridians should be special. Western doctors have long complained that the meridians don’t correlate to any anatomical structure, such as the nervous system. But Dr. Helene Langevin from the University of Vermont may have found the key. As early as in December, 2002, the journal of the American Association of Anatomists, *The Anatomical Record*, had already published Langevin’s cutting-edge research showing that acupuncture points tend to correspond to areas where connective tissues are thickest. “Connective tissue forms a web that runs continuously through the body,” she says. This tissue also contains many nerve endings, which may explain why a needle in the right hand would affect the left shoulder.
- ⑤ Chinese herbology presents its own set of research challenges. Western trials are

¹ The Harvard Medical School’s Osher Center was created in 2001, with support from the Bernard Osher Foundation, which was founded in 1977 by Bernard Osher, a respected businessman and community leader, aiming to provide scholarship funding to colleges and universities across the nation with special attention to reentry students.

set up to study a single medication. But Chinese remedies are blends of many herbs. “Chinese medicine is not like a tennis match with two opposing players — disease and drug,” says Dr. Lu. “It’s more like a football game, with many types of players in different roles.” Some herbs might be star quarterbacks; others are there to boost their efficacy; still others might tackle toxic side effects. It may be the combination of herbs or their subcomponents that makes them effective. Take the herb *huanglian*, which Dr. Gary K. Schwartz at Memorial Sloan-Kettering Cancer Center is studying — as a potential cancer treatment. The herb contains seven main compounds and 30 minor ones. Together, they kill cancer cells in the lab by interfering with the cells’ development. Individually, the compounds don’t have the same activity.

- ⑥ Chinese medications tend to have fewer side effects than Western pharmaceuticals, but they are not risk-free. Anything strong enough to have pharmacological activity also carries the risk for toxicities, notes Ted Kaptchuk, a doctor of East Asian medicine who teaches at Harvard Medical School. Recently, Australian researchers surveyed the most populous states in their country for adverse effects from both herbs and acupuncture. They noted one adverse event for every eight to nine months of a doctor’s full-time practice, or one problem per 633 consultations. The problems with herbal medicines included allergic reactions and interactions with prescription drugs. Elsewhere, toxic impurities and incorrectly mixed herbs have sometimes resulted in kidney failure and even death. Still, Western medicine, for all its efficacy and high standards of purity, is risky too. A study in the *Journal of the American Medical Association* found more than 100,000 fatal drug reactions among patients in U.S. hospitals in a single year.
- ⑦ Chinese medicine seems likely to find a growing place in Western medical practice, if only due to popular demand. Americans and Europeans are increasingly asking for it — even traveling to China to get it. One traditional hospital in Beijing has a special foreigners’ ward. Other Chinese hospitals are offering medical tour packages. “You can see the Great Wall, the Forbidden City — and get three days’ worth of treatment as well,” says Yianni Solos, a Greek medical student in Beijing. For those not ready to make the journey, China is exporting \$500 million of herbal medicines annually. And since 1987, more than 20,000 Westerners have studied in traditional Chinese medical academies. Equally important, training programs now exist in the West, along with licensing procedures for qualified practitioners. The result: more Chinese medicine is available outside China.

A Global Understanding

Fill in the following blanks with information from Text A for a general understanding of the current situation of traditional Chinese medicine around the world.

Foundation:

1. _____.

Potential as therapy:

Starting to be verified by 2. _____ and promising.

Focus of most research:

3. _____, with the strongest evidence in relieving pain and 4. _____.

Most puzzling:

Special acupuncture points on meridians don't 5. _____ any 6. _____ structure, but tend to correspond to the 7. _____ connective tissues.

Chinese herbology:

Blending many 8. _____; having fewer 9. _____; but not 10. _____.

B Language Focus

Find in Text A the corresponding English equivalents for the following expressions in traditional Chinese medicine.

1 脉搏

2 经络

3 针灸

4 草药

5 穴位

6 中药学

7 中医

8 中药配方

9 副作用

10 慢性病

11 耳鸣

12 慢性消化系统紊乱

Text B

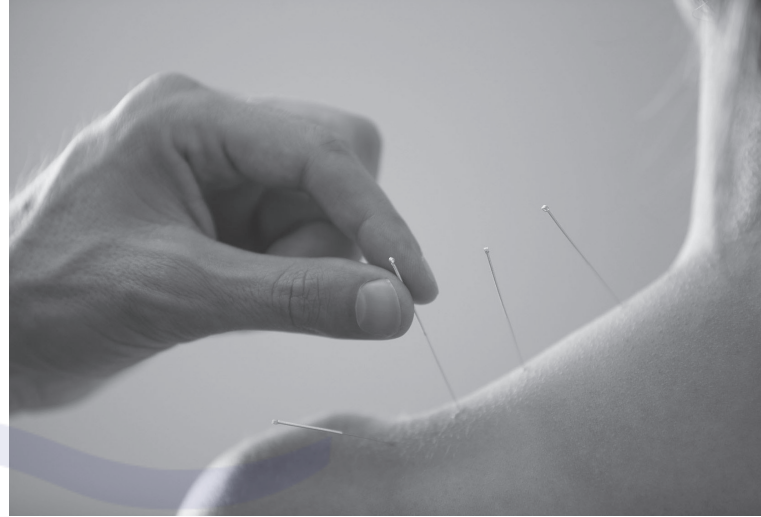
Key Words

Eastern and Western Approaches to Medicine

Julia J. Tsuei

- ① Two western states in the United States, Nevada and Hawaii, have regulated acupuncture as an independent practice not requiring medical referral or supervision. Two other states have ruled that acupuncture can be practiced under the supervision of a licensed physician as in Oregon or by a physician's referral as in California. This seems to indicate that the possibility of acceptance of the practice of Oriental medical techniques by the profession and the general public in this region is promising. There is, however, a great variety of contrary opinions about acupuncture within the medical profession which is reflected by the diverse legislations in many states. An objective comparison of Eastern and Western approaches to medicine may well shed some light on the true value of Oriental medicine and help to integrate this approach into our modern medical practice.
- ② Western medicine has developed through hypothetical deduction. Every statement in Western medicine is a result of a series of fact probings. The hypothesis is usually derived from general observations of a phenomenon and a research plan is carefully designed. When enough data are collected, conclusions are drawn as a result of critical statistical evaluations. In contrast, Eastern medicine uses the inductive method. Oriental medical literature in general is a record of practical experience accumulated from millions of practitioners throughout thousands of years. The format of recording is a result of direct observation. This makes it difficult to compare the results of the two different approaches to medicine.
- ③ The Western approach to medicine clearly divides health from disease, and the main emphasis is on the individual body. The environment is considered as only one factor that affects the body. Responsibility for various phases of health and disease care is shared by professionals in several disciplines. Physicians are trained mainly for the care of acute phases of disease, that is, disease detection and therapy. The areas of health promotion, disease prevention and rehabilitation are taken care of largely by other trained professions. This team approach gives the impression of being more community-minded than individual-based, yet the objective is still individual well-being. The Eastern idea of health and disease is looked upon as the two sides of a coin. In other words, every individual person is in a state of balance between external insults and internal defensive

mechanisms. If the insults are greater than one's defenses, one is ill; if not, one maintains good health. Since the individual person is considered merely a microcosm existing in a macrocosm, there are changes every minute, with constant readjustments. The duty of a physician is to strengthen the internal defensive power and power of adaptation of each individual person and enable him to fight the environmental insults, or to adapt to external changes so that he can live in peaceful balance within himself and with his environment, thereby maintaining good health. The responsibility of a physician is, in fact, to promote health and treat diseases when they occur.



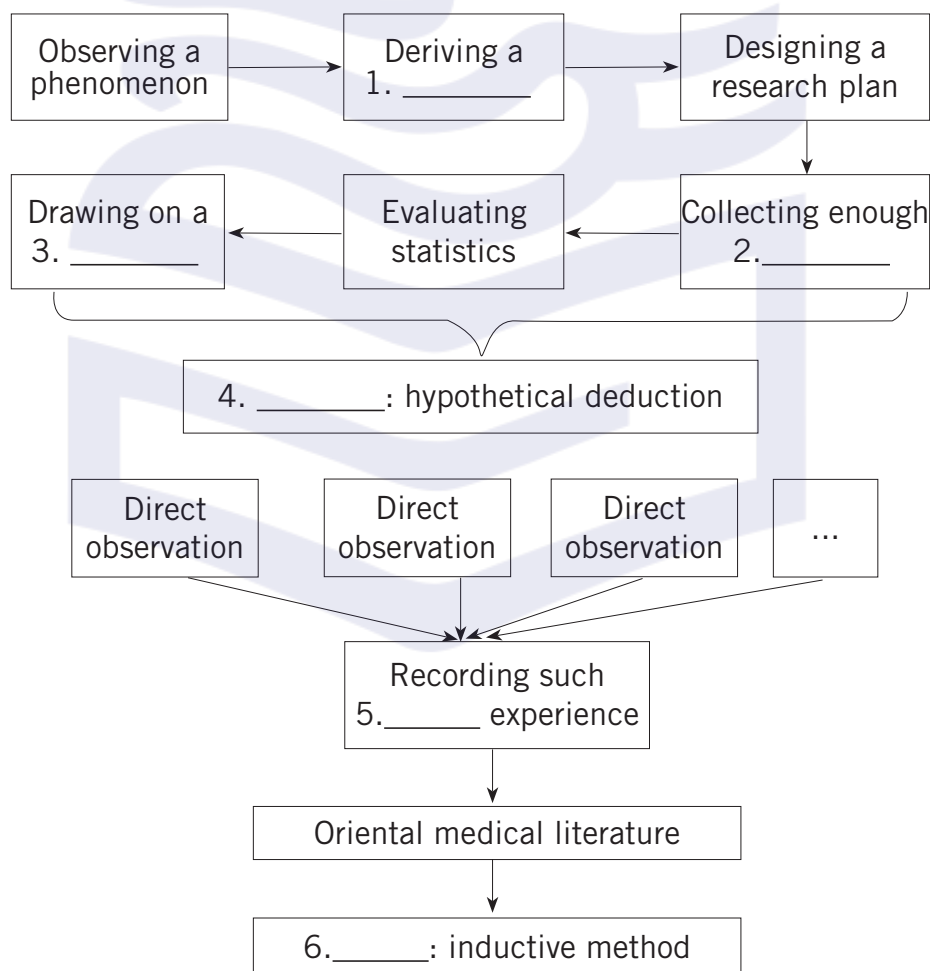
- ④ The Western approach to health care involves, among other things, changing the environment in which we live. For example, if the weather is not ideal for the body, a shelter is built with temperature control; if the atmosphere and humidity are not comfortable, other controls are added. Antibiotics are developed to counteract bacteria harmful to the body. Sterilization techniques are practiced to shelter from the bacteria. In therapy, the same principles apply. Artificial limbs and organs are used to replace diseased or injured body parts. Synthetic hormones and vitamins are used for impaired bodily functions. These achievements mark the victory of science and wisdom of mankind. However, in spite of the fact that human life is being prolonged, and the handicapped and retarded are functioning, the majority of people may be free from serious disease but not from discomfort or pain, either physical or mental. In other words, people are still suffering and unhappy. The Eastern approach may be passive toward, or may simply ignore, the idea of converting the environment. Its emphasis is from the "within" to strengthen the enormous defensive and adaptive powers of one's body so that the latter may accommodate physical or mental stress. It may work slowly and appear to be less effective; but, if successful, the result usually is a balanced, comfortable body and a happy person.
- ⑤ In summary, the development of medicine in Western nations follows the path of hypothetical deduction and the Eastern approach uses the inductive method. The Western approach clearly divides health from disease, yet the Eastern approach

considers health as a balanced state versus disease as an unbalanced state. The Western approach tends to change the patient's environment and the Eastern way prefers for the patients to adapt to the environment. Aware of the differences, we may be able to make a fair judgment of the validity of each approach to medicine and benefit from both.

A Global Understanding

Fill in the following blanks with information from Text B to compare the Eastern and Western medicine in terms of the medical practice and the understanding of disease-health relationship.

Medical practice



Understanding of the disease-health relationship

	Western medicine	Eastern medicine
Disease-health	Clearly 7. _____	8. _____
Duty of physicians	9. _____ & therapy	10. _____ & disease treatment

B Language Focus

Match the Chinese translations with their English equivalents and familiarize yourself with these medical terms.

- | | |
|-------------------------------|----------|
| 1 medical referral | a. 合成荷尔蒙 |
| 2 licensed physician | b. 中医文献 |
| 3 Oriental/Eastern medicine | c. 中医 |
| 4 Oriental medical literature | d. 康复 |
| 5 disease prevention | e. 执业医师 |
| 6 rehabilitation | f. 转诊单 |
| 7 antibiotics | g. 抗生素 |
| 8 sterilization | h. 疾病预防 |
| 9 artificial limb | i. 杀菌 |
| 10 synthetic hormones | j. 假肢 |

Improving Reading Ability**Scanning in Reading**

Will you find it hard if you need to read an article of about 500 words in 3 minutes and answer a few questions? This is where you need to learn how to scan.

Scanning is a reading skill to be used for a quick search for a particular piece of information. You use this skill when you look up a word in the dictionary, or when you search the Internet for news

about your favorite soccer team, or when you run your eyes down the Yellow Pages to find a specific phone number.

Scanning is purposeful and directed. When you scan a text, you keep specific questions in mind so as to find the answers to them. You read very fast with your eyes moving quickly over the words before you find the information needed. In other words, you will ignore the information which is not related to your questions.

Here are some tips for scanning:

- Make sure that you have your questions clearly stated.
- Think of the clues that you could use. For example, if you are looking for a person's name, focus only on capitalized proper names. Or you could use your prior experience and anticipate the structure of the text and where the answer may be located.
- Use all the possible clues in the text, e.g., the headings.

Now quickly scan Text A and locate the major findings or ideas from the sources listed below.

- 1 Beijing conference: _____.
- 2 Dr. Han Jisheng: _____.
- 3 Dr. Helene Langevin: _____.
- 4 Dr. Lu: _____.
- 5 Dr. Gary K. Schwartz: _____.
- 6 Dr. Ted Kaptchuk: _____.
- 7 Australian researchers: _____.
- 8 *Journal of the American Medical Association*: _____.

Enhancing Cultural Awareness

For a patient with the same symptoms, Chinese and Western medicine may have very different diagnosis and treatments. This is largely a result of different ways of organizing information about the patient, and different perspectives towards disease and treatment.

While Western medicine focuses exclusively on symptoms, Chinese medicine consider the many

conditions that together contribute to the symptoms. For example, Western medicine is based on microscopic analysis and pathology. By contrast, Chinese medicine views diseases, climatic changes, environmental factors, and diet holistically.

Western medicine tends to use technology to isolate the smallest possible particle that may be diseased all the way down to the electrical charge of a molecule, whereas Chinese medicine looks at the big picture, viewing the human organism as a whole. Western medicine makes specific diagnosis following lab tests, but Chinese medicine approaches the body as a complete entity and pays attention to what it is telling us in its totality.

In terms of treatment, Western medicine treats structural and metabolic disorders within the body by surgical and chemical means, while Eastern medicine encourages the body's own healing abilities through the stimulation of nerves and by directing the flow of energy. Alone, neither is a complete cure. Together, however, Western and Eastern medicines are powerful partners in the prevention and cure of disease and ailments.

Based on the knowledge you have gained about the differences between Western and Chinese medicine, fill in the following blanks and add further items of your own. Refer to any sources of information available to you.

Different Aspects	Western Medicine	Chinese Medicine
Method	Hypothetical _____	_____ method
Procedure	Phenomenon → hypothesis → _____ → data-analysis → _____	Observation → _____ → medical literature
Disease-health relationship	Health clearly _____ disease	Disease and health in a _____
Physicians' responsibilities	For _____	For maintaining a balance between _____ insults and _____ defensive mechanism
Health care	Shared by professionals in _____	Provided by _____
Duty of physician	_____ and therapy	Health _____ and disease treatment
Attitude to the environment	_____ the environment	_____ the environment
Advantages	Better for diseases such as _____	Better for diseases such as _____
Medication use	_____ to deal with disease	Interaction of different _____
Side effects	_____	_____, though not _____
...

Taking a Global Perspective

In the unit, you have got to know the increasing popularity of traditional Chinese medicine and the major differences between Chinese and Western medicine. If you are invited to introduce the advantages and disadvantages of these two medical approaches, what would you say?

Collect information and write an essay of no less than 250 words to describe the advantages and disadvantages of traditional Chinese medicine and Western medicine.

Telling Chinese Stories

In both ancient and modern times, numerous Chinese medical practitioners and scientists have contributed to the medical advances. One of them is Tu Youyou who was awarded the 2015 Nobel Prize in Physiology or Medicine for her discoveries concerning a novel therapy against Malaria.

Refer to resources online and make a 3-minute presentation to introduce her contributions. In your presentation, highlight what her specific discoveries are, how she made these discoveries, and what benefits her work has brought to the world.



Useful Expressions

Assessing Your Learning

After learning this unit, what have you accomplished and what do you still need to improve? Go over each aspect and rate your learning on a scale from 1 to 5 where 1 means “Poor,” 3 means “Average,” and 5 means “Excellent.”

Aspects	Your Achievements	Rating				
		1	2	3	4	5
Knowledge	I have got to know the key differences between traditional Chinese medicine and Western medicine.					
	I have learned the philosophies behind different practices of medicine.					
Language	I have a command of basic vocabulary in both traditional Chinese and Western medicine.					
	I can talk more confidently than before about traditional Chinese and Western medicine in English.					
Skills	I am able to scan for particular information in reading.					
	I have learned to view different practices of medicine more reasonably than before.					
Values	I have a deeper understanding of the differences between traditional Chinese medicine and Western medicine.					
	I am proud of what traditional Chinese medicine has contributed to the world.					