



# — THE HEART **SUMMIT** — 2018

ARKANSAS HEART HOSPITAL®

**Traditional Chinese Medicine**

**中醫**

**Ancient & Modern  
Mainstream & Alternative  
Does it Work?**

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# Traditional Chinese Medicine (TCM)

## 中醫

Traditional Chinese Medicine built on a foundation of more than 3,000 years of medical practice that includes various forms of

- Herbal medicine
- Acupuncture (針灸)
- Pressure point massage ((推拿)
- Exercise (氣功): exercise and meditation, regulated breathing, slow movement, and focused awareness, to cultivate and balance qi
- Suction Cupping (拔罐): "reverse-pressure massage".
- Diē-dá (跌打): bone-setting to treat fractures, sprains, and bruises
- Gua Sha (刮痧): bruising of skin

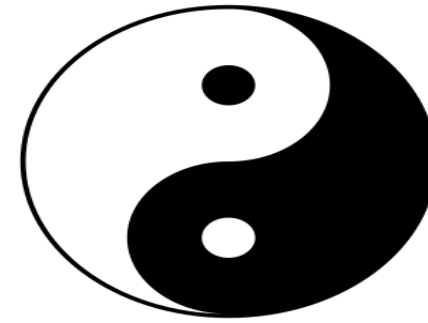
# Doctrines of Chinese Medicine are Rooted in These Books

- Emperor Huang's Private Canon (黃帝內經)
- Yin-Yang (陰陽)
- Five Elements Theory (五行)
- Treatise on Cold Damage Disorders and Miscellaneous Illnesses (傷寒論)

# Emperor Huang's Private Canon (黃帝內經)

- It rejected the influence of spirits or the use of magic as the cause of disease
- It tried to explain
  - The relationship between humans and their environment
  - The contents of the human body, vitality and pathology, and pattern of disharmony
  - How to make diagnostic and therapeutic decisions in light of all these factors
- It is one of the first books that describe doctrines of Yin-Yang and the Five Elements Theory

# Yin and Yang (陰陽)



- Ancient Chinese concepts which can be traced back to the Shang dynasty (1600–1100 BC)
- They represent two abstract and complementary aspects that every phenomenon in the universe can be divided into

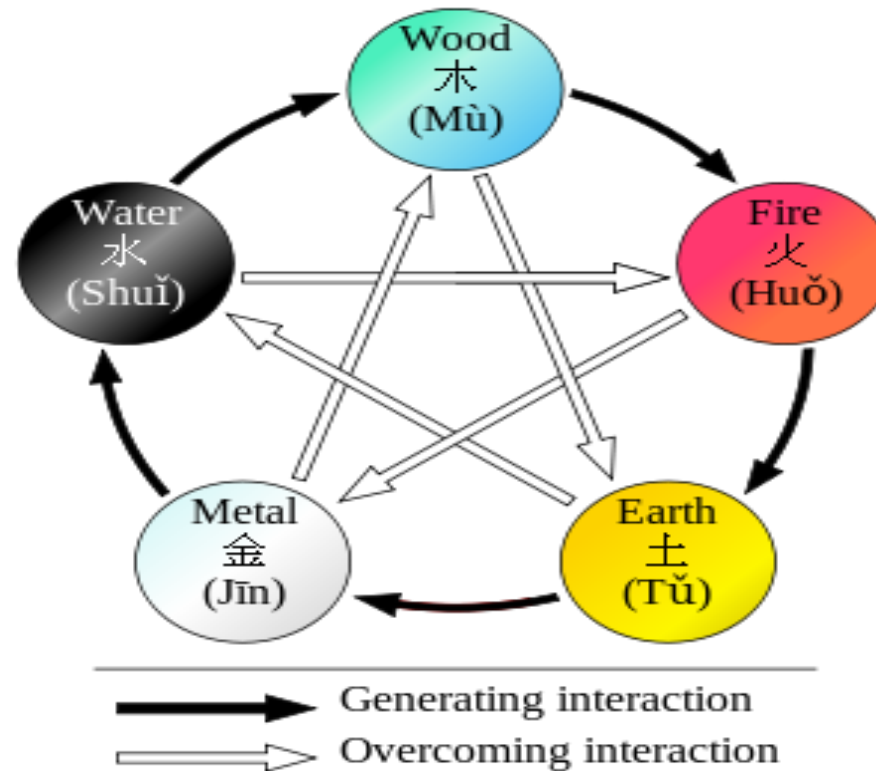
Phenomenon	Yin	Yang
Celestial bodies	moon	sun
Gender	feminine	masculine
Location	inside	outside
Temperature	cold	hot
Direction	downward	upward
Degree of humidity	damp/moist	dry

# Five Elements Theory

## 五行

➤ Five Elements Theory presumes that all phenomena of the universe can be broken down into five elemental qualities

- Wood (木)
- Fire (火)
- Earth (土)
- Metal (金)
- Water (水)



# Primary Functional Entities in TCM

- Organs: Constitute the center piece of bodily functions (not anatomy)
  - The five Zàng 臟 (“Thoracic”) Organs
    - Heart, Liver, Spleen, Lung, Kidney
    - Yin in nature
  - The six Fǔ 腑 (“Abdominal”) Organs
    - Small Intestine, Large Intestine, Gallbladder, Urinary Bladder, Stomach and Three Cavities (Thoracic, Abdominal and Pelvic)
    - Yang in nature
- Chi or Qì (氣) & Meridians
- Xuě (血): Blood & Blood Vessels

# Primary Functional Entities in TCM

## ➤ Organs

## ➤ Chi or Qì (氣) & Meridians (經絡)

- Channels “Meridians” of body vital energy “Chi” link between organs
  - Actuation (推動) – circulate bodily fluid and blood, actuate organ function
  - Warming (溫煦) – the body, especially the limbs.
  - Defense (防禦) – against exogenous pathogenic factors
  - Containment (固攝) – of bodily fluids from leakage or excessive emission.
  - Transformation (氣化) of food, drink and breath into chi

## ➤ Xuě (血) Blood: nourishing organs via blood vessels that link between organs



# Concept of Diseases in TCM

- Health is perceived as the harmonious interaction of these entities and the outside world
- Disease is interpreted as a disharmony in these interactions

# Treatise on Injury and Cold Illnesses (傷寒論)

- Compiled by Zhang Zhongjing sometime before the year 220 AC, at the end of the Han dynasty
- It is among the oldest complete clinical textbooks in the world
- Group symptoms into "patterns" (*zheng* 證) that could serve as targets for therapy
- Assigns organs, symptoms and medicinals to different nature of Yin-Yang and the Five Elements for direction of drug therapy

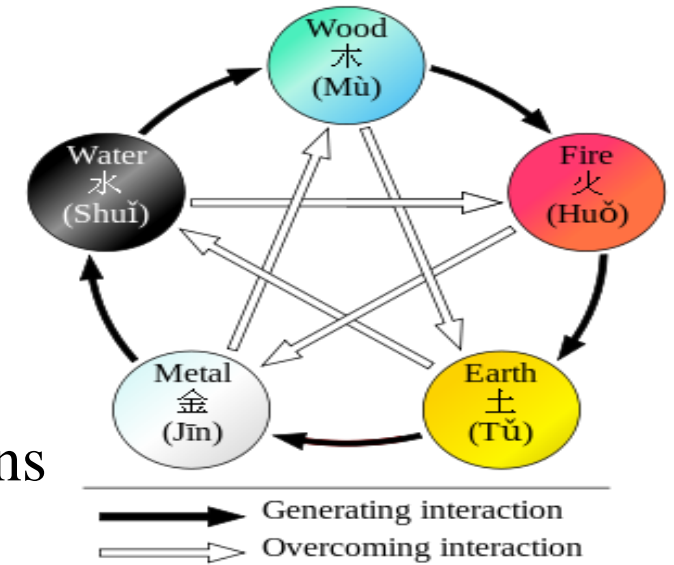
# Five Elements Theory

## 五行

- Fire (火) = Heart (心) and Small Intestine (小腸) (and, secondarily, Sānjiaō [三焦, "Triple Burner"] and Pericardium [心包])
- Earth (土) = Spleen (脾) and Stomach (胃)
- Metal (金) = Lung (肺) and Large Intestine (大腸)
- Water (水) = Kidney (腎) and Bladder (膀胱)
- Wood (木) = Liver (肝) and Gallbladder (膽)

The zàng-fǔ are also connected to the twelve standard meridians

- Each yang meridian is attached to a fǔ organ
- Each yin meridians is attached to each of zàng plus the Pericardium, a peculiar entity almost similar to the Heart zàng

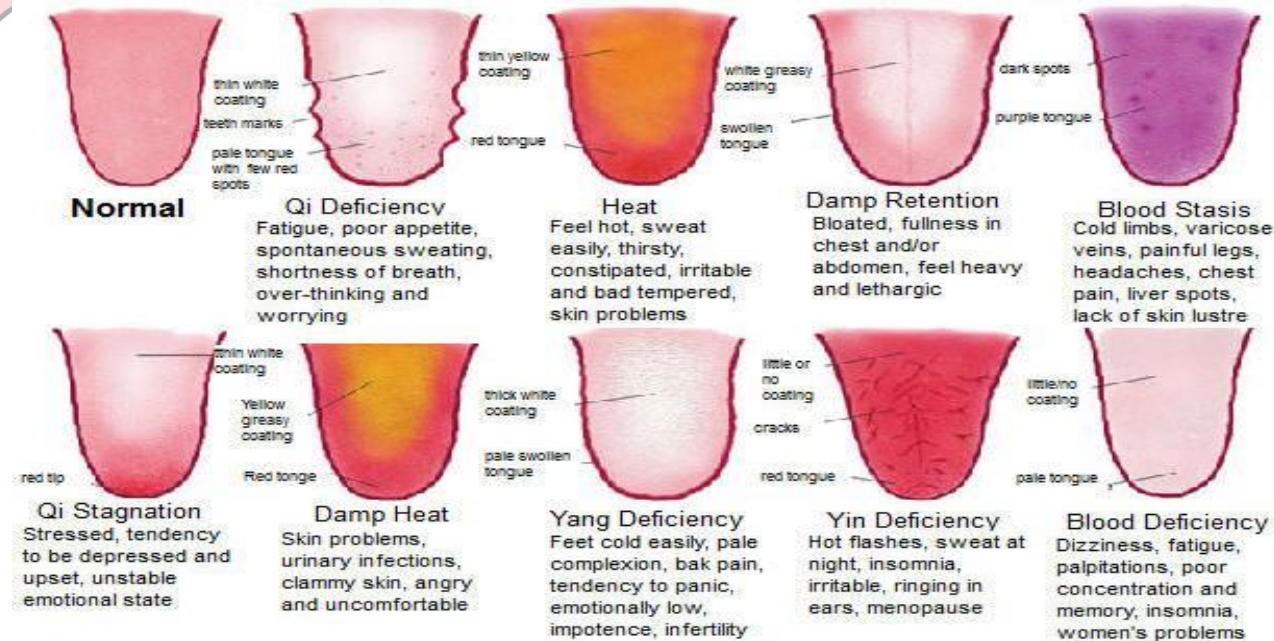
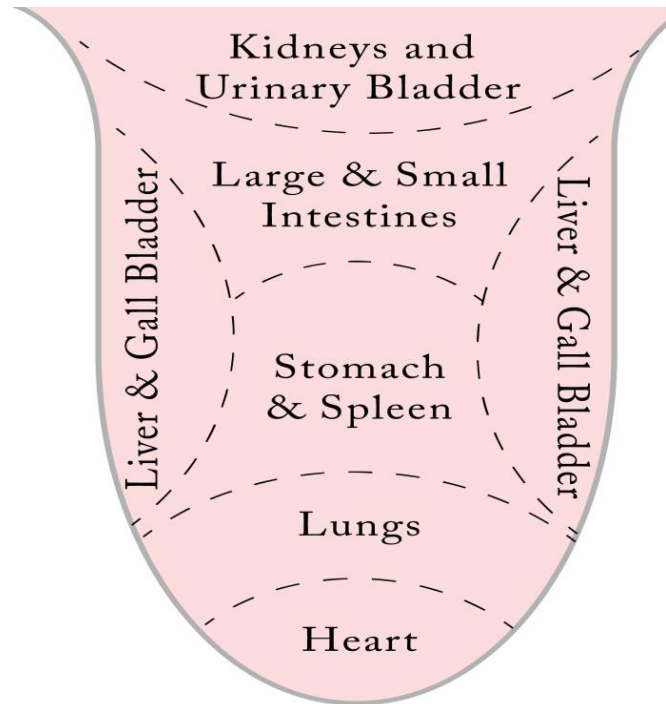


# Diagnosis and Treatment

- Diagnosis of illness aims to identify “pattern” or group of symptoms (syndrome) of an underlying disharmony by
  - Inspecting the tongue, skin, and eyes
  - Palpation of the pulse
  - Looking at the eating and sleeping habits of the person as well as many other things
- Treatment is given based on the "pattern of disharmony"

# Examination of Tongue

- Observation of tongue surface, color, moisture and teeth marks
- Certain sections of the tongue's surface are believed to correspond to different “Organs”.
- For example, teeth marks on one part of the tongue might indicate a problem with the Heart, while teeth marks on another part of the tongue might indicate a problem with the Liver



# Wrist Pulse Examination



- Patients are examined fully clothed
- Palpation made at three positions on each wrist, each position is thought to correspond with certain zàng-fǔ (Organs)
  - *Cun* (inch, 寸) position: distal, at wrist crease
  - *Guan* (gate, 关) position: mid, 1 fingerbreadth from wrist crease
  - *Chi* (foot, 尺) position: proximal, 2 fingerbreadths from wrist crease
- Palpation is carried out at three different depths (pressure levels) on each wrist to determine the nature of pulse



# Wrist Pulses Examination



## 3 Positions

Place 3 fingers over radial artery, with middle (guan) position over the styloid process of the wrist.

### Left Hand

First position (Cun).....Heart  
Middle position (Guan).....Liver  
Third position (Chi).....Kidney yin

### Right Hand

First position (Cun).....Lung  
Middle position (Guan).....Spleen  
Third position (Chi).....Kidney yang



## 3 Levels

Press fingers over radial artery first lightly, increasing pressure gradually to moderate force, then lastly to deep.

### Both Hands

Superficial level.....Heaven  
Middle level.....Human  
Deepest level.....Earth

While palpating each pulse location and depth, take note of pulse speed, strength, shape and rhythm. Together these elements make up a TCM pulse diagnosis. Here are some of the more clinically common pulses:

### Superficial pulse (fu mai)

Easily felt with gentle touch.  
Typically indicates exterior syndromes in the early stage.



### Rapid pulse (shu mai)

More than 5 beats per breath.  
Typically indicates heat syndromes.



### Wiry pulse (xuan mai)

Feels taut, straight & long, like the string of a guitar.  
Typically indicates disorders of the liver & gallbladder channels, pain and phlegm/fluid retention.



### Deep pulse (chen mai)

Felt only on heavy pressure.  
Typically indicates interior syndromes.



### Weak pulse (chen mai)

Forceless at all 3 positions, in all 3 levels.  
Typically indicates syndromes of a deficiency type.



### Thready pulse (xi mai)

Feels like a fine thread, but is distinct and clear.  
Typically indicates deficiency due to overstrain & stress or deficiency of qi and blood.



### Slow pulse (chi mai)

Less than four beats per breath.  
Typically indicates cold syndromes.



### Forceful pulse (shi mai)

Forceful at all 3 positions, all 3 levels.  
Typically indicates syndromes of an excess type.



### Slippery pulse (hua mai)

Feels smooth and flowing like pearls on a dish.  
Typically indicates phlegm & fluid retention, retention of food and excess heat.



# Diagnosis of Pattern & Treatment

Example:

➤ Diagnosis: "Upflaming Liver fire" (肝火上炎)

- Headache, red face and eyes, dry mouth, nosebleeds, constipation, vomiting of sour or bitter fluids, cough up blood, irritable mood;
- Red tongue with dry yellow fur;
- Slippery and string-like pulse

➤ Treatment:

- Medicinals in the “Water” category of Five Elements Theory and Yin in nature are given to clear the “Fire”
- and/or supplement the Liver



# Acupuncture 針灸

Treatment may also include acupuncture

- Using metal needles to stimulate specific points along the “meridians” that link to “Liver”
- To enhance Chi and normalize the function of “Liver”

# Does Acupuncture Work?

## 針灸

- The US NIH & National Cancer Institute (NCI): review of 17,922 patients
  - Acupuncture relieved muscle and joint pain, caused by aromatase inhibitors, much better than control
- The US NIH National Cancer Institute: In cancer patients
  - Acupuncture may cause physical responses in nerve cells, the pituitary gland, and the brain - releasing proteins, hormones, and chemicals that are proposed to affect blood pressure, body temperature, immune activity, and endorphin release
- The US NIH National Center for Complementary and Integrative Health (NCCIH)
  - Research suggests that acupuncture can help manage certain pain conditions, but evidence about its value for other health issues is uncertain.
  - Acupuncture is generally considered safe when performed by an experienced, well-trained practitioner using sterile needles.

# Western vs TCM

	Western Medicine	Traditional Chinese Medicine (TCM)
<b>Subjective: History Taking</b>	Yes	Yes
<b>Objective: Physical Examination</b>	Yes. Use instruments	Yes, fully clothed
<b>Vital Signs</b>	Quantitative: HR, RR, Temp, Wt	Qualitative: pulse and temp only
<b>Inspection</b>	Whole body	Only facial skin, eyes and tongue
<b>Palpation</b>	Whole body	Wrist pulse only
<b>Auscultation</b>	Listening to Chest, abdominal sound by stethoscope	Listening to breathing sound by ears
<b>Percussion</b>	Chest, abdominal	None
<b>Laboratory Tests</b>	Bodily fluid test, Electrical recording, Radiology	None
<b>Differential Diagnosis</b>	Yes. Confirmed by tests	None
<b>Final Diagnosis</b>	Disease or Syndrome	“Pattern” or Syndrome
<b>Treatment</b>	Yes	Yes
<b>Medicinal</b>	Yes, Specific>Supplement>Symptom relieve	Yes. Symptom relieve>supplement
<b>Surgery</b>	Yes	None
<b>Physical Therapy</b>	Yes	Yes. Acupuncture, Tui-Na (Massage)

# Chinese Herbal Prescription

- A batch of medicinals, typically prepared as a decoction of about 9 to 18 substances
- Main herbs
  - Ancillary herbs



# Concerns About Chinese Herbal Medicine

Critics	Proponents
<b>So many herbs in the decoction</b> <b>Which one actually works ?</b>	<b>Some Ancillary herbs may enhance</b> <b>absorption/effects of the Main herbs</b>
Not enough good quality randomized controlled trials to prove the effects	Thousands of years of wisdom and experience cannot be ignored
Many components of Chinese medicinals Are toxic	Those toxin when used correctly can be therapeutic
Some herbs are contaminated	May be those "contaminant" is part of the medicinal

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## Sweet Wormwood

(*Artemisia annua*, Qing Hao 青蒿)

- Ger Hong 葛洪, a fourth-century Taoist, physician, alchemist and herbalist first used Sweet Wormwood to treat fever: “this herb should be soaked in cold water”.
- Heating the sweet wormwood preparation would destroy its potency. However, extracts from the fresh herb without heating turned out surprisingly effective in killing the malaria parasites.
- Artemisinin, the active compound has an unprecedented potency in the treatment of severe malaria
- Professor Tu was awarded 2015 Nobel Prize in Physiology or Medicine



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# “Toxin” in Herb Becomes Medicine for Leukemia

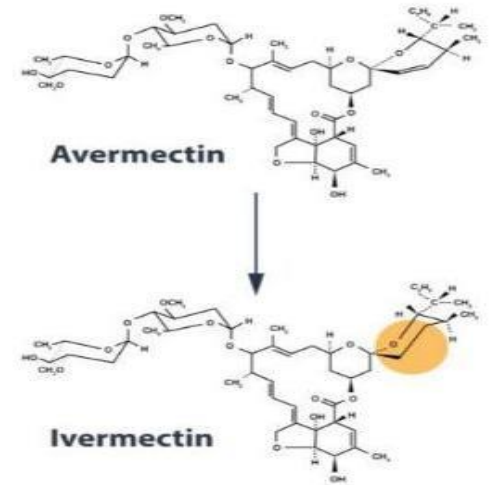
- In 1970s Chinese researcher Zhang TingDong and colleagues investigated the medicinals traditionally used to treat “Blood disease” and extract the major component arsenic trioxide.
- His work eventually led to the development of the drug Trisenox, which was approved by the FDA in 2000 for treatment of leukemia

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# Streptomyces avermitilis

## Cultured from Soil Contamination



- Avermectin and its derivative, Ivermectin are effective in killing of parasite larvae (microfilaria) that cause
  - River Blindness (chronic inflammation in the cornea caused by Onchocerciasis)
  - Lymphatic Filariasis (Elephantiasis Lymphedema and Scrotal Hydrocele)
- This work earned Drs. William C. Campbell and Satoshi Ōmura 2015 Nobel Prize in Physiology or Medicine

# If You Are Thinking About Using Traditional Chinese Medicine

- Do not use it to replace effective conventional care or delay seeing a health care provider
- It is better to use herbal remedies under the supervision of a professional trained in TCM than to try to treat yourself
- Check credentials and license of the TCM practitioner on [nccih.nih.gov](http://nccih.nih.gov)
- If you are pregnant or nursing, or are thinking of using TCM to treat a child, you should be especially sure to consult your the child's health care provider.
- List all Chinese herbs you take in your medicine list to avoid serious drug interaction

# Research Direction

- Pharmaceutical research has explored the potential for creating new drugs from traditional remedies, with few successful results
- More researches are needed
  - using modern methods and instruments
  - randomized controlled trials

# Thank You

