

# Introduction of acupuncture

Dr. Xiaowen He, L. Ac. and Dr. Wanyun Zhong, L. Ac

*H & Z Acupuncture*

*59 Executive Park South, Suite 4000*

*Atlanta, GA 30329*

[www.atlanta-acupuncture.com](http://www.atlanta-acupuncture.com)

# What is Acupuncture?



- ❖ Acupuncture is a type of treatment of traditional Chinese medicine. In the treatment, the acupuncture needles are inserted into the acupoints of the body.
- ❖ Traditional Chinese medicine treats patients mainly by using: Herbs and Acupuncture.

# The origin and early spread of acupuncture treatments

- The first description of acupuncture treatment was found in an ancient traditional Chinese medical book, called *Huang Di Nei Jing* (The Yellow Emperor's Classic of Internal Medicine), which is believed to be written more than 2000 years ago.
- The first acupuncture needles found by archeologists in China were made from stone four thousand years ago. In later years, acupuncture needles were made from bone, gold, silver, or bronze. At present, almost all acupuncture needles are made from stainless steels.
- During the 6th century, traditional Chinese medicine, including acupuncture, spread to Korea and then to Japan.
- During the 17<sup>th</sup> century, acupuncture was introduced into Europe.
- At present, acupuncture is practiced in over 100 countries around the world.



# Introduction of acupuncture into US



- Acupuncture was introduced into the United States as a direct result of president Nixon's trip to China in 1970. During the trip, his delegation witnessed and was impressed by the effectiveness of acupuncture treatment as a member of the delegation became ill. As a result, president Nixon helped in the organization of a cultural exchange of medical practitioners between the United States and China.
- Later that same year, thirty acupuncturists from China were invited to the University of California, Los Angeles Medical School. This visit started the introduction of acupuncture to the conventional medicine schools in the United States.
- In 1995, the U.S. Food and Drug Administration (FDA) classified acupuncture needles as medical instruments and indicated their safety and effectiveness.
- The first acupuncture license in Georgia was issued on 10/06/2000.

# What kinds of diseases are suitable for acupuncture treatment?

- According to the World Health Organization (WHO), acupuncture can treat more than 120 common diseases and conditions. However, some diseases and conditions can be more effectively treated by acupuncture than others.
- A partial list that might be suitable for acupuncture treatment follows:

Cervical Spondylopathy

Arthritis

Knee Pain, Heel Pain

Fibromyalgia

Facial Paralysis

Diarrhea

Depression

Hyperemesis Gravidarum

Infertility

Sprain

Shoulder Pain

Trigeminal Neuralgia

Migraine

Meniere's Syndrome

Urinary Incontinence

Anxiety

Recovery after surgery

Smoking

Sciatica

Lower Back Pain

Shingles

Constipation

Stress

Insomnia

Obesity

- In addition, acupuncture can enhance other forms of treatment, speed recovery after surgery, reduce the side effects of chemotherapy and improve emotional stability.

# Will I feel pain during acupuncture treatment?



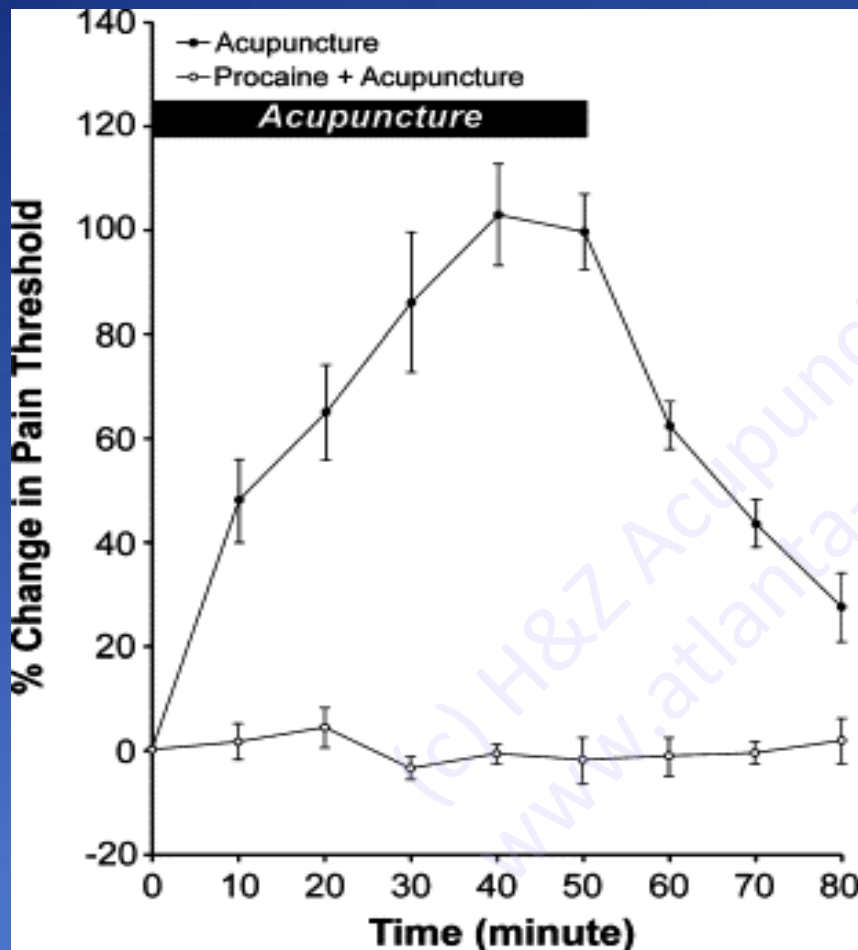
- When the needles are inserted through the skin, patients usually do not feel any pain or feel only very slight pain.
  - Acupuncture needles are very thin (only about 0.25 mm in diameter), which can pass through the injection needle.
  - The needle quickly passes through the skin.
- When the needles reach the acu-points and the *Qi*, the natural energy of the body is stimulated by needle manipulation, the patient may feel some soreness, numbness, distention or heaviness around the acu-points, or feel a kind of sensation traveling up or down the meridian, the body's energy-carrying channels. Such feelings usually are the sign of effective treatment.

# Scientific research for the mechanism of Acupuncture



- In the 1960's and 1970's, there was nation wide research done in China with the aim of understanding the mechanisms of acupuncture induced analgesia and anesthesia.
- As acupuncture is gradually accepted as an effective treatment world wide, many countries, including USA, Japan, France, Germany, Russia have joined together in performing scientific research of acupuncture.
- From 1991 to 2009, there were 3975 acupuncture research papers published.
- Despite a great amount of research, the conclusive mechanisms of acupuncture have not been established. However, some of the understanding are now widely accepted, which explain many different aspects of acupuncture mechanism.

# The first paper demonstrating the analgesic effect of acupuncture



- The experiments were done in medical student volunteers at Beijing Medical University and published in 1973 in the Chinese Medical Journal.
- Pain was induced by potassium iontophoresis on the head, thorax, back, abdomen, and leg. The pain threshold was estimated by the current (mA) needed to produce pain.
- Measurements were taken every 10 min for 100 min after the insertion of the needle into the Hoku (L1-4) and Zusanli points (ST-36), which was manipulated (300 insertion/twistings per minute, manual acupuncture) for 50 min ( $n = 60$ ).
- Intramuscular injection of morphine (10 mg) was used as positive control, which produced an 80–90% increase in pain threshold ( $p < .05$ ).
- Acupuncture at Hoku point produced an increase in pain threshold with a peak increase occurring 20–40 min after the needle insertion. The threshold returned to the preacupuncture level 45 min after the needles were removed, with a half-life of  $16.2 \pm 1.9$  min.

# Sensory nerves are involved in the acupuncture induced analgesia

- When procaine, which blocks signal transduction along the nerve, was injected into the acu-points before acupuncture was given, acupuncture was not able to induce analgesic effect.
- In a normal individual, it was shown that acupuncture on one limb can induce pain relief on different limbs. Same procedures were repeated in 12 hemiplegic and 13 paraplegic patients. It was demonstrated that the acupuncture on the paralyzed limbs has no effect on pain threshold on the non-paralyzed limbs.

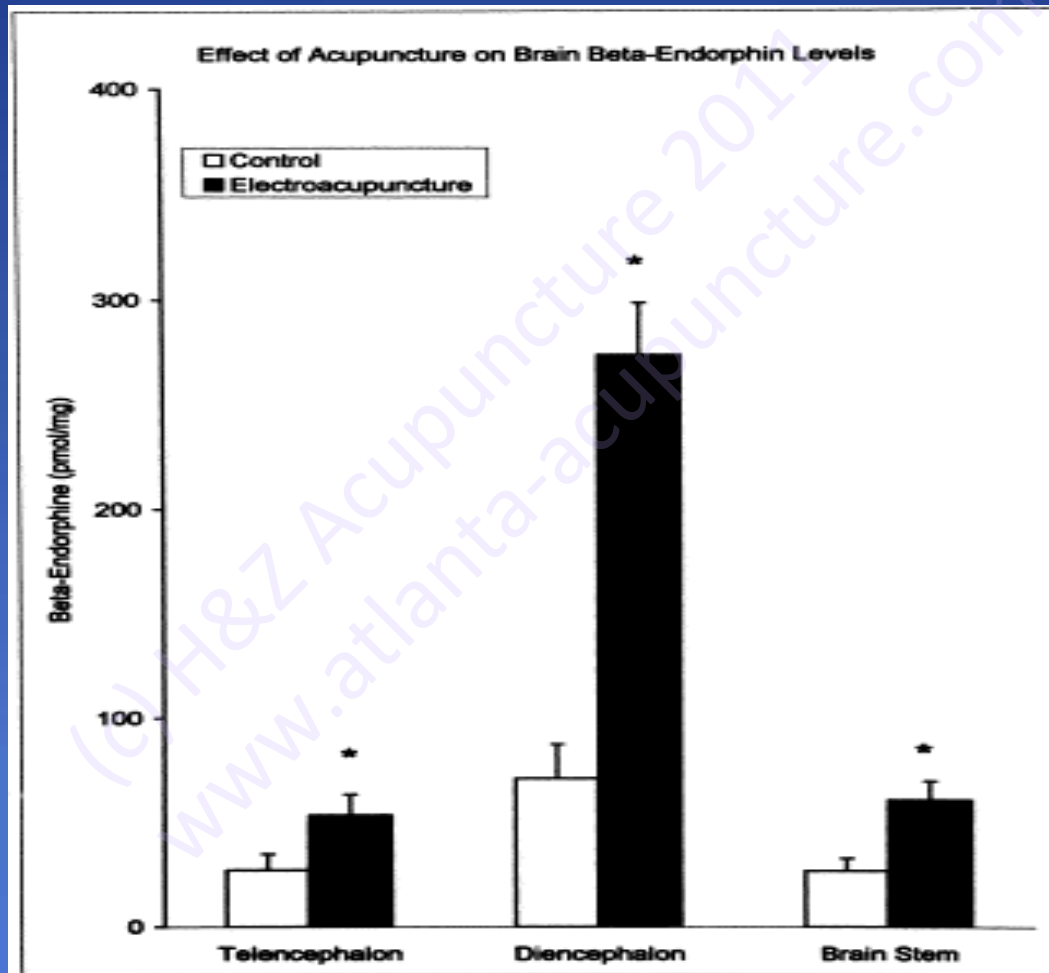


# Opium & Endorphins

- Opium is found in opium poppy's natural "latex" or "resin." The active substances of opium include morphine, codeine, and many others.
- Endorphins are a group of peptide hormones, found in the brain that act as neurotransmitters and have analgesic properties similar to morphine. Endorphins include Enkephalin,  $\beta$ -Endorphin, Dynorphin and Endomorphin.
- Both opium and endorphins function by binding to the same receptor in the brain.



# Significant $\beta$ -endorphin increase in brain of rats with high analgesic effect induced by Acupuncture



(Chen, 1983)



DR. Han's research group first discovered in 1970s that acupuncture is able to increase production of the endorphin in the brain, which contributes to the analgesic effect induced by acupuncture. The photo shows that Drs. He and Zhong visited Dr. Han (middle) at his home located at the campus of Beijing University School of Medicine, Beijing, China, in May, 2009.

# The traditional Chinese medicine is different from traditional western medicine

- The practice of acupuncture is based upon the theory of traditional Chinese medicine, which is a complete system gained from the experiences of Chinese people during the course of thousands of years in their struggle against diseases.
- The traditional Chinese medicine differs from traditional western medicine in their conceptual and theoretic basis, diagnosis and treatment strategy.

# The traditional Chinese medicine stresses recovering the body's natural ability to repair itself

- Western medicine tries to fully understand the structure, physiological and pathological process of the human body by using modern science and technology. Based on such an understanding, it solves problems by human intervention.
- The traditional Chinese medicine stresses recovering the body's natural ability to repair itself. It tries to restore and maximize the body's natural healing ability, rather than focusing on a specific pathogenic process, as emphasized in modern western medicine.

# Acupuncture is particularly suitable for patients with chronic conditions

- Traditional Chinese medicine, especially acupuncture, aims at long-term healing, and not necessarily a immediate improvement or cure. It is particularly suitable for patients with chronic conditions.
- If you come for acupuncture with chronic conditions, you need to be prepared to be treated multiple times. The number of treatments will be determined by your condition. Ten times of acupuncture treatment is regarded as one treatment course. It is not unusual for a difficult chronic condition to be treated for one or multiple courses before significant improvement occurs.

# How does the traditional Chinese medicine restore the body's natural healing ability?

- The traditional Chinese medicine restores the body's natural healing ability by:
  - balancing *Yin* and *Yang* (the opposite sides of body's function)
  - stimulating and recovering the movement of the *Qi* (the body natural energy).

# *Yin and Yang*



- The concept of *Yin* and *Yang* can be traced to ancient Chinese philosophy. *Yin* and *Yang* are not confined to specific things. Generally speaking, anything that is active, bright or hyper-functioning belongs to *Yang*, whereas anything that is static, dim or hypo-functioning belongs to *Yin*.
  - For example:

<u><i>Yang</i></u>	<u><i>Yin</i></u>
day	night
fire	<i>water</i>
male	female
- *Yin* and *Yang* are both opposite and interdependent. Neither of them can exist by its own without the other.
- *Yin* and *Yang* are not in a state of stillness, but in a state of constant change.

## Unbalance of *Yin* and *Yang* impairs the body's ability to repair itself

- The balance of *Yin* and *Yang* of the body, as well as the balance between the body and its external environment are believed to be essential in maintaining the normal function of our body. The balance is a dynamic process, in which problems constantly occur and are resolved.
- When the balances become disharmonious due to some factors, such as “outside evils” and intense or prolonged emotions, the normal body function, including the body's ability to repair itself can no longer be maintained. In this way, the problems that occur can no longer be repaired by self-regulation, so that diseases will occur.

# *Yin and Yang* in the diagnosis of traditional Chinese medicine

- When doctors of traditional Chinese medicine make a diagnosis, they first evaluate the balance of *Yin* and *Yang* of the patients. The unbalanced *Yin* and *Yang* includes 4 types of pathological conditions: *Yin* excess, *Yang* excess, *Yin* deficiency and *Yang* deficiency.
- To achieve this, the traditional Chinese medicine takes a holistic approach. It analyzes patients' overall life style factors such as stress, sleep, diet and exercise, and addresses patients' physical, mental and spiritual attributes, rather than mainly focusing on the specific pathologic process.

## *Yin and Yang* in the treatments of traditional Chinese medicine

- It is the guiding principle and the first priority in the traditional Chinese medicine to regulate and balance *Yin* and *Yang* in the treatment, so that the body's harmony condition and natural healing ability can be restored.
- For example, the syndromes in menopause, such as hot flashes, are usually regarded as hyperactivity of *Yang* resulted from deficiency of *Yin*. The treatment needs to include reinforcing the deficient *Yin*.

# One example: Stress is an important factor in disturbing the balance of *Yin* and *Yang*

- Many factors can disturb the balance of *Yin* and *Yang*. One of the important factors is stress.
- Acupuncture is effective in removing the stress by balancing *Yin* and *Yang* of the body.
- After the stress is reduced or removed, the patients usually feel:
  - Calm and relaxed. Some patients fall asleep in acupuncture bed during the treatment.
  - More energy.
  - Improved sleep.
  - Reduced pain.

## *Qi* is the natural energy of the body

- *Qi* in the traditional Chinese medicine is regarded as the natural energy, which activates and maintains the physiological activities of the body and plays a major role in defending the body from attack by pathogenic evils.

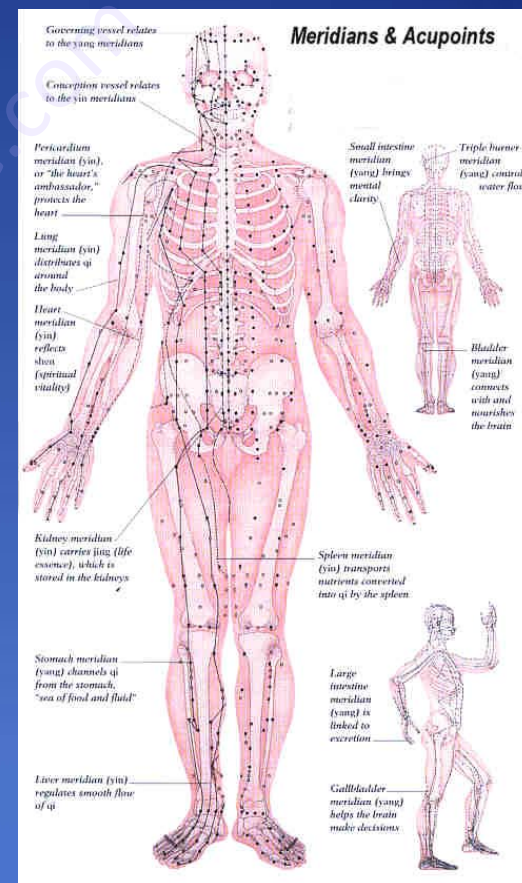
(c) H&Z Acupuncture 2011  
www.atlanta-acupuncture.com

## *Qi* might become deficient or stagnated under pathogenic conditions

- If *Qi* become deficient, the general physiological activities and the defense ability of the body will become weak. The body will feel a lack of energy and is more likely to have diseases.
- The circulation of *Qi* in the meridians and their collaterals can become stagnated by the invasion of outside evils, such as wind, cold, and dampness, or intense and prolonged emotions. The stagnation of *Qi* leads to pain and impaired physical function.

# Meridian system in traditional Chinese medicine

- The traditional Chinese medicine believes that there is a meridian system in the body, which consists of the 14 meridians and their collaterals.
- *Qi* circulate through the meridians and their collaterals, by which the upper, lower, interior and exterior parts of the body are inter-related.



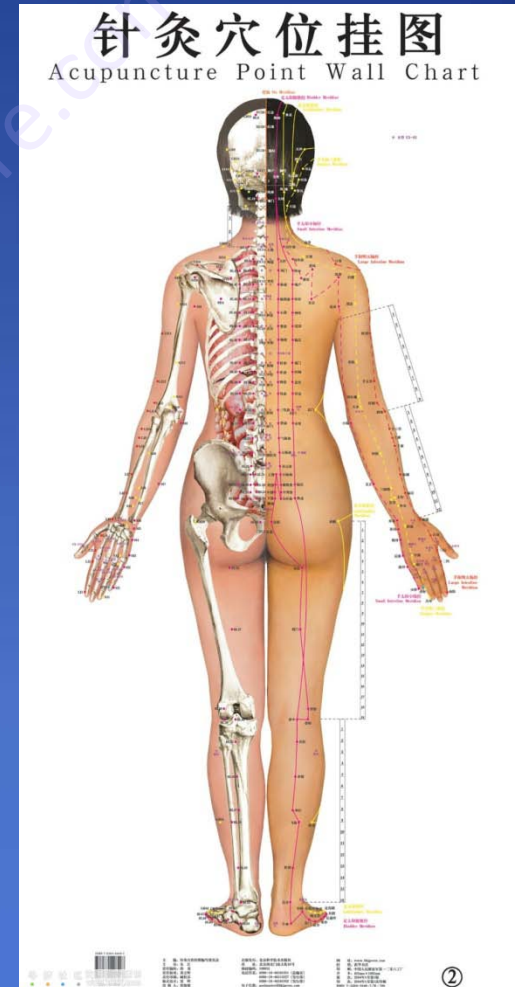
## The acu-points with specific locations and names can be classified into two categories

- The acu-points are believed to be the reservoir of the *Qi*.
- Some of the acu-points do not have specific locations and names (for example: Ashi points), however, most of them do. The acu-points with specific locations and names can be classified into two categories: meridian acu-points and extra-meridian acu-points.



# Meridian acu-points and extra-meridian acu-points

- The meridian acu-points are located at the 14 meridians, and are generally accepted. At present, there are a total of 361 meridian acu-points.
- The extra-meridian acu-points are located outside of 14 meridians. Most of them are generally accepted. Others are used only by particular schools of acupuncture.



## Acupuncture promotes the balance of *Ying* and *Yang*, and the production of the *Qi*

- By stimulating the selected acu-points, acupuncture promotes and balances the *Ying* and *Yang* of our body and the production and movement of the *Qi*.

# Summary-1

- Acupuncture is an integrated part of traditional Chinese medicine.
- Acupuncture was introduced into the United States in 1970. The first acupuncture license in Georgia was issued in 2000.
- Acupuncture can treat a variety of diseases and conditions.
- In spite of a great amount of research that has been done, the mechanism of acupuncture has not been established.

## Summary-2

- The traditional Chinese medicine is different from Western medicine in that it stresses recovering the body's natural ability to repair itself.
- Acupuncture restores the body's natural healing ability by:
  - balancing *Yin* and *Yang* (the opposite sites of body's function)
  - stimulating and recovering the movement of the *Qi* (the body's natural energy).

# Case 1: Stress and depression after loss of baby

- Female, 30, business manager
- Lost baby during delivery 5 months ago; stress and depression; Menstruation, irregular (41 days); Estrogen low, not ovulating.
- 4 sessions of acupuncture treatment: Relaxed, happier, Estrogen level higher, ovulation observed.
- A total of 14 sessions of acupuncture treatment in 3.5 months: No stress; no depression; menstruation regular; pregnant. It was a girl!

## Case 2: Stress and fatigue after divorce

- Male, 59, University student
- Stress and fatigue after divorce; not able to concentrate on studies (1h); dropped half of courses; poor sleep for 30 years, worse after divorce, 4-5 h/night, urinating ~4 times/night; stomach acid reflux 1-3 times/day, resulting in teeth pain, sore throat.
- 30 sessions of acupuncture treatment in 5 months.
- More relaxed and happier, more energy, improved concentration (4-5 h), taking full course load, became #1 in class; sleep 6-9 h, urinating 1-2 times/night, stomach reflux 1-2 times/month.

## Case 3: Neck pain for 30 years

- Female, 60, Physical therapist
- Neck pain for 30 years, worse in the last 3 years. Associated with L shoulder pain and numbness on L arm; MRI showed pathogenic changes in C5. Epidural Steroid injection reduced pain, but injections were stopped because of eye complications.
- 8 treatments in 2 months: Significant improvement.
- A total of 30 acupuncture treatments in 6 months: Pain disappeared.
- 2 years after initial visit: No pain was observed.

## Case 4: Myeloma for 5 years

- Male, 65.
- Diagnosed with myeloma in Feb 2006. 2x Chemotherapy, 2x Stem cell transplant. Treatments are effective in reducing, but not eliminating cancer cells.
- Came to our office in Jan 2007 for treatment of neuropathy in feet and hands caused by cancer therapy.
- Up to now, he has had acupuncture treatment 1-2x per week, for more than 4 years. During the 4 years, regular check-ups every 3 – 6 months have not suggested any need for additional cancer therapy.
- At present, the patient feels healthy, plays golf 3 times each week.

The current presentation is based on and modified from the talk at the North Georgia University in April 12, 2009.

(c) H&Z Acupuncture 2011  
[www.atlanta-acupuncture.com](http://www.atlanta-acupuncture.com)