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Prof. Liao has spent decades studying Taoism and the roots of Chinese medicine. For the last two decades, Prof. Liao has taken an annual retreat to China to study with Master Wang Li Ping. He translated the *Ling Bao Tong Zhi Neng Nei Gong Shu* for Wang Li Ping, which is a guide for meditation in the way of the Taoist Dragon Gate Sect (Long Men Pai). Wang Li Ping is an 18th generation Taoist Master of Long Men Pai. The *Ling Bao Tong Zhi Neng Nei Gong Shu* includes Taoist secrets of the golden flower and five souls that was delivered by the ancient masters Zhong and Lu. This text includes methods of practice and theory.

Prof. Liao's extensive experience in Taoist theory and meditation practice inform an understanding of the acupuncture points included in this course, according to both ancient and modern Chinese medicine.



Prof. Richard Liao, L.Ac.

Large Intestine Channel of Hand-Yangming

The lower portion of the body is yin but the large intestine organ also has a yang characteristic because it moves the bowels. Therefore, we say that for the large intestine organ, yin embraces yang. In common with the lungs, the yang movement function is similar to the lungs in that both organs involve active movement and remove stagnation.

The lungs expel foreign objects and phlegm and the large intestine moves the stool. Both organs move stagnation. The yin character of the large intestine involves absorption of nutrients. The large intestine plays a major role in absorption of spleen ying qi (nutritive qi) and moving the stool; this is the yin and yang characteristics of the large intestine organ.

General Characteristics

The large intestine channel is one of three yang channels of the hand: large intestine, sanjiao (triple burner), small intestine. All three begin at the hand, travel along the outer surface of the arm, and traverse to the head.

In the great cycle of qi, the qi flows from the lung hand-taiyin channel into the large intestine hand-yangming channel, which then flows into the stomach foot-yangming channel.

The large intestine channel is paired with the lung channel in an interior-exterior relationship, one yin channel of the arm with one yang channel of the arm. The channel pathways share important similarities and are close to each other. The lung channel is on the anterior part of the relatively medial aspect of the arm and the large intestine channel is on the relatively lateral aspect of the arm.

The large intestine channel is paired with the stomach channel, because they are both yangming channels. The large intestine hand-yangming channel is paired with the stomach foot-yangming channel. Both channels share anatomically similar placements, with one channel on the hand and one on the leg respectively.

Primary Channel

The large intestine channel of hand-yangming (arm yang brightness) begins at the radial side of the tip of the index finger and proceeds upward between the first and second metacarpal bones. Next, the channel passes between the tendons of the extensor pollicis longus and brevis at the wrist and continues along the radial margin of the forearm to the lateral side of the elbow. The channel rises along the lateral aspect of the upper arm to the shoulder joint and crosses behind the shoulder, following the anterior margin of the acromion, before turning upward. Below the spinous process of C7, the channel enters into the supraclavicular fossa and connects with the lungs before descending across the diaphragm to the large intestine.

A branch of the primary channel separates at the supraclavicular fossa (where SI12 and travels upward through the neck, crossing the cheek and entering the lower gums. From the gums, the channel passes through ST4. Next, the channel curves around the lips and intersects the same channel (coming from the opposite side of the body) at the philtrum. This branch terminates at the side of the nose. Another branch descends from the supraclavicular fossa region to ST37, which is the lower he-sea (lower uniting point) of the large intestine.

This channel connects the lungs, stomach, and large intestine. The crossing points of the channel include: GV14, GV26, SI12, ST12, CV24, TB20, ST4. Some texts indicate that an interior pathway of the large intestine channel meets with the gallbladder channel at acupoints GB14, GB5, and GB6.

Luo-Connecting Channel

The luo-connecting channel (collateral) separates from the primary channel at LI6 (where it begins) and traverses to LU9. Another branch follows the arm to the shoulder, crosses the jaw, and enters the teeth. Another branch separates at the jaw and enters the region of the ear.

- Symptoms of excess associated with the luo-connecting channel: toothache, deafness
- Symptoms of deficiency associated with the luo-connecting channel: sensation of coldness in the teeth, fullness and congestion in the chest

Divergent Channel

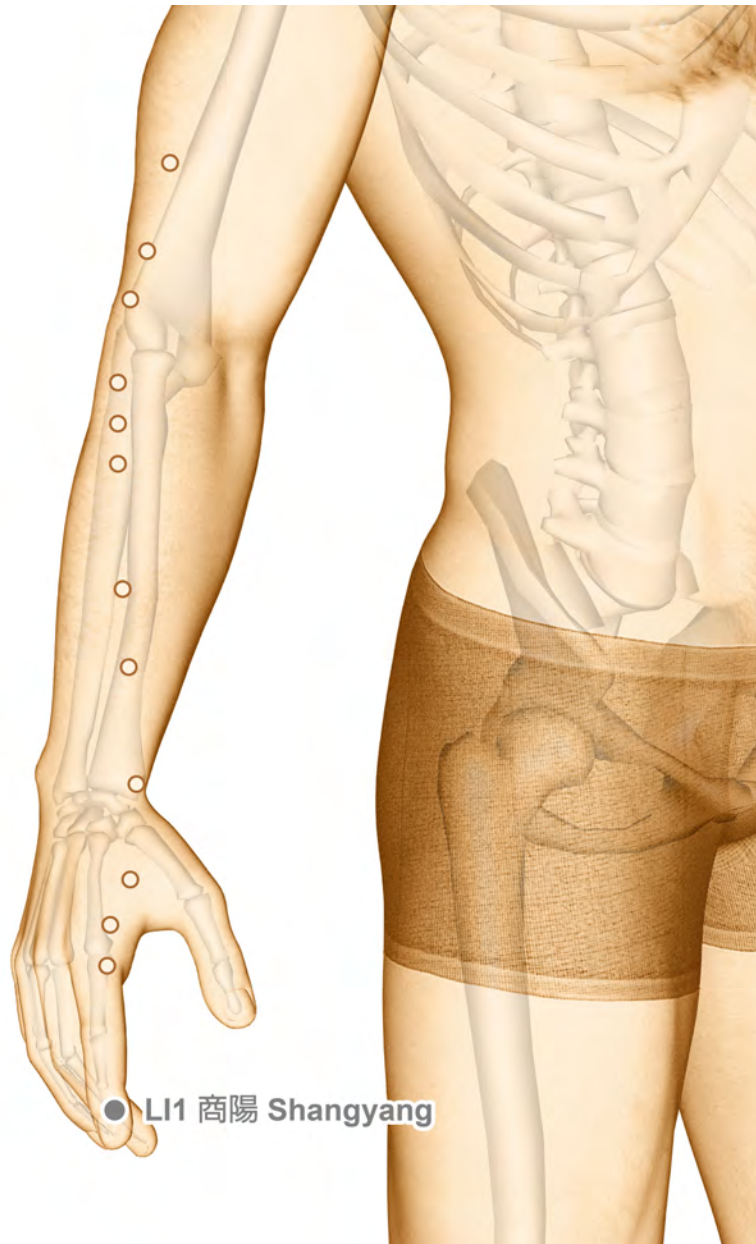
The large intestine divergent channel separates from the primary channel on the hand, continues upwards across the arm and shoulder to the breast. A branch diverges at the top of the shoulder and enters the spine at the nape of the neck. Next, it proceeds downward to join the lung and large intestine organs. Another branch ascends from the shoulder along the throat and emerges at the supraclavicular fossa, and re-enters the primary channel.

Next:

The following section covers the meaning of acupuncture point names and functions according to original ancient principles.

LI1 (Shangyang, Shang Yang) 商阳

LI1 is on the radial side of the index finger, about 0.1 cun posterior to the corner of the fingernail. LI1 is a jing-well and metal point. This point clears heat, reduces swelling, and revives the patient.



The flow of qi in the channels starts in the lung channel and flows to the large intestine channel. The flow of qi from LU11 to LI1 has a special relationship. It is from LU11 (Little Shang) to LI1 (Shang Yang). The qi grows stronger from the lung taiyin channel to the large intestine yangming channel. This is why LU11 (Shaoshang) is termed Little Shang and LI1 is termed Shang Yang; here, yang in the name of the point refers to the growing power of the qi through the channels. This genesis is similar to a child (Little Shang) growing up to an adult (the yang in the term: Shang Yang).

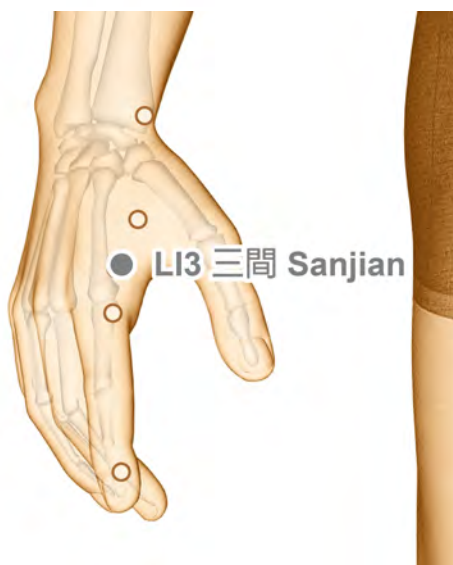
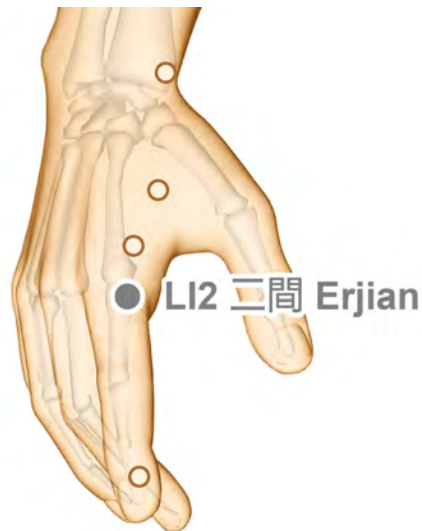
Shang refers to a Chinese tone, a sound. Here, the shang tone wakes up and communicates between the lung and large intestine channels. The characteristic of this movement of qi between the points is the following. The moving without stopping characteristic of the lungs communicates to the large intestine channel. The Little Shang grows up to the stimulation of the Shang Yang characteristic. The main emphasis is that this point provides strong stimulation; therefore, it has a strong clearing the heat function and the strong stimulation revives consciousness. Therefore, this point is beneficial for patients with indications including sore throat, toothache, fever, sudden loss of voice, tinnitus, fainting, stroke, mania, and finger pain and numbness.



LI2 (Erjian, Second Space) 二间

LI3 (Sanjian, Third Space) 三间

LI2 is on the radial side of the index finger, distal to the metacarpal-phalangeal joint, at the junction of the red and white skin. This point is located with the finger slightly flexed. LI3 is located when a loose fist is made, the point is on the radial side of the index finger, in the depression proximal to the head of the second metacarpal bone.



LI2 is a ying-spring, water, and son point. Traditional indications include epistaxis, toothache, sore throat, and fever. LI3 is a shu-stream and wood point. Traditional indications include toothache, eye disorders, sore throat, and inflammation of the hand.

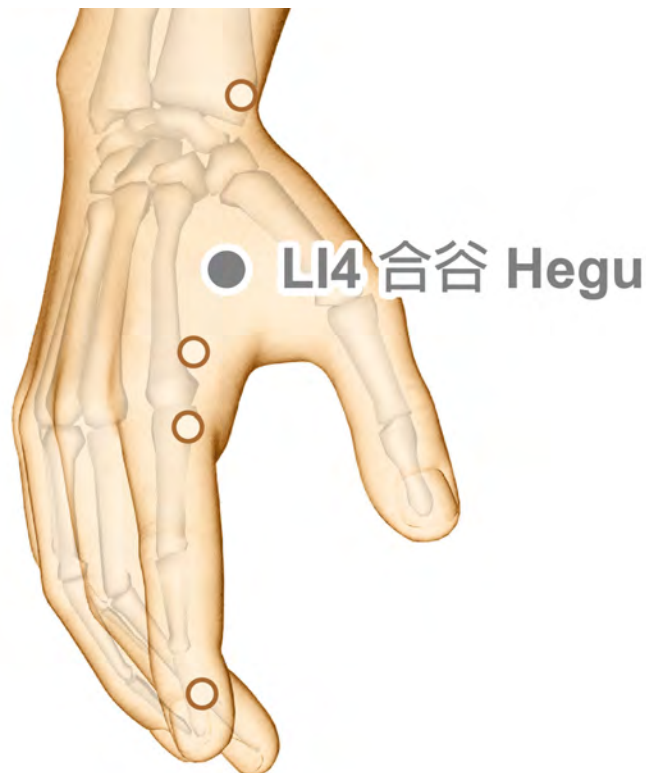
The flow of qi from LI2 to LI3 is similar to the flow of qi from in front of a small hill to behind the hill. At LI2, the qi is resting and getting ready to traverse the hill. At LI3, the qi is ready and is exposed, it will eventually grow in power to the valley of LI4 (Hegu). This is a reflection of the point's anatomical location. The qi flows from the depression distal to the metacarpo-phalangeal joint (front of the hill) to the depression proximal to the joint (behind the hill). The qi is growing in power as it moves toward LI4. We say the qi is maturing from LI2 to LI3. We can also say it is developing, from a relatively undeveloped state to a more developed state. We say the qi is gathering strength from the underground spring (ying-spring point) to the stream (shu-stream point) above ground.

The energy behind the bone matures and blossoms at LI3 as it travels from LI2; therefore, LI3 is more for mature (developed) symptom presentations. LI2 is more for immature (undeveloped) symptoms because the qi has not yet grown. For example, a skin rash that is hiding under the skin is immature and therefore LI2 is appropriate. Once the rashes expresses, we say it has matured and therefore LI3 is a better choice.

Similar to the underground spring, unexpressed symptoms are more appropriately addressed with LI2. Similar to the above ground stream, expressed symptoms are more appropriately treated with LI3. Another example, asymptomatic common cold infections are immature and therefore LI2 is a good choice over LI3. However, once there are presentations of symptoms, the disease is maturing; therefore, LI3 is a better choice.

LI4 (Hegu, Gathering Valley) 合谷

LI4 is on the dorsum of the hand, between the first and second metacarpal bones, approximately at the midpoint of the second metacarpal bone on the radial side. When squeezing the thumb against the index finger, LI4 is at the highest point of the muscle bulge, approximately level with the end of the crease.



LI4 is a yuan-source point and an entry point. LI4 disperses the wind, release the exterior, eliminates pain, and clears the channels. Traditional indications include headaches, eye pain, epistaxis, toothaches, deafness, facial edema, facial paralysis, sore throat, trismus (locked jaw), fever, delayed labor, local pain, and general pain. Combined with KD7, this point is used for insufficient sweating. In addition, this point is often used with SP6 with electroacupuncture for the treatment of delayed labor.

LI4 is a Gao Wu command point for the treatment of face and mouth disorders. LI4 is a Ma Dan-yang heavenly star point, indicating that this point is an important and powerful point, especially for indications such as headaches, facial swelling, malaria, fever, chills, and toothaches. This acupuncture point is contraindicated during pregnancy, especially when there is qi and blood deficiency.

The lung and large intestine are paired organs in the Chinese medicine system. Both organs have the function of clearing and expelling stagnation. The lungs are capable of expelling stagnant foreign objects and phlegm and the large intestine are responsible for eliminating stagnated stool. This point powerfully eliminates stagnation and has the energy of both the lungs and large intestine.

Tiger Power

According to five element theory, the lungs are correlated with the white tiger. The tiger is strong and gets rid of anything he/she does not like. LI4 shares the lung channel power of the tiger and is used to eliminate excess and exterior conditions. This is, in part, due to the lung and large intestine being paired organs.

The lung channel "white tiger" and LI4 share the tiger's power and name. One historical name for LI4 is tiger mouth. The reference to tiger mouth comes from ancient Chinese culture, especially from the martial arts. In the martial arts, applying pressure to this point creates powerful reactions and can subdue an opponent. This is one power of the tiger. In addition, the shape of LI4 is a reference to a tiger's mouth. It is where the thumb and index finger open like a tiger's mouth.

The large intestine has the power of moving stagnation and this power is expressed in this acupoint's ability to eliminate things that are not healthy. With the power of the lung tiger and large intestine, LI4 powerfully eliminates exterior pathogenic influences and stagnation.

LI5 (Yangxi, Yang Creek) 阳溪

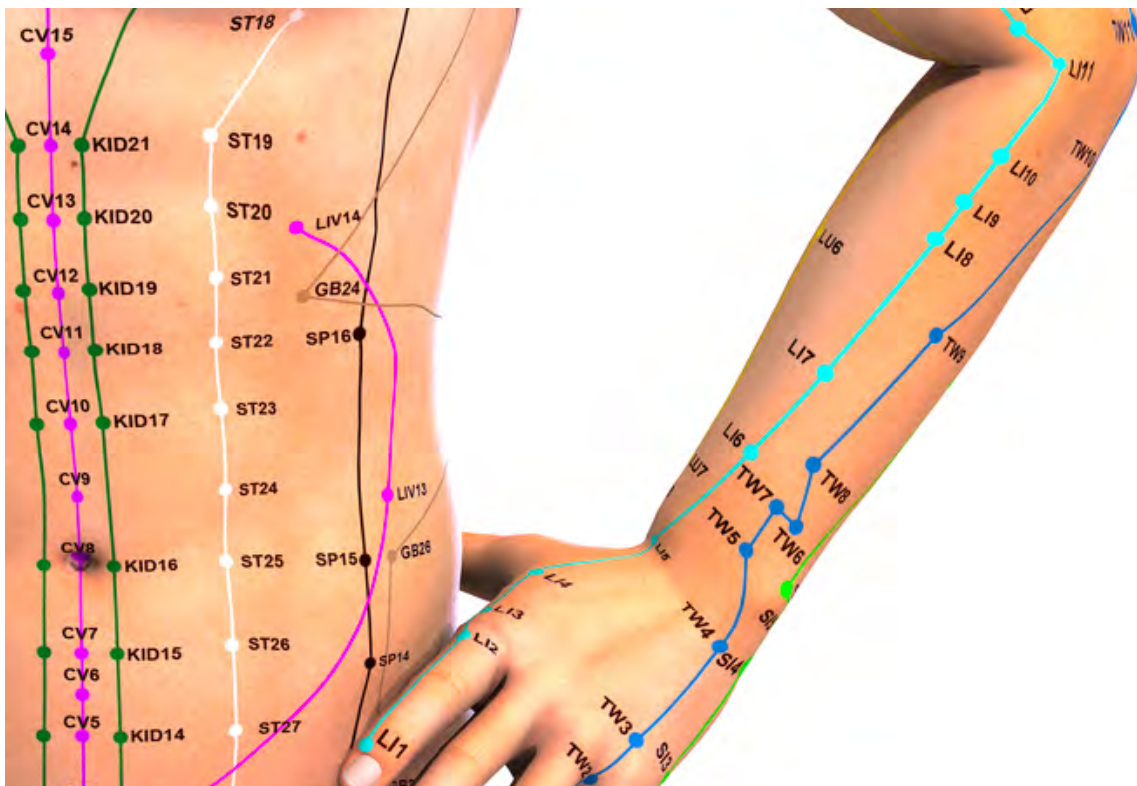
LI5 is on the radial side of the wrist: when the thumb is tilted upward, it is in the depression between the tendons of extensor pollicis longus and brevis. LI5 is a jing-river and fire point. Traditional indications include headaches, red & painful eyes, toothaches, sore throat, and local pain.



This point's anatomical location looks like a pond surrounded by hills. The channel qi from LI4's gathering valley flows into the creek. The characters in LI5's name refer to yang and xi (creek). As a result, the point is indicated for conditions where yang qi is needed to move something quickly, including the treatment of fever and chills,

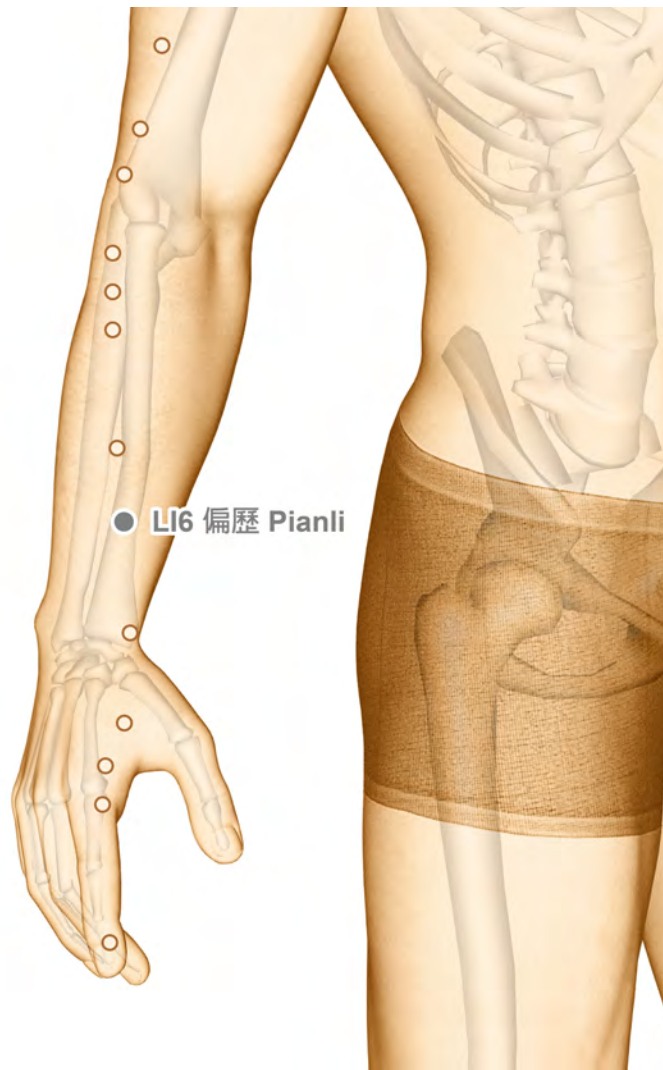
anhidrosis, mania with hot phlegm, sudden deafness and tinnitus, facial paralysis, and wrist pain.

The emphasis is that the yang power of LI5 (Yangxi, Yang Creek) eliminates conditions when there is not enough yang qi to make things flow. For example, when there are fever and chills, this point supplies the yang power to balance yin and yang. For anhidrosis (no sweating), the yang power of the point pushes the fluid to the surface. In the case of mania with hot phlegm, the body lacks the yang power to push the substance of the fluid (hot phlegm) out. LI5 provides the yang power to eliminate the hot phlegm. The same is true for sudden deafness, the yang power of this point provides circulation to the ears. For facial paralysis, the yang power of the point provides circulation to the face. The yang power pushes the creek to flow.



LI6 (Pianli, Veering Passage) 偏历

LI6 is located with the elbow flexed and the radial side of the arm upward: the point is on the line joining LI5 and LI11, 3 cun above LI5. LI6 is a luo-connecting point. Traditional indications include epistaxis, sore throat, tonsillitis, forearm pain, edema, hyperhidrosis, anhidrosis, fever and chills, facial paralysis, coughing with constipation, and phlegm misting the heart orifice leading to mania, depression, and bipolar conditions.



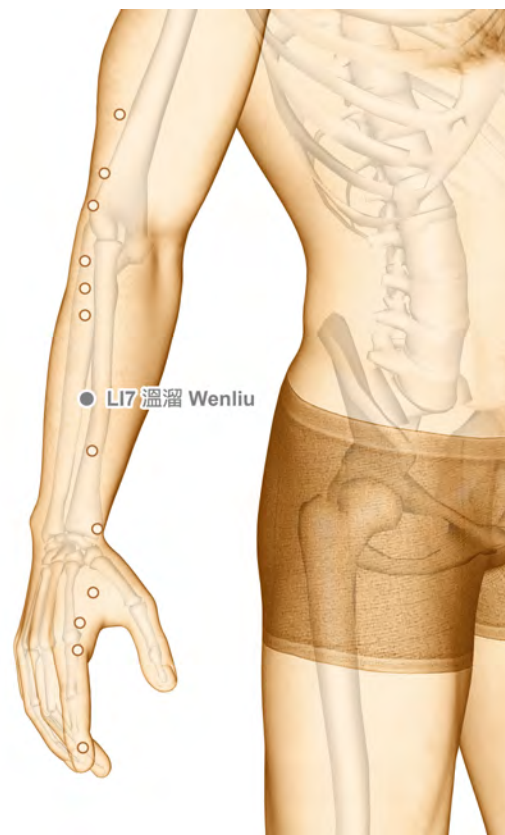
The veering passage referred to in the name of the point is the channel's status as a luo-connecting point to the lung channel, where it connects to LU9. This point emphasizes the communication and balance between the lung and large intestine paired organs. LI6 connects the yin of the lungs and the yang of the large intestine.



The function of LI6 (Veering Passage) is to promote communication between the upper area of the lung area and lower region of the large intestine, to move the stagnation between yin and yang, and also interior and exterior. For example, coughing with constipation is a problem with the lung upper area and large intestine lower area. Another example is phlegm misting the heart orifice with mania and depression. There is a stagnation in pathway communication causing alternate mania and depression. LI6 promotes communication of yin and yang and opens the pathways of the upper lung pathways and lower large intestine pathways to assist in the elimination of phlegm from the heart.

LI7 (Wenliu, Warm Flow) 温溜

LI7 is located with the elbow flexed and the radial side of arm upward, the point is on the line joining LI5 and LI11, 5 cun above LI5. LI7 is a xi cleft (accumulating) point. Traditional indications include facial swelling & paralysis, sore throat, fever without sweating, shoulder pain, mania, arm pain, wind-damp bi (joint) pain, stomach and abdominal pain and inflammation, and glossitis (inflammation of the tongue).

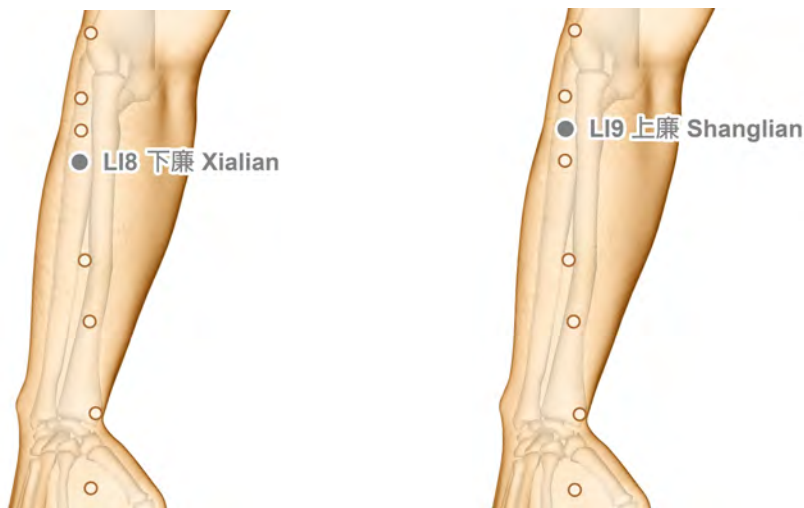


Warm flow, in the name of the acupoint, refers to reducing excess heat and also treating underlying yang deficiency, which prevents warming power and energy flow to move stagnation. It treats excess hot conditions or yang deficiency problems where there is not enough yang to move through stagnation.

LI8 (Xialian, Lower Clarity) 下廉

LI9 (Shanglian, Upper Clarity) 上廉

LI8 is on the line joining LI5 and LI11, 4 cun distal to LI11. LI9 is on the line joining LI5 and LI11, 5 cun distal to LI11. For LI8 (Lower Clarity) and LI9 (Upper Clarity), the term clarity refers to the ability of these points to clear the stagnation from inside the body. In addition, these points clear the yang energy. They help purify the yang and remove unhealthy influences.



LI8 and LI9 are mostly used for local pain. LI8 communicates with the small intestine and pericardium. As a result, LI8 clears stagnation through the channels between the large intestine, small intestine, and pericardium. LI9 purifies the energy between the lung and large intestine.

Both points treat elbow pain, forearm pain, and abdominal pain. Other traditional indications include headaches, abdominal bloating, urinary bladder irritation, sore throat, epistaxis, coughing, fullness of the stomach and chest, and constipation.

LI10 (Shousanli, Arm Three Miles) 手三里

LI10 is on the line joining LI5 and LI11, 2 cun distal to LI11.



Although the character li (里) in the name of the point is translated as mile, it is technically shorter than a mile. Although there have been variations in this traditional measurement over time, 1 li is approximately 0.3 miles or 0.5 km. *Note: the literal translation of Shou*

(手) is hand, but this is also used to refer to the arm as in Shouwuli (LI13, Arm Five Miles). The character for hand is also cultural reference to the arm when used for the name of LI13.

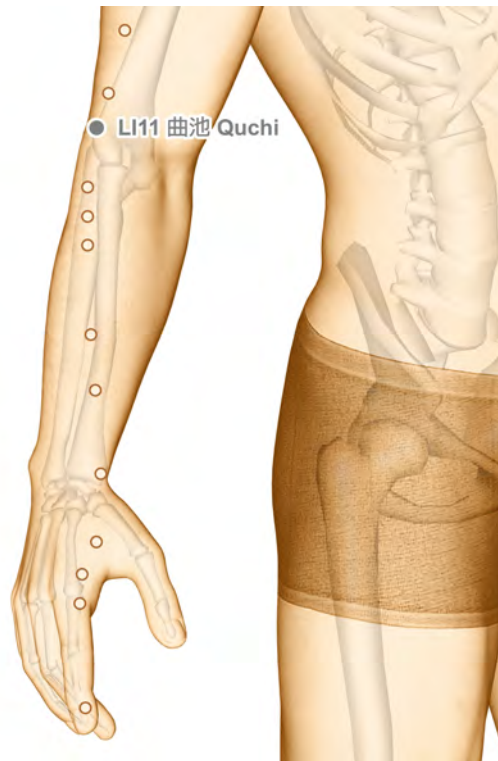
LI10 is synchronized with ST36 (Zusanli, Leg Three Miles). The reference to the synchronization is within the names of the points: Arm Three Miles, Leg Three Miles. Anatomically, LI10 and ST36 are in similar locations distal to the elbow and knee respectively. As a result, they communicate with each other, which is reflected in the names. These are paired points that are used to tonify qi. LI10 clears the large intestine channel pathway and assists the strengthening function of ST36 to benefit the stomach and spleen.



LI10 has a powerful function to reduce stagnation and is therefore effective for invigorating qi and blood circulation to the arm, elbow, rotator cuff, and scapula. For example, when a patient has frozen shoulder syndrome, this point can be needled while passive or active motion is exerted, which frees mobility in the arm and shoulder. For any shoulder or arm pain, this point provides a deep clearing of stagnation and one can go “three more miles.” This deep clearing action through the channel also applies to the treatment of toothaches, burning anus, neck pain, abdominal discomfort, and nodules in the neck.

LI11 (Quchi, Bending Pond) 曲池

When the elbow is flexed, the point is in the depression at the lateral end of the transverse cubital crease, midway between LU5 and the lateral epicondyle of the humerus. The point is located with the elbow flexed.



LI11 is a he-sea, earth, mother, Ma Dan-yang heavenly star, and ghost point. It eliminates wind and exterior conditions, cools heat, alleviates dampness, and regulates the blood. Common indications for use include sore throat, toothaches, red and painful eyes, scrofula, goiter, nodules of the neck, urticaria and skin diseases, upper limb paralysis, and febrile diseases.

Qu (曲) means bending and Chi (池) is pond. The elbow is flexible and bends. The pond refers to yangming substance. The yangming channel flows to this point and stores yin substance at the pond. This point

regulates qi and yin at this pond to go forward to the next area. The emphasis of this point is to regulate yang qi power to move yin substance/fluid to treat disease. At the bending area of this point, there is abundant qi and blood in the yangming meridian. This yang qi embraces yin substance such that yang qi regulates yin substance to prevent stagnation of yin and yang between the upper and lower arm.

Not only does this point regulate the upper and lower arm movement of qi and yin, this point also harmonizes general upper and lower yin and yang. This moves stagnation of qi and yin substance when using this point. This improves communication between the upper and lower jiao (burner), the interior and exterior, and yin and yang. For example, LI11 is effective for the treatment of chills and fever because it regulates the interior and exterior. One example of regulating the upper and lower jiao is regulating the lungs and large intestine to treat coughing with constipation. The harmonizing property of LI11 treats the up and down fluctuations in emotions and is therefore effective for the treatment of bipolar conditions.

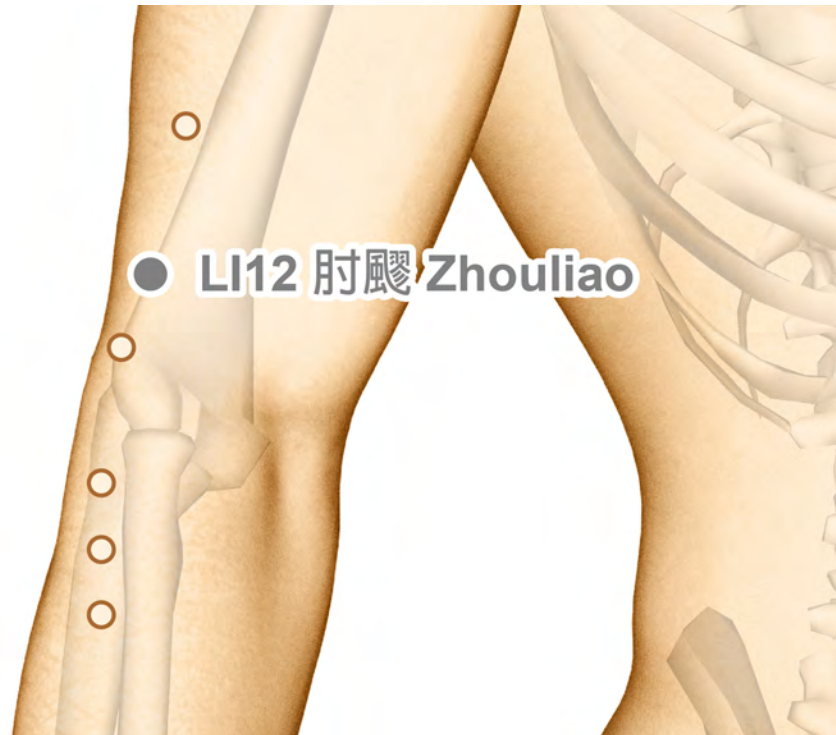
The harmonizing of yang and yin property of this point is effective for the treatment of irregular menstruation. The yang power energy of this point reduces stagnation by moving yin substance and is therefore effective for the treatment of toothaches, local wind-damp-bi-pain (numbness and pain due to wind and dampness), headaches, and bloating of the abdomen. This point moves stagnation and yin substance and is effective for the treatment of constipation due to large intestine yin deficiency and qi stagnation.

LI11 is a powerful acupuncture point, and its primary functions are:

- Regulate yang power to move yin substance to remove inflammation
- Harmonizes yin and yang
- Regulate the abundant qi and blood of the yangming channel to reduce heat and fevers

LI12 (Zhouliao, Elbow Crevice) 肘髎

When the elbow is flexed, LI12 is superior to the lateral epicondyle of the humerus, about 1 cun superolateral to LI11, on the medial border of the humerus.

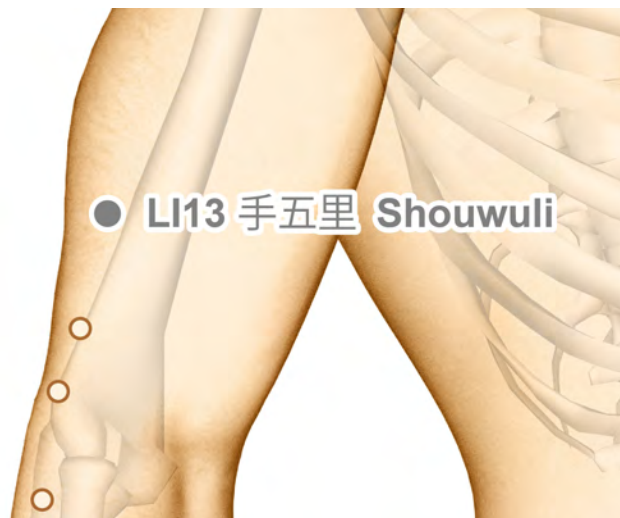


Zhouliao (elbow crevice) refers to something hidden inside a crevice. Stagnation is hiding deep inside the crevice. For example, a patient with loose teeth may have asymptomatic gum inflammation but the dentist finds a previously undetected infection hiding inside.

If, for example, the deep area needs cleansing, this point can be used for the treatment of a sinus infection caused by qi and yin stagnation. In addition, this point treats inflammation that is in the crevice, including local wind-damp-bi-pain. Needling this point releases the stagnation from within the crevice (inflammation hidden deep inside the tendons). The main idea of this point is to treat something hidden inside.

LI13 (Shouwuli, Arm Five Miles) 手五里

LI13 is superior to the lateral epicondyle of the humerus, on the line joining LI11 and LI15, 3 cun above LI11. Note: the literal translation of Shou (手) is hand, but this is referring to the arm in Shouwuli (Arm Five Miles). It is a cultural reference.



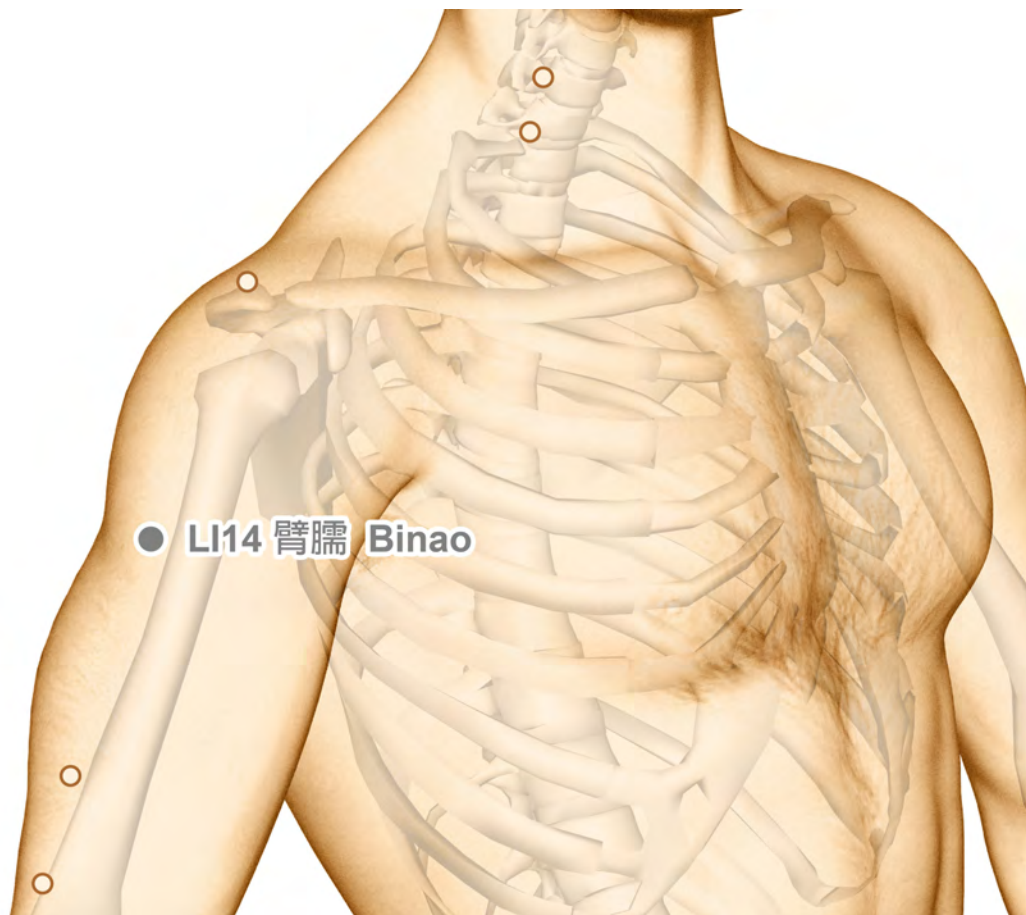
Five (五) refers to the location of this point; it is five cun distal to LU3 (Sky Mansion). The numeral 5 is a balancing point between 1–10, and this point's location approximately 5 cun below LU3 refers to its harmonizing and balancing properties. The sky mansion power of LU3 travels to LI13. LI13 receives the power of LU3 and there is a deep pulse hidden when palpating this point. The numeral five (五) represents balancing and synchronizes the major five internal organs. As a result, it is indicated for the treatment of local pain, coughing, tremors, emotional disturbances, and fullness of the abdomen.

LV10 (Leg Five Miles) has a similar name. Whereas LI13 is below the armpit, LV10 is below the groin area. These points share similar characteristics as indicated by their names. LI13 regulates abundant yangming qi and blood. LV10 emphasizes regulation of liver qi. One regulates yangming, one regulates the liver.

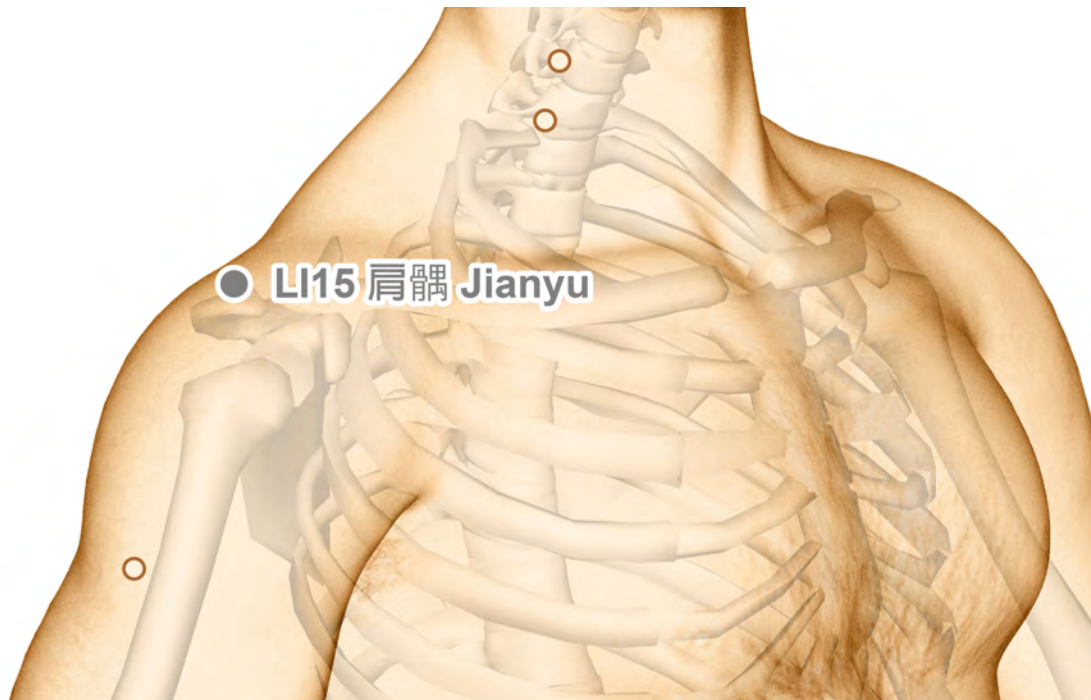
LI14 (Binao, Upper Arm Muscle) 臂臑

LI15 (Jianyu, Shoulder Cleft) 肩髃

LI14 is on the line joining LI11 and LI15, 7 cun proximal to LI11, on the radial side of the humerus, superior to the lower end of deltoid. This is approximately $\frac{3}{5}$ the distance between LI11 and LI15. This point is located on the lateral aspect of the upper arm, in a visible depression between the distal insertion of the deltoid and brachialis muscles.



LI15 is anterior and inferior to the acromion, on the upper portion of the deltoid. When the arm is in full abduction, LI15 is in the depression appearing at the anterior border of the acromioclavicular joint.



LI14 is a meeting point of the large intestine channel with the small intestine and bladder channels. LI14 clears the channels and reduces redness & swelling of the eyes. LI14 reduces wind-damp stagnant qi and blood bi (numbness) and pain in the muscle.

LI14 has an emphasis on the treatment of the muscles and LI15 has an emphasis on the treatment of the bones and tendons. The names of the points indicate the emphasis of each point. LI14 (Upper Arm Muscle) indicates muscle and LI15 (Shoulder Cleft) indicates a cleft between bones, also referring to the location of the point posterior and inferior to the acromion.

LI15 is a meeting point of the large intestine channel with the Yang Heel (Yang Motility) Channel. LI15 treats wind-damp stagnated qi and blood

bi pain in the rotator cuff and benefits the tendons, cartilage, sinew, and bones.

Both LI14 and LI15 are commonly used for shoulder, upper arm and neck pain, armpit and neck qi and phlegm nodules under the skin, fever, and chills. These points reduce yangming heat and regulate qi and blood. As a result, the treatment of eye inflammation and fevers are listed in the indications.



LI16 (Jugu, Great Bone) 巨骨

LI16 is in the upper aspect of the shoulder, in the depression between the acromial extremity of the clavicle and the scapular spine. **Use Caution: deep medial needling is contraindicated to prevent pneumothorax.** Use only perpendicular or oblique insertion.

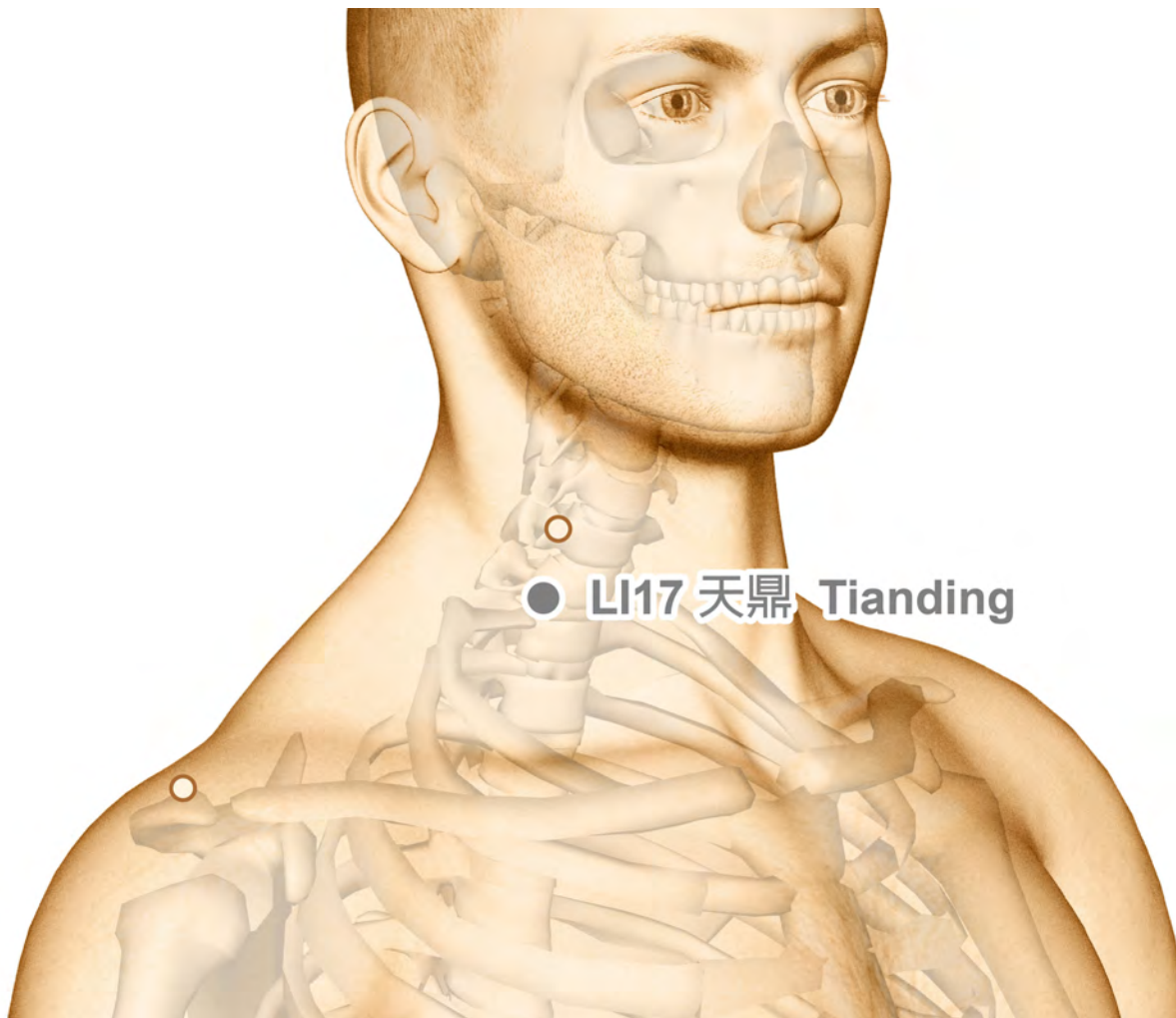


LI16 (Jugu) is great bone, it located at the scapula, which is a large bone. It is very close to the clavicle and acupoints LU2 (Cloud Gate) and ST13 (Qi Abode). LI16 regulates qi and blood and expels wind-damp-bi (numbness) pain at the shoulder, trapezius, clavicle, and local muscles. LI16 treats chest pain and local phlegm nodules under the skin.

The proximity to LU2 and ST13 reflects this point's ability to regulate lung qi. LI16 promotes lung function to nourish the body, combining ST13's qi of the stomach and LU2's lung yang energy. LI16 treats coughing with blood. LI16 nourishes the body so the spleen qi can hold the blood in the vessels.

LI17 (Tianding, Celestial Pot) 天鼎

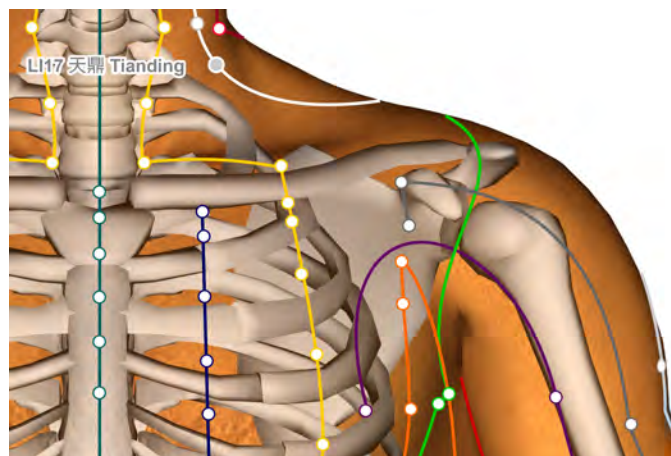
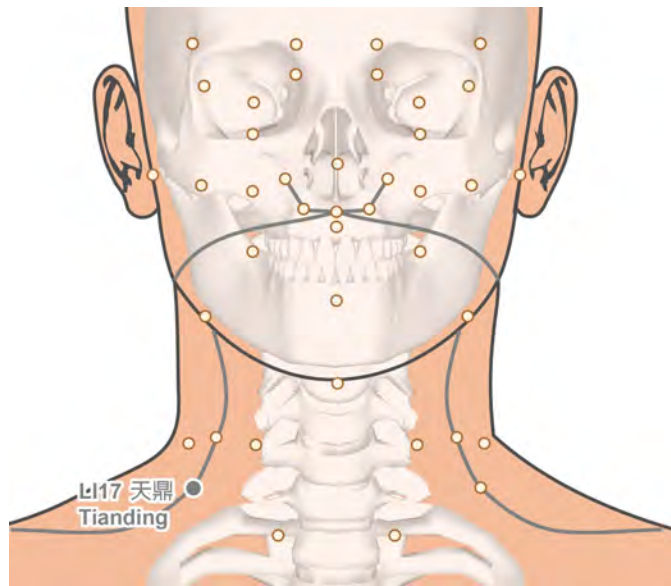
LI17 is on the lateral side of the neck, 1 cun below LI18, on the posterior border of the sternocleidomastoideus. **Deep needling is contraindicated to prevent puncturing the carotid artery or jugular vein.**



Celestial (天) refers to the heavens and the sky. This point, at the base of the neck; supports the throat and head, which is in the heavens. The second character ding (鼎) refers to a tripod. This is reference to the

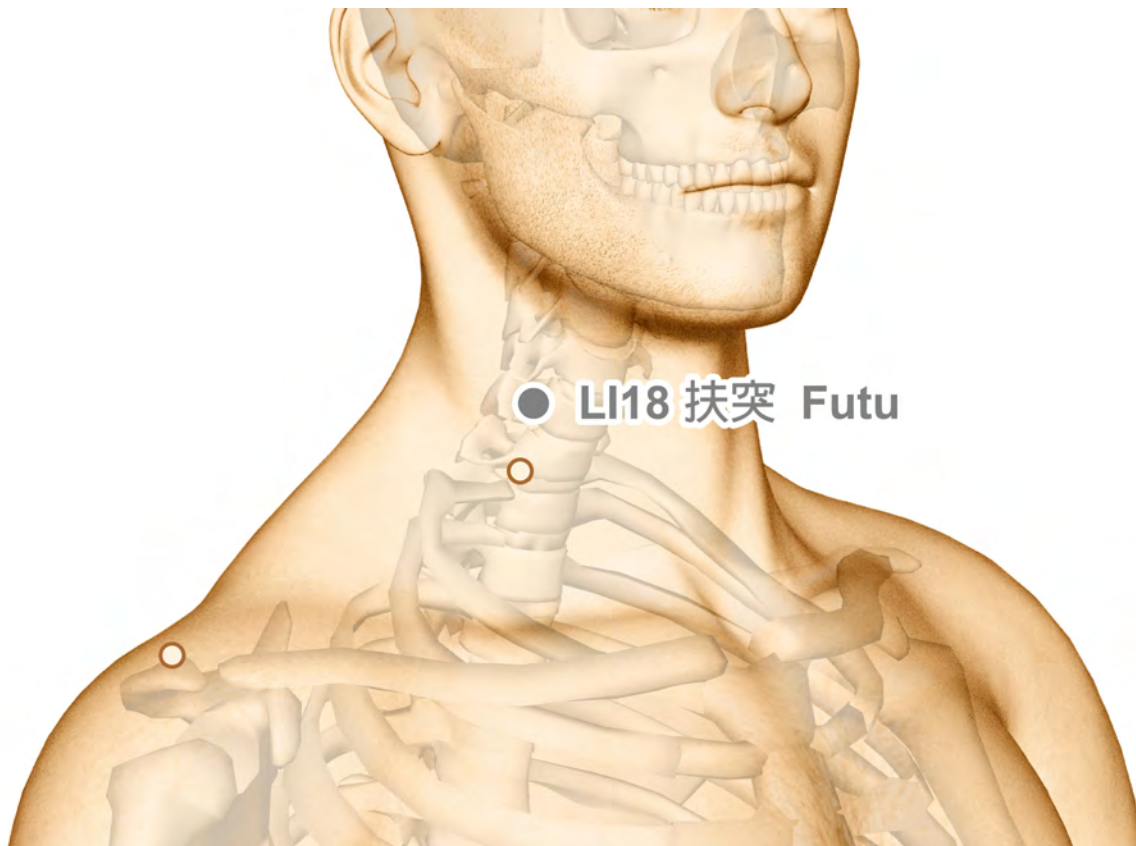
ancient pot, that has three legs, used by traditional Taoists for cooking medicine.

This point regulates abundant yangming meridian qi and blood circulating to the head, neck, and body. LI17 regulates communication between the head, neck, and whole body. Indications for use include headaches, sore throat, tonsillitis, coughing, phlegm stagnation, chicken singing in the throat (qi and phlegm stagnating in the throat causing wheezing and phlegm sounds upon breathing), loss of voice, laryngitis, nausea, scrofula, nodules, and neck pain.



LI18 (Futu, Support Prominence) 扶突

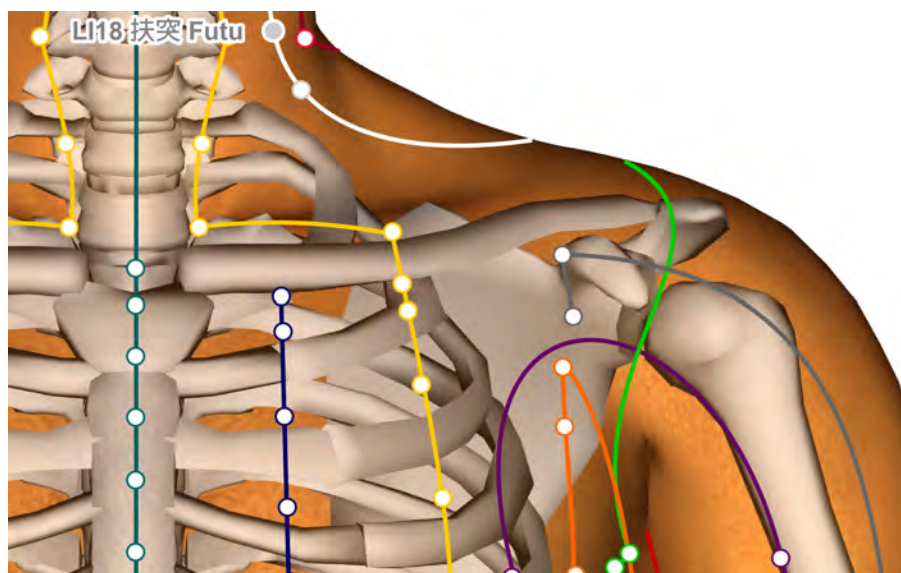
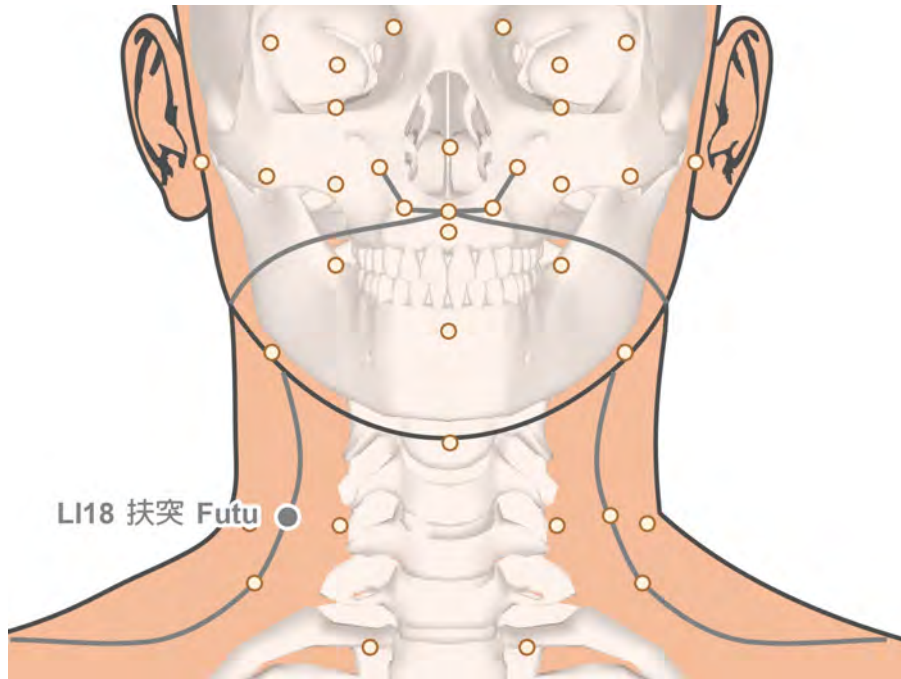
LI18 is on the lateral side of the neck, level with the tip of the Adam's Apple (laryngeal prominence), between the sternal head and clavicular heads of sternocleidomastoideus (SCM). **Deep needling is contraindicated to prevent puncture of the carotid artery or jugular vein.** LI18 is a Window of Sky (Window of Heaven) point.

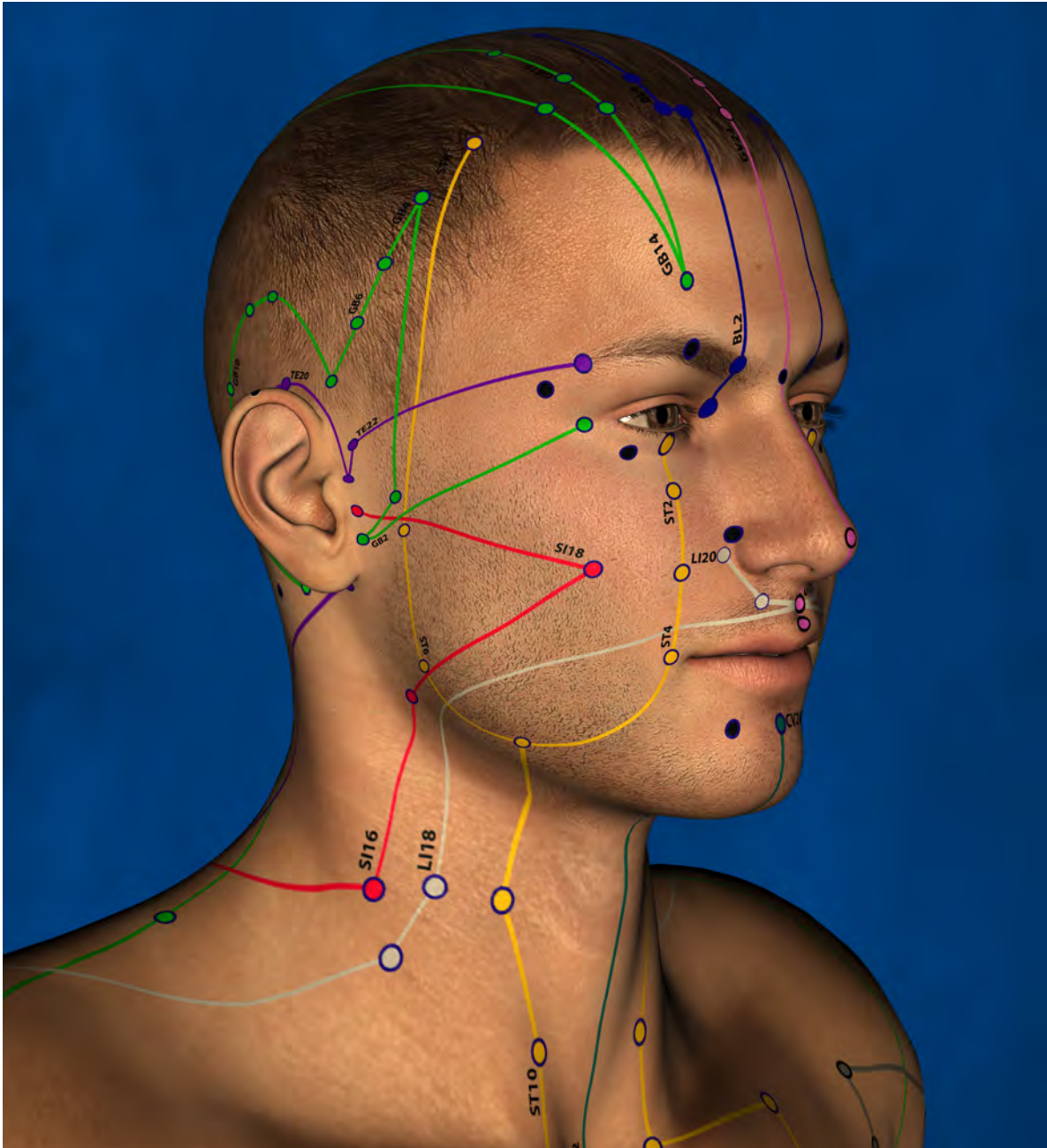


This point supports the flow of qi and is level with the laryngeal prominence (Adam's Apple). As a result, this point regulates the neck and throat area, especially that of the laryngeal prominence (Adam's Apple). Because the laryngeal prominence protrudes to a high peak on the neck, this point governs neck and throat area. Regulating from the peak of the neck, this point commands from above and governs the

neck and throat. In addition, this point's proximity to the carotid artery reflects its ability to regulate the throat, head, and body communication.

Common indications include chicken singing in the throat, lose of voice, phlegm stagnation, coughing, neck nodules, irregular heart beats, local pain, and headaches.

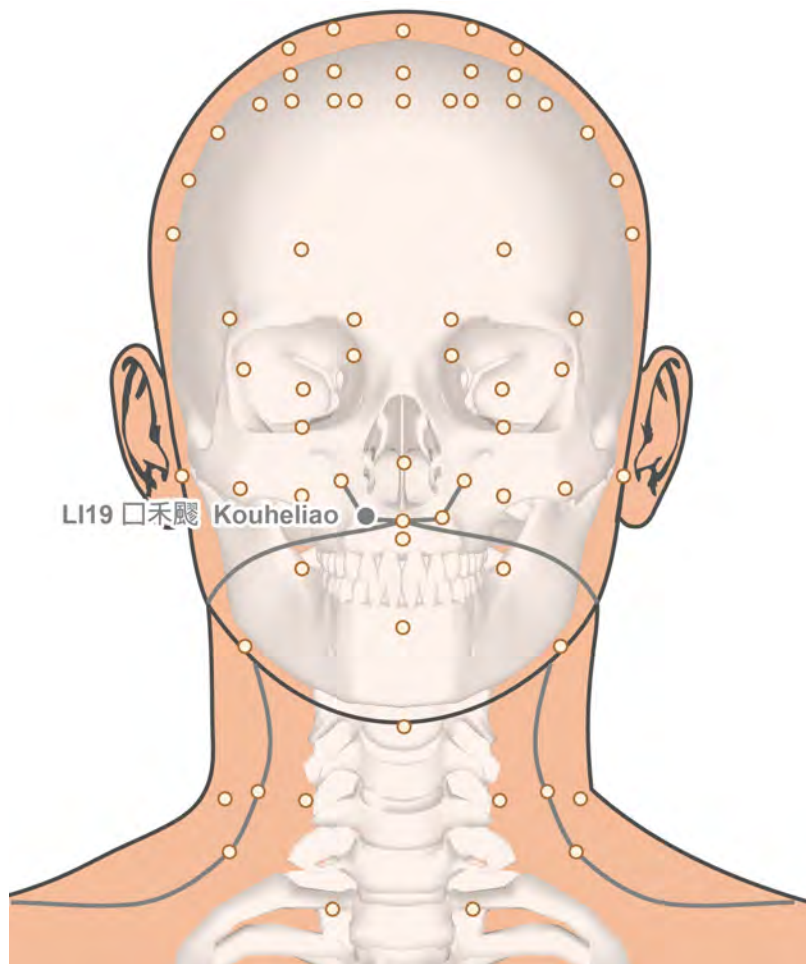




LI18 and surrounding acupoints

LI19 (Kouheliao, Mouth Grain Orifice) 口禾膠

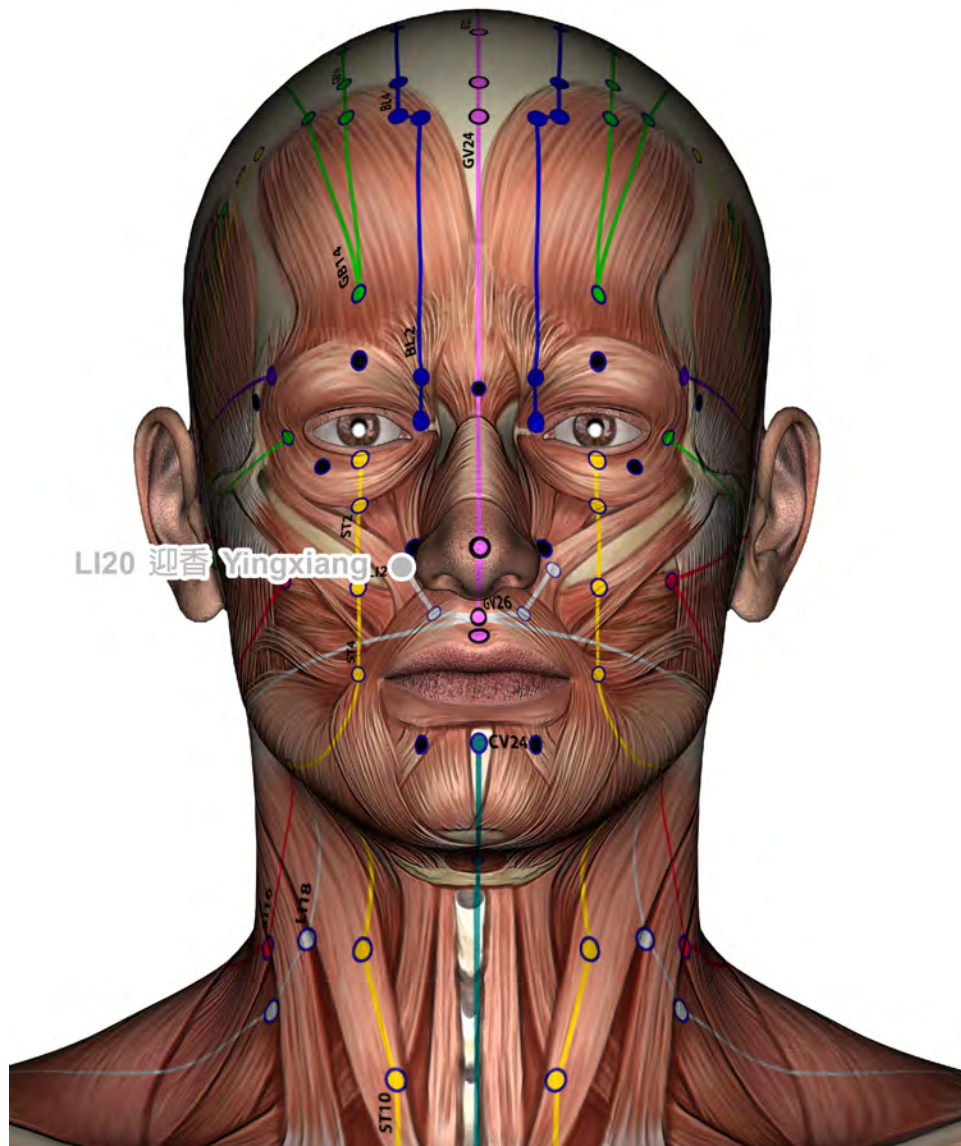
LI19 is below the lateral margin of the nostril, 0.5 cun lateral to DU26, above the upper lip. It is level with the upper third and lower two thirds of the philtrum.

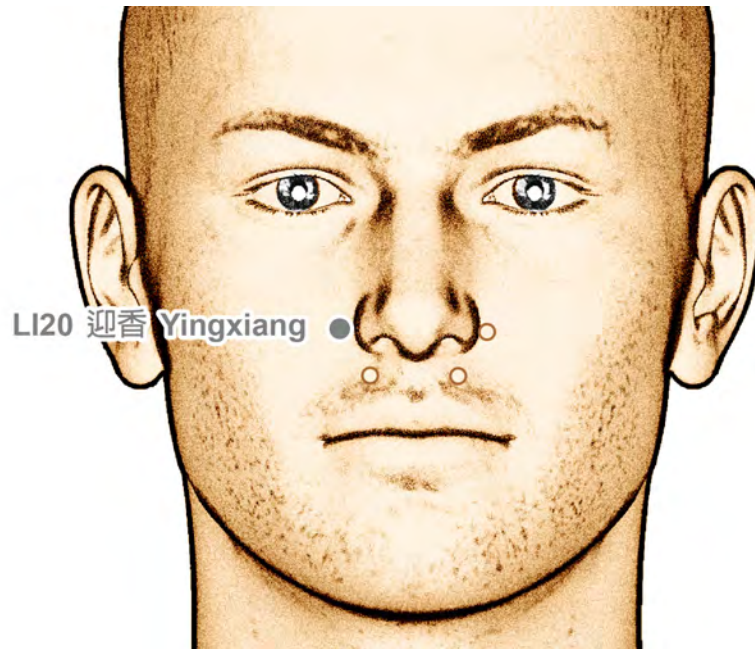


LI19 (Mouth Grain Orifice) stimulates the mouth and nose. This point stimulates the appetite and is useful for the treatment of nasal obstructions, epistaxis, rhinitis, deviation of the face and mouth, toothaches, ulcerations of the lip and mouth, and facial paralysis.

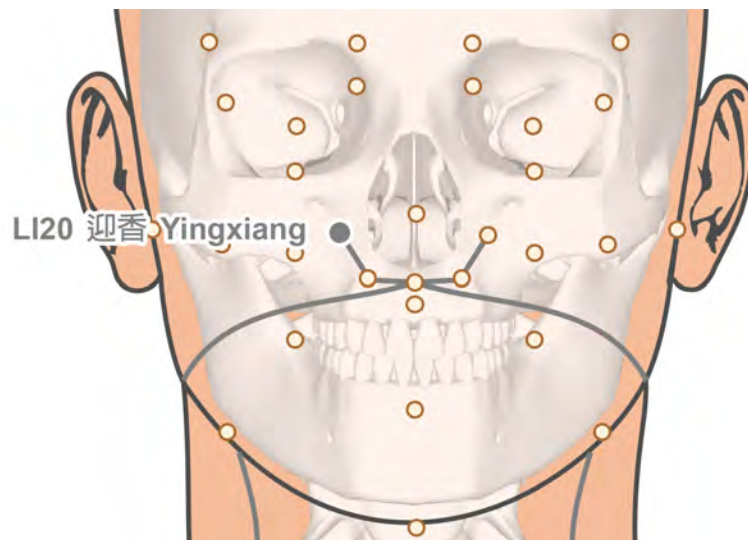
LI20 (Yingxiang, Welcome Fragrance) 迎香

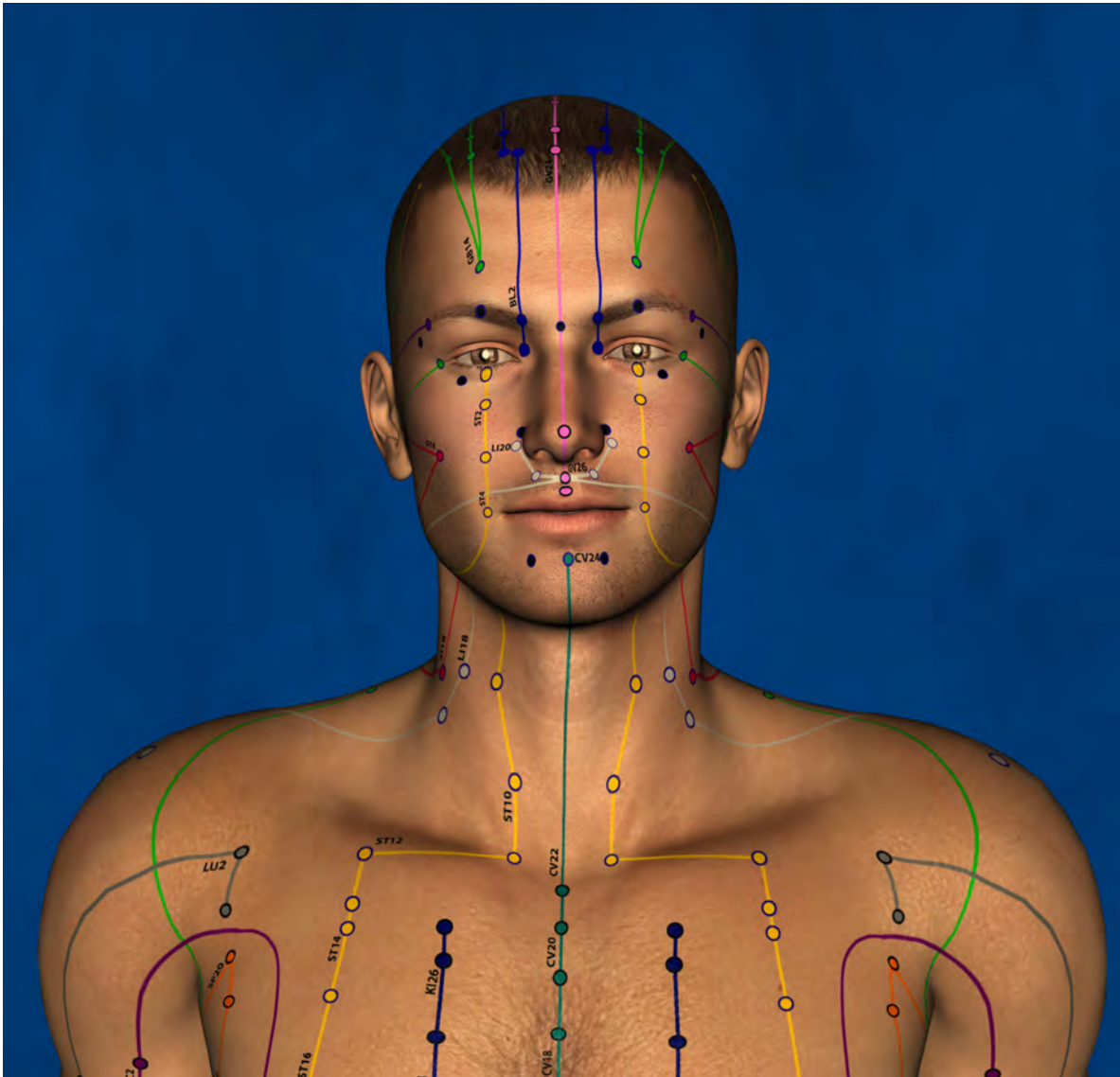
LI20 is in the nasolabial groove, at the level of the midpoint of the lateral border of ala nasi. LI20 is a meeting point of the large intestine and stomach channels. This point opens nasal passages, disperses wind-heat, and controls the sense of smell.





LI20 regulates the qi of the large intestine yangming channel, which is paired with the lung taiyin channel. LI20 assists the lungs to open the nose to welcome the sense of smell, thus the name: welcome fragrance. Indications for use include nasal congestion and obstruction, anosmia, dysosmia, and deviation or paralysis of the face and mouth.





LI channel of the anterior face

Next:

The following section reviews research that includes the use of large intestine channel acupuncture points.

Research

This section takes a look at research examples using large intestine channel acupoints.

Acupuncture Nerve Regeneration

Acupuncture repairs injured nerves. Findings published in *Neural Regeneration Research* demonstrate that acupuncture causes injured lower and upper limb motor nerves to repair. Electromyographic nerve conduction tests of acupuncture patients with nerve injuries document “an effective response” in 80% of patients participating in the study. Electromyography confirms that acupuncture significantly improves motor nerve conduction velocity and amplitude and also promotes functional nerve repair.

The researchers made an important discovery. A special set of acupuncture points resulted in good to excellent clinical responses at a very high rate. Using only local acupuncture points, patients had an effective rate of 38.5%. By adding acupuncture points to the Du meridian (Governing Vessel) in addition to local acupuncture points, the effective rate jumped to 80%. Here, we see that local large intestine channel points (along with other points) are potentiated by the use of Governing Vessel acupoints.

The Du meridian is a pathway composed of 28 primary acupuncture points plus extra acupoints. Many of the Du meridian acupuncture points are located on the midline of the back below the spinous processes of the vertebrae. In Traditional Chinese Medicine (TCM), the application of acupuncture points to the Du meridian (Governor vessel) are used for the treatment of many disorders including spine and brain ailments, vertigo, numbness, tremors, febrile diseases, and infertility.

The research published in *Neural Regeneration Research* confirms the Du meridian's significant role in the treatment of nerve injuries. Electroacupuncture was applied to both the upper and lower limb groups at a rate of once per day, five times per week, for a total of six weeks.

The total number of acupuncture treatments was 30 sessions per patient. The researchers conclude, "Our results indicate that Governor vessel and local meridian acupoints used simultaneously promote functional repair after peripheral nerve injury."

The acupuncture points used in the study were a protocolized set of two acupuncture point prescriptions, one for the upper limbs and one for the lower limbs. The upper limb acupuncture point prescription consisted of local acupoints at the site of the injured nerve plus the following Du meridian acupoints:

- Baihui (DU20)
- Fengfu (DU16)
- Dazhui (DU14)
- Shenzhu (DU12)

The lower limb acupuncture point prescription consisted of local meridian acupoints at the site of the injured nerve plus the following Du meridian acupoints:

- Jizhong (DU6)
- Mingmen (DU4)
- Yaoyangguan (DU3)
- Yaoshu (DU2)

The local acupuncture points used in the study were chosen based on the area of nerve injury. Radial nerve injuries were treated with the following acupuncture points:

- Jianyu (LI15)
- Binao (LI14)
- Quchi (LI11)

- Hegu (LI4)
- Yangxi (LI5)

Ulnar nerve injuries were treated with the following acupuncture points:

- Qingling (HT2)
- Xiaohai (SI8)
- Zhizheng (SI7)
- Wangu (SI4)
- Houxi (SI3)

Median nerve injuries were treated with the following acupuncture points:

- Quze (PC3)
- Daling (PC7)
- Neiguan (PC6)
- Laogong (PC8)

Peroneal nerve injuries were treated with the following acupuncture points:

- Yanglingquan (GB34)
- Guangming (GB37)
- Juegu (GB39)
- Qiuxu (GB40)

Tibial nerve injuries were treated with the following acupuncture points:

- Yinlingquan (SP9)
- Sanyinjiao (SP6)
- Dijii (SP8)
- Lougu (SP7)

Sciatic nerve injuries were treated with the following acupuncture points:

- Huantiao (GB30)
- Ciliao (BL32)
- Zhibian (BL54)

- Yanglingquan (GB34)
- Weizhong (BL40)
- Juegu (GB39)

Brachial plexus injuries were treated with the following acupuncture points:

- Jianyu (LI15)
- Binao (LI14)
- Quchi (LI11)
- Waiguan (SJ5)
- Baxie (EX-UE8)

The acupuncture needles were 0.35 x 25 mm and were applied to an approximate depth of 1 cun at each acupoint. Manual acupuncture was applied to elicit a response followed by application of electroacupuncture with a sparse-dense wave between 2–100 Hz. Intensity was set to tolerance levels.

The researchers note that nerve injuries affect the metabolic microenvironment. Citing an example, they note that sciatic nerve injuries reduce acetylcholinesterase activity in the lumbar spinal cord microenvironment. This causes neuronal cell death thereby impeding nerve repair. The researchers note that acupuncture counteracts this effect, citing that it successfully increases “acetylcholinesterase expression in spinal cord tissue after peripheral nerve injury.” As a result, the researchers suggest that this may be an important mechanism by which acupuncture promotes the healing of peripheral nerves.

Reference:

Gh, He, Ruan Jw, Zeng Ys, X. Zhou, Y. Ding, and Zhou Gh. "Improvement in acupoint selection for acupuncture of nerves surrounding the injury site: electro-acupuncture with Governor vessel with local meridian acupoints." Neural Regeneration Research 10, no. 1 (2015): 128.

Allergic Rhinitis: Acupuncture Downregulates IgE

Acupuncture alleviates allergic rhinitis and regulates antibodies.



Acupuncture alleviates nasal and eye itching, sneezing, and runny nose for patients with allergic rhinitis. Researchers confirm that acupuncture successfully downregulates IgE (immunoglobulin E), an antibody active in hypersensitivity reactions, while simultaneously reducing symptoms of allergic rhinitis. In a controlled investigation published in the *Annals of Allergy, Asthma & Immunology*, university researchers demonstrate that acupuncture downregulates allergen specific IgE for dust mites.

Researchers from Stanford University, RMIT University, Griffith University, and Western Sydney University conclude that acupuncture alleviates persistent allergic rhinitis. Important subjective and objective measures support the conclusion. Allergy symptoms and overall quality of life scores significantly improved as a result of acupuncture therapy. Moreover, symptoms and quality of life scores continued to improve, measured four weeks after completion of acupuncture treatments.

In objective measures, acupuncture significantly decreased IgE levels for patients with allergic rhinitis. Total IgE and allergen specific IgE for dust mites were significantly downregulated, including measurements taken four weeks after completion of acupuncture therapy. Sham acupuncture did not downregulate either of the IgE levels.

The researchers add that real acupuncture exerts an immunomodulatory effect on patients with allergic rhinitis. They note that this effect may also benefit patients with other allergic conditions, including allergy related asthma. In addition, real acupuncture downregulated proinflammatory neuropeptide SP.

A total of 110 subjects were divided into real acupuncture, sham acupuncture, and no acupuncture groups. Participants receiving real acupuncture experienced significant improvement in allergic rhinitis symptoms. This included reductions of nasal and eye itching, sneezing, and runny nose. Patients in both the real and sham acupuncture groups had sleep improvements; however, sham acupuncture group participants did not have any improvements in other symptoms. Only real acupuncture alleviated nasal and eye related symptoms of allergic rhinitis.

The Mini-Rhinoconjunctivitis Quality of Life Questionnaire revealed that patients receiving real acupuncture demonstrated continued improvements at weeks 9–12. Patients receiving only sham acupuncture deteriorated at weeks 9–12. Regarding IgE, the researchers note, "This was the first study to report a significant decrease in allergen specific IgE for house dust mite in adults with persistent allergic rhinitis. These findings suggest that acupuncture modulates the allergic immune response through down-regulation of allergen specific IgE for house dust mite possibly through the reduction of TH2 dominance."

The rigor of this clinical trial is significant. It is a 3-arm, double blinded, randomized, sham-controlled trial. Ethics clearance was given by the Griffith University Human Research Ethics Committee and the study

was registered with the Australian New Zealand Clinical Trials Registry.

Positive patient outcomes were taken, in part, by measurements of upper respiratory regulation of mucosal immune responses by the application of acupuncture. Samples were taken from saliva and blood for laboratory analysis. Objective measurements used in outcome determinations included those of total IgE, allergen specific IgE, proinflammatory neuropeptides, eosinophilic cationic proteins, cytokines, and neurotrophins. Subjective measures tracked nasal airway clearance and quality of life scores.

The researchers did not simulate acupuncture needles to obtain deqi, as is standard clinical practice. Instead, needles were inserted without any manipulation. This may have been necessary to preserve the double-blinded aspect of the study and sham controls.

The researchers included a brief discussion concerning sham acupuncture protocols and noted, "Non-channel points used in sham acupuncture protocols have been shown not to be inert; however, because there is no sham acupuncture protocol that has been validated as inert, needling non-channel points was the most appropriate invasive sham protocol available." They add, "The use of sham acupuncture protocols that are not inert can lead to underestimation of the effect size of real acupuncture."

Chinese sterile disposable needles (0.25 x 40 mm) were used for the real acupuncture group. Acupuncture was performed between 6 am–12 pm, two times per week, for a total of 16 acupuncture sessions over a period of 8 weeks. All needles were retained for twenty minutes prior to removal. All acupuncture treatments were applied by a licensed acupuncturist with greater than 35 years of clinical experience. Acupoints needled obliquely to a depth of 3–5 mm were:

- **Yintang**
- **LI20**
- **GV23**

Additional needles were inserted perpendicularly to a depth of 10–15 mm into the following acupoints:

- **LI4**
- **ST36**

Based on the data, the researchers conclude that acupuncture is a safe and effective treatment modality for patients with allergic rhinitis. Acupuncture reduces nasal and eye symptoms including itching, sneezing, and runny nose. In addition, acupuncture regulates IgE for patients with allergic rhinitis.

References:

McDonald, John Leslie, Peter K. Smith, Caroline A. Smith, Charlie Changli Xue, Brenda Golianu, Allan W. Cripps, and Mucosal Immunology Research Group. "Effect of acupuncture on house dust mite specific IgE, substance P, and symptoms in persistent allergic rhinitis." Annals of Allergy, Asthma & Immunology 116, no. 6 (2016): 497-505.

Author Affiliations: Griffith University (Queensland, Australia), Western Sydney University (Sydney, Australia), RMIT University (Victoria, Australia), Stanford University (Palo Alto, California).

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Liu B, Liu X, Chen J, et al. Study on the effects of acupuncture at acupoint and non-acupoint on functional connectivity of different brain regions with functional magnetic resonance imaging [in Chinese]. Zhongguo Zhen Jiu. 2009; 29:981e985.

Dincer F, Linde K. Sham interventions in randomized clinical trials of acupuncture: a review. Complement Ther Med. 2003;11:235e242.

Birch S. A review and analysis of placebo treatments, placebo effects, and placebo controls in trials of medical procedures when sham is not inert. J Altern Complement Med. 2006;12:303e310.

Allergies and Sinus Disorders

German researchers confirm the effectiveness of acupuncture for the treatment of allergies and sinus disorders. In an eight week clinical trial, patients receiving acupuncture required less medications and had fewer seasonal allergic rhinitis symptoms than control groups. In addition, quality of life scores were significantly better in the acupuncture group than in either control group. Based on the evidence, the Charité–Universitätsmedizin Berlin researchers conclude that “acupuncture treatment was more effective than the symptomatic drug intervention.”

The researchers screened 1,588 patients and accepted 414. Eligibility was determined at the outset of the local pollen season (i.e., March–May). All patients had seasonal allergic rhinitis for a least two years. The inclusion age range was limited (16–45 years).

Participants in both the verum (true, real) acupuncture treatment group and the sham acupuncture control group were blinded to treatment group allocation. The patients did not know whether they received real or sham acupuncture. An additional control group received only antihistamine medication (i.e., cetirizine). Two patients also took methylprednisolone.

A total of 60% of acupuncture patients self-administered antihistamine medications during the eight week treatment intervention period. A total of 71% of patients in the sham control group self-administered antihistamines and 82% self-administered antihistamines in the drug-only group.

Patients in the acupuncture group used antihistamines 8.92 days on average during the intervention period. Sham acupuncture group patients used antihistamines for an average of 13.41 days and the drugs-only group for an average of 18.07 days.

Acupuncture patients did not increase use of drugs from onset to the peak of pollen season. Patients in the other control groups increased

antihistamine consumption. The researchers add, seasonal allergic rhinitis “symptoms decreased significantly in the acupuncture group compared with the other study groups.” Patients receiving verum acupuncture were needed at the following acupuncture points:

- **LI4 (Hegu)**
- **LI11 (Quchi)**
- **LI20 (Yingxiang)**
- **Yintang (extra)**

At a minimum, three of the following eight acupuncture points were added during each treatment session:

- **Bitong (extra)**
- **GB20 (Fengchi)**
- **LV3 (Taichong)**
- **LU7 (Lieque)**
- **ST36 (Zusanli)**
- **SP6 (Sanyinjiao)**
- **TB17 (Yifeng)**
- **BL13 (Feishu)**

In addition, at least three more acupuncture points were added per each acupuncture session. The acupuncture treatment group received eight weeks of true acupuncture treatment. In summary, patients receiving acupuncture had less drug intake and less symptoms than patients in the medication-only or sham acupuncture control groups.

The researchers provided a general background. They note that allergic rhinitis (inflammation of the nasal mucous membranes) is common, affecting approximately 23% of European adults. Allergic rhinitis usually presents with other symptoms triggered by allergens including sneezing, itching, nasal obstruction, or rhinorrhea (i.e., runny nose).

The antihistamine cetirizine was chosen because it is “one of the most prescribed antihistamines” in Germany. Possible cetirizine adverse effects include drowsiness, headaches, dizziness, fatigue, or sore throat.

The researchers reference a report by Schäfer et al. noting that 18% of seasonal allergy patients in Germany have had acupuncture for the treatment of the condition. The results of the current investigation “showed significant changes in favour of acupuncture treatment, including improvements in RQoL [rhinitis-specific quality of life] and SAR [seasonal allergic rhinitis] symptoms scores.”

The research team notes that 38% of patients receiving acupuncture did not use any antihistamines and only 16% of patients in the drugs-only group did not use antihistamines. They add that acupuncture reduces antihistamine use and “can therefore be considered a valuable, additional treatment option for patients with SAR.”

Prior research by Reinhold et al. is consistent with these findings, concluding that “Acupuncture is an effective intervention that results in improved quality of life in patients with SAR.” An investigation by Brinkhaus et al. produced similar findings, “In patients with allergic asthma, additional acupuncture treatment to routine care was associated with increased disease-specific and health-related quality of life compared to treatment with routine care alone.”

Lab Experiment

Zheng et al. tested the efficacy of acupuncture for the treatment of allergic rhinitis with a different approach. They chose a laboratory investigation. Acupuncture was applied for a total of one minute, once per day, for 10 days. They conclude, “Warm acupuncture can improve the symptoms of AR [allergic rhinitis] rats, which may be associated to its effect in inhibiting the expression of serum IgE, IL-1 β and TNF- α .” The acupuncture intervention was the application of warm needle acupuncture to the following acupoints:

- **GB 20 (Fengchi)**
- **Yintang (extra)**
- **LI 20 (Yingxiang)**

Acupuncture outperformed the control group and the medication group (fluticasone propionate) for both reduction of symptoms and downregulation of serum IgE, IL-1 β , and TNF- α . These substances are proinflammatory mediators. IgE is an antibody that functions in immunity but is also involved in hypersensitivity related to asthma, sinusitis, and allergic rhinitis. IL-1 β is a proinflammatory cytokine with pyrogenic (fever producing) properties. TNF- α is another cell signaling protein (cytokine) with proinflammatory actions. It is involved in systemic inflammation, acute reactions, and is an endogenous pyrogen. Results were confirmed with enzyme linked immunosorbent assays.

References:

Adam, Daniela, Linus Grabenhenrich, Miriam Ortiz, Sylvia Binting, Thomas Reinhold, and Benno Brinkhaus. "Impact of acupuncture on antihistamine use in patients suffering seasonal allergic rhinitis: secondary analysis of results from a randomised controlled trial." Acupuncture in Medicine (2018): acupmed-2017, Charité – Universitätsmedizin Berlin.

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Acupuncture For Carpal Tunnel Syndrome



Acupuncture relieves carpal tunnel syndrome pain and restores function. Two independent studies reveal the benefits of warm needle acupuncture for CTS (carpal tunnel syndrome). Participants in both studies experienced significant improvements in pain levels and wrist function following acupuncture treatment combined with either Huang Qi Gui Zhi Wu Wu Tang herbal formula or nighttime wrist splinting.

Acupuncture And Herbs

The first study, conducted at Qixia District Hospital (Nanjing), investigated the effects of warm needle acupuncture combined with herbs on 60 CTS patients with a TCM (Traditional Chinese Medicine) diagnosis of qi deficiency and blood stasis. [1] The study group was comprised of 23 male and 37 female patients, ages 30–67 years (mean age 45.64 years), with a disease duration of 18 days to 16 months (mean duration 7.56 months). Of these, 25 cases were classified as mild and 35 were classified as moderate. Thirty-seven patients' symptoms were unilateral, while 23 were bilateral.

Biomedical diagnostic criteria included:

- a history of occupational overuse, fracture, or dislocation of the wrist
- numbness or pain in the hands, forearm, or upper arm
- symptoms that worsen at night and during winter, and are relieved by movement
- weakness when gripping objects or making a fist
- thenar muscle atrophy
- positive Phalen test or Tinel sign
- EMG tests showing nerve conduction as normal

TCM diagnostic criteria included:

- numbness, tingling, or abnormal sensations
- difficulty grasping, holding, rubbing, or rotating the wrist
- pale-dull tongue with thin white coating
- minute-rough and tight pulse

For inclusion in the study, patients were required to have been diagnosed with mild to moderate CTS, have normal routine blood counts, and give informed consent to participate in the study.

Exclusion criteria were: severe CTS with cervical radiculopathy or thoracic outlet syndrome; multiple peripheral neuropathies; acute or chronic wrist trauma; receiving any related surgery or treatment.

Treatment

Patients were treated in a seated position with their palms perpendicular to the horizontal plane. Following standard disinfection, 0.30 x 40 mm needles were inserted into the following primary acupoints on the affected side:

- **Neiguan (PC6)**

- **Daling (PC7)**

The following secondary acupoints were utilized:

- **Hegu (LI4)**
- **Yangxi (LI5)**
- **Lieque (LU7)**

The primary acupoints were stimulated with a lifting-thrusting, twisting-rotating technique to elicit a deqi sensation, which radiated from Neiguan to the fingertips or upper arm. The secondary points were strongly stimulated to induce a sensation of distending numbness. A 1 cm piece of moxa roll was then attached to the needle handles and ignited. The moxa was allowed to burnout, and the procedure was repeated three times for each point before removing the needles.

Each course of treatment was comprised of five consecutive days and two courses were administered, separated by a two-day break. In addition, patients were prescribed Huang Qi Gui Zhi Wu Wu Tang, comprised of the following herbs:

- **Huang Qi 15g**
- **Chi Shao 12g**
- **Gui Zhi 10g**
- **Sheng Jiang 10g**
- **Da Zao 10g**
- **Sang Ji Sheng 15g**
- **Shen Jin Cao 15g**
- **Kuang Jin Teng 15g**

One dose of the formula was taken daily for a total of four weeks. The following additions were made according to each patient's individual diagnosis:

- For blood deficiency (pale complexion, dizziness, vertigo, limb numbness, pale tongue, fine-weak pulse), Dang Gui, Chuan Xiong, and Ji Xue Teng were added.
- For blood stasis (dark complexion, rough-darkened skin, hyperpigmentation, bruising, dull lips, green-blue-purple tongue or tongue with petechiae, fine-rough pulse), Tao Ren and Hong Hua were added.
- For qi deficiency (bright white complexion, dizziness, vertigo, shortness of breath, lassitude, and in severe cases, fainting, plump and pale tongue, slow pulse), the dose of Huang Qi was increased and Dang Shen was added.

Results

Outcome measures for the study included the BCTQ (Boston Carpal Tunnel Syndrome Questionnaire) and a VAS (Visual Analog Scale) for pain determinations. Nerve conduction tests were performed before and after treatment, and the total effective rate was calculated.

The BCTQ is comprised of 11 items relating to symptoms such as pain and abnormal sensations and eight questions relating to wrist function. Each item is rated on a scale of 1–5, with higher scores indicating increased disability.

Prior to treatment, mean BCTQ scores were 2.57 for symptomatology and 2.55 for function. Following treatment, scores fell to 1.87 and 1.65 respectively. The VAS rated pain on a scale of 0–10, with higher scores indicating increased pain. The mean pre-treatment VAS score was 5.58. This figure fell to 2.51 following treatment.

Nerve conduction test results included the middle finger-wrist and thumb-wrist SNAP (sensory nerve action potential), middle finger-wrist and thumb-wrist SNCV (sensory nerve conduction velocity), DML (distal motor latency), and thumb abductor muscle tests. Middle finger-wrist and thumb-wrist SNAP, middle finger-wrist and thumb-wrist SNCV, and thumb abductor muscle tests all showed significant

improvements following treatment ($p < 0.05$).

Each case was classified as either recovered, markedly effective, effective, or ineffective according to the degree of improvement in symptoms and test results. There were 30 recovered, 16 markedly effective, 11 effective, and 3 ineffective cases, yielding a total effective rate of 95%.

Zhejiang University of TCM

A study conducted at Zhejiang University of TCM investigated the effects of warm needle acupuncture combined with nighttime wrist splinting. [2] The study group was comprised of 8 male and 30 female patients, ages 23–56 years, with a disease duration of 0.5–6 months.

Eighteen cases were classified as mild and 20 were classified as moderate. Biomedical diagnostic criteria were similar to the study detailed above. The study utilized 2 acupoints:

- **Daling (PC7)**
- **Jianshi (PC5)**

Following standard disinfection, 0.25 x 25 mm needles were inserted at Daling, with the needle angled toward the palm at approximately 30 degrees from the skin. Needles were inserted to a depth of 10 mm to elicit an electric shock sensation. At Jianshi, 0.25 x 40 mm needles were inserted perpendicularly to a depth of 10–15mm and stimulated using a twisting-rotating technique to elicit deqi.

A 2 cm piece of moxa roll was then attached to the needle handle and ignited from below. A piece of thick paper was placed beneath the needle to protect the skin from falling ash. Two burnings of moxa were performed before the needles were removed. A total of 10 treatments were administered on alternate days.

In addition, a simple wrist splint was provided to be worn at night. The

splint was comprised of a 10 cm wide piece of card stock that was wrapped around the wrist and secured with elastic bandages, ensuring that the splint was not too tight. The splint was worn at night to prevent involuntary flexion of the wrist and it was removed in the morning.

Results

Each case was classed as either recovered, markedly effective, effective, or ineffective depending on the degree of improvement in symptoms. There were initially 13 recovered (34.2%), 13 markedly effective (34.2%), 8 effective (21.1%), and 4 ineffective (10.5%) cases. Those that were not fully recovered were offered a second course of treatment.

Of the patients not fully recovered, 19 accepted a second course of treatment. Three cases initially classified as markedly effective and one initially classified as effective were upgraded to recovered, and three cases initially classified as effective were upgraded to markedly effective. The remaining patients did not experience further improvement.

The results of these two studies indicate that warm needle acupuncture is an effective treatment for mild to moderate CTS and may be combined with either herbal medicine or wrist splinting. Based on patient outcomes, acupuncture is definitively a safe and effective therapeutic method for the alleviation and elimination of carpal tunnel syndrome.

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Acupuncture Reduces Pain After Surgery

Stanford University doctors conclude that acupuncture during surgery reduces pain. Research published in *The Laryngoscope* finds acupuncture effective for reducing pain and improving restoration of a normal diet postoperatively when acupuncture is applied during surgery.

Doctors from the Stanford University School of Medicine conclude that acupuncture is “feasible, well tolerated, and results in improved pain and earlier return of diet postoperatively.”

The research was conducted by doctors from two Stanford University School of Medicine (Palo Alto, California) departments, the Department of Otolaryngology-Head and Neck Surgery and the Department of Anesthesia.

A randomized-controlled investigation of acupuncture’s benefits to pediatric tonsillectomy patients reveals that acupuncture patients “experienced significantly less pain at various postoperative time points as compared to the control cohort, and also that the onset of analgesia in the acupuncture cohort began by 36 hours postoperatively, whereas the control group did not reach significant analgesia until 84 hours postoperatively.”

Postoperative oral intake improved for patients receiving acupuncture during the tonsillectomy operation. The researchers note, “Oral intake was significantly more improved in the acupuncture group than the control group ($P = 0.01$).” They add that “the acupuncture group had significantly increased oral intake starting at 24 hours and lasting through all remaining time points examined, whereas the control group had significantly increased oral intake starting at 72 hours postoperatively.”

Measures of intraoperative acupuncture on nausea and vomiting did not produce significantly different results for the acupuncture and

control groups. Out of a total of 59 patients, five acupuncture group patients experienced nausea or vomiting. Similarly, seven control group patients experienced nausea or vomiting. The researchers note that the numbers are not statistically significant. Overall, the researchers note that the rates of nausea and vomiting were “very low” for both groups and that this may be attributed to “other factors in our regimen,” including surgical techniques, gastric suctioning, etc.... The researchers comment, “We do, however, find the differences between the treatment and control groups in postoperative pain scores to be clinically significant, particularly when treatment resulted in an earlier improvement of oral intake.”

Researchers note that no adverse side effects from acupuncture occurred. They comment that only sterile disposable acupuncture needles were used, adding that this may have averted adverse effects. The researchers note, “Complications related to acupuncture are very rare....” In many states, including California where the investigation was conducted, only sterile disposable needles are legal for use during acupuncture. Although autoclaving sterilizes needles, reusable needles are not used in California and many other states. Single-use sterile disposable needles have quickly become the national standard in the USA. The American Association of Acupuncture and Oriental Medicine (AAAOM) and the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM) “note that not a single death has been reported to result from acupuncture in the US.”

The Stanford University researchers note that the study of acupuncture during surgery is a “relatively new area of research.” They add, “One of the strengths of this study is its rigorous double-blinded randomized design with a sham acupuncture control.” Based on the positive patient outcomes for both pain reduction and oral intake restoration, the researchers suggest further studies with larger sample sizes.

Acupuncture Procedure

Electroacupuncture was applied intraoperatively at alternating frequencies between 4 and 100 Hz with a Pantheon Research

stimulator. Electroacupuncture connected acupoints LI4 (Hegu) to ST36 (Zusanli) and P6 (Neiguan) to TB5 (Waiguan). Electroacupuncture was also applied to acupoint KD6 (Zhaohai). The researchers comment that alternating frequencies between 4 and 100 Hz were utilized to “optimize the release of endogenous endorphins, enkephalins, and dynorphins.” ST36 was chosen for its “analgesic properties,” LI4 and KD6 were chosen for their analgesic actions on the throat, head, and neck; and PC6 was chosen for its antiemetic properties. All needles were inserted to a depth wherein a deqi fascial grab was achieved. The needle depth ranged between approximately 0.5–1.0 cun.

Acupoint HT7 (Shenmen), located on the wrist, was added for its ability to reduce “postoperative agitation.” No electroacupuncture was added to HT7 or auricular acupuncture points. Seirin brand auricular acupuncture “junior tacks” were added to outer ear points shenmen, master cerebral, cingulate gyrus, and tonsil.

The double-blind, randomized, placebo-controlled study finds intraoperative acupuncture effective for reducing pain and improving postoperative oral intake. Integration of acupuncture into the operating room was also found both feasible and well tolerated. Funding sources are the Stanford University Medical Scholars Research Program, Howard Hughes Medical Institute Medical Fellow Program, and the Stanford Children’s Health Research Institute Akiko Yamazaki and Jerry Yang Faculty Scholar. Disclosures note that no conflicts of interest or other sources of funding or financial relationships exist. The research is published in *The Laryngoscope*, a publication of The American Laryngological, Rhinological and Otological Society.

Reference:

Tsao, Gabriel J., Anna H. Messner, Jeannie Seybold, Zahra N. Sayyid, Alan G. Cheng, and Brenda Golianu. "Intraoperative acupuncture for post tonsillectomy pain: A randomized, double-blind, placebo-controlled trial." The Laryngoscope (2015).

Acupuncture For Pneumonia-Induced Sepsis Relief



Acupuncture increases the efficacy of drug therapy for the treatment of sepsis due to pneumonia. Researchers from Guang'anmen Hospital of China Academy of Chinese Medical Science combined electroacupuncture with drug therapy. Patients receiving both drug therapy and electroacupuncture had superior patient outcomes compared with patients receiving drug monotherapy. The researchers conclude that the addition of acupuncture to a drug treatment regimen increases the total effective rate, assists in the regulation of immune system functions, increases anti-febrile actions, and alleviates inflammatory reactions.

The implications of this investigation are that an integrative medicine approach to infectious disease has the potential to save lives. The World Health Organization (WHO) notes that sepsis “affects more than 30 million people worldwide every year, potentially leading to 6 million deaths.” [2]

Guang'anmen Hospital researchers (Wang et al.) used the following study design. A total of 120 patients with pneumonia-induced sepsis were treated and evaluated in this study. They were randomly divided into an acupuncture treatment group and a control group, with 60 patients in each group. For control group patients, routine care (pain and fever-reducing drugs, water-electrolyte management, nutritional support) and anti-infective drugs were administered. The treatment

group received acupuncture in addition to the same drug treatment regimen administered to the drug control group.

The statistical breakdown for each randomized group was as follows. The treatment group was comprised of 34 males and 26 females. The average age in the control group was 56.1 years. The control group was comprised of 32 males and 28 females. The average age in the control group was 55.9 years. There were no significant statistical differences in gender, age, and other demographics relevant to patient outcome measures.

Acupuncture And Drug Therapy

For both groups, patients received routine care and anti-infective drugs. The anti-infective therapy contains 400 mg of a moxifloxacin hydrochloride injection (an antibiotic) and 250 ml of a 5% glucose solution. The two medicines were delivered by intravenous fluid drips for a total of 90 minutes. The acupoints used for the treatment group included the following:

- **LI4 (Hegu)**
- **LI11 (Quchi)**

Once manual acupuncture achieved a deqi sensation, electroacupuncture (model HANS 200) was applied. A disperse-dense wave of 2/100 Hz was applied. Each electroacupuncture session lasted for 30 minutes.

Evaluations

Multiple instruments were used to measure patient outcomes before and four hours after treatment. First, the onset time of fever abatement and total fever abatement time were recorded. The onset time of fever abatement action refers to the time when the body temperature decreased by 0.5°C. The total fever abatement times refer to the time when the body temperature returned to 37°C.

Second, serum inflammatory factors were measured, including tumor necrosis factor (TNF)- α , interleukin (IL)-1 β , IL-8, and IL-10. TNF- α ,

IL-1 β , and IL-8 are pro-inflammatory factors and IL-10 is an anti-inflammatory factor. Third, serum acetylcholine (ACh) and choline acetyl transferase (ChAT) levels were documented. ACh is synthesized by choline and acetyl-CoA under the catalysis of ChAT. It is the main neurotransmitter released by the vagus nerve and acts on macrophages to inhibit the release of inflammatory factors. Fourth, CD4+ cell percentage, CD8+ cell percentage, and the CD4+/CD8+ cell ratios were compared. CD4+ cells are T helper cells. CD8+ cells are T suppressor cells. The ratio of CD4+/CD8+ cells is used to quantify immune system status. A lower CD4+/CD8+ cell ratio indicates an increased risk of infection.

The onset time of fever abatement action and the fever clearance time in the acupuncture treatment group was significantly shorter than in the control group ($p < 0.05$). Four hours after treatment, serum levels of TNF- α , IL-1 β , and IL-8 in the treatment group were significantly lower than in the control group. Serum IL-10 levels in the treatment group were significantly higher than the control group ($p < 0.05$). Serum levels of ACh and ChAT in the treatment group were significantly higher than those in the control group ($p < 0.05$). CD4+ cell percentages and CD4+/CD8+ cell ratios in the treatment group were significantly higher than those in the control group. CD8+ cell percentages in the treatment group were significantly lower than in the control group ($p < 0.05$).

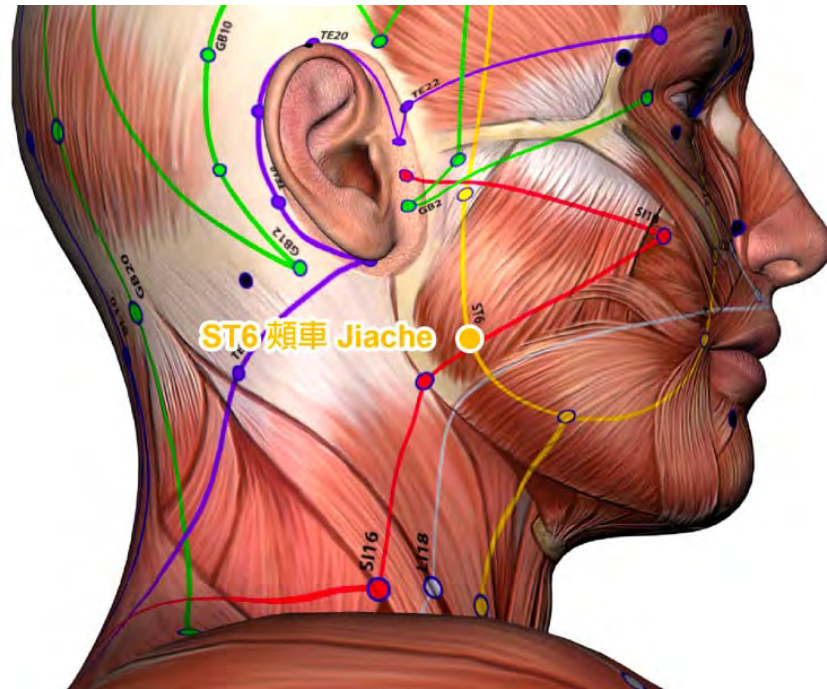
Results

The results indicate that acupuncture combined with conventional anti-infective therapy into an integrated treatment protocol is more effective than using routine care and anti-infective drugs without acupuncture. Wang et al. conclude that acupuncture is safe and effective for the treatment of pneumonia-induced sepsis.

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Acupuncture Stops Dental Surgery Pain



Acupuncture exerts anesthetic effects, alleviates pain, and reduces gingival bleeding during and after dental procedures. Three independent investigations confirm the findings. In one study, acupuncture outperformed a local anesthetic and produced better anesthetic effects. Two other investigations find acupuncture effective for the alleviation of pain and conclude that acupuncture significantly reduces copious gingival bleeding during and after tooth extraction.

Hunan University of Traditional Chinese Medicine researchers compared the anesthetic effects of acupuncture and a local anesthetic during tooth extraction. The results of the controlled clinical trial find acupuncture more effective than compound articaine hydrochloride injections. [1]

The university researchers (Pan et al.) used the following study design. A total of 60 subjects participated in the study. Patients were from the Dentistry Department of the First Affiliated Hospital of the Hunan

University of Traditional Chinese Medicine. Randomization into an acupuncture treatment group and a control group, with 30 subjects in each group, was employed. For control group patients, compound articaine hydrochloride injections were administered before tooth extraction.

Compound articaine hydrochloride injection is a sterile and aqueous solution containing articaine (4%) and epinephrine (1:100,000), both commonly used during dental procedures. The treatment group received only acupuncture. The criteria for the treatment group patients were the following:

- Ages between 18-65 years
- Consistent with the indication of tooth extraction (i.e., severe caries, malopposed or malpositioned teeth, impacted wisdom teeth, severe periapical or periodontal diseases, severe oral soft and hard tissue diseases)
- Informed consent was signed for each patient

The following exclusion criteria were applied:

- Malignant systemic diseases such as hemophilia, aplastic anemia, thrombocytopenic purpura, and leukemia
- Severe comorbid hypertension, heart disease and other cardiovascular diseases
- Severe comorbid diseases affecting major organs
- Acute infectious diseases, acute mucosal inflammation, oral malignant tumors
- Pregnant or lactating women
- Women during menstrual cycle

The statistical breakdown for each randomized group was as follows. The treatment group was comprised of 18 males and 12 females. The average age in the treatment group was 42 ± 14 years. The control group was comprised of 17 males and 13 females. The average age in the treatment group was 47 ± 15 years. There were no significant statistical differences in gender, age, and other demographic factors relevant to patient outcome measures for patients initially admitted to the study.

Acupuncture And Drug Groups

For the control group, 1.0 ml of compound articaine hydrochloride injection was administered with a local anesthetic syringe before dental surgery. If pain became severe during operation, another 0.5 ml of compound articaine hydrochloride injection was given. The total time and amount of additional anesthetic injection was recorded. The primary acupoints selected for the treatment group were the following:

- LI4 (Hegu)
- ST44 (Neiting)
- ST7 (Xiaguan, the surgical side)
- ST6 (Jiache, the surgical side)
- For the extraction of incisors and canine teeth, CV24 (Chengjiang) on the surgical side was also added.

Treatment commenced with patients in a supine position and at mouth opening. After disinfection of the acupoint sites, a 0.35 mm x 40 mm disposable filiform needle was inserted into each acupoint with a high needle entry speed. For Hegu and Neiting, the needles were twisted, lifted, and thrust for 2 minutes (90 degrees, 180 r/min), after reaching a standard depth and a deqi sensation was obtained. For Xiaguan, Jiache, and Chengjiang, the needles were inserted to a depth of 15–25 mm; next, the needles were manipulated to obtain a deqi sensation. Then, the needles were gently pulled until they reached the subcutaneous tissue. The needles were retained until 10 min after tooth extraction or when there was no obvious pain.

If pain became severe during the operation, the needles at each point were manipulated for 1 minute. If pain was not relieved after manipulation was applied, 0.5 ml of compound articaine hydrochloride injection (identical to that used by the control group) was given. The total time and amount of additional local anesthetic injection should be recorded.

Acupoint Selection

Acupuncture points selected for the study were based on Traditional Chinese Medicine principles. Hegu is the Yuan-source point of the Hand Yangming Large Intestine meridian. In the *Sizong Gejue (Song of the Four Command Points)*, it is noted that "Hegu (LI4) regulates the face and mouth." In the *Zhengjiu Jiayi Jing (Systematized Canon of Acupuncture and Moxibustion)*, it is noted, "Hegu is indicated for tooth pain."

Neiting is the Ying-spring point of the Foot Yangming Stomach meridian. According to the *Zhengjiu Jiayi Jing*, needling this point treats "lower tooth pain." The researchers conclude that "Needling acupoints on the Hand and Foot Yangming meridians are effective for relieving tooth pain." In Traditional Chinese Medicine, the Hand Yangming Large Intestine meridian enters the lower gums and the Foot Yangming Stomach meridian enters into the upper gums. Xiaguan and Jiache are located on the Foot Yangming Stomach meridian.

The deep anatomical structure of the Xiaguan point includes trigeminal nerve branches (i.e., the maxillary nerve, auriculotemporal nerve). The deep anatomical structure of the Jiache point includes the facial nerve, great auricular nerve, and the masseteric nerve. These points are traditionally indicated for the treatment of tooth pain.

Evaluations

Multiple subjective and objective instruments measured patient outcomes. First, the general condition was recorded, including blood pressure, heart rate, respiratory rate, operation duration, the amount of bleeding during tooth extraction, and the total time and amount of additional local anesthesia injections. Second, the anesthetic effective rate was evaluated according to the National Anesthetic Scoring Standard:

- *Class I (super excellent): patients stay quiet and feel no pain during operation*
- *Class II (excellent): patients stay quiet and feel occasional pain during operation*
- *Class III (good): patients feel obvious pain and additional anesthesia is needed to continue with surgery*
- *Class IV (bad): pain is so obvious that surgery cannot be continued unless the*

anesthesia method is changed.

Third, the improvement of pain intensity was scored using the pain rating index (PRI) and the visual analog scale (VAS). Fourth, the adverse effect (e.g., dizziness, palpitations, nausea) rate was recorded.

Results

After completion of treatments, the acupuncture group reported 25 cases of Class I (83.4%), 4 cases of Class II, 1 case of Class III, and 0 cases of Class IV. The treatment group reported 24 cases of Class I (80.0%), 4 cases of Class II, 2 cases of Class III, and 0 cases of Class IV. The amount of bleeding during surgery as well as the adverse effect rate in the acupuncture group was significantly lower than in the control group ($p < 0.01$, $p < 0.05$).

The acupuncture group produced a 2.42 ± 0.78 ml of average bleeding with an adverse effect rate of 6.7%. The control group produced a 3.20 ± 0.86 ml of average bleeding with an adverse effect rate of 30.0%. There were no significant differences between the two groups regarding other parameters measured in the study (e.g., blood pressure, heart rate, respiratory rate, operation duration, the total time and amount of additional local anesthesia, PRI score, VAS scores).

Nanjing Jiangning District Hospital TCM

Nanjing Jiangning District Hospital of Traditional Chinese Medicine researchers (Xie et al.) had similar results in their independent investigation, published in the Henan Traditional Chinese Medicine Journal. [2] The researchers determined that acupuncture produced an anesthetic effect during tooth extraction. Among 32 patients receiving acupuncture treatments, 24 (75%) patients had Class I results, 6 (19%) patients had Class II results, and only 2 (6%) patients had Class III or IV results. **The primary acupoint used in the study was Hegu (LI4).** Additional acupoints were added for specific diagnostic considerations. For extraction of upper frontal teeth, the following acupuncture points were added:

- ST2 (Sibai)
- LI20 (Yingxiang)
- GV26 (Renzhong)

For extraction of upper posterior teeth, the following acupuncture points were added:

- ST7 (Xiaguan)
- SI18 (Quanliao)
- ST6 (Jiache)

For extraction of lower frontal teeth, the following acupuncture points were added:

- CV24 (Chengjiang)
- ST5 (Daying)
- ST6 (Jiache)

For extraction of lower posterior teeth, the following acupuncture points were added:

- ST7 (Xiaguan)
- ST6 (Jiache)
- ST4 (Dicang)

Acupuncture needles were inserted into each acupoint with a high speed. After insertion, the needles were lifted, thrust, and twisted to achieve a deqi sensation. The needles were retained until operation completion. Tooth extraction started 5–10 minutes after needle retention.

Shanxi Datong University

Shanxi Datong University researchers investigated the benefits of acupuncture for the treatment of copious gingival bleeding after tooth extraction. [3] Their investigation included patients meeting the following inclusion criteria:

- *Underwent tooth extraction and failed to stop bleeding 24 minutes after operation completion*
- *Bleeding could not be stopped after using other outpatient bleeding control measures*
- *The cause of bleeding was gingival laceration*

The primary acupoints used in the investigation were the following:

- LI4 (Hegu)
- LU6 (Kongzui)
- LI11 (Quchi)
- ST41 (Jiexi)
- LV2 (Xingjian)
- ST44 (Neiting)
- ST36 (Zusanli)
- GV23 (Shangxing)
- ST6 (Jiache)
- ST7 (Xiaguan)

The researchers cited the ancient historical roots and modern research behind the acupoint protocol used in the study. In Traditional Chinese Medicine, gingival bleeding is caused by instability of meridian qi in the yangming meridians. **Hegu is the Yuan-source point of the large intestine meridian. Quchi is the He-sea point of the same meridian. Jiexi is the Jing-river point of the stomach meridian.** These three distal points combined with the two local points (Jiache, Xiaguan) drain excessive meridian qi and clear stagnant heat of the yangming meridians. In modern terminology, these Chinese medicine principles correlate to regulating autonomic nervous system outflows and reducing inflammation in the local region.

Kongzui is the Xi-cleft point of the Hand Taiyin Lung meridian. Xi-cleft points are places where qi and blood of the meridians are deeply gathered. According to Traditional Chinese medicine, Xi-cleft points of

the Yin meridians are indicated for bleeding diseases, while that of the Yang meridians treat acute diseases. [4] In the *Zhenjiu Zisheng Jing (Acupuncture Life-Promoting Canon)*, which was written in the Song dynasty, it is noted that "Needling Kongzui treats spitting of blood." Modern research confirms that Kongzui is effective for bleeding control. For example, Liu et al. conclude that acupuncture at Kongzui activates sympathetic nerves to release norepinephrine, leading to contraction of blood vessels. Kongzui also increases the content of thromboxane (a hormone released from platelets) in tissue, thereby enhancing blood coagulation and promoting hemostasis. [5]

Xingjian is the Ying-spring point of the Foot Jueyin Liver meridian. Needling Xingjian drains liver qi and clears fire. Neiting is the Ying-spring point of the stomach meridian. Zusanli is the He-sea point of the same meridian. Needling the two acupoints stops bleeding by clearing fire and regulating qi. Shangxing is located on the Du meridian (Governing Vessel). This point is traditionally indicated for gingival bleeding. Needling this point clears heat in the Du meridian.

After disinfection of the acupoint sites, a 0.25 mm x 40 mm disposable filiform needle was inserted into each acupoint with a high needle entry speed. Hegu, Neiting, and Jiache were inserted perpendicularly to a depth of 0.5 cun. Kongzui was inserted perpendicularly to a depth of 1 cun. Xingjian was inserted obliquely and upward to a depth of 1 cun. Zusanli was inserted perpendicularly to a depth of 2 cun. Shangxing and Xiaguan were inserted transversely to a depth of 0.5 cun. Upon arrival of a deqi sensation, the Ping Bu Ping Xie (mild attenuating and tonifying) manipulation technique was applied. A needle retention time of 60 minutes was observed.

Evaluations were made after completion of treatment and in a 3-day follow-up examination. The amount of bleeding in 47 out of 48 patients significantly reduced in the first 5-10 minutes after treatment completion. The bleeding stopped within 20 min. and there was no recurrence of bleeding within a 30-minute observation time after treatment completion. In addition, there was no recurrence of bleeding in the follow up examination. One out of 48 patients had a small

amount of bleeding at 20 min. after treatment completion. The bleeding stopped after closing the surgical wound with sutures. There was no recurrence of bleeding in the follow up examination.

The Takeaway

Independent investigations indicate that acupuncture is an important anesthetic and treatment option in dental procedures. Acupuncture exerts an anesthetic effect during tooth extraction and eliminates copious gingival bleeding after operation completion. Common protocols involve the application of acupoints on the Foot Yangming Stomach meridian (e.g., Neiting, Xiaguan, Jiache) and the Hand Yangming meridian (e.g., Hegu, Quchi).

Notes

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Acupuncture & Topical Herbs For Facial Paralysis



Acupuncture combined with topical herbs is effective for the treatment of facial paralysis. Researchers from the Traditional Chinese Medicine department of People's Hospital (Huairan, Shanxi) tested two acupuncture protocols. Using acupuncture as a monotherapy produced a 76.92% total effective rate. The addition of topical herbal medicine to the acupuncture point prescription increased the total effective rate to 97.44%. [1] The type of facial paralysis examined in the investigation is categorized as Bell's palsy.

Acupuncture monotherapy produced significant positive patient outcomes: 11 patients were cured, 13 had highly effective results, 6 achieved the effective tier of patient outcomes, 9 did not have significant outcomes. Adding topical herbal medicine paste to the identical acupuncture point prescription protocol produced superior patient outcomes. In the acupuncture and herbs group, 20 patients were classified as cured, 14 were classified as highly effective, 4 were classified as effective, and 1 was ineffective. [2]

A total of 78 patients suffering from facial paralysis were recruited for the study and were randomly assigned to receive either standard acupuncture or acupuncture plus herbs, applied directly to specific

acupuncture points. Within the standard acupuncture group, there were 20 males and 19 females, with a mean age of 35.26 years. Their duration of disease ranged from 1–14 months, with a mean duration of 5.41 months. Within the acupuncture and herbs group, there were 21 males and 18 females, with a mean age of 36.15 years. The duration of disease ranged from 2–15 months, with a mean duration of 5.57 months. No statistically significant difference was found between the two groups prior to the clinical trial.

All of the participants received a clinical diagnosis of facial paralysis according to TCM and biomedical criteria, were aged 20–65 years, and gave voluntary, informed consent to participate in the study. Patients whose facial paralysis was due to physical trauma or tumors were excluded. Further exclusion criteria were either concurrent serious illness or known allergies to topical medications.

Acupuncture Points

For all patients in the acupuncture monotherapy group, the following local points were selected:

- Sibai (ST2)
- Dicang (ST4)
- Taiyang (MHN9)
- Quanliao (SI18)
- Xiaguan (ST7)
- Yingxiang (LI20)
- Jiache (ST6)
- Yangbai (GB14)

Additional distal points and needle techniques varied according to each patient's individual Traditional Chinese Medicine (TCM) diagnosis as follows:

Wind-Heat

For patients with facial paralysis due to wind-heat, the following distal points were added (all points were needled using a reducing technique or electroacupuncture):

- Hegu (LI4)
- Quchi (LI11)
- Dazhui (GV14)
- Yuji (LU10)
- Waiguan (TB5)

Wind-Cold

For patients with facial paralysis due to wind-cold, the following distal points were added (all points were needled using a reducing technique with warm needle acupuncture):

- Hegu (LI4)
- Fengchi (GB20)
- Lieque (LU7)

Blood Stasis

For patients with facial paralysis due to blood stasis, the following distal points were added (all points were needled using a balanced reinforcing-reducing technique):

- Ganshu (BL18)
- Neiting (ST44)
- Xuehai (SP10)
- Geshu (BL17)

Acupuncture and Herbs

All patients in the acupuncture plus herbs group received local and distal acupuncture treatment according to the same protocol as the acupuncture monotherapy group. In addition, topical herbs were applied

directly to specific acupuncture points, according to each patient's TCM diagnosis.

Wind-Heat

For patients with facial paralysis due to wind-heat, the following herbs were selected:

- Lian Qiao 10g
- Bo He 6g
- Huang Lian 6g
- Bing Pian 2g
- Zhi Ma Qian 1g
- She Xiang 0.2g

The herbs were ground to a powder and made into a paste using a small amount of ginger juice. The paste was then divided and formed into small cakes to be applied to the following acupoints:

- Xiaguan (ST7)
- Jiache (ST6)
- Yifeng (TB17)
- Wangu (GB12)

Wind-Cold

For patients with facial paralysis due to wind-cold, the following herbs were selected:

- Zhi Chuan Wu 10g
- Fang Feng 10g
- Rou Gui 10g
- Bai Fu Zi 10g
- Quan Xie 6g

The herbs were ground to a powder and made into a paste using a few

drops of water. The paste was then divided and formed into cakes to be applied to the following acupoints:

- Xiaguan (ST7)
- Taiyang (MHN9)
- Jiache (ST6)

Blood Stasis

For patients with facial paralysis due to blood stasis, the following herbs were selected:

- E Zhu 10g
- Xiang Fu 10g
- Ru Xiang 10g
- Mo Yao 10g
- San Leng 10g
- Pao Shan Jia 10g (we recommend any environmentally suitable alternative for this herb)
- Hong Hua 6g

The herbs were ground to a powder and made into a paste using a small amount of alcohol. The paste was then divided and formed into cakes to be applied to the following acupoints:

- Scalp motor area
- Taiyang (MHN9)
- Qianzheng (MHN16)
- Local ashi points

Outcomes and Discussion

Treatment outcomes were measured using the House-Brackmann scale for facial function (H-B). The H-B scale quantifies the degree of nerve damage and is helpful in determining a prognosis. This scale grades facial function on a scale of 1–6, with 1 indicating normal facial function

and 6 indicating complete paralysis.

Prior to treatment, there was no significant difference between the mean H-B scores of the acupuncture monotherapy and the acupuncture and herbs groups, at 3.89 and 3.92 respectively ($p>0.05$). Following treatment, the mean H-B scores of both groups fell significantly ($p<0.05$). However, the mean post-treatment score in the acupuncture and herbs group was significantly lower at 2.01 compared with 2.87 in the standard acupuncture group ($p<0.05$).

In addition, the participants were divided into four categories according to their H-B scores and overall improvement in clinical symptoms at the end of the study. The participants were classified as either cured (complete resolution of clinical symptoms, H-B score of 1), highly effective (face symmetrical when static, but with slight asymmetry on movement, H-B score of 2), effective (face symmetrical when static, but asymmetrical with movement, some facial spasms or twitching, H-B score of 3), or ineffective (no significant improvement of clinical symptoms).

Acupuncture as a standalone treatment modality and the acupuncture plus topical herbal medicine protocol produced significant patient outcomes; however, the addition of herbal medicine produced superior patient outcomes.

References:

1. Ji Shouquan (2018) "Clinical Observation on Acupuncture and Moxibustion Combined with Chinese Herbs Acupoint Application in the Treatment of Facial Paralysis" *Guangming Journal of Chinese Medicine*, Vol. 33 (14), pp. 2075-2077.

2. *Ibid.*

Acupuncture Effective For Stroke Recovery

Acupuncture is found effective for the treatment of paralysis caused by a stroke. Researches tested the Shujintongluo acupuncture protocol for the treatment of hemiplegia, a type of stroke affecting one side of the body. The addition of acupuncture to standard drug therapy following an acute cerebral infarction increased the positive patient outcome rate by 11.77%.



A randomized clinical trial of 68 patients examined results in two groups. One group received standard drug therapy and the other group received standard drug therapy plus acupuncture. The drug therapy only group had a total effective rate of 70.59%. The group receiving drug therapy plus acupuncture had an 82.36% total effective rate.

One of the more important results measured in the study was the recovery rate, defined as a disability rank of level 0 and the NHISS (National Institutes of Health Stroke Scale/Score) improvement rate of 91% – 100%. The group receiving acupuncture plus drugs had a 29.41% recovery rate and the drugs only group had a 20.59% recovery rate. Another important result was the significantly effective rate, defined as a disability rank of level 1 – 3 and an NHISS improvement of 46% – 90%. The acupuncture plus drugs group had a 38.24% rate and the drugs only group had a 35.29% rate.

Fugl-Meyer Assessment of Sensorimotor Recovery (FMA) and Modified Barthel Index Score (MBI) were significantly better in the group receiving acupuncture. This includes improvements in motor functioning, sensory abilities, balance, joint functioning, bowel and bladder control, ability to eat, walking, transfers, dressing, climbing stairs, and bathing. The acupuncture plus drugs group had an FMA score of 38.65 and an MBI of 56.46. The drugs only group scored an FMA of 28.24 and an MBI of 47.36.

The Shujintongluo (alleviating muscle rigidity and promoting blood circulation) protocol is based on several Traditional Chinese Medicine (TCM) principles: alleviate blood stasis, enhance cerebral circulation, promote blood circulation to benefit brain cells, reduce brain tissue damage. Some of the goals associated with this protocol are to restore the function of facial nerves, motor coordination of the limbs, and language abilities.

Patients were admitted to the study at the Loudi Convalescent Hospital of Hunan. The average age was 65.3 (± 6.4) years. Eight acupuncture treatments comprised one course of care and all patients received three courses of acupuncture treatments. Total treatment time per each acupuncture session ranged from 35–40 minutes. Acupuncture points used in the study were selected from the following list per each patient's specific needs:

- **BL60 (Kunlun)**
- **GB32 (Zhongdu)**
- **GB34 (Yanglingquan)**
- **KD3 (Taixi)**
- **LI10 (Shousanli)**
- **LI11 (Quchi)**
- **LI14 (Binao)**
- **LI15 (Jianyu)**
- **LI4 (Hegu)**
- **LU5 (Chize)**

- **LV3 (Taichong)**
- **PC3 (Quze)**
- **PC6 (Neiguan)**
- **SP10 (Xuehai)**
- **SP6 (Sanyinjiao)**
- **SP9 (Yinlingquan)**
- **ST32 (Futu)**
- **ST36 (Zusanli)**
- **TB10 (Tianjing)**
- **TB5 (Waiguan)**

Based on the research data, the investigators conclude that early intervention with acupuncture improves patient outcomes for patients with hemiplegia due to an acute cerebral infarction. Pronounced improvements in motor abilities and daily living activities in the acupuncture group were standouts in this investigation.

Li Xueyan and Zhang Liang confirm these findings in their laboratory experiment. The results indicate that scalp acupuncture is effective for stimulating neurologic repair and reducing cerebral edema caused by an intracerebral hemorrhage. Motor improvements included improved standing and bending in laboratory rats. Biochemical analysis confirms that acupuncture regulates expression of MMP-9 (matrix metalloproteinase), an enzyme that breaks down extracellular matrix that is involved in tissue remodeling. To achieve this result, acupoint Baihui (GV20) was connected to Xuanli (GB6) using the threading technique.

In related research, Taipei Medical University researchers (Huang et al.) confirm that acupuncture benefits stroke patients. Hemiplegic stroke patients receiving acupuncture had significantly greater positive patient outcome rates than a control group. A total of 66 patients were randomly assigned to two groups for a total sample size of 132 participants. Postural assessment scales were measured for both static and dynamic balance values. The results demonstrate that

acupuncture significantly improves static balance when added to the rehabilitation phase of treatment for hemiplegic stroke patients with a low Brunnstrom (Br) stage (a measure of motor activity including flaccidity, synergy, voluntary movements, spasticity, complex movements, individual joint movements, and the restoration of normal function). The results indicate that integration of acupuncture into usual care facilities improves patient outcomes.

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Shih, Chun-Chuan, Yi-Ting Hsu, Hwang-Huei Wang, Ta-Liang Chen, Chin-Chuan Tsai, Hsin-Long Lane, Chun-Chieh Yeh et al. "Decreased Risk of Stroke in Patients with Traumatic Brain Injury Receiving Acupuncture Treatment: A Population-Based Retrospective Cohort Study." *PLOS ONE* 9, no. 2 (2014): e89208.

Acupuncture Modulates Brain Activity

MRI studies reveal the neurological mechanisms of acupuncture on human health. Research published in *Autonomic Neuroscience* demonstrates that stimulation of specific acupuncture points induces hemodynamic changes in specific brain networks. The researchers add that brain networks accessed by specific acupuncture points relate to specific medical disorders and suggest an “acupoint-brain-organ” pathway.

Functional magnetic resonance imaging (fMRI) studies reveal specific acupuncture point effects in the brain through blood-oxygen-level dependent (BOLD) measurements. In a meta-analysis of 82 fMRI studies, researchers found a large body of evidence supporting acupuncture point specificity. This applies to both manual acupuncture and electroacupuncture.

True acupuncture point stimulation induced specific cortical effects, whereas sham acupuncture did not. In addition, the researchers note that acupuncture point stimulation produces significantly “more positive and negative hemodynamic signal response(s) in brain regions compared with sensory stimulation used as a control condition.”

Many important findings were confirmed. Acupuncture exerted a stimulus that “could induce beneficial cortical plasticity in carpal tunnel syndrome patients.” It was also demonstrated that acupuncture relieved pain “by regulating the equilibrium of distributed pain-related central networks.”

The researchers note that a fundamental principle of Traditional Chinese Medicine (TCM) is that “specific acupoints have therapeutic effects on target organ systems remote from the needling site....” Recent fMRI investigations support this principle. The researchers note that “fMRI investigations regarding several acupoints have demonstrated that acupuncture stimulation at disorder-implicated acupoints modulates the activity of the disorder-related brain regions.”

In TCM, acupuncture point Neiguan (PC6) is indicated for the treatment of nausea and vomiting. The fMRI research supports this ancient principle. The researchers note, "Acupuncturing at Neiguan (PC6) could selectively evoke hemodynamic response of insula and cerebellar-hypothalamus in order to exert modulatory effects on vestibular functions, indicating the specific treatment effect on nausea and vomiting."

Acupuncture point GB37 (Guangming), located on the lower leg, is indicated for the treatment of vision related disorders within the TCM system. The name of the point, Guangming, is translated as bright light and indicates the acupoint's use in the treatment of visual disorders. It is categorized as a Luo-connecting point and has the TCM functions of regulating the liver and clearing vision. The point is indicated for the treatment of hyperopia (farsightedness), myopia (nearsightedness), night blindness, and eye pain.

The research demonstrates that GB37 increases neural responses in the occipital cortex. The researchers add that it was "discovered that modulations in vision-related cortex (BA18/19) were responsive to the specificity of GB37...." This connection between fMRI findings and TCM indications confirms the specificity of GB37 for the treatment of visual disorders.

A broad body of research suggests "that acupuncture at different acupoints may modulate relatively specific cerebral areas," according to the researchers. Acupoints demonstrating this phenomenon in fMRI include:

- **Hegu (LI4)**
- **Zusanli (ST36)**
- **Taichong (LV3)**
- **Taixi (KI3)**

- **Qiuxu (GB40)**
- **Guangming (GB37)**
- **Jiaoxin (KI8)**
- **Auricular: Brain Stem**
- **Sanyinjiao (SP6)**

Many examples of acupoint cortical specificity were included in the research. The following are some highlights. **The researchers note, “Acupuncture at the three classical acupoints of Hegu (LI4), ST36 and Taichong (LV3) produced extensive deactivation of the limbic-paralimbic-neocortical brain network as well as activation of its anti-correlated activation network.”** Differentiation between the points was noted as the following, **“LI4 was predominant in the pregenual cingulate and hippocampal formation, ST36 response was predominant in the subgenual cingulate, and LV3 in the posterior hippocampus and posterior cingulate....”** Taixi (KI3) mediated the executive network, Qiuxu (GB40) activated the auditory network, and “Jiaoxin (KI8) was associated with (the) insula and hippocampus in pain modulation.”

The mechanisms of cerebral action of true acupuncture were found distinct from sham acupuncture. The researchers note, “Acupuncture at Taichong (LR3, LV3) could specifically activate or deactivate brain areas related to vision, movement, sensation, emotion, and analgesia compared with sham acupuncture.” They add, “Several studies have found that there were different brain responses between traditional acupoints and sham points....”

It was found that “ST36 could induce greater activation in ventrolateral periaqueductal gray (PAG) and produced linearly time-variant fMRI activities in limbic regions, such as amygdale and hippocampus....” **Needling acupuncture point Erjian (LI2) activated the insula and operculi but this did not occur with sham acupuncture.** Other research examples were cited. The researchers concluded, “These

results provided evidence to support that acupoints may have its own functional specificity to sham point.”

A multiplicity of fMRI studies investigated the effects of deqi. The elicitation of deqi by acupuncture needling techniques is often described by patients as electrical, dull, or heavy. Deqi is often described by licensed acupuncturists applying manual acupuncture as a pulling or tugging sensation on the needle. The fMRI research shows “ that acupuncture with deqi induced extensive deactivation in limbic-paralimbic-neocortical network (LPNN) and activation in somatosensory regions of (the) brain.” Other research suggests that the bilateral postcentral gyrus, insula, ipsilateral inferior frontal gyrus, inferior parietal lobule, claustrum, and contralateral ACC are related to deqi elicitation. In addition, the researchers note that deqi sensations are directly “correlated with activation in sensorimotor and cognitive (dorsomedial prefrontal cortex) processing, and deactivation in DMN (default-mode network regions).”

The depth of needling affects cerebral responses to acupuncture. It was found that deep needling of KI3 elicits “more extensive connectivity related to therapeutic effect(s) of acupuncture in mild cognitive impairment patients” when compared with superficial needling. Other important clinical findings were documented. Acupuncture successfully regulated DMN and motor-related networks in stroke patients. **The application of acupuncture to acupoints LR3 and LI4 activated cognitive related regions in Alzheimer’s disease and mild cognitive impairment (MCI) patients.** The study notes that abnormal functional connectivity in the temporal regions of the hippocampus, thalamus, and fusiform gyrus for mild cognitive impairment patients “significantly improved.”

The mechanisms by which laser acupuncture exerts antidepressant effects was revealed in fMRI. The DMN (default mode network) is at its peak activity level when the brain is at rest and deactivates when the brain is task or goal oriented. Laser acupuncture to Ququan (LR8),

Qimen (LR14), and Juque (DU14) stimulated both the anterior and posterior DMN in depressed and non-depressed individuals. However, posterior DMN modulation was wider in depressed individuals receiving laser acupuncture at the parieto-temporal-limbic cortices.

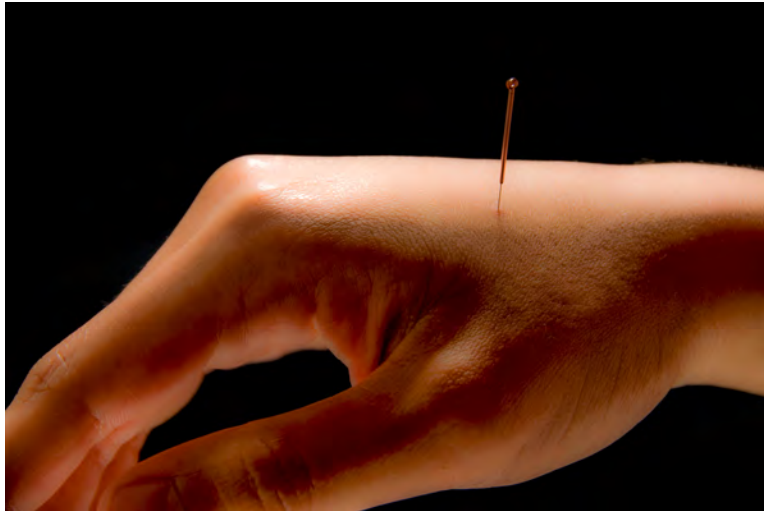
Acupuncture has also been shown to regulate DMN activity in Alzheimer's disease patients. In addition, brain activation induced by acupuncture in healthy patients is different than brain activation induced in Parkinson's disease patients. One study was found showing that "acupuncture may regulate the cardiovascular system through a complicated brain network from the cortical level, the hypothalamus, and the brainstem to improve body pain and vitality in primary hypertension patients."

The researchers note that fMRI assists in understanding the neural effects of acupuncture. The researchers conclude, "Acupuncture could induce hemodynamic changes in a wide cortico-subcortical network, large portions of which are overlapped with the disorder-related areas, indicating that there maybe exist a specific pathway connecting "acupoint-brain-organ" underlying acupuncture induced therapeutic effects."

Reference:

He, Tian, Wen Zhu, Si-Qi Du, Jing-Wen Yang, Fang Li, Bo-Feng Yang, Guang-Xia Shi, and Cun-Zhi Liu. "Neural mechanisms of acupuncture as revealed by fMRI studies." Autonomic Neuroscience (2015).

Acupuncture Chemotherapy Neurotoxicity Prevention



Acupuncture is effective for the prevention of neurotoxicity caused by oxaliplatin-based chemotherapy. In research conducted at the Second Affiliated Hospital of Anhui University of Chinese Medicine, acupuncture reduced neurotoxicity rates to 30.00%. Another group receiving intravenous B12 (mecobalamin) therapy yielded a 36.84% neurotoxicity incidence rate. Both of these approaches to controlling adverse reactions outperformed chemotherapy without additional care, which produced a 78.95% neurotoxicity incidence rate. [1]

Traditional Chinese medicine (TCM) clinical syndrome scores were measured for all patients in the study. Acupuncture produced an 85.00% total effective rate in improving TCM scores, mecobalamin produced a 63.16% total effective rate, and the chemotherapy control group without any intervention produced a 52.63% total effective rate. Based on the data, the researchers conclude that acupuncture treatment reduces the occurrence of oxaliplatin neurotoxicity while significantly improving the TCM clinical syndrome scores of patients receiving chemotherapy.

Oxaliplatin is a third-generation platinum anticancer drug. It is mainly used for first and second-line treatment of advanced colorectal cancer and for adjuvant therapy after surgery. While achieving good clinical results, the downside is that it can cause acute and chronic neurotoxicity.

It was reported that 89% of patients develop neurological symptoms after administering oxaliplatin, mainly in the peripheral nervous system. [2] In severe cases, it can affect patients' daily lives, including walking, writing, sense of touch, diet, emotions, and sleep, leading to a decline in quality of life. Due to possible side effects, patients may have reduced chemotherapy doses or discontinued treatment, resulting in poor compliance and prognosis.

A total of 58 patients were treated and evaluated in this study. Patients received oxaliplatin-based chemotherapy and were randomly divided into an acupuncture group, a mecobalamin group, and a chemotherapy control group with 20, 19, and 19 patients in each group respectively. For the B12 group patients, 0.5 mg mecobalamin was administered through intravenous injections, once per day, for three days as one treatment course. Mecobalamin is a form of vitamin B12, often for the treatment of neuropathies.

The statistical breakdown for each randomized group was as follows. The acupuncture group had 13 males and 7 females. The average age in the acupuncture group was 57.10 years. The western drug group had 14 males and 5 females. The average age was 57.63 years. The chemotherapy only group had 15 males and 4 females. The average age in the chemotherapy only group was 54.47 years. There were no significant statistical differences in terms of gender, age, and other demographics relevant to patient outcome measures.

Oxaliplatin-induced neurotoxicity mainly manifests as sensory disturbances or abnormalities in the limbs and skin. In TCM, it falls under the Xue Bi (blood impediment) class of disorders. The treatment

principle is to dredge the meridians and channels using either the Ping Bu Ping Xie (mild attenuating and tonifying) or Xie (attenuating) manipulation techniques at the early stage, when there is only sensory nerve impairment.

For later stages when motor nerves are effected, the treatment principles shifts toward nourishing the blood, softening the tendons, and tonifying the kidneys and liver. Either the Ping Bu Ping Xie (mild attenuating and tonifying) or Bu (tonifying) manipulation technique can be applied in this stage. All patients received administration of the following primary acupoints:

- LI11 (Quchi)
- PC6 (Neiguan)
- LI4 (Hegu)
- SP10 (Xuehai)
- ST36 (Zusanli)
- SP6 (Sanyinjiao)

A secondary set of acupuncture points was added dependent upon individual symptoms. For numbness of fingertips or toes, the following acupoints were needed using the three edge needling technique:

- EX-UE11 (Shixuan)
- EX-LE12 (Qiduan)

For motor dysfunction or muscle atrophy, the following acupoints were added:

- GB34 (Yanglingquan)
- Shu-stream points of the hand and foot yangming channels

For phlegm and dampness, the following acupoint was added:

- ST40 (Fenglong)

Acupuncture treatment commenced with patients in a supine position. After disinfection of the acupoint sites, a 0.30 mm × 25 mm or 40 mm disposable filiform needle was inserted into each acupoint. For Neiguan and Hegu, the needle was inserted perpendicularly to a depth of 0.5–0.8 cun and applied with the mild attenuating and tonifying manipulation technique.

For Quchi, Xuehai, Zusanli, and Sanyinjiao, the needle was inserted perpendicularly to a depth of 1–2 cun and stimulated with the tonifying technique. For all acupoints, the manipulation techniques were applied every 10 minutes during the 30-minute needle retention time. Acupuncture sessions were administered once per day, 6 times per week as one treatment course.

The results indicate that acupuncture is effective for reducing oxaliplatin-induced neurotoxicity. Acupuncture can be utilized in an integrative model for cancer patient care and prevent neurotoxicity associated with chemotherapy. Based on the findings, we would like to see an additional study to examine the benefits of combining acupuncture and mecobalamine into an integrated treatment protocol for possible additive or synergistic effects.

References:

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[2] Pachman D R, Qin R, Seisler DK, et al. *Clinical Course of Oxaliplatin-Induced Neuropathy: Results from the Randomized Phase III Trial N08CB (Alliance) [J]. J Clin Oncol, 2015, 33 (30): 3416-3422.*

Next: A look at some safety and ethics issues for licensed acupuncturists:

Safety and Ethics

This section focuses on general safety and ethics issues affecting licensed acupuncturists and medical professionals.

Community

The NCCAOM (National Certification Commission for Acupuncture and Oriental Medicine) is a national organization in the United States that has a written code of ethics for all members. The following NCCAOM ethical item is from their code of ethics: *"Participate in activities that contribute to the betterment of my community."*

Compassion

One of the main ethical values active in this NCCAOM item is compassion. In helping our community with compassion, we are broadly sympathetic to the welfare of others. Our concern focuses on rooting out suffering, wherever it may be.

This item relates to the concept of justice, wherein a consideration of the risks and benefits to our community is of great import. Essentially, the role of an acupuncturist is to promote beneficence. Dr. Daniel Fu-Chang Tsai writes:

Ancient Chinese medical ethics basically focuses its moral doctrines of beneficence on humaneness (en) and compassion (t'zu). Sun Szu-miao's medical ethics professed that: "The object is to help, not to gain material goods", and a "great physician" should "commit himself with great compassion to save every living creature". Kung Hsin in AD1556 wrote: "The good physician of the present day cherishes humaneness and righteousness He cares not for vainglory, but is intent upon relieving suffering among all classes. He revives the dying and restores them to health: his beneficence is equal to that of Providence." Kung Ting-Hsien (AD 1615) also said, in his Ten maxims for physicians, that: "Firstly, they should adopt a disposition of humaneness; this is a justified demand.

They should make a very special effort to assist the people and to perform far-reaching good deeds."¹

Sun Simiao

A famous 7th century physician, Sun Simiao, wrote a treatise entitled *"On the Absolute Sincerity of Great Physicians."* This was a section of the work entitled *The Important Prescription Worth a Thousand Pieces of Gold*. The treatise is sometimes referred to as the Chinese Hippocratic Oath. The treatise "requires the physician to develop first a sense of compassion and piety, and then to make a commitment to try to save every living creature, to treat every patient on equal grounds, and to avoid seeking wealth because of his expertise."²

Sun Simiao commented on relations with colleagues, "it is inappropriate to emphasize one's reputation, to belittle the rest of the physicians and to praise only one's own virtue."³ He also wrote:

...a Great Physician should possess a clear mind, in order to look at himself; he should make a dignified appearance, neither luminous nor somber. It is his duty to reduce diseases and to diagnose sufferings and for this purpose to examine carefully the external indications and the symptoms appearing in the pulse. He has to include thereby all the details and should not overlook anything. In the decision over the subsequent treatment with acupuncture or with medicaments nothing should occur that is contrary to regulations. The saying goes: "In case of a disease one has to help quickly," yet it is nevertheless indispensable to acquaint oneself fully with the particular situation so that there remain no doubts. It is important that the examination be carried out with perseverance. Wherever someone's life is at stake, one should neither act hastily nor rely on one's own superiority and ability, and least of all keep one's own reputation in mind. This would not correspond to the demands of humaneness!⁴

1. Tsai, D. F. "Ancient Chinese medical ethics and the four principles of biomedical ethics." *Journal of medical ethics* 25, no. 4 (1999): 315-321.

2. . Veatch, Robert M. *Cross-cultural perspectives in medical ethics*. Jones & Bartlett Learning, p 320-321, 2000.

3. . Veatch, Robert M. *Cross-cultural perspectives in medical ethics*. Jones & Bartlett Learning, 2000.

4. . Veatch, Robert M. *Cross-cultural perspectives in medical ethics*. Jones & Bartlett Learning, p 314, 2000.

Infrared Lamps and Burns

Malpractice insurance companies note that many law suits against acupuncturists are preventable. Uniformly, insurance carriers voice a concern regarding burns. Heat lamps and moxibustion are the primary concern.

The Medical Insurance Exchange of California (MIEC) reports that 17% of all claims against acupuncturists in 2005 – 2014 were for patients sustaining a burn injury. Out of the 17% total, 11% of burns were caused by infrared heat lamps, 4% due to indirect moxibustion, and 2% were due to hot stone massage.⁵ The MIEC recommends that placement of a heat lamp should be such that, in case of a malfunction, the lamp will not come into contact with the patient.

If a burn occurs, it is legally important that the patient had been aware of this possibility. This goes to the issue of informed consent. The American Acupuncture Council includes the following informed consent item in their recommended *Acupuncture Informed Consent to Treat* form:

I have been informed that acupuncture is a generally safe method of treatment, but that it may have some side effects, including bruising, numbness or tingling near the needling sites that may last a few days, and dizziness or fainting. **Burns and/or scarring are a potential risk of moxibustion and cupping, or when treatment involves the use of heat lamps.** Bruising is a common side effect of cupping.⁶

Direct moxa is expressly forbidden by law in some US states, while indirect moxa is allowed in most states and countries. Check your scope of practice regulations or confer with your state acupuncture board to find out what types of moxibustion are legal in your state.

5. . MIEC, Point of Exchange, July 2015. Burn injury claims resulting from indirect moxibustion and TDP lamps.

6. . AAC-FED, A2004. OPTIONAL Arbitration Information Packet. American Acupuncture Council.

Indirect moxa may leave scars or welts. Practitioners are advised to ensure that no scarring or welts occur to avoid legal ramifications. Although scarring moxibustion is historically used, in today's legal environment, it is either inappropriate or illegal in most regions. Heat shields are important at the base of a needle when moxa is attached to the handle.

TDP (Teding Diancibo Pu) heat lamps and other types of infrared lamps must be used with care. One of the most important concerns is awareness of patients with numbness or any impairment of the sensory capacity for heat. For example, diabetics often have decreased sensitivity in their extremities. These patients may be unable to tell the acupuncturist that the lamp is too hot because they are unable to feel the area receiving the heat.

Consider some of the following issues with heat lamps:

- **unstable base or stand**
- **overextended heat lamp adjustment arm**
- **inadequate screen (protective guard) between the heating element or bulb and the patient**
- **a power cord that may be tripped over**
- **heat source too close to patient's skin**

The Council of Colleges of Acupuncture and Oriental Medicine (CCAOM) notes "It is imperative that a TDP lamp be monitored carefully when in use and that unexpected movements of the heating element be prevented. Some lamps may slowly lower during the course of a treatment, resulting in a burn over the area being warmed. Mechanical failure of the heat lamp itself may occur during treatment allowing the arm and heating element to rapidly descend near or onto the patient's skin."⁷

7. . Council of Colleges of Acupuncture and Oriental Medicine (CCAOM), 2014.

One of the best legal protections in the case of an accident or injury in an acupuncturist clinic is the acupuncturist's good relations with the patient. Insurance companies note that, even in the case of severe burns, cases have a higher tendency to settle out of court when there is a good relationship between the acupuncturist and the patient.

If an accident or injury occurs, take appropriate steps to provide care to the patient to help remedy the medical issue. The Council of Colleges of Acupuncture and Oriental Medicine recommends, "If the burn is a very small, first-degree burn, provide treatment such as cool water, sterile gauze and over-the-counter burn creams. If the burn is severe, or there is concern with infection, refer the patient to a physician."⁸

Steps to take:

- for minor burns: apply a burn cream, cool water, or other appropriate treatments to alleviate inflammation and skin damage
- refer to an appropriate outside medical source when needed
- express genuine concern and care for the patient's health and well-being
- document the issue
- document follow-ups with patient on their health status
- advise the patient on steps they may take to relieve a burn

Sharing Medical Information

Compassionate acknowledgement that an illness may be terminal is consistent with Chinese medicine history.⁹ In the book Medical Ethics in China: A Transcultural Interpretation, Jing-Bao Nie writes:

Besides Yi He and Yi Huan, other founding figures of Chinese medicine include Qin Yueren (fl. c. 500 BCE, popularly known as Bian Que, dubbed the "father of medicine" by some historians), Zhang Zhongjing (c. second century AD, renowned as the "sage of medicine") and Hua

8. . Council of Colleges of Acupuncture and Oriental Medicine (CCAOM), 2014.

9. . Nie, Jing-Bao. *Medical ethics in China: A transcultural interpretation*. Routledge, 2013.

Tuo (c. second century AD known as the “father of surgery”). Without exception, their practice was to tell their patients the truth when their illness was diagnosed as terminal. There are no records of any of these great Chinese physicians ever recommending that a doctor should conceal such information from his patients. Zhongjian once predicted that a patient would die in twenty years’ time, and prescribed medicine to prevent it. However, despite the doctor’s warning, the patient refused to take the prescribed medication and died exactly as Zhang had foretold.

In the case of a non-compliant patient, an attempt to work with the patient, care givers, or family to encourage compliance with health care advice for the safety of the patient is an ethical choice to advocate for the patient even when they may resist beneficial care. There are other historical examples wherein the attending physician communicated the news of a terminal prognosis truthfully, but may have told the care givers and the patient directly:

In another case, Cang Gong’s language was evasive. He first told his patient: “You are suffering from such a grave illness that I should not speak about it (Jun zi bing’e, buke yan ye).” He then disclosed some further medical information and told the patient’s brother that he had just eight days to live. In another case, although the truth about a terminal illness was delivered in straightforward terms, it is unclear whether this information was given to the patient or to a third party. In two other cases where the patients were respectively a maid and male servant, it was their masters, not the patients themselves, who were directly informed.¹⁰

Care must be given when sharing medical information. Privacy laws prevent sharing medical information to third parties without consent of the patient. Therefore, some of Cang Gong’s actions are not legally permissible in today’s environment without prior consent. However, sharing important medical information is legal for the purposes of treatment. Under the Privacy Rule, the HHS (U.S. Department of Health

10. . Nie, Jing-Bao. Medical ethics in China: A transcultural interpretation. Routledge, 2013, pg 105.

and Human Services) notes that health care providers may share patient information for treatment purposes:

Does the HIPAA (Health Insurance Portability and Accountability Act of 1996) Privacy Rule permit doctors, nurses, and other health care providers to share patient health information for treatment purposes without the patient's authorization?

Answer:

Yes. The Privacy Rule allows those doctors, nurses, hospitals, laboratory technicians, and other health care providers that are covered entities to use or disclose protected health information, such as X-rays, laboratory and pathology reports, diagnoses, and other medical information for treatment purposes without the patient's authorization. This includes sharing the information to consult with other providers, including providers who are not covered entities, to treat a different patient, or to refer the patient.

Sign-In Sheets

The HHS rules allow for sign-in sheets but the information is strictly limited to names. Do not have something like "major complaint" or "purpose of visit" on your sign-in sheet. HHS notes:

May physician's offices use patient sign-in sheets or call out the names of their patients in their waiting rooms?

Answer

Yes. Covered entities, such as physician's offices, may use patient sign-in sheets or call out patient names in waiting rooms, so long as the information disclosed is appropriately limited. The HIPAA Privacy Rule explicitly permits the incidental disclosures that may result from this practice, for example, when other patients in a waiting room hear the identity of the person whose name is called, or see other patient names on a sign-in sheet. However, these incidental disclosures are permitted only when the covered entity has implemented reasonable safeguards and the minimum necessary standard, where appropriate. For example, the sign-in sheet may not display medical information that is not

necessary for the purpose of signing in (e.g., the medical problem for which the patient is seeing the physician).

Sign-in sheets may help to prove a patient was treated on a particular day if that information is requested by an insurance carrier or other external entity. It is illegal to change the date of service. All bills and medical records must match the exact date of service. A patient may request shifting the date by a few days for insurance coverage purposes. Ethically, it may seem harmless. However, this is fraud and dates must never be altered for any reason. Alterations make the acupuncturist subject to severe penalties, fines, or imprisonment.

Maintenance of Records

States, health insurance carriers, and malpractice/liability insurance carriers often set requirements for maintaining patient records for a period of time. HIPAA covers privacy and security but does not require acupuncturists to maintain patient records for a period of time. HHS notes:

Does the HIPAA Privacy Rule require covered entities to keep patients' medical records for any period of time?

No, the HIPAA Privacy Rule does not include medical record retention requirements. Rather, State laws generally govern how long medical records are to be retained. However, the HIPAA Privacy Rule does require that covered entities apply appropriate administrative, technical, and physical safeguards to protect the privacy of medical records and other protected health information (PHI) for whatever period such information is maintained by a covered entity, including through disposal. See 45 CFR 164.530(c).

Acupuncturists are required by law to maintain medical records for several years in most states and countries but this is unrelated to HIPAA. Additional requirements for medical record retention may be made by malpractice insurance carriers. Health insurance companies may also require standards of medical records as prerequisite for

reimbursement and participation in in-network panels. The State of California has this regulation:

1399.453. Record keeping.

An acupuncturist shall keep complete and accurate records on each patient who is given acupuncture treatment, including but not limited to, treatments given and progress made as a result of the acupuncture treatments.

The following is from the State of Florida rules and is representative of standard requirements in many areas:

64B1-10.001 Content and Retention of Medical Records.

(1) Acupuncturists are required to maintain written medical records justifying the course of treatment of each patient. These records must include for each patient at least the following:

- (a) Patient's Medical History;
- (b) Acupuncture Diagnostic Impressions;
- (c) Points Used and/or Treatment Procedures Administered at Each Visit;
- (d) Acupuncturists' Recommendations;
- (e) Patient Progress Notes;
- (f) Laboratory test results when appropriate and medically necessary; and
- (g) Imaging films, reports or test results when appropriate and medically necessary.

(2) All medical records must be maintained by the acupuncturist for a period of five (5) years from the date of the last entry to the record.

Medical records must be maintained for a period of 5 years in the above regulation. In some states, this requirement is significantly longer than 5 years. The general rule is to use SOAP notes in order to comply with state regulations. SOAP is an abbreviation for: subjective, objective, assessment, plan.

Media Coverage

HIPAA protections apply to using media coverage. The press may want to do a highlight of your practice. Be sure to obtain authorizations from the patients involved in any media gathered or released. HHS notes of protected health information (PHI):

Can health care providers invite or arrange for members of the media, including film crews, to enter treatment areas of their facilities without prior written authorization?

Answer:

Health care providers cannot invite or allow media personnel, including film crews, into treatment or other areas of their facilities where patients' PHI will be accessible in written, electronic, oral, or other visual or audio form, or otherwise make PHI accessible to the media, without prior written authorization from each individual who is or will be in the area or whose PHI otherwise will be accessible to the media. Only in very limited circumstances, as set forth below, does the HIPAA Privacy Rule permit health care providers to disclose protected health information to members of the media without a prior authorization signed by the individual.

A covered entity, including a health care provider, may not use or disclose protected health information (PHI), except either: (1) as the HIPAA Privacy Rule permits or requires; or (2) as the individual who is the subject of the information (or the individual's personal representative) authorizes in writing. Generally, the HIPAA Privacy Rule does not permit health care providers to disclose PHI to media personnel, including film crews, without having previously obtained a HIPAA-compliant authorization signed by the patient or his or her personal representative. In other words, health care providers may not allow members of the media, including film crews, into treatment areas of their facilities or other areas where PHI will be accessible in written, electronic, oral or other visual or audio form, without prior authorization from the patients who are or will be in the area or whose PHI will be accessible to the media. It is not sufficient for a health care provider to request or require media personnel to mask the identities of patients (using techniques such as blurring, pixelation, or voice alteration software) for whom an authorization was not obtained,

because the HIPAA Privacy Rule does not allow media access to the patients' PHI, absent an authorization, in the first place.

In addition, the health care provider must ensure that reasonable safeguards are in place to protect against impermissible disclosures or to limit incidental disclosures of other PHI that may be in the area but for which an authorization has not been obtained.

There are very limited situations in which the HIPAA Privacy Rule permits a covered entity to disclose limited PHI to the media without obtaining a HIPAA authorization. For example, a covered entity may seek to have the media help identify or locate the family of an unidentified and incapacitated patient in its care. In that case, the covered entity may disclose limited PHI about the incapacitated patient to the media if, in the hospital's professional judgment, doing so is in the patient's best interest. See 45 C.F.R. 164.510(b)(1)(ii). In addition, a covered entity may disclose a patient's location in the facility and condition in general terms that do not communicate specific medical information about the individual to any person, including the media, without obtaining a HIPAA authorization where the individual has not objected to his information being included in the facility directory, and the media representative or other person asks for the individual by name. See 45 C.F.R. 164.510(a).

The HIPAA Privacy Rule does not require health care providers to prevent members of the media from entering areas of their facilities that are otherwise generally accessible to the public, which may include public waiting areas or areas where the public enters or exits the facility.

A health care provider may utilize the services of a contract film crew to produce training videos or public relations materials on the provider's behalf if certain protections are in place. If patients are to be identified by the provider and interviewed by a film crew, or if PHI might be accessible during filming or otherwise disclosed, the provider must enter into a HIPAA business associate agreement with the film crew acting as a business associate. Among other requirements, the business associate agreement must ensure that the film crew will safeguard the PHI it obtains, only use or disclose the PHI for the purposes provided in the agreement, and return or destroy any PHI after the work for the health care provider has been completed. See 45 C.F.R. 164.504(e)(2). As a business associate, the film crew must comply with the HIPAA Security Rule and a number of provisions in the Privacy Rule, including the

Rule's restrictions on the use and disclosure of PHI. In addition, authorizations from patients whose PHI is included in any materials would be required before such materials are posted online, printed in brochures for the public, or otherwise publicly disseminated.

Finally, covered entities can continue to inform the media of their treatment services and programs so that the media can better inform the public, provided that, in doing so, the covered entity does not share PHI with the media without the prior authorization of the individuals who are the subject of the PHI.

Scope of Practice

The NCCAOM code of ethics states: *"Treat within my lawful scope of my practice and training and only if I am able to safely, competently and effectively do so."*

This item touches upon two universally accepted ethical concepts: beneficence and non-maleficence. Beneficence in medicine means that something good will result. The acupuncturist or medical professional acts in the best interest of the patient, for their benefit. Non-maleficence is the concept of non-harming a patient or inflicting the least possible harm to reach a beneficial outcome. The scope of practice clause in this item extends beyond ethical considerations, it is a legal parameter. Practitioners must legally act within the scope of practice defined by law.

There is a gray area that is not specifically delineated. State scope of practice or regional laws may not prohibit a treatment modality or technique but may not explicitly allow for its use. Magnet therapy, laser acupuncture, bleeding techniques, etc... may not be explicitly prohibited or allowed in all states. As result, acupuncturists are advised to check with their state boards concerning undefined procedures and techniques.

We may have a personal disagreement with a scope of practice limitation because it excludes a modality or procedure that may help patients. The ethical standard is to contribute towards changing the law such that appropriate modalities and techniques are included in the scope of practice. The American Medical Association notes:

In general, when physicians believe a law is unjust, they should work to change the law.¹¹

Florida

Let's look at some scope of practice definitions by law. We have taken a sample from several state laws to compare and contrast differences.

The following is the rule #457.102 for the State of Florida:

"Acupuncture" means a form of primary health care, based on traditional Chinese medical concepts and modern oriental medical techniques, that employs acupuncture diagnosis and treatment, as well as adjunctive therapies and diagnostic techniques, for the promotion, maintenance, and restoration of health and the prevention of disease. Acupuncture shall include, but not be limited to, the insertion of acupuncture needles and the application of moxibustion to specific areas of the human body and the use of electroacupuncture, Qi Gong, oriental massage, herbal therapy, dietary guidelines, and other adjunctive therapies, as defined by board rule.

"Acupuncturist" means any person licensed as provided in this chapter to practice acupuncture as a primary health care provider.

"Oriental medicine" means the use of acupuncture, electroacupuncture, Qi Gong, oriental massage, herbal therapy, dietary guidelines, and other adjunctive therapies.

"Prescriptive rights" means the prescription, administration, and use of needles and devices, restricted devices, and prescription devices that are used in the practice of acupuncture and oriental medicine.

Here, we see that the State of Florida spells out a variety of modalities allowable by acupuncturists, including Qi Gong. There is a broader "other adjunctive therapies" that gives the Florida Board of Acupuncture

11. ama-assn.org/ama/pub/physician-resources/medical-ethics/code-medical-ethics/opinion102.page. 1-1-16.

discretion over inclusion of additional modalities. As we will see below, different states include differing specifics. For example, California allows magnets.

California

The following are from the State of California laws and regulations:

4927. "Acupuncture" means the stimulation of a certain point or points on or near the surface of the body by the insertion of needles to prevent or modify the perception of pain or to normalize physiological functions, including pain control, for the treatment of certain diseases or dysfunctions of the body and includes the techniques of electroacupuncture, cupping, and moxibustion.

4937. An acupuncturist's license authorizes the holder thereof:

- (a) To engage in the practice of acupuncture.
- (b) To perform or prescribe the use of Asian massage, acupressure, breathing techniques, exercise, heat, cold, magnets, nutrition, diet, herbs, plant, animal, and mineral products, and dietary supplements to promote, maintain, and restore health. Nothing in this section prohibits any person who does not possess an acupuncturist's license or another license as a healing arts practitioner from performing, or prescribing the use of any modality listed in this subdivision.
- (c) For purposes of this section, a "magnet" means a mineral or metal that produces a magnetic field without the application of an electric current.
- (d) For purposes of this section, "plant, animal, and mineral products" means naturally occurring substances of plant, animal, or mineral origin, except that it does not include synthetic compounds, controlled substances or dangerous drugs as defined in Sections 4021 and 4022, or a controlled substance listed in Chapter 2 (commencing with Section 11053) of Division 10 of the Health and Safety Code.
- (e) For purposes of this section, "dietary supplement" has the same meaning as defined in subsection (ff) of Section 321 of Title 21 of the United States Code, except that dietary supplement does not include controlled substances or dangerous drugs as defined in Section 4021 or 4022, or a controlled substance listed in Chapter 2 (commencing with Section 11053) of Division 10 of the Health and Safety Code.

4938. The board shall issue a license to practice acupuncture to any person who makes an application and meets the following requirements: (a) Is at least 18 years of age.

This last part is an interesting contrast. In California, an acupuncturist must be at least 18 years of age, but in Florida the minimum age is 21.

Florida #2

The following is the State of Florida rule requiring 21 years of age:

57.105 Licensure qualifications and fees.—

(2) A person may become licensed to practice acupuncture if the person applies to the department and:

(a) Is 21 years of age or older, has good moral character, and has the ability to communicate in English, which is demonstrated by having passed the national written examination in English or, if such examination was passed in a foreign language, by also having passed a nationally recognized English proficiency examination;

New York

New York scope of practice law has a requirement to sign a form identifying the importance of an outside referral:

a "Profession of acupuncture" is the treating, by means of mechanical, thermal or electrical stimulation effected by the insertion of needles or by the application of heat, pressure or electrical stimulation at a point or combination of points on the surface of the body predetermined on the basis of the theory of the physiological interrelationship of body organs with an associated point or combination of points for diseases, disorders and dysfunctions of the body for the purpose of achieving a therapeutic or prophylactic effect. The profession of acupuncture includes recommendation of dietary supplements and natural products including, but not limited to, the recommendation of diet, herbs and other natural products, and their preparation in accordance with traditional and modern practices of East Asian (Chinese, Korean or Japanese) medical theory.

b Each acupuncturist licensed pursuant to this article, shall advise each patient as to the importance of consulting with a licensed physician regarding the patient's condition and shall keep on file with the patient's records, a form attesting to the patient's notice of such advice. Such form shall be in duplicate, one copy to be retained by the patient, signed and dated by both the acupuncturist and the patient and shall be prescribed in the following manner:

WE, THE UNDERSIGNED, DO AFFIRM THAT (THE PATIENT) HAS BEEN ADVISED BY, (A LICENSED ACUPUNCTURIST), TO CONSULT A PHYSICIAN REGARDING THE CONDITION OR CONDITIONS FOR WHICH SUCH PATIENT SEEKS ACUPUNCTURE TREATMENT.¹²

The aforementioned scope of practice law requires that a form with the above language is signed by both the patient and the licensed acupuncturist. The NY law touches on the ethical concept of beneficence, wherein requiring an acupuncturist to notify patients of the importance of consulting with a licensed physician may be intended, in part, to provide treatment options.

This legal requirement is not entirely congruous with the ethical concept of autonomy, which is respecting the patient's wishes and rights of self-determination. Yet, the NY referral requirement is not a violation of autonomy because it only requires that the "importance of consulting with a licensed physician" is conveyed. An acupuncturist is not required to formally schedule a referral for the patient.

Ethics and legal requirements are often determined by consensually validated reality; the common view is that an MD or DO referral is substantive. As a result, the signed referral form is deemed reasonable by authorities. In addition, political capital may have been expended to require the NY signed referral form.

Texas

The following is the Texas scope of practice law:

12. op.nysed.gov/prof/acu/article160.htm

Acupuncturists are licensed by the Texas State Board of Acupuncture Examiners (TSBAE) to practice acupuncture, which is defined as the insertion of an acupuncture needle and the application of moxibustion to specific areas of the human body as a primary mode of therapy to treat and mitigate a human condition, including the evaluation and assessment of the condition; and the administration of thermal or electrical treatments or the recommendation of dietary guidelines, energy flow exercise, or dietary or herbal supplements in conjunction with the treatment.¹³

As you can see, there is a similarity between scope of practice laws. One commonality between state laws is typically the inclusion of electroacupuncture, herbal supplements, and dietary recommendations. Here, Texas stipulates the inclusion of “energy flow exercise.” This is broader language than the inclusion of Qi Gong within Florida scope of practice law. As a result, Taiji or even Tibetan Kum Nye are directly implied within Texas law.

Minnesota

In the following, we find “breathing techniques” included in Minnesota scope of practice law:

The scope of practice of acupuncturists includes, but is not limited to: 1) Using Oriental medical theory to assess and diagnose a patient and 2) Using Oriental medical theory to develop a plan to treat a patient. The acupuncturists must refer patients with a potentially serious disorder to other health care practitioners. Acupuncturists shall request a consultation or written diagnosis from a licensed physician for patients with potentially serious disorders.¹⁴

"Acupuncture practice" means a comprehensive system of health care using Oriental medical theory and its unique methods of diagnosis and treatment. Its treatment techniques include the insertion of acupuncture needles through the skin and the use of other biophysical methods of acupuncture point stimulation, including the use of heat, Oriental massage techniques, electrical stimulation, herbal supplemental

13. tmb.state.tx.us/page/acupuncturist-licensing-overview

14. mn.gov/boards/assets/APFactSheet%202017_tcm21-36777.pdf

therapies, dietary guidelines, breathing techniques, and exercise based on Oriental medical principles.

The following are relevant definitions for Minnesota:

"Acupuncture needle" means a needle designed exclusively for acupuncture purposes. It has a solid core, with a tapered point, and is 0.12 mm to 0.45 mm in thickness. It is constructed of stainless steel, gold, silver, or other board-approved materials as long as the materials can be sterilized according to recommendations of the National Centers for Disease Control and Prevention.

"Oriental medicine" means a system of healing arts that perceives the circulation and balance of energy in the body as being fundamental to the well-being of the individual. It implements the theory through specialized methods of analyzing the energy status of the body and treating the body with acupuncture and other related modalities for the purpose of strengthening the body, improving energy balance, maintaining or restoring health, improving physiological function, and reducing pain.

"Needle sickness" is a temporary state of nausea and dizziness that is a potential side effect to needle insertion and from which full recovery occurs when the needles are removed.

"Herbal therapies" are the use of herbs and patent herbal remedies as supplements as part of the treatment plan of the patient.

"Electrical stimulation" means a method of stimulating acupuncture points by an electrical current of .001 to 100 milliamps, or other current as approved by the board. Electrical stimulation may be used by attachment of a device to an acupuncture needle or may be used transcutaneously without penetrating the skin.

"Dermal friction" means rubbing on the surface of the skin, using topical ointments with a smooth-surfaced instrument without a cutting edge that can be sterilized or, if disposable, a onetime only use product.

"Cupping" means a therapy in which a jar-shaped instrument is attached to the skin and negative pressure is created by using suction.

"Breathing techniques" means Oriental breathing exercises taught to a patient as part of a treatment plan.

Minnesota has broad language allowing for “dermal friction,” whereas Illinois specifically allows for gua sha. Here is the **State of Illinois** definitions for acupuncturists:

"Acupuncture" means evaluation or treatment that is effected by stimulating certain body points by the insertion of pre-sterilized, single-use, disposable needles, unless medically contraindicated. "Acupuncture" includes, but is not limited to, stimulation that may be effected by the application of heat, including far infrared, or cold, electricity, electro or magnetic stimulation, cold laser, vibration, cupping, gua sha, manual pressure, or other methods, with or without the concurrent use of needles, to prevent or modify the perception of pain, to normalize physiological functions, or for the treatment of diseases or dysfunctions of the body and includes the determination of a care regimen or treatment protocol according to traditional East Asian principles and activities referenced in Section 15 of this Act for which a written referral is not required. In accordance with this Section, the practice known as dry needling or intramuscular manual stimulation, or similar wording intended to describe such practice, is determined to be within the definition, scope, and practice of acupuncture. Acupuncture also includes evaluation or treatment in accordance with traditional and modern practices of East Asian medical theory, including, but not limited to, moxibustion, herbal medicinals, natural or dietary supplements, manual methods, exercise, and diet to prevent or modify the perception of pain, to normalize physiological functions, or for the treatment of diseases or dysfunctions of the body and includes activities referenced in Section 15 of this Act for which a written referral is not required. Acupuncture does not include radiology, electrosurgery, chiropractic technique, physical therapy, naprapathic technique, use or prescribing of any pharmaceuticals, or vaccines, or determination of a differential diagnosis. An acupuncturist licensed under this Act who is not also licensed as a physical therapist under the Illinois Physical Therapy Act shall not hold himself or herself out as being qualified to provide physical therapy or physiotherapy services.

"Acupuncturist" means a person who practices acupuncture in all its forms, including traditional and modern practices in both teachings and delivery, and who is licensed by the Department. An acupuncturist shall refer to a licensed physician or dentist any patient whose condition should, at the time of evaluation or treatment, be determined to be beyond the scope of practice of the acupuncturist.

Summary

Overall, scope of practice laws often clearly define acupuncture, needles, and modalities such as electroacupuncture, moxibustion, and cupping. According to the ethical concept of beneficence, it is imperative that if a beneficial treatment modality is within the expertise and scope of an acupuncturist's practice, the acupuncturist is ethically required to deliver that appropriate treatment modality to the patient in a safe and timely manner.

Reusable Needles

Some states and countries allow reusable needles that have been sterilized with autoclave equipment. Many states, including California, do not allow reusable needles and only disposable needles are legal. Many acupuncturist malpractice insurance and health insurance network policies forbid the use of reusable needles.

Single Use Needle By State Examples

The State of California specifically prohibits the reuse of acupuncture needles:

1399.454. Single Use Needles.

An acupuncturist shall use needles labeled for single use only that meet the requirements of federal regulations 21 CFR Part 880.5580 (61 FR 64617, December 6, 1996). It shall constitute unprofessional conduct for an acupuncturist to use a needle more than once.

This is a general trend in laws and regulations for filiform needles. The State of Florida has a similar provision:

457.1085 Infection control.—Prior to November 1, 1986, the board shall adopt rules relating to the prevention of infection, the safe disposal of any potentially infectious

materials, and other requirements to protect the health, safety, and welfare of the public. Beginning October 1, 1997, all acupuncture needles that are to be used on a patient must be sterile and disposable, and each needle may be used only once.



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