

WRIST AND ANKLE ACUPUNCTURE THERAPY

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Wrist and ankle acupuncture is a modern needling technique used to treat various common diseases in different parts of the body. The special characteristics of this technique are:

- i. classification of clinical manifestations into six bilateral longitudinal regions.
- ii. location of six bilateral points at the wrist and ankle.
- iii. division of the body at the diaphragm into upper and lower parts.
- iv. selection of points on the basis of the longitudinal regions where the disease is located.
- v. subcutaneous needling that does not induce such sensations as soreness, numbness, distension, heaviness or pain.

Wrist and ankle acupuncture has a number of distinct advantages. There are only a small number of points and they can therefore be remembered easily. The technique is so simple that patients can even treat themselves. Patients do not have to remove their clothes during the treatment, but need only expose the wrist and ankle. The method is also particularly safe and painless; there are no important organs at the wrist and ankle, and subcutaneous needling there will not injure any large vessels and nerves. The chances of the patient fainting during the treatment are slim, and needles never break. If wrist and ankle acupuncture is well performed, subcutaneous needling does not produce sensations of soreness, numbness, distension or pain, and there may be slight pain only when the tip of the needle penetrates the skin. This technique is therefore more acceptable to patients.

The indications of wrist and ankle acupuncture are broad and varied. It produces satisfactory and rapid effects in the treatment of painful syndromes such as headache, toothache, arthralgia, dysmenorrhea and pain from traumatic injuries. It also renders good therapeutic results in the treatment of dizziness, chronic skin ulcers, pruritus, frost bite, leucorrhea, certain neurological and psychiatric diseases, hemiplegia following wind stroke, nocturnal enuresis and hypertension. It must be stressed, however, that wrist and ankle acupuncture is no panacea, and some diseases do not respond to this technique effectively or at all.

1. History of Exploration of Wrist and Ankle Acupuncture.

The development of this technique did not begin in a

planned way, but was established by chance. In the mid 1960's, the author successfully treated a number of difficult cases with very strong electrical stimulation, applied directly to the body, with no needles being used. These included a case of deaf-mutism secondary to brain trauma of 15 years' duration, a young patient with motor disturbance of the two lower limbs diagnosed as neurotic incomplete paralysis of the lower limbs, and several more cases of neurotic paralysis of the limbs secondary to brain trauma. Although the duration of these diseases was between 5 and 20 years, the symptoms and signs went away after only one treatment. As a result, the author's interest in this therapy grew. In 1966, it was found that arthralgia and numbness of the skin in paralysed patients also responded to this treatment. To make this therapy acceptable to more patients, however, it was necessary to reduce the intensity of the electrical stimulation. When strong stimulation (60ma) was applied, the electrodes were placed on both sides of the paralysed limb, the electric current flowing at a right angle to the longitudinal courses of the nerves and muscles of the paralysed limb. The strong intensity of electric stimulation was required to produce any therapeutic results. We hypothesised that if the distance between the two electrodes was increased, and they were placed along the longitudinal axis of the limbs to make the current flow in the direction of the nerves and muscles, the contact area would be enlarged, and intensity of stimulation could be reduced. To test this, the intensity of the electrical stimulation was reduced to 40ma with a duration of one second only, and the range of diseases enlarged to include various types of sensory disturbance, headache, sequelae of cerebral concussion, trigeminal neuralgia, sciatica, tremor of the limbs, pruritus, mandibular joint disturbance, hysteric stupor, frequent cough, hiccup and neurotic vomiting. Following the success of these experiments, the electric intensity was then further reduced from 40ma to 15ma over six months' period, still for one second's duration. It was found that therapeutic results began to decline when the intensity of electricity went below 10ma. When treatment was prolonged from one second to 10 or even 20 minutes, however, and the electric intensity reduced to less than 2ma, good therapeutic results were achieved. At this stage, however, the method still suffered from some of the following shortcomings:

- i. There were no clear guidelines for placing the electrodes, resulting in difficulty in summing up experience.
- ii. This method could be used to treat localized diseases only.
- iii. This method could not be used to treat diseases of the head and heart, because local application of electrodes might cause dizziness or affect the heart rate.

After deliberation, it was decided to look for a suitable area to place the electrodes. We followed the example of ear acupuncture, which treats diseases at remote areas throughout the body by needling different points in the ear. Ear points are so densely located, however, that electrodes are too big to be placed on them. The narrow areas at the wrist and ankle came to mind for four reasons.

- i. They are convenient areas for treatment; the patient need only expose the wrist and ankle allowing treatment to continue even in cold weather*.
- ii. The electrodes can easily be placed on the even surface of the wrist and ankle.
- iii. Three yin channels and three yang channels pass through the wrist and ankle.

The electrodes were initially placed at Hegu L.I.-4 and Neiguan P-6 on the upper limbs, and at Xingjian LIV-2 and Sanyinjiao SP-6 on the lower limbs. Careful clinical observation and experimentation demonstrated that the use of smaller electrodes and the movement of electrodes to different positions on the wrist and the ankle, improved therapeutic results. For example, study of clinical data told us that symptoms and signs near the anterior midline such as frontal headache, nasal obstruction, sore throat, upper abdominal pain and dysmenorrhea would improve if the electrode was placed at the ulnar border of the palmar side of the wrist or at the medial border of the tendo calcaneus. Those near the posterior midline such as occipital headache, lower back pain, and sciatica would improve if the electrode was placed at the ulnar border of the dorsal side of the wrist, or at the lateral border of the tendo calcaneus. Parietal headache could be resolved by placing the electrode on the radial border at the junction of the medial and lateral sides of the wrist. These phenomena cannot be explained by nerve anatomy or the theory of channels and collaterals, but can be explained by biological evolution and the embryonic development of the vertebrate. The human body repeats the historical changes of biological evolution at the stage of embryonic development. The fertilized egg of the vertebrate grows and extends longitudinally, and then develops to a circular cone formed by two halves. The four limbs are an extension of the trunk, and are a part of the trunk as well. After birth the human body forms a circular cone again when the four limbs are close to each other (supposing the two upper limbs to be close to each other) with the medial side of the limbs and the yin side of the trunk (chest and abdomen) lying in the same direction. Thus the four limbs and the trunk are closely related in function, with the trunk projecting into the four limbs, particularly the skin of the four limbs. This may be related to the fact that

(*Editor's note: many Chinese acupuncture clinics have poor heating arrangements even in the depth of very cold winters).

the nerves and skin both originate from the dermal layer in embryonic development. They still maintain a correspondence in function longitudinally after birth.

Since there are three yin channels and three yang channels, the circular cone of the human body is divided into three longitudinal regions on each of the anterior or posterior sides of the body. There are thus six longitudinal regions in all, numbered 1-6, starting from the anterior midline. The four limbs are also divided into six longitudinal regions numbered in the same way. The stimulation spots at the wrist and ankle affect disorders of the trunk in the corresponding regions. Clinical practice also showed that the stimulation spots at the wrist were more effective for disorders in the area above the diaphragm, and those at the ankle were more effective in the treatment of disorders below the diaphragm.

The shortcomings of the heavy electric convulsive stimulator gradually emerged. To begin with, the stimulator is not portable. Secondly, the stimulator only treats one patient at a time and is in use for 20 minutes each time. In February of 1972, the spots at the wrist and ankle began to be stimulated with the traditional method of perpendicular needling and without electric stimulation. The needling sensations of soreness, numbness, distention and heaviness were obtained. But the following weak points were found:

- i. Perpendicular needling is not practical at Upper 3, Upper 4 and Lower 3, because there are bones beneath these areas.
- ii. The depth of needling is hard to control, and damage to the nerves and vessels at the deep layer is possible.
- iii. The needles may become stuck at the wrist and ankle; if they are withdrawn forcefully patients experience more pain.
- iv. Patients are often fearful of needling sensation.

To solve these problems, oblique needling was tried on the points at the wrist and ankle with satisfactory therapeutic results. But oblique needling still produces strong needling sensation. Experimentation showed that subcutaneous and horizontal needling does not produce any needling sensation, and that this needling sensation is not an essential condition for good therapeutic results. It was also found through clinical practice that the more shallow the needling is, the more effective analgesia will be.

Thick needles such as gauge 26 and 28 were found to produce more pain when penetrating the skin and were hard to handle in shallow and horizontal needling. Fine needles such as gauge 34 are too soft and can be bent easily. Thus gauge 30 and 32 needles were found to be the most suitable. Short needles do not produce good therapeutic results, while long needles may easily injure the muscles or vessels. The proper length of the needle is 4 cm. As for the direction of needling, originally the needle was directed distally. Experimentation showed, however, that in most cases directing the needle proximally produced better therapeutic results.

It was not until 1975 that the technique of wrist and ankle acupuncture was made known to the public. The exploration of this art took ten years.

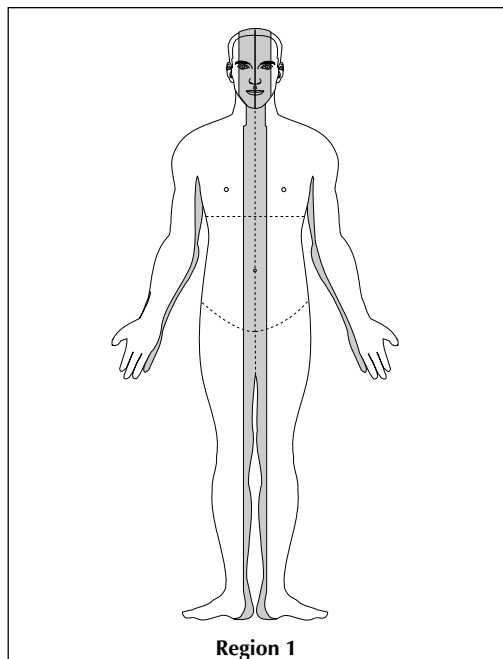
2. Therapeutic Methods of Wrist and Ankle Acupuncture

I. Location of Symptoms and signs

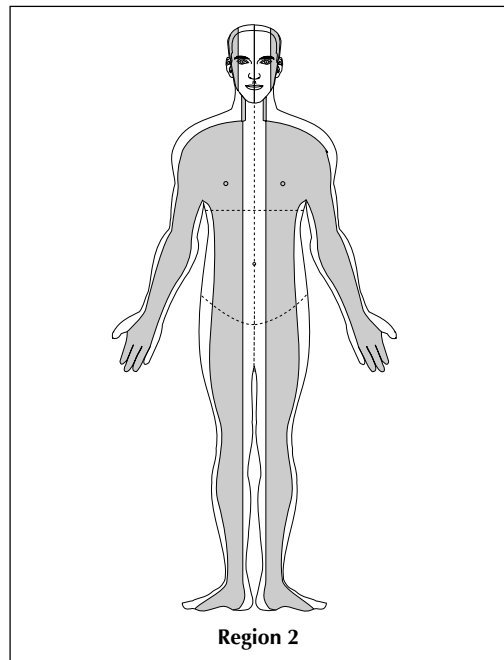
Points are selected on the basis of the location of the symptoms and signs. Generally, the symptoms and signs of different diseases can be classified into two categories, i. those whose location can be determined exactly such as pain, numbness, paralysis, tremor of the limbs, and cough, and ii. those which involve the entire body such as pruritus, or those which have no specific location such as hypertension, psychosis, and excessive sweating. Incorrect location of the symptoms and signs will lead to incorrect selection of points, thus affecting the therapeutic results.

One of the characteristics of wrist and ankle acupuncture is the division of the body into regions to help locate symptoms and signs. The head, neck and trunk are divided into two sides by anterior and posterior mid lines. Each side is further divided into six longitudinal regions from the anterior to the posterior of the body, numbered 1-6. The first three regions are located on the yin (anterior) aspect of the body, while the last three regions are located on the yang (posterior) aspect of the body.

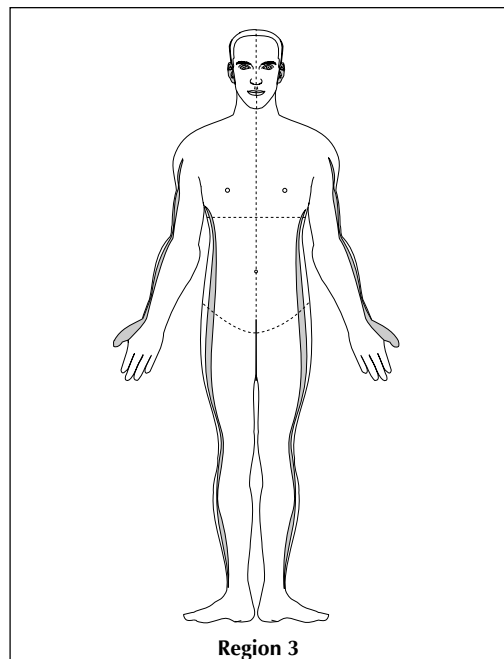
Region 1: The area along the sides of the anterior midline of the body. This region covers the area between the anterior mid line and the vertical line from the lateral border of the eye orbit, including the forehead, eye, nose, mouth, front teeth, tongue, and throat in the head region, the trachea, oesophagus, and heart in the neck and chest region, and the upper abdomen, umbilicus, lower abdomen, uterus, urinary bladder and perineum in the abdominal region. Diseases related to Region 1 are the most common and include frontal headache, eye disorders, nasal obstruction, trigeminal neuralgia, frontal toothache, a thick tongue coating, pharyngitis, tracheitis, stomach-ache, dysmenorrhea, excess leucorrhea, and nocturnal enuresis.



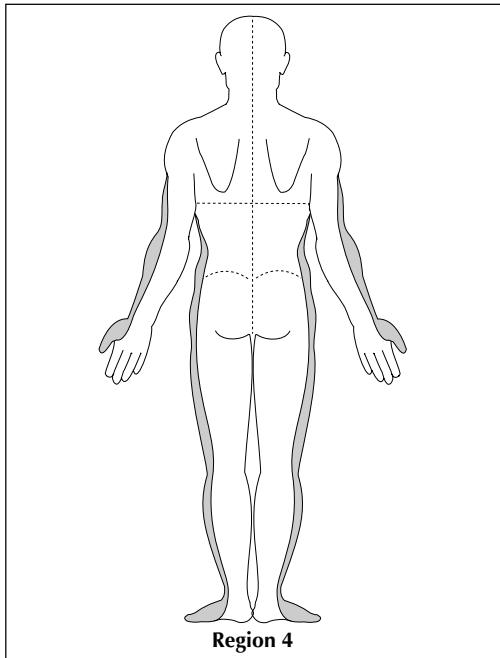
Region 2: The two sides of the front part of the body. This region covers the antero-temporal area, cheek, back teeth, sub-maxillary area, thyroid gland, areas along the mid-clavicular line such as the supraclavicular fossa, the breast, lungs, costal and hypochondriac area and the lateral abdominal area. Commonly-seen diseases related to this region include antero-temporal headache, aching of the back teeth, distension and pain of the breasts, chest pain, asthma, pain in the hepatic region, and pain in the lateral abdomen.



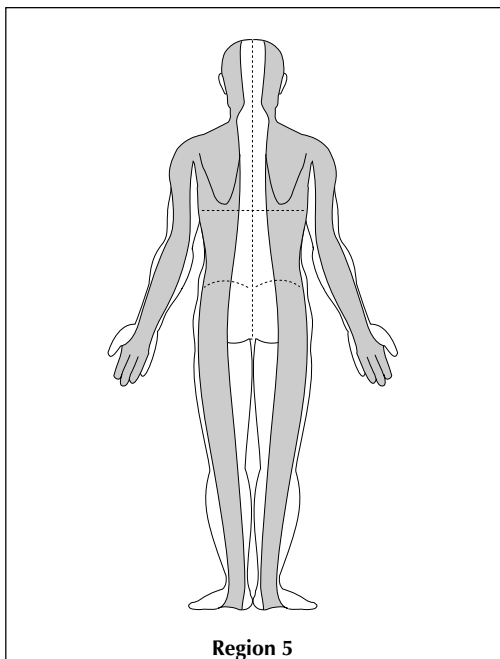
Region 3: The lateral borders of the front part of the body. This region covers a vertical narrow area along the anterior border of the auricle and axilla. Only a small number of diseases are related to this region such as pain of the superficial temporal artery, and chest pain along the anterior border of the axilla.



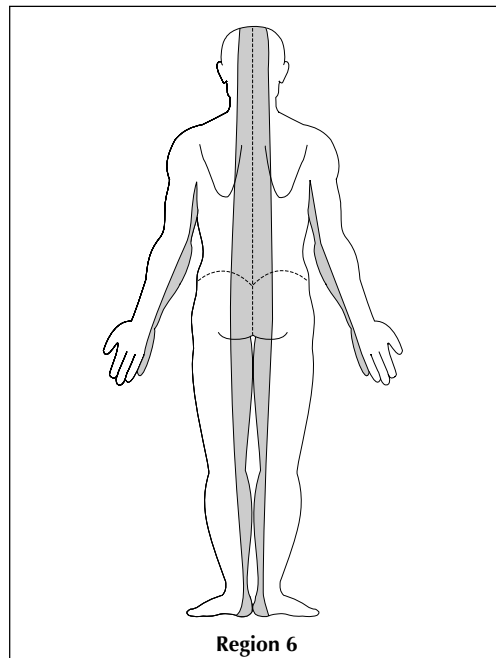
Region 4: The borders of the front and back parts of the body. This region covers the area from the vertex (Baihui DU-20), the ear lobe, the trapezius border of the shoulder, and the vertical area between the axilla and anterior superior iliac spine. The diseases related to this region include parietal headache, ear-ache, tinnitus, temporomandibular arthralgia, and chest pain along the mid-axillary line.



Region 5: The two sides of the back part of the body, just opposite to Region 2. This region covers the postero-temporal area, the lateral side of the back of the neck, and the area along the mid-scapular line passing down to the lumbus. The diseases related to this region include postero-temporal headache, pain in the scapula, and disorders of the transverse processes of the lumbar vertebrae.



Region 6: The area along the sides of the posterior midline of the body, just opposite Region 1. This region covers the occipital area of the head, the area along the vertebral column, and the anus. The diseases related to this region include occipital headache, pain of the posterior aspect of the neck, lower back pain, prolapse of the rectum, and haemorrhoids.



Division of the four limbs: The branchiotruncal line and femorotruncal line are drawn to separate the arm and thigh from the trunk respectively. The branchiotruncal line circles around the attached border of the deltoid muscle and the axilla, and the femorotruncal line passes through the groin and iliac crest. Both the upper and lower limbs are in a position of outward rotation, and the medial aspect of the limbs and the front part of the body face the same direction. When the arms are close to the body, and the legs are close to each other, the front seam thus made corresponds to the anterior midline, and the back seam thus made corresponds to the posterior midline of the body. In this way, the four limbs are divided into six similar regions just like the trunk.

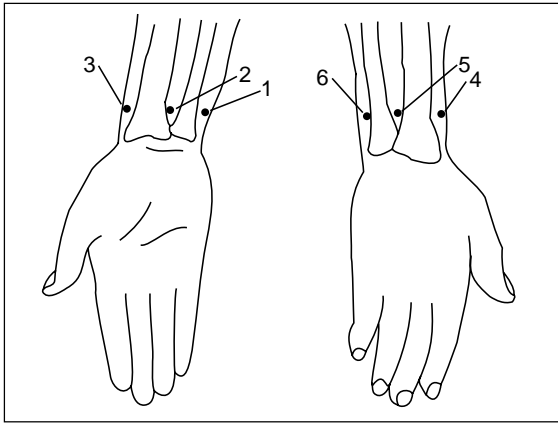
II. Location and Selection of Points

There are six points at the wrist and another six points at the ankle on each side of the body, and they are located symmetrically. Since the needle is inserted subcutaneously to a required distance from the point, points in wrist and ankle acupuncture are not just therapeutic spots. Generally, acupuncture points have a fixed location, except when vessels are to be avoided, and when needles should be inserted distally or proximally. Thus it is clear that points in wrist and ankle acupuncture have a different meaning from those used in general acupuncture. All the points are located in the centre of respective regions.

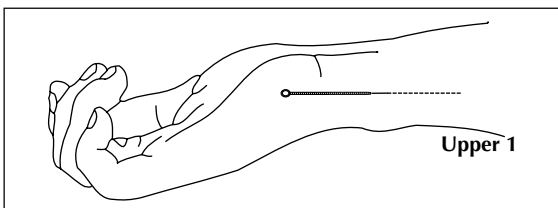
a. Location of points

i. Points at the wrist.

Points at the wrist are roughly located on a circle two finger breadths proximal to the wrist crease. Thus they can conveniently be treated with needling. The six points at the wrist are labelled Upper 1 to Upper 6. The first three points are on the palmar side of the wrist; Upper 4 is on the border of the radius at the juncture of the palmar and dorsal sides; and Upper 5 and Upper 6 are on the dorsal side of the wrist.

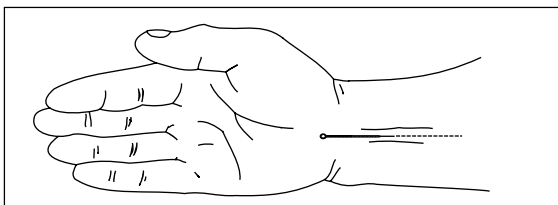


Upper 1 is located between the ulna and the tendon of *m. flexor carpi ulnaris*. Slide down toward the palm along the border of the ulna with the thumb. The point is in the depression between the border of the ulna and the radial side of the tendon. This point is most frequently used in treatment.

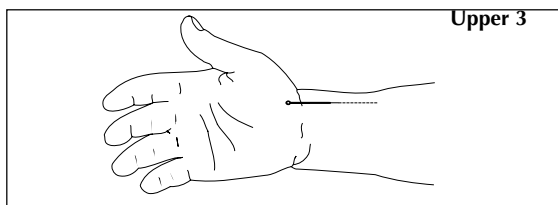


Upper 2 is located in the centre on the palmar side of the forearm, between the tendons of *m. palmaris longus* and *m. flexor carpi radialis*. If these two tendons are indistinguishable, ask the patient to make a firm fist to expose them. The gap between the tendons varies from person to person. Take care not to damage the small vessels there. Move the point a little proximally between the two tendons to avoid damage.

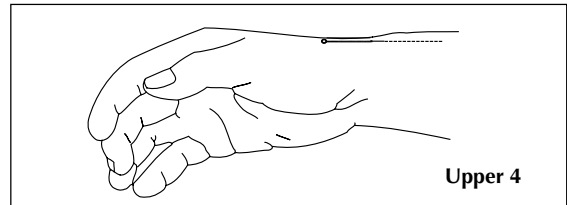
Upper 2



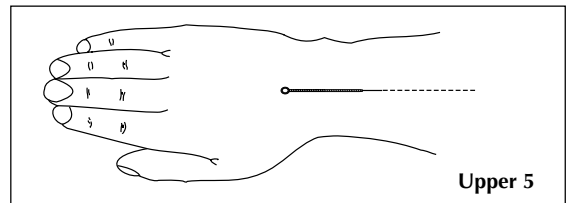
Upper 3 is located one cm. internal to the border of the radius, or between the border of the radius and the radial artery. This point is seldom used clinically.



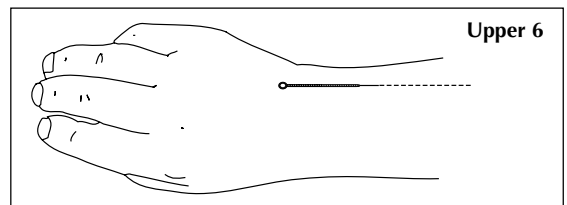
Upper 4 is located on the border of the radius on the side of the thumb. Ask the patient to hold the forearm vertically in front of the body with the palmar side facing the body. The operator holds the radius of the patient with the two index fingers. Locate this point on the border of the radius. Move the point a bit proximally to avoid the vessels.



Upper 5 is located in the centre of the dorsal side of the forearm, between the radius and ulna. Ask the patient to keep the palm downward, and then locate this point midway between the two bones. This point is also frequently used.

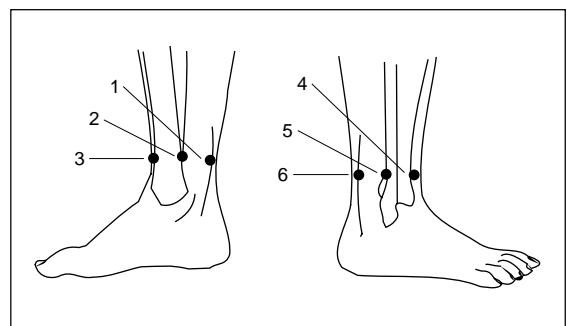


Upper 6 is located on the dorsal side of the forearm, 1 cm internal to the border of the ulna on the side of the little finger. Since the head of the ulna is here, move the point a bit proximally to facilitate the needling.

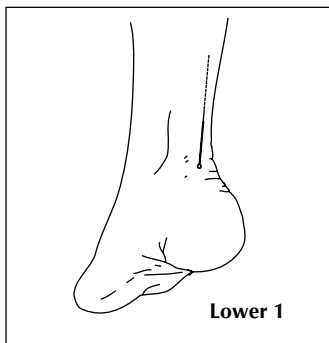


ii. Points at the ankle

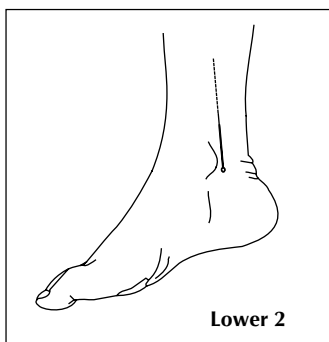
Points at the ankle are roughly located on the circle three finger-breadths proximal to the highest spot of the internal and external malleolus. Here the anatomical landmarks are clear and needling is easy. The six points at the ankle are labelled Lower 1 to Lower 6. The first three points are on the medial side of the leg; Lower 4 is at the front of the ankle between the tibia and fibula; and Lower 5 and Lower 6 are at the lateral side of the leg.



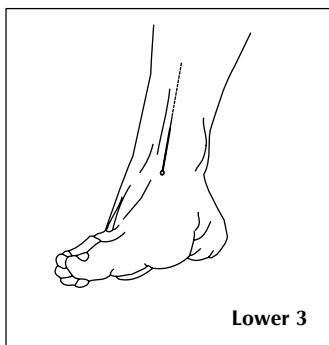
Lower 1 is located close to the internal border of tendo calcaneus.



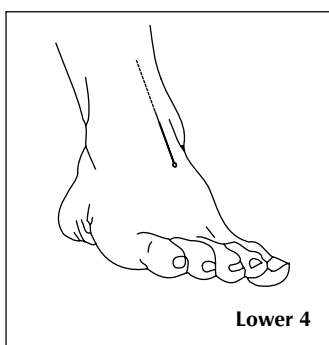
Lower 2 is located in the centre of the medial side of the leg, close to the internal border of the tibia. Slide the thumb forward from the tendo calcaneus until it reaches the border of the tibia, where the point is located.



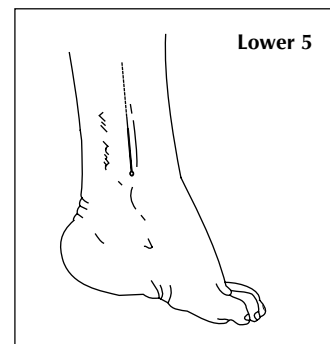
Lower 3 is located one cm. medial to the anterior crest of the tibia.



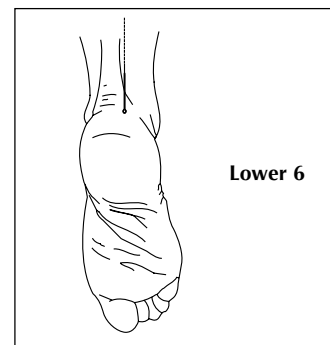
Lower 4 is located midway between the anterior crest of the tibia and the anterior border of the fibula. Feel the borders of the two bones with the thumbs and locate this point in the middle of the borders. This point is frequently used.



Lower 5 is located in the centre of the lateral side of the leg, close to the posterior border of the fibula, in a shallow sulcus between the border of the fibula and the tendon of m. peroneus longus.



Lower 6 is located close to the external border of tendo calcaneus. This point is also frequently used.



Just like the six regions of the body, the six points at the wrist and ankle are located opposite each other, i.e. Point 1 is opposite Point 6, Point 2 is opposite Point 5, Point 4 is at the bordering line of the medial and lateral sides, and Point 3 is at the anterior border of the medial side, and is seldom used clinically. The other five points are more commonly used.

2. How to select points

Points, symptoms and signs should all be located in terms of the six regions. For instance, for disorders in Region 1, Point 1 is selected, and for disorders in Region 2, Point 2 is selected. The principle of 'fewer but better points' should be followed. The following principles should be observed in the selection of points.

- i. Points are selected on the diseased side.
- ii. Points at the wrist are selected for disorders in the upper part of the body (above the transverse line drawn from the vertex of the lower end of the sternum), and points at the ankle are selected for disorders in the lower part of the body (below that transverse line).
- iii. If disorders are located on the midline, or if it is impossible to determine on which side they are located, select points on both sides. In the treatment of disorders on the anterior midline, use Point 1 on both sides, e.g. Upper 1 bilaterally for frequent cough due to tracheitis, Lower 1 bilaterally for nocturnal enuresis or excess leucorrhoea, and Lower 6 bilaterally for pain at the spinal processes of the lumbar vertebrae.
- iv. If disorders are located on the midline, but part of the

symptoms and signs are on the side, Point 1 or Point 6 on the diseased side is selected.

- v. If more than one of the symptoms and signs is present at the same time, the dominating one is taken as the primary one. If there is pain, this is regarded as the chief symptom. Points are selected according to the region where the tenderness is located.
- vi. In the treatment of motor impairment of the limbs, such as paralysis and tremor, Upper 5 is selected if the upper limbs are diseased, and Lower 4 is selected if the lower limbs are diseased.
- vii. Upper 1 is selected bilaterally for symptoms and signs involving the entire body or those which cannot be correctly located, such as general pruritis, urticaria, night sweating, insomnia, and certain psychoses.

Table 1 shows indications of each point. In clinical practice, the region and the point can be regarded as the same thing. Once the region of the symptoms and signs is determined, the corresponding point is selected. Disorders in this table are classified in terms of regions, which can serve as a reference in clinical work. But this table does not include all the indications of wrist and ankle acupuncture, because symptoms and signs of certain disorders can involve several different regions, and several different disorders can have their symptoms and signs in the same region. Thus flexible application is required on the basis of familiarity with the following table.

Table I Classification of Regions, Points and Indications

Upper 1
Frontal headache, spasm of eyelid muscles, stye, conjunctivitis, distention and pain of the eyeball, impaired vision, nasal obstruction, rhinitis, trigeminal neuralgia, facial paralysis, front toothache, thick tongue coating, lacrimation, sore throat, tonsillitis, frequent cough, nausea, vomiting, anorexia, motor aphasia from wind stroke, angina pectoris, costal neuralgia. Disorders which cannot be correctly located: hypertension, numbness of the skin on one or both sides, systemic pruritis, urticaria, aversion to cold, night sweating, certain non-organic psychoses, post-epileptic state.
Upper 2
Anterio-temporal headache, back toothache, pain of the submandibular lymph nodes, chest pain, stuffiness in the chest, distension and pain in the breast, asthma, acroparesthesia.
Upper 3
Pain of the superficial temporal artery, pain in the lateral chest wall.
Upper 4
Parietal headache, tinnitus, impaired hearing, temporo-mandibular arthralgia, pain of the anterior aspect of shoulder, lateral chest pain, pain in the elbow, arthralgia of the thumb.

Upper 5
Dizziness, vertigo, headache, common cold, pain in the posterior aspect of the neck, shoulder pain, arthralgia of the shoulder, sensory disturbance of the upper limbs, motor disturbance of the upper limbs (paralysis, tremor), arthralgia of the wrist, arthralgia of the fingers.
Upper 6
Pain in the cervical and thoracic vertebrae, pain in the posterior aspect of the shoulder, frost bite.
Lower 1
Upper abdominal pain, pain around the umbilicus, nocturnal enuresis, dysmenorrhea, excessive leucorrhoea, pain in the medial aspect of m. gastrocnemius, muscular spasm of the leg, pain in the heel.
Lower 2
Pain in the hepatic region, lateral abdominal pain, pain of the lymph nodes in the groin, pain at the medial aspect of the knee joint, pain at the medial aspect of the ankle.
Lower 3
Pain at the medial aspect of the knee.
Lower 4
Meralgia paresthetica, arthralgia of the knee, sensory disturbance of the lower limbs, motor disturbance of the lower limbs (paralysis, tremor), pain in the dorsum of the foot.
Lower 5
Syndrome of the transverse process of the third lumbar vertebra, meralgia of the lateral aspect of the leg, arthralgia of the ankle.
Lower 6
Lumbago, sciatica, pain in the anterior sole.

III. Needling Techniques

1. Needles

To facilitate subcutaneous needling in wrist and ankle acupuncture, it is not advisable to use thick needles. Stainless steel filiform needles, 30-32 gauge, and 4 cm. in length, are usually used. 2.5 cm. long needles are used for children.

2. Position of the patient

A sitting position is taken when the points at the wrist are needled. Supine or prone position is taken when the points at the ankle are needled. Ensure that the patient is comfortable so that the muscles in the vicinity of needling are relaxed.

3. Needling direction

Needles in wrist and ankle acupuncture should be directed towards the disordered area. This means that

needles are directed proximally if the disorder is proximal to the wrist or ankle, and distally if the disorder is in the hand and foot such as arthralgia of the wrist and ankle, and frost bite at the dorsum of hand and foot. In these latter conditions, the point should be moved a bit proximally to prevent the tip of the needle from hurting the joint.

4. Location of points

Generally points in wrist and ankle acupuncture have a fixed location. The following conditions are exceptions:

- i. There are visible blood vessels in the way of needling.
- ii. There is pronounced pain when the tip of the needle penetrates the skin.
- iii. There is a scar, injury, or adhesion of the skin and subcutaneous tissues at the point.
- iv. When the needle is directed distally, the point is moved a bit proximally. To maintain the correspondence between the region and point, avoid moving the point laterally or medially.

5. Sterilization

Clean and sterilize the skin at and nearby the point with 75% alcohol soaked cotton balls. Do not hold the body of the needle with the fingers after the needle is sterilised.

6. Needling techniques

This includes insertion, adjustment, retention and withdrawal of the needle.

i. Insertion of the needle:

How to hold the needle: When the right hand is used, the handle of the needle is held by the thumb, index finger and middle finger, with the middle part of the distal segment of the index and middle fingers holding the upper side of the needle, the tip of the slightly flexed thumb holding the lower side of the needle, the ring finger holding the lower side of the needle just below the middle finger, and the small finger touching the skin surface.

Penetration of the skin by the tip of the needle: To ensure the body of the needle goes subcutaneously, the needle and the skin should form an angle of 30°. If the angle is less than 30°, the tip of the needle will enter the dermis, thus causing pain to the patient. If the angle is more than 30°, the tip of the needle will go deep to the subsarcolemmal layer, thus affecting the therapeutic results. It is essential to keep the body of the needle straight, and not to push forcefully when inserting the needle. Pull the skin tight with the thumb of the left hand to facilitate the penetration. Rotate the handle of the needle slightly with the tip of the right thumb, while the index and middle fingers keep still in order to control and minimise the rotation of the needle, facilitate penetration, and reduce pain to the patient. The following conditions show that the tip of the needle has penetrated the skin and reached the subcutaneous layer.

- i. Needling resistance is reduced at the tip of the needle.
- ii. Slight pain, which may occur when the tip of the needle is penetrating the skin, disappears.
- iii. The needle drops naturally to the skin surface when let go; a skin prominence of about 0.2cm. in diameter is seen above the tip of the needle; no resistance is felt

when the needle is pushed forward gently. If the needle drops, but not as far as the skin surface when the hold is released, too deep penetration is indicated. Withdraw the needle a little until it drops naturally to the skin surface when the hold is released. Of all the three conditions, the last one is the most important.

After penetration of the skin, the needle is slowly pushed forward subcutaneously. See to it that the skin does not move together with the needle, no folds occur on the skin, and no resistance is felt by the pushing fingers. There is no need to rotate the needle when it is pushed forward. No needling sensation is required in wrist and ankle acupuncture, so tell the patient that no sensations of soreness, numbness, distension, heaviness, or pain should occur. The occurrence of the needling sensation is caused when the tip of the needle contacts the tissues at a deep level, whilst pain is the result of hitting the walls of the vessels. If either needling sensation or pain do occur, the needle should be withdrawn slightly, and then redirected more superficially. The required length of needling is 3.8 cm. Some patients may find that their symptoms and signs have disappeared before their required length is reached. Push the needle further to reach 4 cm. if there is no improvement.

ii. Adjustment of the needle.

When the needle is in the point, and the required length of needling is reached, ask the patient whether the symptoms and signs have improved. Try to resolve the symptoms completely after one treatment, especially in cases of pain. It usually takes longer to restore motor function. Poor results are often caused by the following improper needling techniques which necessitate adjustment of the needle:

- i. Needling is not shallow enough. This is quite common, because the proximal part is thicker than the distal part of the wrist and ankle, and the tip of the needle is likely to go deep to the sarcolemma, muscular layer, and superficial nerves, producing distension and pain in the local area. A numb sensation may occur at the previously painful area, or the pain may move to nearby areas. Adjust the needle by withdrawing it to the layer just beneath the skin, and then redirecting it more superficially to resolve the symptoms and signs.
- ii. The needling direction is deviated. Deviation of needling direction results from incorrect position of the doctor and the patient. If needling is deviated from the longitudinal axis, withdraw and redirect.
- iii. The needling length is incorrect. Insufficient length of needling will fail to partially or completely relieve the symptoms and signs. In this case, push the needle in further.

Over-needling may cause a numb sensation at the diseased area or produce new symptoms such as dizziness and palpitations. These symptoms will go away when the needle is withdrawn a little.

The adjustment of the needle plays an important role in achieving satisfactory results. In certain cases, some symptoms and signs will remain unchanged until the needle has been retained for a period of time, such as

certain kinds of pain, numbness, asthma and psychosis. In the treatment of diseases such as sleep disturbance, excess leucorrhoea and nocturnal enuresis, the needle does not have to be adjusted, since you cannot judge the therapeutic results of these diseases immediately. After the needle is adjusted properly, the handle of the needle is fixed with adhesive plaster.

iii. Retention of the needle.

Generally, the needle is retained for half an hour. Longer retention is needed if the pathological condition is severe, or the duration of the disease is long. It is not advisable to retain the needle for a very long time, because scarring is likely to occur at the point, and this is not good for the therapeutic results. In a very few cases, the needle can be retained for as long as 24 hours. When the needle is retained at the point, it is not manipulated, and there is no need to enhance the stimulation. During retention of the needle there may be a re-occurrence of symptoms a few minutes after the patient moves their limbs, resulting in the needle moving out a little. These symptoms will disappear when the needle is pushed in again.

iv. Withdrawal of the needle.

The needle is withdrawn quickly with a sterilised cotton ball pressing gently on the point. Ask the patient to stay until you are sure no bleeding occurs. The number of treatments depends on the pathological condition. Treat once daily in acute cases, and once every other day in chronic cases. Ten treatments comprise a course, and an interval is not required between the two courses of treatment.

7. Possible accidents

i. Subcutaneous haematoma. Veins are densely accumulated in the wrist and ankle. Large ones are visible and therefore avoidable in thin patients. They may be damaged, however, causing subcutaneous haematoma in fatter patients. The following methods will help avoid or reduce the possibility of causing subcutaneous haematoma: a. Fine needles should be used. b. If the skin at the tip of the needle swells up slowly during needling, subcutaneous bleeding is suggested. Withdraw the needle immediately, try to squeeze blood from the acupuncture hole, and then press the hole to stop bleeding. If subcutaneous haematoma does occur, tell the patient not to worry as it will subside by itself, and will not leave any injury

ii. Fainting. Fainting may infrequently occur during treatment, possibly in sensitive patients especially young women. The chance is greater when the wrist is treated than when the ankle is treated. Fainting may occur both in patients who are being treated for the first time, and in patients with previous experience of acupuncture. Symptoms and signs suggesting fainting include dizziness, nausea, tinnitus, blurred vision, pallor, sweating and a cold sensation of the body, and slowed heart rate. The needle should be withdrawn immediately. Lie the patient flat with their collar unbuttoned and check the blood pressure. Needling Upper 1 on both sides helps the patient recover more quickly at the early stage of fainting. To play safe, the patient should discontinue the treatment. People who have experienced fainting in

general acupuncture may or may not suffer from fainting in wrist and ankle acupuncture. Over the past twenty years, the author has noted only 5 cases of fainting in several thousand patients. All these five cases recovered soon after the above management.

Therapeutic results vary from disease to disease, and from person to person. There are five possibilities:

- i. Symptoms and signs disappear immediately, or don't return within a short period of time after a single treatment, e.g. some cases of common cold, sprains etc.
- ii. Symptoms and signs gradually improve and finally disappear following a couple of successive treatments, e.g. excessive leucorrhoea.
- iii. Symptoms and signs disappear soon after each treatment, but return; they fluctuate, gradually improving or disappearing completely over a whole course of treatment e.g. periarthritis of the shoulder, sciatica etc.
- iv. Therapeutic results are not noticeable until several treatments are given, e.g. nocturnal enuresis.
- v. Only short-term results are achieved, and there is no marked improvement on the whole following a considerable number of treatments, e.g. some cases of sciatica.

CASE HISTORIES

Of the many case histories submitted by the author in the field of psychiatric diseases, neurological diseases, diseases of internal medicine, ophthalmic diseases, ear, nose, throat and mouth diseases, dermatological diseases and gynaecology, we are only able to a couple of representative examples:

1. Paediatric minimal brain dysfunction

This disease is characterised by uncontrollable, frequent and paroxysmal movements of the head, face, four limbs or entire body while the child is awake, ceasing when they are asleep. There were 7 cases, 6 boys and 1 girl, between 6 and 13 years of age. The duration of the disease was between 1 month and 6 years.

Main clinical manifestations: increased movements such as frowning, winking, staring upwards, sniffing, pouting, extending the neck, shaking the head, frequent spitting, throwing out the chest, shortness of breath and tremor of the four limbs.

Examination: tenderness was found at Tianzhu BL-10 and Jianjing GB-21 on one side.

Treatment: Upper 5 was needled. 10-30 treatments were given.

Therapeutic results: 2 cases markedly improved, 4 cases improved and 1 case failed.

Case 1: Female age 12

Chief complaint: involuntary movements such as shaking the head, winking and tremor of the hand for 3 years. Involuntary movements of the right side were more severe than on the left. Last year she began to make the sound "hen, hen". She complained of a cloudy sensation in the brain. Oral administration of haloperidol could partially control the vocal sounds and hand tremors.

Examination: involuntary movements of the right hand and tenderness at Tianzhu BL-10.

Treatment: Right Upper 5 was needled. Tenderness at Tianzhu BL-10 disappeared soon after needling, she felt more relaxed in her brain and shook her head less frequently. Hand tremors improved after the needle had been retained for 55 minutes. The symptoms had more or less disappeared after 12 treatments. 9 months later she experienced a relapse with symptoms of irritability, excessive talking, restlessness, headshaking and disturbed behaviour at school. Points Tianzhu BL-10 and Jianjing GB-21 were tender on the right side. The same point was needled and she improved markedly after 4 treatments. Her complexion and temper were improved, appetite increased, she was much calmer and she shook her head less. She was given 15 treatments in all and a follow-up visit 2 years later showed complete relief of symptoms.

2. Somnolence:

There were 3 cases, all female, aged 12, 23 and 44 respectively. The duration of the disease varied between 3 months and 10 years.

Main clinical manifestations: uncontrollable desire to sleep at any time.

Treatment: Upper 1 was needled bilaterally in one case, and Upper 5 was needled unilaterally in the other 2 cases because of tenderness located at Tianzhu BL-10 on one side. 18-40 treatments were given.

Therapeutic results: 2 cases improved markedly and 1 case improved.

Case 2: Female age 44

Chief complaint: somnolence for over 10 years. She could fall asleep while walking or eating. She slept for 12 hours a day with many dreams. She had gained weight during this time.

Examination: tenderness at Tianzhu BL-10 on the left side.

Treatment: Left Upper 5 was needled. After 6 treatments she began to sleep less and stopped dozing off at work. Her condition further improved after 20 treatments.

