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Plantar Fasciitis

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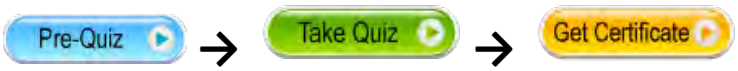

PLANTAR FASCIITIS

Presented by HealthCMi

The Healthcare Medicine Institute

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PLANTAR FASCIITIS

Biomedicine

Anatomy and Physiology

Plantar fasciitis is a condition commonly encountered in the clinical setting. Every year, approximately two million people in the US seek treatment for this painful condition. The pain can be so intense that it interferes with work and daily activities. As the name implies, plantar fasciitis is an inflammatory condition affecting the plantar fascia. The condition is also referred to as inferior heel pain or sub-calcaneal pain.

The plantar fascia is a sheath or band of tissue that extends through the medial longitudinal arch. The plantar fascia almost entirely covers the plantar surface of the feet, and it has three portions (or bands):

- Medial
- Lateral
- Central

This important structure provides static support for the longitudinal arch of the foot. It also acts as a shock absorber through its limited ability to elongate.

The central portion of the plantar fascia originates from the medial process of the calcaneal tuberosity and extends to insert into each proximal phalanx (base of the metatarsophalangeal joints). Passive extension of the metatarsophalangeal joints tend to pull the plantar fascia distally (away from the body), which also increases the height of the foot arch.

One study in the *Journal of Athletic Training* describes a windlass mechanism in which the calcaneus, midtarsal joint, and metatarsals (medial

longitudinal arch) create a triangle with the plantar fascia serving as the hypotenuse of the triangle. This mechanism explains how the vertical forces from the body tend to flatten the medial longitudinal arch. It also explains how the plantar fascia prevents the foot from collapsing due to the fascia's anatomical position and tensile strength.

Causes of Plantar Fasciitis

Some patients who have plantar fasciitis may also have heel spurs, which are bony deposits. Although the two conditions often exist concomitantly, pain from plantar fasciitis should not be confused with pain due to heel spurs. Additionally, heel spurs **do not** cause plantar fasciitis. The idea that plantar fasciitis is due to heel spurs is in fact a common myth. Heel spurs occur in about 1 out of the 10 people, but only about 20% of those individuals will actually experience pain. So, when a patient complains of heel pain, plantar fasciitis should be considered as a primary cause.

Repetitive use, standing for long periods on hard surfaces, and injury from running and sports are some of the most common causes of plantar fasciitis. In fact, about 10% of athletic adults experience this condition. The repetitive nature of such activities strains the ligamentous structures and traumatizes the related nerves. Further, direct impact with heel strike causes microtears, which eventually results in pain and inflammation.

Plantar fasciitis also occurs frequently in women, particularly women ages 20 – 40 years, and middle, aged overweight individuals who are physically inactive. In the case of the women, high heels shoes appear to be the culprit.

Historically, researchers attribute plantar fasciitis to biomechanical problems or anatomic abnormalities.

These biomechanical factors include:

- Pes planus (flatfoot)
- Heel pronation
- Tight gastrocnemius muscles
- Cavus feet (high arch)
- Leg length discrepancies

Excessive pronation was once believed to be a significant biomechanical factor causing plantar fasciitis. Recently, however, research now indicates that overpronation does not ***always*** lead to lower extremity problems. Research now indicates other patterns of faulty mechanics as possible causes of plantar fasciitis, such as having an arch that is too high or too low. Apparently, various foot types such as Pes planus are more likely to create biomechanical stresses resulting in plantar fasciitis. So, when treating a patient with plantar fasciitis, the person's foot anatomy should definitely be evaluated for Pes planus and Cavus feet as well as for abnormal movement.

Assessment

The provider should begin assessing plantar fasciitis by taking the patient's medical history and documenting the chief complaints. A key symptom of plantar fasciitis is pain of the inferior heel (near the origin). In some cases, the pain is more medially than laterally.

Key Indicators

The pain is usually insidious in nature with the patient commonly experiencing pain and stiffness with the first few steps of the morning or after resting for long periods. The pain may also occur after sitting or standing for extended periods.

Another related condition the provider should be aware of is plantar fascia rupture. Plantar fasciitis occurs gradually whereas plantar fascia RUPTURE occurs more suddenly. Usually, patients will experience a pop or crunching sound with push-off or when pivoting the foot and will have difficulty placing any weight on the heel.

After obtaining the patient's health history, a number of assessments may also be performed depending on the severity and type of symptoms. In any event, biomechanical evaluation should be performed to check for factors such:

- Leg length discrepancy
- Limited range of motion
- Pronated or pes planus foot
- Cavus-type foot (high arch)
- Atrophy of the fat pad
- Tight Achilles tendons
- Stress fractures

Additionally, in some cases, the following assessments may be required:

- Sports training assessment (preferably by a kinesiologist)
- Radiographic assessment
- Bone scans
- Electromyographic studies
- Rheumatologic assessment

Foot Biomechanics

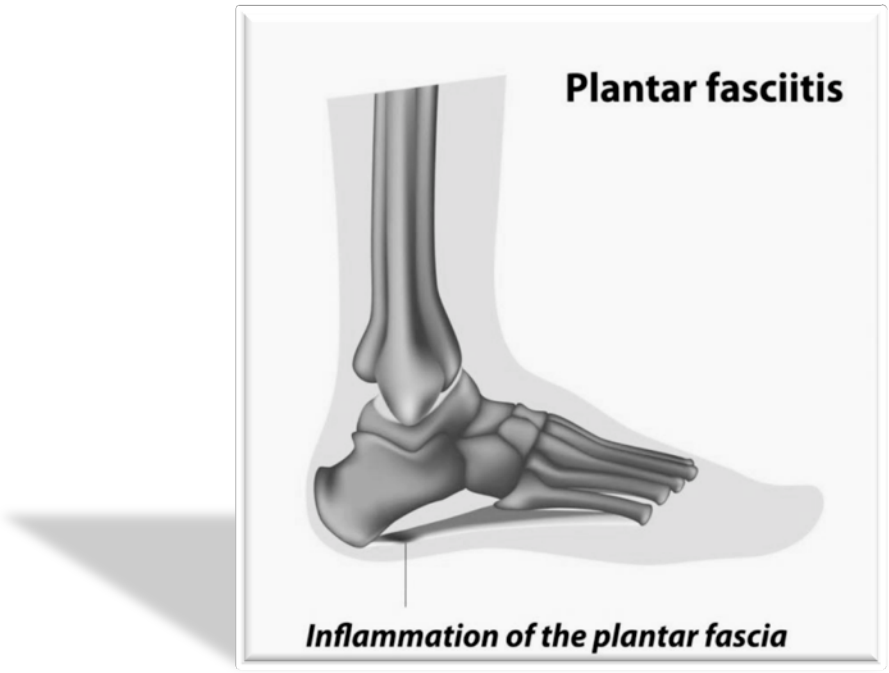
Range of motion (ROM) and gait assessments can provide helpful information about the functioning of the foot and ankle. To begin with, the

provider should check the dorsiflexion and plantar flexion of the foot. Then, the provider should assess the patient's gait.

The plantar fascia in essence works like a windlass or cable as it winds around a metatarsal head. This action of the plantar fascia occurs because of propulsive forces of hallux dorsiflexion. During gait the plantar fascia not only absorbs the shock of the forces but also shortens the distance between the calcaneus and metatarsals causing the medial longitudinal arch to rise.

Problems result when the various forces (vertical and ground forces) and foot motions interfere with proper function of the medial longitudinal arch. Researchers found that patients with too high of an arch result in "conditions with too much motion" while people with too low of an arch result in "conditions with too little motion." The plantar fascia is highly susceptible to excessive stretching from these forces.

The excessive stretching causes strain (and pain) along the band or at the fascia's attachment site, which is shown in the illustration below.



A quick and simple test for checking the foot and ankle motion is to have the patient perform the following actions (active ROM):

1. Have the patient walk on his or her toes (to check for ***plantar flexion*** and toe motion).
2. Have the patient walk on his or her heels (to check for ***dorsiflexion*** and toe motion).
3. Next ask the patient walk on the lateral and medial borders of the foot to check for ***inversion*** and ***eversion***, respectively.

If a patient is unable to perform any of these tests, then the provider should assess passive ROM. With the patient in the seated position, the provider can use a goniometer (similar tool) to passively check the ankle joint range

of motion. The provider should have the patient point (plantar flex) and extend the foot (dorsiflex) while taking the respective measurements. The normal range of motion for ***dorsiflexion*** is 20 degrees. The normal range of motion for ***plantar flexion*** is 50 degrees.

After assessing the foot and ankle ROM, the provider can now evaluate the gait. The biomechanics of walking (or gait) includes two phases: the stance phase and the swing phase. The swing phase is when one foot is off the ground and the other foot is in the air. Sixty percent (60%) of the walking cycle or gait is spent in the stance phase. The stance phase is when the foot is on the ground and includes four distinct actions:

- Heel strike
- Early flatfoot
- Late flatfoot (or heel rise)
- Toe off

The provider should assess the patient to determine if pain is experienced with walking and at which phase of gait the pain is experienced. Questions to ask include: Is this a painful gait? Is it an orthopedic gait? Is there excessive pronation? In both a painful or orthopedic gait, trauma can be a contributing factor. (An orthopedic gait is an abnormal gait caused by an orthopedic condition, such as a leg length discrepancy or surgery).

Plantar fascia pain typically occurs when the person bears weight on the heel as illustrated below.

Phases of Gait and Plantar Fascia Pain

Squeeze Test

The provider may perform a squeeze test of the calcaneal tuberosity to assess for stress fractures. With this test, the provider squeezes both the medial and lateral sides of the calcaneus to assess for pain or tenderness. Pain with the squeeze test is a positive for stress fractures. Bone scans and radiographs can also confirm the presence of stress fractures.

Imaging and other diagnostics

Radiographic assessment (x-rays) should provide a 45 degree oblique view as well as the three standard foot views. A bone scan is recommended if the patient has recalcitrant pain, which is pain for more than 6 weeks after initial treatment. If nerve entrapment is suspected, electromyographic studies should also be performed.

Rheumatologic testing

In addition to x-rays and a bone scan, a full rheumatological workout may be required when patients have heel pain accompanied by other symptoms. For instance, patients who have bilateral foot pain, recalcitrant symptoms, or multiple joint pain should also see a rheumatologist to rule out systemic disorders. Plantar fasciitis is a sign with a number of other disorders, so the acupuncturist should be certain to rule out other conditions before proceeding with a treatment plan focusing only on resolving the plantar fasciitis. The following table categorizes some foot symptoms/signs and their associated systemic disorders:

Foot Pain Signs and Associated Systemic Disorders

Systemic Disorder	**Rheumatoid Arthritis**	**Reiter's Syndrome**	**Ankylosing Spondylitis**	**Hyperlipoproteinemia (Type II)**	**Gout**
Foot Signs	• Retro-calcaneal bursitis • Loss of subtalar motion • Swelling of tibiotalar joint • Fibular deviation of toes 2 - 5	• Plantar fasciitis • Acute diffuse swelling of toes • Swelling over Achilles insertion • Low back pain	• Plantar fasciitis • Limited chest expansion • Low back pain • Painful sacroiliac joints	• Plantar nodules • Plantar fasciitis • Xanthomatous nodules in the plantar fascia	• Plantar fasciitis • Tophi • Swelling in ankles • Metatarsal pain and swelling

Additional causes of heel pain also include:

- Idiopathic causes
- Abnormal foot alignment
- Entrapment of the abductor digiti quinti nerve
- Periositis
- Sub-calcaneal bursitis
- Atrophy of the fat pad
- Osteopenia of the calcaneous

When differentiating plantar fasciitis, the provider conducting the assessment should focus on the location of the pain. Inferior heel pain often indicates plantar fasciitis, but it can also indicate other conditions, as well. The following table is a tool to help differentiate plantar fasciitis from other causes of heel pain based on the location of the pain:

Differentiation of Heel Pain Signs and Symptoms

Location	**Plantar (inferior)**	**Medial**	**Lateral**	**Posterior**	**Diffuse**	**Other (e.g., bilateral)**
Conditions	• Plantar fasciitis • Calcaneal spur • Fat pad syndrome • Calcaneal perositis • Abductor digiti quinti nerve entrapped	• Tarsal tunnel syndrome • Jogger's foot • Medical calcaneal neuritis (very rare)	• Peroneal tendon disorder • Lateral calcaneal nerve neuritis	• Retro-calcaneal bursitis • Haglund's deformity • Calcaneal exostosis • Achille's tendon tendinitis or rupture	• Calcaneal stress fracture • Calcaneal fracture	• Reiter's syndrome • Ankylosing spondylitis • Lupus • Gouty arthropathy • Rheumatoid arthritis

Biomedicine and Rehabilitation

Western biomedicine treatment of plantar fasciitis varies. Treatment becomes more aggressive and invasive after initial protocols fail to provide relief. Since the severity of the condition varies from person to person, the treatment protocol can range from simple measures such as stretching exercises to injections or even surgery. Generally, one treatment method is not considered more effective than another. The following are just some of the methods commonly used to address plantar fasciitis:

- Non-steroidal anti-inflammatory drugs (NSAIDs)
- Steroidal Injections
- Exercise and stretching
- Orthotics
- Surgery
- Ice massage (cryotherapy)
- Taping
- Ionotophoresis
- Rest

The most important treatment factor, however, is patient education. Providers treating patients with plantar fasciitis should spend considerable time educating the patient on how to prevent microtears and further injury by wearing proper foot attire. The provider should also educate the patient on stretches and exercise techniques to rehabilitate the foot. In the case of runners and other athletes, the patient may require expert evaluation of the training methods they are using and how to use correct training methods (this is especially the case for runners).

The prognosis for resolving plantar fasciitis is typically good. Even after an initial period of intense pain, many patients obtain relief with the proper care and rehabilitation. Research shows that 95% of patients can attain resolution of plantar fasciitis within 6 – 12 months using conservative measures such as stretching and education. In a small percentage of cases, the pain doesn't resolve after many months, or even years of treatment.

Daily stretching of the plantar fascia and Achilles tendon appears to be the one of the most effective measures for providing relief. This measure has an 83% success rate. Additionally, the plantar fascia stretching technique involves simple steps the patient can employ at home or work, either sitting or standing.

Plantar Fascia Stretching Techniques

Perform 5 – 10 repetitions of this tendon stretch, 4 – 5 times a day. The best times to perform the stretches are upon rising in the morning with the first steps of the day AND after sitting (or resting) for long periods.

For seated stretches:

1. Sit on the floor or bed, with the knee bent and toes up.
2. Grab all five toes and pull the toes back toward the upper body (or knee).
3. Hold the stretch for 30 seconds.
4. Repeat steps two and three 5 times.

OR

1. Sitting on the edge a chair, lower the affected leg with the knee pointing down and toes hyperextended (heel up, on the tips of the toes).
2. Now, gently press the calf to further stretch the toes.
3. Repeat steps two 5 times.

For standing stretches:

1. Stand near a wall.
2. Raise the toes (dorsiflex).
3. Keeping the heel on the floor, place the pad of the toes on the wall with toes pointing up.
4. Lean forward so the body weight gently stretches the foot.
5. Hold for 30 seconds.
6. Repeat steps four and five 5 – 10 times.

Besides stretching, other preventative actions the patient can take include:

- Resting
- Not standing or sitting for long periods of time
- Using correct posture
- Smoking cessation
- Avoiding or reducing of caffeine
- Using orthotics
- Not wearing high heel shoes (women)
- Losing weight
- Warming-up before exercising
- Using proper training techniques (for runners)

TCM Treatment

Introduction

Acupuncture with or without electrical stimulation is an effective modality for treating plantar fasciitis. Generally, acupuncture treatment either for pain relief involves multiple local needles or a single distal needle. In a 2005 - 2006 study performed at the Hong Kong Baptist University, researchers held a small randomized-clinical trial (with 28 participants) to determine the specificity of using PC 7 for heel pain. The results proved heel pain patients can receive benefit from acupuncture, and it also showed that PC 7 is a "relatively specific acupoint for heel pain."

In an earlier study reported in *Medical Acupuncture*, researchers at the Walter Reed Army Medical Center in Washington, D.C. evaluated the effectiveness of "electroacupuncture" using local points and trigger points for plantar fasciitis. Although the sample size was small (11 participants) **82% of the patients** showed marked improvements after treatment with acupuncture and electrostimulation with an average of four sessions. The sessions lasted for 20 – 30 minutes using the following points: KD 1, KD 3, KD 6, BL 60, BL 67, GB 44 and local plantar ashi or trigger points. Electrostimulation was applied to the needles on KD 1 and local trigger points near the calcaneus AND two other points in the medial arch at a frequency of 2 – 4 Hz. Besides a reduction in pain, the Washington, D.C. patients also reported improvements in functional activities, such as climbing stairs, walking four blocks, and standing on their toes.

Etiology

Plantar fasciitis can result from a number of activities that place strain on the plantar fascia. With plantar fasciitis, we know specifically that the microtears and trauma to the plantar fascia are the primary causes of the resulting inflammation and pain. In terms of TCM treatment, exogenous factors such as cold and damp may also contribute to inferior heel pain.

Patterns

With plantar fasciitis, an acupuncturist may tend to initially think *only* Qi and Blood Stasis because of the resulting trauma. However, other patterns may be prevalent with this condition including damp-heat., qi deficiency, damp-cold, blood deficiency and kidney yin deficiency. For instance with patients who have a chronic tendency for developing plantar fasciitis or (problems with their ligaments, fascia, and tendons), the acupuncturist may consider tonifying the yin and blood. It is also important to note that pain in the lower extremities is also often due to wind-damp-cold invasion. So, correct differentiation is very important.

The following table is a helpful tool in determining which patterns predominant in specific cases:

Plantar Fasciitis TCM Patterns

Pattern	**Wind-cold-damp**	**Qi and Blood Stasis**	**Damp-heat obstruction**	**Blood deficiency**	**KD Jing Deficiency**
Signs and Symptoms	• Tongue: Normal or Pale with Thick white coating • Pulse: Floating or slippery • Aching pain that may move • Heaviness and swelling • Pain worse with damp and cold weather (prefers warmth) • Cold extremities	• Tongue: Purple with a thin, white coating • Pulse: Wiry or choppy • Sharp pain in foot • Pain is fixed	• Tongue: Red with a yellow coating • Pulse: Slippery, fast • Swelling and soreness • Difficulty moving the foot • Redness and pain • Pain is better with cold (prefers cold, likes icing)	• Tongue: Pale • Pulse: Thin, weak especially in the middle • Numbness and pain • Maybe aggravated around the menses	• Tongue: Normal or with a thin coating • Pulse: Leathery or Deep, weak especially in the rear positions • Dull pain

Treatment Plans

The focus of the treatment plan for plantar fasciitis depends on the pattern. Use of acupuncture, Tuina, moxa, auricular therapy, and electro-stimulation are all appropriate according the presenting symptoms. In addition to providing acupuncture and herbs, the acupuncturist should also educate the patient on rehabilitation methods that can be performed at home, such as acupressure or massage.

I. Qi and Blood Stagnation –
   - Move qi and blood
   - Points: UB 60, KD 4, KD 2, SP 2, ST 41, SP 6, SP 10, GB 34, LI 4, LV 3
   - Electro-stimulation at select acupuncture and trigger points

II. Damp-Heat Obstruction —
   - Move qi and blood, resolve swelling (damp-heat)
   - Points: ST 41, UB 60, KD 2, KD 4, KD 7, SP 2, SP 3, SP 5, SP 6, SP 9, GB 34
   - Electro-stimulation at select acupuncture and trigger points

III. Wind-damp-cold –
   - Warm channels, resolve damp, expel wind
   - Points: KD 4, KD 7, SP 5, SP 6, SP 9, ST 36, ST 40, ST 41, UB 60, UB 67
   - Moxa and/or heat lamp

IV. Blood deficiency
   - Tonify blood
   - Points: LV 8, SP 5, KD 1, KD 4, KD 6, UB 17, UB 60, UB 67
   - Ear points: Ankle, foot
   - Incorporate blood building foods in the diet or iron supplementation

V. Kidney jing deficiency –
   - Tonify Kidney jing
   - Points: KD 1, KD 3, SP 6, KD 4, Du 4, UB 23, UB 60
   - Ear points: Ankle, foot
   - Incorporate yin and yang nourishing foods and Kidney tonics (i.e., walnuts)

NOTE: One special technique is to needle local points (KD 3, KD 4, SP 4, BL 56, BL 57, BL 60, and BL 61) up to the calves.

Explanation of the Acupuncture Points

I. Qi and Blood Stagnation –
   - UB 60 – Invigorates blood, expels wind, and unblocks channels, indicated for pain in ankle and foot
   - KD 4 – Indicated for plantar fasciitis, bone spurs
   - SP 2 – Indicated for foot pain
   - ST 41– Unblocks channels, indicated for foot and ankle problems
   - SP 6 – Resolves dampness, unblocks channels, stops pain, moves blood
   - SP 10 – Moves blood
   - GB 34 – Relaxes the sinews, promotes Qi flow
   - LI 4 – Unblocks channels, indicated for pain anywhere in the body
   - LV 3 – Promotes Qi flow

II. Damp-Heat Obstruction —
   - ST 41– Unblocks channels, indicated for foot and ankle problems
   - UB 60 – Invigorates blood, expels wind, and unblocks channels, indicated for pain in ankle and foot
   - KD 2 – Clears deficiency heat, indicated for plantar fasciitis
   - KD 4 – Indicated for plantar fasciitis, bone spurs

- KD 7 – Resolves dampness from the lower jiao, Tonifies KD
- SP 2 – Clears heat, Indicated for foot pain
- SP 3 – Resolves dampness in the three jiaos
- SP 5 – Resolves dampness, indicated for painful obstruction in the ankle and surrounding tissues
- SP 6 – Resolves dampness, unblocks channels, stops pain, moves blood
- SP 9 – Resolves dampness the lower jiao
- GB 34 – Relaxes the sinews, promotes Qi flow, resolves damp-heat

III. Wind-damp-cold –

- KD 4 – Indicated for plantar fasciitis, bone spurs
- KD 7 – Resolves dampness from the lower jiao, Tonifies KD
- SP 3 – Resolves dampness in the three jiaos
- SP 5 – Resolves dampness, indicated for painful obstruction in the ankle and surrounding tissues
- SP 6 – Resolves dampness, unblocks channels, stops pain, moves blood
- SP 9 – Resolves dampness the lower jiao
- UB 60 – Invigorates blood, expels wind, and unblocks channels, indicated for pain in ankle and foot
- UB 67 – Unblocks channels, expels wind
- ST 36 – Expels wind, damp
- ST 40 – Resolves phlegm and dampness
- ST 41– Unblocks channels, indicated for foot and ankle problems, especially helpful for cold-damp

IV. Blood deficiency

- LV 8 – Nourishes LV blood
- SP 5 – Indicated for painful obstruction in the ankle and surrounding tissues
- KD 1 – Tonifies KD yin, Clears deficiency heat, indicated for hot soles and muscle cramps

- KD 4 – Indicated for plantar fasciitis, bone spurs
- KD 6 – Nourishes Yin, Cools blood, Regulates uterus (local point)
- UB 17 – Tonifies Qi and blood, invigorates blood and removes stagnation
- UB 60 – Invigorates blood, expels wind, and unblocks channels, indicated for pain in ankle and foot
- UB 67 – Unblocks channels, expels wind, indicated for headaches

V. Kidney jing deficiency –
- SP 6 – Unblocks channels, stops pain, moves blood , tonifies KD
- KD 1 – Tonifies KD yin, Clears deficiency heat, indicated for hot soles and muscle cramps
- KD 3 – Tonifies KD, benefits essence
- KD 4 – Indicated for plantar fasciitis, bone spurs
- UB 60 – Invigorates blood, expels wind, and unblocks channels, indicated for pain in ankle and foot and headaches from KD deficiency
- Du 4 – Benefits essence
- UB 23 – Tonifies KD and essence

Herbs

Numerous herbal pills and decoctions are beneficial for plantar fasciitis. The patient may also benefit from using topical applications, especially those which are cooling when inflammation and redness are present.

The following formulas are recommended for the plantar fasciitis patterns discussed in this course. Please note, modifications of these basic formulas, or other formulas may also be used:

I. **Qi and Blood Stagnation – *Shen Tong Yu Zhu Tang***:
   - Formula for bi syndrome (joint pain) due to Qi and blood stagnation
   - Actions: Promotes blood circulation, expels bi pain

II. **Damp-Heat Obstruction –– *San Miao San***
   - Formula for damp-heat obstruction
   - Actions: Clears heat, dries dampness
   - Especially indicated for numbness and burning in the feet (inflammation)

III. **Wind-damp-cold – *Xiao Huo Luo Dan***
   - Formula for bi syndrome caused by wind-damp or phlegm stagnation, and qi and blood stagnation
   - Actions: Warms the channels, expels wind, damp, and phlegm, promotes blood circulation, and alleviates pain

IV. **Blood deficiency – *Si Wu Tang***
   - Major formula for blood deficiency with blood stagnation.
   - Actions: Tonifies and regulates the blood, regulates the LV
   - Dosages for the individual herbs may be doubled as needed
     - Spring double Chuan Xiong, *Radix Ligustici Chuan Xiong*
     - Winter double Dang Gui, *Radix Angelicae Sinensis*
     - Summer double Bai Shao, *Radix Paeoniae Lactiflorae*
     - Fall double Shu Di Huang, *Radix Rehmanniae Glutinosae Conquitae*

V. **Kidney jing deficiency – *Du Huo Ji Sheng Tang***
   - Major formula for bi pain with deficiency
   - Actions: Tonifies LV and KD, tonifies Qi and Blood, expels wind-damp, alleviates pain
   - Patient may also have pain in the lower back

Special Formula Analysis of San Miao San

San Miao San or San Miao Wan is indicated for damp heat in the lower jiao especially with atrophy, weakness, and numbness in the feet. The patient may also have burning in the feet (inflammation). Traditionally, the dosages for the individual ingredients was very high (i.e., up 180 g), and the patient was given 70 pills on an empty stomach with ginger juice or salty water. In current times, the amount of the individual herbs has been reduced. While this formula is small, it is still quite powerful. The following is a breakdown of the herb amounts and the functions of the herbs in San Miao San (Three Marvel Powder):

- Huai Niu Xi, *Radix Achryanthis Bidentatae*, 3 – 9 g
  - Huai Niu Xi activates blood, breaks up blood stasis, strengthens sinews and bones, dries dampness, clears damp-heat, and descends heat.
- Huang Bai, *Cortex Phellodendri*, 6 - 9 g
  - Huang Bai treats damp-heat in the lower burn. It is a bitter and cold herb.
- Cang Zhu, *Rhizoma Atractylodis*, 6 – 12 g
  - Dries dampness, especially wind-damp. It strengthens the Spleen, and has diaphoretic effect.

Topical Applications

Choice of topical application should depend on whether cool or heat signs are more prevalent. *Die Da Wan Hua Oil* is a Chinese herbal topical used for tissue trauma, especially in the acute stages.

Summary of Plantar Fasciitis Treatment

Pattern	Qi and Blood Stasis	Damp-heat obstruction	Wind-damp-cold	Blood deficiency	KD Jing Deficiency
Points	• KD 4 • KD 2 • SP 2 • ST 41 • SP 6 • SP 10 • GB 34 • LI 4 • LV 3 • UB 60	• ST 41 • KD 2 • KD 4 • KD 7 • SP 2 • SP 3 • SP 5 • SP 6 • SP 9 • GB 34 • UB 60	• KD 4 • KD 7 • SP 3 • SP 5 • SP 6 • SP 9 • UB 60 • UB 67 • ST 36 • ST 40 • ST 41	• LV 8 • SP 5 • KD 1 • KD 4 • KD 6 • UB 17 • UB 60 • UB 67	• SP 6 • KD 1 • KD 3 • KD 4 • UB 60 • Du 4 • UB 23
Herbs	Shen Tong Yu Xhu Tang	San Miao San	Xiao Huo Luo Dan	Si Wu Tang	Du Huo Ji Sheng Tang
Special	• E-stim • Tuina • Plantar stretches • Invigorating Topicals	• E-stim • Tuina • Plantar stretches • Cooling topicals	• Moxa • Tuina • Plantar stretches • Warming topicals	• Tuina • Plantar stretches • Blood building foods	• Tuina • Plantar stretches • KD nourishing foods • Rest

Case Study

A 29 year old high school chemistry teacher came for acupuncture to help with heel pain, which had previously been diagnosed as plantar fasciitis. She had been experiencing the pain for 10 months and had tried massage and cryotherapy. The cryotherapy made her pain worse. She had also seen a podiatrist, who recommended a course of better shoe support, exercises, and injections. The patient said she had a friend who eliminated shoulder pain through acupuncture, so she wanted to try acupuncture before proceeding with the injections. Since seeing the podiatrist, she had purchased shoes providing better support and was stretching her feet daily. The stretching and exercises the podiatrist recommended did provide some relief. At the time of her first acupuncture visit, the patient's pain level was a 6 on the VAS scale. On a day-to-day basis, the pain level ranged anywhere from 2 – 6 on the VAS scale.

Upon examination, the acupuncturist noted tenderness along the liver channel especially LV 8. Also, he noticed that the patient's finger nails and tongue were pale. Upon further questioning, the patient indicated that her pain was worse around the time of her menstrual period. Additionally, her menstrual cycles were irregular—anywhere from 26 to 34 days. Menses usually lasted 2 – 3 days with a scanty, pale flow. Occasionally, she skipped a period. The patient was not vegetarian, but she did not eat meat on a regular basis.

Her pulse was weak and very thin.

The patient also noted that during the middle of the school year she suffered from tension headaches at the end of the day and had visual problems such as floaters and blurry vision. Although she felt stressed at work, after 7 years of teaching she had learned how to manage some of the stress she experienced particularly through Salsa dancing on the weekends. But, with the recent heel pain, she was unable to dance.

Acupuncture was performed for a series of 6 visits lasting 30 minutes, once – twice a week. The patient began taking a liquid herbal-based iron

supplement and Si Wu Tang. She also used Arnica Montana twice a day for two weeks.

The following points were used: UB 60, LV 8, SP 5, SP 6, KD 4, KD 6, and plantar ashi points. Electro-stimulation was used on one of the ashi points and UB 60. By the third session her pain had reduced to 1 on the VAS. By the sixth session, her heel pain was completely gone. She continued to come for acupuncture for 3 more months to regulate her menstrual cycle.

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