

TIBIOTARSAL JOINT SYNDROME

The ankle joint is a hinge joint. The structures making up this joint include distal end of the tibia and its malleolus, the malleolus of the fibula, and the inferior transverse ligament. These together form a mortise for the reception of the proximal convex surface of the talus and its medial and lateral facets. The articular capsule, deltoid, anterior talofibular, posterior talofibular, and calcaneo fibular ligaments connect the bones.

An osteoarthritic condition can develop within the articulation between the tibia and talus. The patient may complain of sharp pain in the ankle joint when weight is put on the foot, or of a more or less continual aching pain. This aching pain is generally restricted to the joint, but may also radiate into the proximal instep. Swelling is generally moderate and usually confined to the area over the joint.

The inflammation involved may be determined through DSR zone finding over the joint, with the foot dorsiflexed to neutral.



The high skin resistance pattern commonly associated with the Tibiotarsal (arthritic) Joint Syndrome (ankle dorsiflexed)

Treatment

The inflamed tissues should be treated to decrease inflammation and pressure in the joint.

Application:

- Preset an electrical stimulation unit to deliver a medium frequency current sufficient to produce a contraction of the anterior calf muscles, at 10-second intervals. Place a negative electrode over the tibiotarsal joint, and a positive electrode over the rectus femoris muscle. The patient's involved foot should be flat on the floor to prevent cramping of the calf muscles. Stimulate for 15 minutes.
- Manipulate the soft tissues in and around the tibiotarsal joint to eliminate any adhesions that may be present.
- Preset the ultrasound unit to deliver a 1 MHz pulsed waveform, at 1.5 W/cm². With the ankle dorsiflexed to the neutral position, ultrasound the tibiotarsal joint, utilizing an effective non-steroidal anti-inflammatory as a coupling agent, for six minutes.
- Preset an electrical stimulation unit to deliver a visible contraction at 7 Hz. Place a negative electrode over the gastrocnemius muscle and a positive electrode over the tibiotarsal joint. Elevate the patient's foot to chest level, either lying down or seated and reclined in a reclining chair. Stimulate for 20 minutes.
- Mechanically vibrate the plantar surface of the foot, for two minutes (preferably with a foot vibrator), to further increase capillary circulation and to desensitize the involved tissues.

Effective treatment generally relieves this condition in one to six sessions.

Trigger Points

The following is a list of trigger point formations which may, singly or in combination, imitate or contribute to the pain associated with the *Tibiotarsal Joint Syndrome*: Anterior tibialis, Long toe extensors, and Short toe extensors.