

# ISCHIAL TUBEROSITY SYNDROME

The sciatic nerve leaves the pelvis through the sciatic foramen and passes under the gluteus maximus muscle to continue on between the greater trochanter and the ischial tuberosity. Prolonged sitting (probably on a hard surface) seems to have an adverse effect on some people, resulting in inflammation of the soft tissues covering the ischial tuberosity (the tissues that lie between the ischial tuberosity and the supporting surface). This is not a great surprise, since the ischial tuberosity is literally the bone we sit on, and the entire upper body weight must be divided and supported by each of the two tuberosities when we sit down. Inflammation of the ischial tuberosity may have the effect of putting some pressure on the sciatic nerve, as it passes in adjacent proximity.

The patient, afflicted by the *Ischial Tuberosity Syndrome*, generally complains of a pain pattern or numbness (or both), usually restricted to the lower buttock and posterior thigh, but may further follow the distribution of the sciatic nerve as it passes down the back of calf, heel, and into the planter tissues of the foot. Little or no swelling of the affected tissues around the tuberosity is usually apparent. However, adhesions in large numbers are generally found over (as seen from the posterior) and around the ischial tuberosity, to the extent that the tissues seem to literally to be tacked down to the tuberosity. DSR survey typically demonstrates an inflammation pattern to lie over the ischial tuberosity, preceding distally some five to eight centimeters. Most commonly, only one side is affected, but bilateral affliction is not unknown.

## Treatment

Treatment of the *Ischial Tuberosity Syndrome* centers on relieving inflammation and eliminating any adhesions that are present, as well as decreasing sensitivity in the affected tissues and increasing local circulation.

## Application:

- Place a negative electrode over the ischial tuberosity site and a positive electrode over the central bulk of the hamstring muscles. Preset an electrical stimulation unit to deliver a medium frequency, with a 10-second on and 10-second off duty cycle, and a current level sufficient to produce a near tetanic contraction of the buttock and hamstring muscles. Stimulate for 15 minutes.
- Have the patient lie prone or on the uninvolved side, while the tissues in and around the inflamed zone are manipulated to break any adhesions that are present.
- Preset the ultrasound unit to deliver a 1 MHz pulsed waveform, at 1.5 W/cm<sup>2</sup>. Ultrasound the inflamed zone utilizing an effective non-steroidal anti-inflammatory as a coupling agent, for six minutes.
- Preset the electrical stimulation unit set to deliver a visible contraction, at 7 Hz. Place a positive electrode over the inflamed zone, and a negative electrode over the central bulk of the hamstring muscles. Stimulate for 20 minutes
- To further increase circulation and decrease sensitivity in the involved tissues, have the patient sit on a vibrating plate or stimulate the involved tissues with a hand-held vibrator, for at least two minutes.

Successful treatment usually takes two to three sessions to affect, but success really depends on the patient being able to avoid further trauma to the involved tissues.

### **Post Treatment Suggestions:**

Encourage the patient to avoid prolonged sitting, especially on firm surfaces. If the problem is unilateral, instruct the patient to shift the body weight to the uninvolved side when sitting. It is apparent that one of the causative elements is the habit that most people have of sitting with more weight concentrated on one buttock more than the other. This is especially true if the patient habitually crosses one particular knee over the other while sitting. Have the patient mechanically vibrate the involved ischial tuberosity for two minutes, twice daily.

Vibration should not be applied just before going to bed. It has been reported that mild insomnia may result. Ideally, vibration should be applied two hours before going to bed.

### **Trigger Points**

The following trigger point formations may, singly or in combination, imitate or contribute to the pain associated with the *Ischial Tuberosity Syndrome*: Longissimus thoracis (T10-T11), Multifidus (S1-S2), Gluteus medius, Gluteus minimus, Biceps femoris, Gastrocnemius, and Soleus.



**The high skin resistance pattern commonly associated with the Ischial Tuberosity Syndrome**