

DISTAL RADIOULNAR JOINT SYNDROME

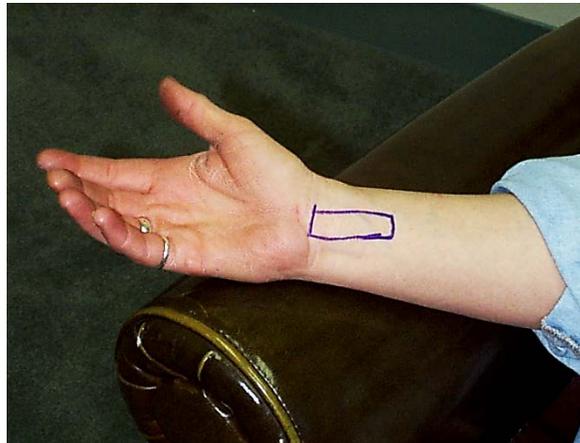
The radioulnar joint is a pivot joint formed between the distal head of the ulna and the ulnar notch on the lower end of the radius. How an inflammation can develop within this joint and the etiology involved is uncertain. When suffering from the *Distal Radioulnar Joint Syndrome*, the patient usually complains of pain in the wrist which radiates into the hand, and may be associated with some “cracking” when the wrist is rotated in some of its ranges. Swelling is usually *not* present. Most often it accompanies either the carpal tunnel or Extensor Tunnel Syndromes and seems to stem most frequently from prolonged compression of the joint by wrist bracing utilized to help treat those conditions. This finding, coupled with the discovery that a course of treatment may be required to remedy the condition (up to six or eight sessions), has led some to suggest that this condition is basically osteoarthritic in nature.

Typically, inflammation of the distal radioulnar joint may be demonstrated through DSR survey of both the anterior and posterior aspects of the joint, as illustrated below. During the DSR survey of the anterior aspect of the joint, the wrist should be fully externally rotated; for the posterior aspect of the joint, the wrist should be internally rotated to 90°.

Treatment

Application:

- Preset an electrical stimulation unit to deliver a medium frequency current sufficient to produce a near tetanic contraction of the forearm muscles, at 10-second intervals. Place negative electrodes, split-leaded, over both the anterior and posterior aspects of the radioulnar joint. Place a positive electrode more medially over the wrist extensor muscle group. Have the patient grasp a firm round or cylindrical object in the involved hand and “fight” the contraction. Stimulate for 15 minutes.
- Manipulate the soft tissues over both the anterior and posterior aspects of the distal radioulnar joint to eliminate any adhesions that may be present.



**The high skin resistance pattern commonly associated with
the Distal Radioulnar Joint Syndrome (Anterior View)**



**The high skin resistance pattern commonly associated with
the Distal Radioulnar Joint Syndrome (Posterior View)**

- Preset an ultrasound unit to deliver a 1 MHz pulsed waveform, at 1.8 W/cm². Place masking or other paper tape around the borders of the inflammation patterns to protect the adjacent bones from excessive exposure to the ultrahigh frequency sound. Ultrasound each aspect of the distal radioulnar joint, utilizing an effective non-steroidal anti-inflammatory as a coupling agent, for six minutes. ***When ultrasounding the anterior aspect of the joint, the wrist must be fully externally rotated during the procedure; when ultrasounding the posterior aspect of the joint, the wrist should be internally rotated to 90°.***
- Preset an electrical stimulation unit to deliver a visible contraction at 7 Hz. Place a negative electrode over the wrist extensor muscles and a positive electrode split-leaded and placed over the anterior and posterior aspects of the distal radioulnar joint. Stimulate for 20 minutes;

If the condition is acute, successful treatment may only take one or two sessions. Six or eight sessions may be required for successful resolution of the chronic condition.

Trigger Points

The following trigger point formations may, singly or in combination, imitate or contribute to the pain accompanying a *Distal Radioulnar Joint Syndrome*: Scalenus, Scalenus (minimus), Infraspinalis, Coracobrachialis, Latissimus dorsi (upper portion), Serratus posterior superior, Serratus anterior, Subscapularis, Triceps (long head), Extensor carpi radialis longus, Extensor carpi radialis brevis, Extensor carpi ulnaris, Middle finger extensor, Fourth finger extensor, Palmaris longus, Flexor carpi radialis, Pronator teres, Extensor indicis proprius, Flexor digitorum sublimis (radial head), Flexor digitorum sublimis (humeral head), and Opponens pollicis.