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Focus on Carpal Tunnel Syndrome

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Carpal Tunnel Syndrome

WHAT IS IT?

Compression of the median nerve as it enters the wrist is found in 1%-10% of the population (often bilateral) and leads to symptoms of pain, numbness and tingling in the median nerve distribution. (Figures 1 & 2) It is associated with many medical conditions and certain occupations (repetitive forceful motion and non-neutral wrist positions) but there is no established cause and effect relationship.

Carpal Tunnel Syndrome



Figure 1

HOW IS IT DIAGNOSED?

History of pain, numbness and tingling (Figure 2), often with nighttime symptoms and the need to "shake/flick the hand" for



Figure 2

relief. Abnormal monofilament sensory testing is one of the earliest findings and the most sensitive and specific physical exam test is the Durkan Compression test (see "CTS testing" at www.edmondsortho.com for description). Electrodiagnostic studies can confirm conduction delay, quantify the severity and identify potentially confounding diagnoses such as cervical radiculopathy or peripheral neuropathy.

HOW IS IT TREATED?

The strongest evidence for initial treatment includes night splinting (in a neutral wrist position), NSAIDs and nerve gliding exercises. Steroid injections have both diagnostic and therapeutic

value. When these treatments fail to provide adequate relief, or the abductor pollicis brevis muscle is denervated, open or endoscopic surgical release of the transverse carpal ligament is indicated. Minimally-invasive endoscopic carpal tunnel release is successful and studies suggest an earlier return of function. (Figure 3)



Figure 3

WHAT TO DO NEXT?

Start with neutral night splinting, NSAIDs and a visit with a certified hand therapist for instruction in nerve gliding exercises. Consider electrodiagnostic testing if symptoms are long-standing or do not improve with initial treatment.

Welcome to "Focus On"

"Focus On" is a periodic publication providing brief summaries of common conditions and recom-

mended evidence-based treatments. We hope that you find this information valuable and

encourage it use as an adjunct when discussing these conditions with your patients.

