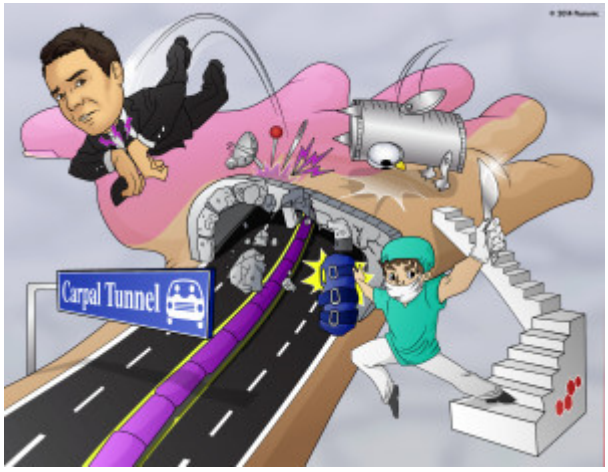
Carpal Tunnel Syndrome

Carpal tunnel syndrome is characterized by entrapment of the median nerve in the carpal tunnel, leading to paresthesia, pain and numbness. It is often diagnosed clinically with Phalen's maneuver and Tinel's test.



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Median Nerve Entrapment
Median Nerve Entrapped in Tunnel
The median nerve passes through the carpal tunnel in the wrist, along with flexor tendons of the wrist. Work related problems, trauma, obesity, diabetes and rheumatoid arthritis are among many reasons the median nerve can become entrapped in the carpal tunnel.

Compression at Carpal Tunnel
Collapsed Car-pool Tunnel
Nerve compression can occur in the tunnel. This is typically as a result of decrease in size of the canal (wrist flexion), or because of swelling of other contents, such as the flexor tendons or lubrication tissues. Median nerve compression leads to paresthesia, pain and numbness.

Numbness, Tingling and Pain in Hand
Broken Sensors, Pins and Needles, and Pain-bolts at Hand
Patients often complain of numbness, tingling and pain in the distribution of the median nerve (thumb, palm, pointer finger, middle finger and half of the ring finger).

Diagnosis

Phalen's Maneuver
Falling Jimmy Fallon
In the Phalen's maneuver, patients flex the wrist as far as possible and hold this position for 60 seconds. If symptoms associated with carpal tunnel syndrome arise (pain or paresthesia), then a clinical diagnosis has been reached. The severity of disease correlates to how quickly symptoms are seen with this test.

Tinel's Sign
Tin-owl
This test is less sensitive than Phalen's test, but is often used. The clinician taps the patient's affected wrist over the flexor retinaculum, with the hopes of eliciting pain or paresthesia in the distribution of the median nerve.

Treatment

Splints
Splint
A common, conservative mode of management in carpal tunnel syndrome is immobilizing the wrist with a splint. Immobilization stops the canal containing the median nerve from decreasing in size and getting compressed. Patients are advised to wear a splint at night and when doing the activity associated with symptoms.

Surgery
Surgeon
When symptoms become more severe or are no longer intermittent and present constantly, surgery is often done. This "carpal tunnel release surgery" ligates the transverse carpal ligament.

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Steroids

Steroid-stairs

Corticosteroid medications are a short-term treatment option for patients to control symptoms. This treatment method is not given long-term, however.

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