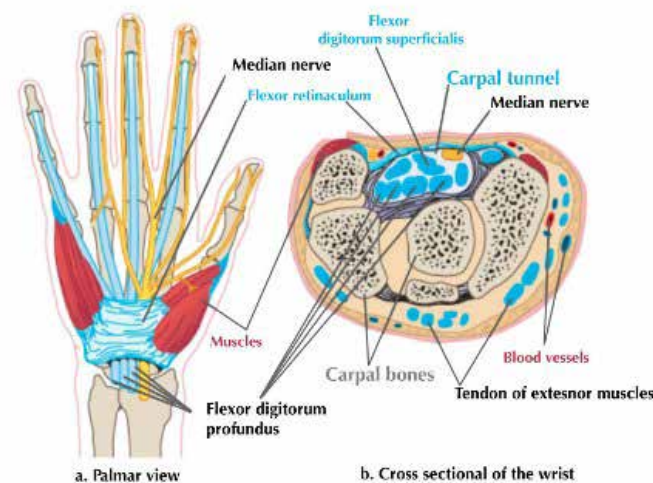# Hand Therapy Guide (III)

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This is a quick reference to guide you on referrals for common hand injuries and conditions in general practice. The theme for this issue is **Carpal Tunnel Syndrome**.

Carpal Tunnel Syndrome (CTS)

◆▶ About Carpal Tunnel Syndrome

CTS is a condition due to compression of the median nerve as it travels through the wrist at the carpal tunnel. Inside the carpal tunnel are tendons that bend the fingers, the thumb, and the median nerve. The median nerve supplies the sensation to the palm side of the thumb, index, middle and some of the ring fingers. It innervates the thenar eminence muscles and two lateral lumbrical muscles.

◆▶ Causes

Major risk factors for CTS are female, middle-aged and obese. Pressure on the median nerve can come from swelling or anything that makes the carpal tunnel narrower. For example – oedema from pregnancy, swollen tendons, fractures, repetitive wrist movement, rheumatoid and osteoarthritis, and diabetes.

◆▶ Symptoms

The main symptoms are pain, numbness, and tingling in the thumb, index finger, middle finger, and some of the ring finger. Symptoms are usually worse at night. Pain may extend up to the arm. Over time, weak grip and pinch strength may occur due to thenar muscle wasting. Patients may also report clumsiness.

◆▶ Diagnosis

· Pins and needles, numbness or pain, or both in median nerve distribution of hand
· Decreased grip strength
· Phalen's Test
· Tinel's Test
· Nerve conduction studies

Phalen's Test

Tinel's Test

◆▶ Referral

As soon as symptoms appear

◆▶ Conservative Management

· Sensory evaluation
· Release pressure on the median nerve through splinting for mild to moderate symptoms
· Activity modification education and postural advice

◆▶ Splinting

Night splinting with the wrist in neutral

◆▶ Post Operative Management

· Education to prevent re-aggravation
· Range of motion, tendon and nerve gliding exercises
· Scar and oedema management
· Pain management

◆▶ Stay Tuned!

Next issue will be about de Quervain's tendinosis.

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