

Carpal Tunnel Syndrome

The following standards are only appropriate for cases selected for the verification of suspected CTS, not for investigation of a differential diagnosis.

Standard 1

Before starting testing the patient is identified and the clinical information from the referral verified.

Standard 2

Hand temperature is measured from the hand, recorded and maintained above 30°C.

Standard 3

Sensory nerve conduction is performed on a median digital sensory nerve in the most affected hand using surface electrodes and measuring response amplitude and latency/velocity. A comparative test of conduction in a digital nerve not innervated by the median nerve is performed in the same hand.

Standard 4

A test of median motor nerve conduction across the wrist in the affected hand is performed using surface electrodes and measuring response amplitude and latency.

Standard 5

If the tests from Standards 3 and 4 are normal, a more sensitive comparative test is performed either sensory, as in Guideline 4, or a second lumbrical / interosseous muscle motor study.

Standard 6

The report of the investigation contains the numerical data. It makes a statement on any abnormality detected. The professional status of the practitioner performing the investigation and report is identified.

Standard 7

The report is signed by the practitioner taking medico-legal responsibility for it.

Guideline 1

Referrals are screened before allocation of patients by a suitably qualified practitioner to assess appropriateness of clinical question posed.

Guideline 2

A focussed patient history and examination are recorded, including the presence of co-existing disease.

Guideline 3

Sensory digital nerve conduction as per standard 3 is performed in the contra-lateral hand.

Guideline 4

A second test of median sensory nerve conduction is performed. This may include: Median palmar sensory study; Median/Ulnar palmar ratio; Median/Radial sensory latency comparison to thumb; Median/Ulnar sensory latency comparison to ring finger.

Guideline 5

Median motor nerve conduction in the forearm is performed on the affected limb using surface electrodes and measuring response amplitude and latency/conduction velocity.

Guideline 6

Motor nerve conduction in the ulnar nerve is performed in the affected limb using surface electrodes and measuring response amplitude and latency/conduction velocity.

Guideline 7

Median motor nerve conduction is performed in the contra-lateral limb as in standard 4.

Guideline 8

The patient is seen by a suitably qualified practitioner at the end of the test to verify the clinical presentation, make a clinico-electrophysiological correlation, to include this in the final report, and to answer any clinical questions the patient may have.

Guideline 9

The report details any technical factor that could influence the result.

Option 1

A second test of median motor nerve conduction is performed, such as Median/Ulnar motor latency comparison to second lumbrical and second interosseous.

Option 2

Needle EMG recording of median innervated arm muscles is performed by a medically qualified practitioner. This may include recording of the abductor pollicis brevis CMAP during median nerve stimulation, but not as a substitute for standard 5.

Option 3

F wave latencies are recorded.

Option 4

The report contains illustrations of recorded waveforms

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