

CONDITIONS

CARPAL TUNNEL SYNDROME

Carpal tunnel syndrome (CTS) is a common condition caused by pressure on one of the nerves to the hand (the median nerve) within the carpal tunnel at the wrist. The condition can occur at any age. Often a specific cause is not identifiable. The condition can be associated with pregnancy, diabetes, obesity, a change in medication, and rheumatoid arthritis.

SYMPTOMS

Patients complain of a variety of symptoms including:

- 1) Tingling or reduced feeling within the index, long and one border of the ring finger.
- 2) Interrupted sleep, patients report that they are woken from their sleep due to tingling in the hand
- 3) Weakness and lost dexterity within the hand characterised by the inability to pick-up small objects.

Symptoms may be worsened by activity or elevation of the hand (holding the phone or driving). Symptoms may initially be transient, coming and going, but as the condition progresses may become permanent. The muscles at the base of the thumb may then weaken and waste away.

MAKING THE DIAGNOSIS

The diagnosis can usually be confirmed reliably during a normal consultation. Patients are asked to give a history of the symptoms and are examined using three clinical tests. At the end of the consultation if the diagnosis is in doubt: a diagnostic injection of a small amount of steroid into the carpal tunnel may be required. After the injection patients are asked to keep a diary of their symptoms and return for another consultation, or alternatively report back in two weeks by e-mail or phone. For patients who have had previous surgery or nerve injuries, electrophysiological studies may be required. Patients with potentially correctable causes for CTS such as diabetes and rheumatoid arthritis may need further investigations including blood tests.

TREATMENT

Non-surgical treatments: if the symptoms are transient, coming and going, night-splints, steroid injection, lifestyle and activity modification may help.

Surgical treatment: if the symptoms are permanent or if non-surgical treatment fails, surgery can help. The operation aims to prevent further and permanent damage to the median nerve. In the vast majority of patients surgery eradicates the symptoms. In patients with diabetes or long-standing CTS the recovery may be only partial. The operation can be performed through a short incision in the palm or using an endoscope: through two small key-hole incisions. There is little difference in the outcome between the two procedures. Some studies have shown a shorter return to work time after endoscopic carpal tunnel release. The open technique allows the surgeon a clear view of the median nerve during surgery.

Surgery is under local anaesthetic as a day case procedure. Patients have a light dressing for two weeks, and can return to driving when the hand is comfortable and strong. The recovery period varies from person to person (the figures I have quoted are merely a guide:

Type of work	return to work after surgery
Managerial	1-2 weeks
Clerical/secretarial	2-4 weeks
Manual (cleaning, kitchen, health-care worker)	4-6 weeks
Heavy manual (HGV driver, builder, infantry soldier)	6-10 weeks
Rescue services (fire / ambulance service)	6-10 weeks