

**John Dunn, MD**

Double Board-Certified Hand, Wrist, and Nerve Surgeon

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**CARPAL TUNNEL SYNDROME**

What is it?

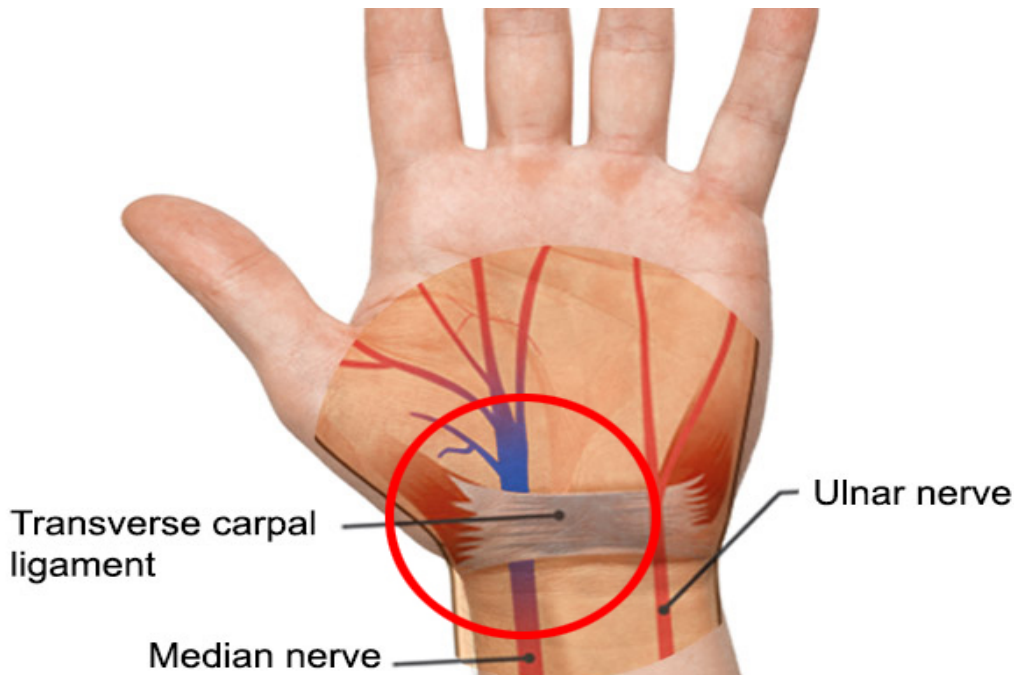
- Carpal Tunnel Syndrome occurs when the Median nerve – the large nerve in your palm, is compressed by a tight ligament
- This causes numbness, weakness, and even pain
- Often times patients wake up at night with these symptoms

Who gets it?

- Affects up to 10% of the population
- Often occurs in women and may be associated with obesity, pregnancy, hypothyroidism, renal disease, those who use tobacco or in those who are exposed to repetitive motions or vibrations (typing, motorcycle, etc)

What can you do about it?

- No MRI/CT is needed – but nerve studies may be ordered
- Brace use at night can be very helpful
- Injection: 80% of patients will have immediate relief for an average of 4 months. 20% of patients will have permanent symptom relief
  - o Injection can be predictive of outcome of surgery: If you felt good after the injection – you would probably feel good after surgery too.
  - o The injection has a small amount of numbing medicine and a small amount of steroid to decrease inflammation
- Surgery is indicated when non-operative management isn't helpful



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### Surgery:

- There are two ways to do the surgery: open and endoscopic
- I perform open carpal tunnel releases because:
  - o I personally believe there are fewer complications
  - o I can ensure a complete release so the symptoms do not recur
  - o I can carefully protect the nerve in case there are abnormal branches
- The surgery involves a 3cm incision at the base of the hand
- The tight ligament is released so the nerve can function more appropriately

### Post-operative course

- Pain pills may be needed for the first 1-2 nights – but most people will be fine with just Tylenol
- Three black nylon sutures are removed at the first post-operative visit in 2 weeks.
- This suture is inert (does not react with your body) and is sturdy
- You can text, type, and do light duties with the hand before the sutures are removed while the dressing is in place.
- After the sutures are removed you can ease back into activity
- No therapy is needed.

### Outcomes

- Grip strength returns to 100% by 12 weeks.
- Outcome correlated to pre-operative symptoms:
  - o 98% relief in those with moderate symptoms
  - o 80% relief in those with severe symptoms

### Complications

- Many patients will have temporary thumb soreness after surgery that usually gets better in a few months
- Risk of incomplete release, damage to neurovascular structures, infection, and wound complications
- If you waited a long time to have surgery, your nerve likely experienced many years of compression and may have been partially permanently injured. After a surgical release you may increase a period of increased sensitivity to the fingers. This is usually temporary.
- **In severe disease:**
  - o Post-operative improvement took longer (3 months) than less severe although the numbness can be permanent
  - o 14% of patients with severe disease report being worse after surgery
  - o Age/severity of preoperative symptoms are predictive of postoperative symptoms
  - o 19-50% of patients with severe disease do not have improvement after release at 1 year