

Carpal Tunnel Syndrome

Diagnosis Explanation:

Carpal tunnel syndrome (CTS) occurs when the **median nerve** is compressed at the **wrist**, leading to **pain, numbness, and tingling** in the **thumb, index, middle, and part of the ring finger**. It is commonly caused by **repetitive hand movements, prolonged wrist flexion, arthritis, pregnancy, or nerve disorders**.

Symptoms:

- **Numbness or tingling** in the thumb, index, middle, and ring finger.
- **Wrist pain that worsens at night** or with prolonged hand use.
- **Weak grip strength** and difficulty holding objects.
- **Hand clumsiness**, frequent dropping of items.

Specific Work Modifications:

- **If your job involves typing or writing:** Use an **ergonomic keyboard and mouse**, and take **frequent breaks** to stretch your hands.
- **If your job requires manual labor:** Use **anti-vibration gloves** and avoid excessive wrist flexion or gripping.
- **If your job is desk-based:** Keep wrists **neutral** (not bent up or down), adjust **desk height**, and use a **wrist rest** if needed.
- **Avoid:** Prolonged typing without breaks, forceful gripping, and repetitive wrist flexion.

Specific Activity Modifications:

- **If you play an instrument or craft:** Take breaks and use **wrist splints** if needed.
- **If you play sports:** Avoid **repetitive wrist motions (tennis, golf, weightlifting)**.
- **If you knit, garden, or cook:** Use **larger-handled tools** and take breaks.
- **Avoid:** Prolonged gripping, repetitive wrist flexion, and vibrating tools.

Recommended Supplements:

- **Vitamin B6** - 50-100mg daily to support nerve health.
- **Magnesium** - 300-400mg daily to relax muscles and improve circulation.
- **Alpha-Lipoic Acid** - 600mg daily to reduce nerve pain.
- **Omega-3 Fatty Acids** - 1000mg daily to reduce inflammation.
- **Turmeric (Curcumin)** - 500-1000mg daily for pain relief.

Recommended Nutrition and Hydration:

- **Eat Anti-Inflammatory Foods** (salmon, leafy greens, turmeric, berries, nuts) to

reduce swelling.

- **Increase Lean Protein** (chicken, fish, tofu, eggs) to support nerve function.
- **Consume Hydrating Foods** (cucumber, watermelon, citrus) to maintain tissue hydration.
- **Limit Processed Foods & Sugars** to prevent inflammation.
- **Hydration:** Drink **8-10 cups of water daily** to support nerve and muscle function.

Home Exercise Prescription (Rehabilitation for Carpal Tunnel Syndrome)

Early Phase (0-2 Weeks, Reducing Pain & Nerve Compression):

- **Wrist Splinting** - Wear a **neutral wrist splint at night** to reduce pressure on the median nerve.
- **Nerve Gliding Exercises** - Extend arm, bend wrist backward, then flex fingers, **10 reps, 2x/day**.
- **Wrist Flexor Stretch** - Extend arm, gently pull fingers back, **hold 20 seconds, 3x/day**.
- **Wrist Extensor Stretch** - Extend arm, pull fingers downward, **hold 20 seconds, 3x/day**.

Strengthening Phase (2-6 Weeks, Improving Hand Strength & Endurance):

- **Grip Strengthening (Soft Ball Squeeze)** - Squeeze a soft ball **5 seconds, repeat 10 reps, 2x/day**.
- **Finger Extension (Rubber Band Exercise)** - Place rubber band around fingers, open against resistance, **10 reps, 2x/day**.
- **Wrist Curls (Light Resistance)** - Hold a light weight, curl wrist up and down, **10 reps, 2x/day**.

Advanced Phase (6+ Weeks, Preventing Recurrence & Maintaining Function):

- **Finger-to-Thumb Opposition** - Touch thumb to each fingertip, **10 reps, 2x/day**.
- **Wrist Circles** - Slowly rotate wrists in both directions, **10 reps, 2x/day**.
- **Forearm Pronation/Supination (Light Resistance)** - Rotate forearm palm-up and palm-down, **10 reps, 2x/day**.

Helpful Books:

1. *The Carpal Tunnel Syndrome Book: Preventing & Treating CTS* - Kate Montgomery.
2. *Reversing Carpal Tunnel Syndrome Naturally* - Emily Kane, ND.

Click here for more orthopedic patient information.

Contact a Key West orthopedic clinic or reach out to Dr. Jason Pirozzolo.