

Dupuytren's Contracture

Diagnosis Explanation:

Dupuytren's contracture is a **progressive thickening and shortening of the palmar fascia**, leading to **finger contractures** (most commonly in the **ring and little fingers**). This condition is caused by **abnormal collagen buildup**, forming **nodules and cords** that gradually pull the fingers into a **permanently bent position**. It is more common in **older adults, males, and those with a family history**.

Symptoms:

- **Firm lumps (nodules) in the palm**, often painless.
- **Thickened, tight cords** beneath the skin.
- **Progressive finger bending**, making it hard to straighten affected fingers.
- **Difficulty gripping objects** or placing the hand flat on a surface.

Specific Work Modifications:

- **If your job involves typing or writing:** Use an **ergonomic keyboard, voice dictation software, and hand rests**.
- **If your job requires manual labor:** Use **adaptive tools with larger grips** to reduce strain.
- **If your job is desk-based:** Take **stretch breaks every 30 minutes** to prevent worsening contractures.
- **Avoid:** Forceful gripping, repetitive hand use, and prolonged wrist flexion.

Specific Activity Modifications:

- **If you play an instrument or craft:** Use **modified grips and finger splints** to improve function.
- **If you play sports:** Avoid **racket sports, golf, or weightlifting** that require strong gripping.
- **If you do gardening, knitting, or cooking:** Use **ergonomic tools with padded grips**.
- **Avoid:** Repetitive gripping, prolonged fist clenching, and activities that strain the affected fingers.

Recommended Supplements:

- **Collagen Peptides** - 10g daily to support connective tissue health.
- **Vitamin C** - 500mg daily for collagen regulation.
- **Magnesium** - 300-400mg daily to improve muscle relaxation.
- **Omega-3 Fatty Acids** - 1000mg daily to reduce inflammation.

- **Turmeric (Curcumin)** - 500-1000mg daily for pain relief and inflammation reduction.

Recommended Nutrition and Hydration:

- **Increase Lean Protein** (chicken, fish, tofu, eggs) to support connective tissue health.
- **Eat Anti-Inflammatory Foods** (berries, leafy greens, turmeric, nuts) to reduce swelling.
- **Consume Hydrating Foods** (cucumber, watermelon, citrus) to maintain tissue flexibility.
- **Limit Processed Foods & Sugars** to prevent inflammation.
- **Hydration:** Drink **8-10 cups of water daily** to support tissue elasticity.

Home Exercise Prescription (Rehabilitation for Dupuytren's Contracture)

Early Phase (0-2 Weeks, Reducing Stiffness & Maintaining Mobility):

- **Finger Stretch Against Table** - Place palm flat on a table, gently press fingers down, hold **10 seconds**, repeat **10 reps, 2x/day**.
- **Passive Finger Extension** - Use the opposite hand to gently straighten fingers, hold **10 seconds**, repeat **10 reps, 2x/day**.
- **Finger Lifts** - Place hand flat, lift each finger individually, **10 reps per finger, 2x/day**.

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

- **Soft Ball Squeeze** - Squeeze a soft ball **5 seconds**, repeat **10 reps, 2x/day**.
- **Rubber Band Finger Extensions** - Wrap a rubber band around fingers, open hand against resistance, **10 reps, 2x/day**.
- **Towel Scrunches** - Place a towel on a flat surface, scrunch it using fingers, **10 reps, 2x/day**.

Advanced Phase (6+ Weeks, Preventing Progression & 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**.
- **Grip Strengthening (Light Resistance)** - Squeeze a foam ball or therapy putty, **10 reps, 2x/day**.

Helpful Books:

1. *The Hand and Wrist Pain Solution: Simple Exercises for Relief* - Dr. Ross Clifford.
2. *Living with Dupuytren's Disease: Understanding, Treating, and Preventing Hand Contractures* - Dr. Charles Eaton.

Click here for more orthopedic patient information.

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