

# Boutonnière Deformity

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## Diagnosis Explanation:

**Boutonnière deformity** occurs when the **central slip of the extensor tendon** on the **back of the finger** is injured, causing:

- **Flexion at the PIP joint** (middle knuckle bends inward).
- **Extension at the DIP joint** (tip of the finger bends outward).

This deformity can develop due to **trauma (finger jam, laceration), arthritis (especially rheumatoid arthritis), or chronic wear** on the tendon.

## Symptoms:

- **Inability to straighten the middle joint** of the affected finger.
- **Pain and swelling** over the PIP joint.
- **Stiffness and deformity progression** if untreated.
- **Weak grip strength** in severe cases.

## Specific Work Modifications:

- **If your job requires typing or writing:** Use **ergonomic supports** and take frequent **hand-stretching breaks**.
- **If your job involves manual labor:** Avoid **gripping heavy objects**, repetitive finger use, and direct pressure on the injured finger.
- **If your job is desk-based:** Use a **split keyboard** or adaptive mouse if needed to reduce strain.
- **Avoid:** Repetitive gripping, excessive typing, and tasks that strain the affected finger.

## Specific Activity Modifications:

- **If you play sports:** Avoid **ball-handling sports (basketball, volleyball, tennis) and heavy gripping (rock climbing, weightlifting)**.
- **If you play an instrument:** Modify technique to avoid overusing the injured finger.
- **If you do crafting or gardening:** Use **adaptive tools with larger grips** to reduce finger strain.
- **Avoid:** Forceful gripping, pushing movements with the affected finger, and high-impact activities.

## Recommended Supplements:

- **Collagen Peptides** - 10g daily for tendon repair.
- **Vitamin C** - 500mg daily to support collagen synthesis.
- **Glucosamine & Chondroitin** - 1500mg/1200mg daily for joint lubrication and

tendon health.

- **Omega-3 Fatty Acids** - 1000mg daily to reduce inflammation.
- **Turmeric (Curcumin)** - 500-1000mg daily for pain relief.

### Recommended Nutrition and Hydration:

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

### Home Exercise Prescription (Rehabilitation for Boutonnière Deformity)

#### Early Phase (0-2 Weeks, Immobilization & Reducing Pain):

- **Splinting** - Wear a **PIP extension splint full-time for 6 weeks**, as directed by your doctor.
- **RICE Protocol** - Rest, Ice (15-20 min, 3x/day), Compression, Elevation.
- **Passive Finger Extension** - Gently straighten the affected finger with the opposite hand, **hold 10 seconds, repeat 10 reps, 2x/day**.

#### Strengthening Phase (6+ Weeks, Restoring Mobility & Function):

- **Towel Scrunches** - Place a towel on a flat surface, use fingers to scrunch it, **10 reps, 2x/day**.
- **Finger Lifts** - Place hand flat, lift each finger individually, **10 reps per finger, 2x/day**.
- **Rubber Band Finger Extensions** - Wrap a rubber band around fingers, open hand against resistance, **10 reps, 2x/day**.

### Helpful Books:

1. *Hand and Finger Exercises for Rehabilitation and Strength* - Lauren S. Rashbaum, OT.
2. *Arthritis and Hand Therapy: A Self-Help Guide to Managing Joint Pain* - Susan J. Barnhart, PT.

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