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## **SPECIALIZING IN**

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**Carpal Tunnel Syndrome**  
**Trigger Finger**  
**Dequervain's Tenosynovitis**  
**Wrist Ganglion**  
**Thumb Arthritis**  
**Tennis Elbow**  
**Cubital Tunnel Syndrome**  
**Flexor Tendon Injury**  
**Fractures**  
**Dupuytren's Contracture**  
**Wrist Arthroscopy**  
**Boutonniere Deformity**  
**Keinbock's Disease**  
**Biceps Tendon Rupture**  
**Mallet Finger**  
**Olecranon Bursitis**  
**Reflex Sympathetic Dystrophy**



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## **REFLEX SYMPATHETIC DYSTROPHY**



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## What is a reflex sympathetic dystrophy?

Symptoms most commonly occur after injury or surgery, but the exact cause is unknown. Other causes include pressure on a nerve, infection, cancer, stroke, or heart attack. One theory is that a "short circuit" in the nervous system causes overactive blood flow and sweat glands in the affected area. It is mostly in the hands, but can occur in the arms, legs and feet.

- **Stage I** may last up to 3 months. Burning pain and increased sensitivity to touch are the most common. Swelling and joint stiffness usually follow, along with increased warmth and redness. There may be faster-than-normal nail and hair growth and excessive sweating.
- **Stage II** can last 3-12 months. Swelling is constant and skin wrinkles disappear. Skin temperature becomes cooler. Fingernails become brittle. Pain is widespread, stiffness increases, and the area becomes more sensitive to touch.
- **Stage III** occurs after 1 year. The skin of the affected area becomes pale, dry, tightly stretched, and shiny. The area is stiff and there is less hope of getting motion back.

Normal limb



Affected limb



## What medical tests will I need?

- **X-Rays:** to rule out any abnormal bone structures that might be causing your symptoms.
- **MRI:** to rule out any abnormal soft tissue structures that might be causing your symptoms
- **Nerve Conduction Study:** to show whether the nerves in the extremity are carrying signals normally and the hand muscles are responding to those signals.

## How is it treated?

- **Medications:** Anti-inflammatory drugs (NSAIDs), oral corticosteroids, anti-depressants, blood pressure medications, anti-convulsants, vitamins, and opioid analgesics.
- **Injection therapy:** Injecting a numbing medicine near the affected sympathetic nerves. This is usually recommended early in RSD.
- **Biofeedback:** body awareness and relaxation techniques.
- **Therapy:** Active exercise is essential to permanent relief. Physical and/or occupational therapy are important in helping patients regain normal use patterns.

## What do I need to know about surgery?

- If nonsurgical treatment fails, there are surgical procedures that may help reduce symptoms.
- **Spinal cord stimulator:** Tiny electrodes are implanted along your spine and deliver mild electric impulses to the affected nerves.
- **Pain pump implantation:** A small device that delivers pain medication to the spinal cord is implanted near the abdomen.