

Cubital Tunnel Release Surgery: What You Need to Know

Cubital tunnel syndrome occurs when the ulnar nerve, which runs along the inner elbow (often called the “funny bone”), becomes compressed. This can cause numbness and tingling in the ring and small fingers, hand weakness, and sometimes elbow pain. When symptoms persist despite rest, bracing, or therapy, surgery may be recommended. **Cubital tunnel release** relieves pressure on the ulnar nerve, using two common techniques: **in situ ulnar nerve decompression** or **ulnar nerve anterior transposition**. Below, we explain the surgery, recovery, potential complications, and expected outcomes to help you feel prepared.

Description of the Surgery

Cubital tunnel release frees the ulnar nerve from compression, with the approach depending on your condition:

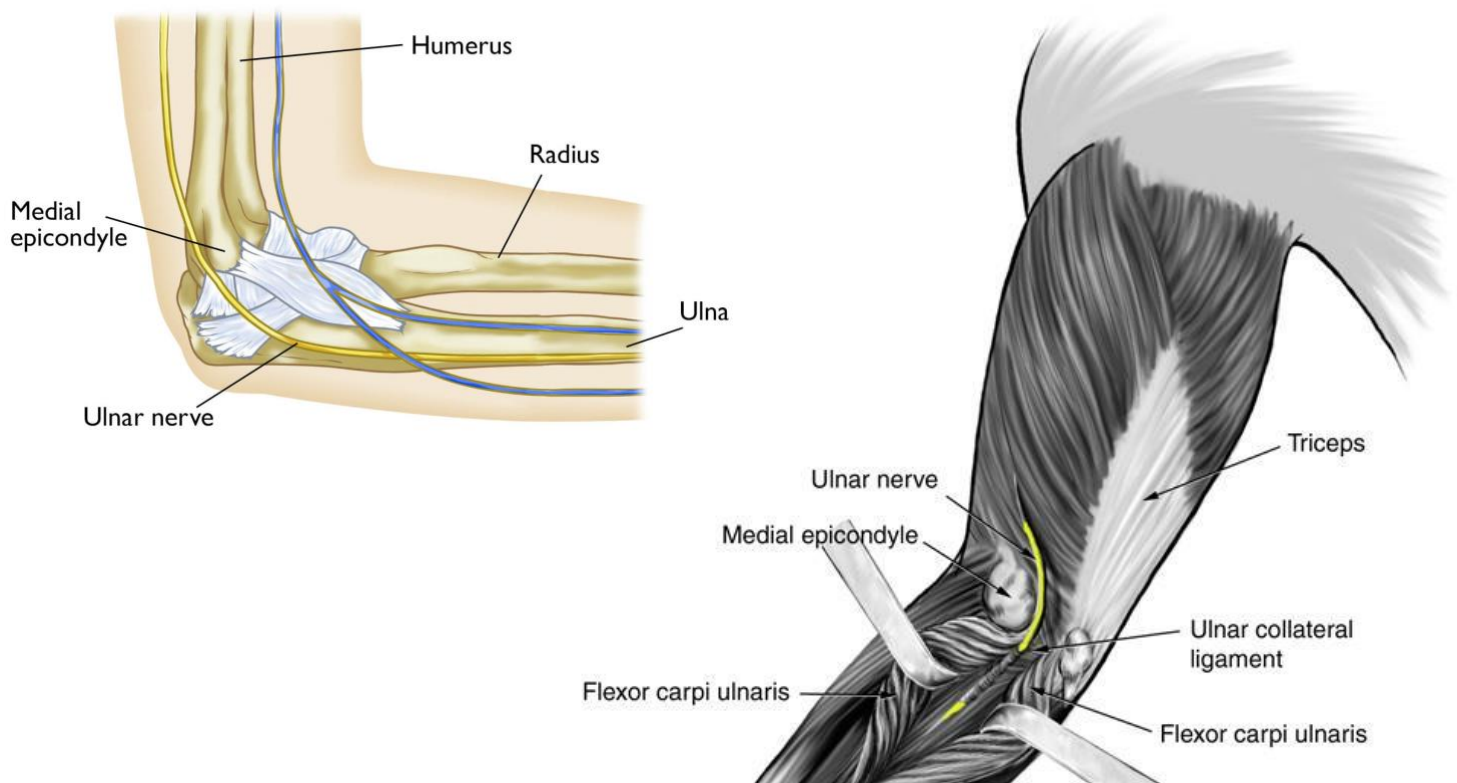
- **In Situ Ulnar Nerve Decompression:**

This simpler technique releases the nerve without moving it. The surgeon makes an incision (2-3 inches) along the inner elbow, cuts the tight tissue (e.g., the cubital tunnel roof) pressing on the ulnar nerve, and leaves the nerve in its natural position. The incision is closed with stitches, and a bandage is applied. This is often used for mild to moderate cases.

- **Ulnar Nerve Anterior Transposition:**

This moves the nerve to reduce tension or irritation. The surgeon makes a slightly larger incision (3-4 inches) along the inner elbow, releases the nerve from the cubital tunnel, and repositions it in front of the elbow—either under the skin (subcutaneous), under muscle (submuscular), or within muscle (intramuscular). The nerve is secured in place, the incision is closed with stitches, and a bandage or splint is applied. This is chosen for severe cases, recurrent cases, or when the nerve is unstable and slips out of place.

Both procedures are typically performed under general anesthesia or regional anesthesia (numbing the arm). They take 30-60 minutes and are outpatient, meaning you can go home the same day.



Source: aaos.org

What to Expect During Recovery

Recovery focuses on protecting the nerve while restoring hand function. Here's a general timeline:

- **Immediately After Surgery:**
Your elbow will be bandaged, possibly with a soft splint or sling. Mild to moderate pain, swelling, or stiffness is normal, manageable with prescribed pain medication or over-the-counter options like ibuprofen. Keep your arm elevated to reduce swelling. Work on finger motion exercises (from a tight fist to full extension) to prevent stiffness.
- **First 1-2 Weeks:**
The dressing stays on for a few days to a week, and stitches are removed within 10-14 days. You'll avoid heavy lifting or bending the elbow excessively. Gentle finger and wrist movements are encouraged.
- **Weeks 3-6:**
 - **In Situ Decompression:** Most resume light activities (e.g., typing, writing, and normal daily activities) by 2-4 weeks, with therapy if stiffness develops.
 - **Transposition:** Recovery is often similar to the in situ decompression, but may take longer, particularly if a more invasive submuscular or intramuscular transposition is done.
- **Months 2-3:**
Strength and sensation improve, and most return to full tasks. Therapy may help if numbness or weakness lingers even after surgery. Heavy lifting or sports may be allowed by 6-12 weeks, depending on healing.
- **Full Recovery:**
Complete healing takes 3-6 months. Nerve recovery (e.g., sensation) can take up to a year if damage was severe.

Follow your surgeon's instructions on splinting, activity, and therapy.

Potential Complications

Cubital tunnel release is low-risk, but complications can occur. These are rare and often treatable:

- **Infection:** Redness, swelling, or drainage at the incision may indicate an infection, treatable with antibiotics.
- **Nerve Injury:** Rarely, the ulnar nerve or nearby nerves may be irritated, causing temporary numbness, tingling, or weakness.
- **Persistent Symptoms:** Some numbness or weakness may remain if the nerve was severely damaged before surgery.
- **Scar Sensitivity:** The incision site may feel tender or tight, usually improving with time.
- **Elbow Stiffness:** Mild stiffness may occur, especially with transposition, but therapy helps.

Contact your doctor if you experience severe pain, fever, or signs of infection after surgery.

Expected Outcomes

Cubital tunnel release effectively relieves nerve compression, with good results for most patients:

- **Symptom Relief:** Pain, numbness, and tingling often improve within days to weeks, though full sensation may take months if nerve damage was significant.
- **Improved Function:** Most regain hand strength and dexterity for gripping or fine tasks (e.g., buttoning shirts) by 3-6 months.
- **Long-Term Results:** Approximately 70-95% of patients (depending on patient factors and type of surgery performed) experience lasting relief. In situ decompression works well for milder cases, while transposition addresses more complex issues. Recurrence is rare unless new pressure develops.

Success depends on the severity of nerve compression, surgical timing, and your recovery efforts.

Final Notes

Cubital tunnel release surgery can ease your symptoms and restore hand function, whether through decompression or transposition. If you have questions about which approach is best for you, discuss them with your surgeon. We're here to support you every step of the way!