

Endoscopic Carpal Tunnel Release

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Introduction

Carpal tunnel syndrome (CTS) is a condition affecting the wrist and hand. While the most common surgical procedure for a carpal tunnel release is still the open-incision technique, some surgeons are using a new procedure, called endoscopic carpal tunnel release.

The procedure is done using an endoscope (a small, fiber-optic TV camera) to look into the carpal tunnel through a small incision just below the wrist. Using the camera allows the surgeon to release the ligament without disturbing the overlying tissues.

This guide will help you understand

- what part of the wrist is treated during surgery
- how surgeons perform the operation
- what to expect before and after the procedure

Related Document: [A Patient's Guide to Carpal Tunnel Syndrome](#)

Anatomy

What part of the wrist is treated during surgery?

The carpal tunnel is an opening through the wrist into the hand that is formed by the bones of the wrist (carpal bones) on one side and the transverse carpal ligament on the other. (Ligaments connect bones together.) The transverse carpal ligament is at the base of the wrist and crosses from one side of the wrist to the other. (Transverse means across.) It is sometimes referred to as the carpal ligament.

The median nerve and the flexor tendons pass through the carpal tunnel. The median nerve rests on top of the tendons, just below the carpal ligament. Between the skin and the carpal ligament is a thin sheet of connective tissue called the palmar fascia.

Related Document: A Patient's Guide to Hand Anatomy

Rationale

What does the surgeon hope to achieve?

The surgery releases the carpal ligament, taking pressure off the median nerve. By using the endoscope, surgeons can accomplish this without disrupting the nearby tissues.

Proponents of the procedure feel that patients heal faster, are able to use their hand faster, and have fewer problems of tenderness in the palmar incision. Other physicians are not convinced that this procedure for releasing the carpal ligament is better than the open-incision technique.

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