

HAND SURGERY



The Symbol of Excellence in Plastic Surgery®

A public education service of the American Society of Plastic Surgeons®.

The first step:

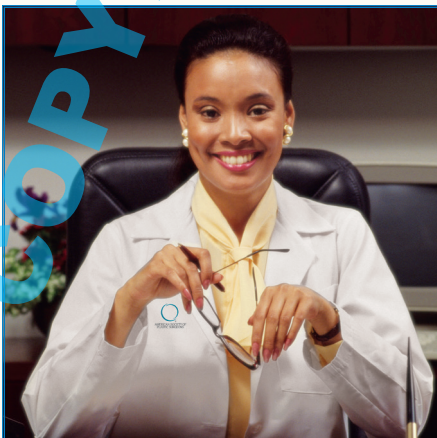
Choose a surgeon you can trust

Plastic surgery, whether for cosmetic or reconstructive purposes, involves many choices. The first and most important is selecting a surgeon you can trust. A doctor's board certification is one of the best indicators of his or her training. Ask for certification from The American Board of Plastic Surgery® (ABPS), the only one of the 24 boards approved by the American Board of Medical Specialties (ABMS) that certifies physicians in plastic surgery of the face and all areas of the body. To be ABPS board-certified, a physician must meet these rigorous standards:

- ▶ Graduate from an accredited medical school
- ▶ Complete at least **five** years of surgical training following medical school with a minimum of **two** years of plastic surgery residency training
- ▶ Pass comprehensive oral and written exams

American Society of Plastic Surgeons (ASPS) Members must:

- ▶ Be certified by the ABPS or in Canada by The Royal College of Physicians and Surgeons of Canada®
- ▶ Complete continuing medical education including patient safety each year
- ▶ Perform surgery in accredited, state-licensed or Medicare-certified surgical facilities



My hand surgery

If your hand is impaired in any way, surgery may improve your condition. This type of very specialized surgery can treat diseases that cause pain and impair the strength, function and flexibility of your wrist and fingers. Surgery seeks to restore to near normal the function of fingers and hands injured by trauma or to correct abnormalities that were present at birth. Specifically, hand surgery can treat:

Carpal tunnel syndrome — a condition caused by pressure to the median nerve within the wrist, or carpal tunnel. You might feel pain, a tingling sensation, numbness of the fingers, weakness or aching. Carpal tunnel syndrome is associated with multiple conditions including: repetitive motion or overuse, fluid retention during pregnancy, injury to the nerve in the carpal tunnel, or rheumatoid arthritis.

Rheumatoid arthritis — a disabling disease that can cause severe inflammation in any joint of the body. In the hand, it can deform fingers and impair movement.

Dupuytren's contracture — a disabling hand disorder in which thick, scar-like tissue bands form within the palm and may extend into the fingers. It can cause restricted movement, bending the fingers into an abnormal position.

Is it right for me?

Hand surgery is a highly individualized procedure which can be performed on people of any age and is a good option for you if:

- ▶ You do not have additional medical conditions or other illnesses that may impair healing
- ▶ You are a non-smoker
- ▶ You have a positive outlook and realistic goals for your hand surgery
- ▶ You are committed to following your plastic surgeon's prescribed course of treatment
- ▶ In some conditions, hand surgery is necessary to treat wounds and to help painful conditions

What to expect during your consultation

The success and safety of your hand procedure depends very much on your complete candidness during your consultation. You'll be asked a number of questions about your health, desires and lifestyle.

Be prepared to discuss:

- ▶ Why you want the procedure, your expectations and desired outcome
- ▶ Medical conditions, drug allergies and medical treatments
- ▶ Use of current medications, vitamins, herbal supplements, alcohol, tobacco and drugs
- ▶ Previous surgeries

Your surgeon may also:

- ▶ Evaluate your general health status and any pre-existing health conditions or risk factors
- ▶ Examine your hand in detail
- ▶ Discuss your options and recommend a course of treatment to restore hand function
- ▶ Discuss likely outcomes of hand surgery and any risks or potential complications



Preparing for surgery



Prior to surgery, you may be asked to:

- ▶ Get lab testing or a medical evaluation
- ▶ Take certain medications or adjust your current medications
- ▶ Stop smoking well in advance of surgery
- ▶ Avoid taking aspirin and certain anti-inflammatory drugs and herbal supplements as they can increase bleeding

Special instructions you receive will cover:

- ▶ What to do on the day of surgery
- ▶ The use of anesthesia during your procedure
- ▶ Post-operative care and follow-up

Your plastic surgeon will also discuss where your procedure will be performed. Depending on the type of surgery you will undergo, your procedure may be performed in your plastic surgeon's accredited office-based surgical facility, an ambulatory surgical facility or a hospital.

You'll need help

If your hand surgery is performed on an outpatient basis, be sure to arrange for someone to drive you to and from surgery and to stay with you for at least the first night following surgery.

Procedural Steps:

What happens during hand surgery?

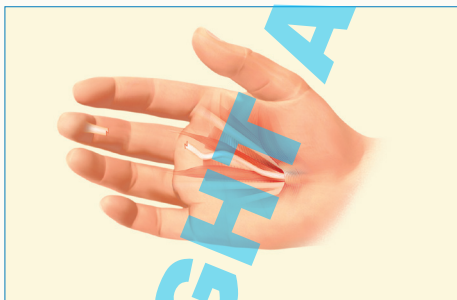
Step 1 – Anesthesia

Medications are administered for your comfort during the surgical procedures. The choices include intravenous sedation and general anesthesia. Your doctor will recommend the best choice for you.

Step 2 – The incision

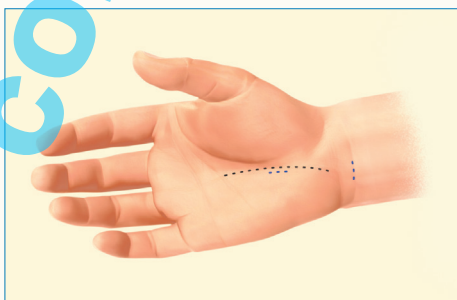
Treating trauma

The most common traumatic hand or finger injury requiring hand surgery is tendon repair. When a tendon is cut, it will retract from the original wound site. Tendon repair retrieves the retracted tendon and reconnects it using surgical techniques to restore function and movement.



Carpal tunnel syndrome relief

Pressure on the median nerve in the carpal tunnel must be relieved to repair this condition. An incision is made from the middle of the palm to the wrist, allowing access to the constricted tissue causing pressure on the nerve. An alternate procedure is referred to as an endoscopic carpal tunnel release, with smaller incisions (see blue dotted lines) and the use of a surgical microscope or endoscope, a small flexible tube that contains a light and lens, to release pressure.



Procedural Steps:

What happens during hand surgery?

Birth deformities can be repaired

When fingers are fused together at birth, called syndactyly, they may be joined only by a web of skin or by skin and a partial fusion of bones. Surgery involves separating the two fingers to provide a full range of motion and a normal appearance, as well as permitting more normal finger growth. Techniques such as skin grafting or a local flap procedure like Z-plasty create flexibility at the incision site for growth and movement of the fingers.



Your plastic surgeon may recommend one or a combination of techniques to achieve your goals. Some of those techniques include: microsurgery, grafting of skin, bone, nerves or other tissue from healthy parts of the body, z-plasty and physical therapy.

Step 3 – Closing the incisions

Depending on your condition and type of treatment you may have incisions that need to be closed with removable sutures or your plastic surgeon may use non-removable sutures.

Step 4 – See the results

The results of hand surgery will appear gradually as swelling subsides. Your final outcome may not be realized for several months.

Important facts about the safety and risks of hand surgery

The decision to have hand surgery is extremely personal and you'll have to decide if the benefits will achieve your goals and if the risks and potential complications are acceptable. Your plastic surgeon and/or staff will explain in detail the risks associated with surgery. You will be asked to sign consent forms to ensure that you fully understand the procedure you will undergo, the alternatives and the most likely risks and potential complications.

Some of the risks include:

- ▶ Bleeding (hematoma)
- ▶ Blood clots
- ▶ Infection
- ▶ Anesthesia risks
- ▶ Unfavorable scarring
- ▶ Change in skin sensation
- ▶ Skin contour irregularities
- ▶ Skin discoloration / swelling
- ▶ Poor healing of incisions
- ▶ Unexpected hand swelling
- ▶ Allergies to tape, suture materials and glues, blood products, topical preparations or injected agents
- ▶ Deep vein thrombosis, cardiac and pulmonary complications
- ▶ Damage to deeper structures – such as nerves, blood vessels, muscles, and lungs – can occur and may be temporary or permanent
- ▶ Pain, which may persist
- ▶ Possibility of revisional surgery

Be sure to ask questions: It's very important to ask your plastic surgeon questions about your procedure. It's natural to feel some anxiety, whether it's excitement for your anticipated new look or a bit of preoperative stress. Don't be shy about discussing these feelings with your plastic surgeon

More facts about the safety and risks

Additional risks associated with these specific surgeries include:

Carpal tunnel

- ▶ Non-improvement
- ▶ Recurrence of carpal tunnel syndrome

Extensor tendon

- ▶ Additional incisions necessary because cut tendons may retract
- ▶ Failure of tendon repair
- ▶ Inability to restore function
- ▶ Tendon scarring

Flexor tendon

- ▶ Additional incisions necessary because cut tendons may retract
- ▶ Inability to restore function
- ▶ Tendon scarring

Tenolysis

- ▶ Abnormal tendon position
- ▶ Additional incisions necessary where scarring occurs or to make new incisions to release scar tissue that is limiting tendon motion
- ▶ Inability to restore function
- ▶ Recurrent tendon scarring
- ▶ Rupture of tendon
- ▶ Seroma (fluid accumulation)
- ▶ Wound breakdown

Trigger finger

- ▶ Non-improvement
- ▶ Tendon scarring

My recovery

After surgery, bandages or dressings may be applied to keep the surgical site clean and splints may be used when needed.

You will be given specific instructions that may include: How to care for your hand(s) following surgery, medications to apply or take orally to aid healing and reduce the risk of infection, and when to follow-up with your plastic surgeon.

Be sure to ask your plastic surgeon specific questions about what you can expect during your individual recovery period.

- ▶ Where will I be taken after my surgery is complete?
- ▶ What medication will I be given or prescribed after surgery?
- ▶ Will I have dressings/bandages after surgery?
When will they be removed?
- ▶ Are stitches removed? When?
- ▶ When can I resume normal activity and exercise?
- ▶ When do I return for follow-up care?

Follow all postoperative instructions including cleansing, taking prescribed medications and hand therapy exercises. Therapy is critical to restoring strength, flexibility and movement. If you attempt to return to normal function too soon, the risk of re-injury is possible. Continue your hand therapy regimen and attend follow-up visits with your plastic surgeon as scheduled. This is essential to a successful outcome.

The end result of your hand surgery is directly related to following your therapist's and plastic surgeon's instructions.

Results and outlook



The final outcome of your hand surgery will develop over time. While advances in hand surgery can accomplish near miracles in reconstruction and replantation, your outcome cannot be fully predicted.

If you had surgery to correct carpal tunnel syndrome, modifying work habits as recommended is vital to long-term improvement. Your final outcome may not be realized for several months. If your procedure involved microsurgery, a year is considered appropriate to fully reach restored function.

How much will hand surgery cost?

Cost is always a consideration in surgery, whether to repair your hand or to reconstruct your appearance. A surgeon's cost may vary based on his or her experience, the type of procedure used, as well as geographic location.

Cost may include:

- ▶ Surgeon's fee
- ▶ Hospital or surgical facility costs
- ▶ Anesthesia fees
- ▶ Prescriptions for medication
- ▶ Post-surgery garments, and
- ▶ Medical tests

Your health insurance plans will likely cover hand surgery, related complications or another surgery to reconstruct your appearance. Pre-certification is generally required for reimbursement or coverage. Be sure to consult with your insurance company in advance of any surgery.

Your satisfaction involves more than a fee

When choosing a plastic surgeon for hand surgery, remember that the surgeon's experience and your comfort with him or her are just as important as the final cost of the surgery.



Words to know

Carpal tunnel syndrome: A condition caused by pressure to the median nerve within the wrist or carpal tunnel causing pain, tingling and numbness.

Dupuytren's contracture: A disabling hand disorder in which thick, scar-like tissue bands form within the palm and may extend into the fingers. It can cause restricted movement, bending the fingers into an abnormal position.

Extensor tendon: A tendon which serves to extend a bodily part.

Flexor tendon: A tendon which serves to bend a body part.

General anesthesia: Drugs and/or gases used during an operation to relieve pain and alter consciousness.

Grafting: Tissue taken from other parts of the body.

Intravenous sedation: Sedatives administered by injection into a vein to help you relax.

Microsurgery: High magnification to repair or reconnect severed nerves and tendons, common in trauma cases and often used to reattach severed fingers or limbs.

Polydactyly: The presence of extra fingers.

Rheumatoid arthritis: A disabling disease that can cause severe inflammation in any joint of the body. In the hand, it can deform fingers and impair movement.

Syndactyly: When fingers are fused together.

Tendon: A tough cord or band of dense white fibrous connective tissue that unites a muscle with some other part.

Tenolysis: A surgical procedure to free a tendon from surrounding adhesions.

Trigger finger: An abnormal condition in which flexion or extension of a finger may be momentarily obstructed by spasm followed by a snapping into place.

Z-plasty: A surgical incision technique that creates small triangular flaps of tissue that help to close wounds over areas of the hand where bending or flexing is essential to function, such as around knuckles.

Questions to ask my plastic surgeon

Use this checklist as a guide during your consultation

- ☐ Are you certified by the American Board of Plastic Surgery?
- ☐ Are you a member of the American Society of Plastic Surgeons?
- ☐ Were you specially trained in the field of plastic surgery?
- ☐ Do you have hospital privileges to perform this procedure?
If so, at which hospitals?
- ☐ Is the office-based surgical facility accredited by a nationally or state recognized accrediting agency, or is state licensed or Medicare-certified?
- ☐ How many procedures of this type have you performed?
- ☐ Am I a good candidate for this procedure?
- ☐ What will be expected of me to get the best results?
- ☐ Where and how will you perform my procedure?
- ☐ What shape, size, surface texturing, incision site and placement site are recommended for me?
- ☐ How long of a recovery period can I expect, and what kind of help will I need during my recovery?
- ☐ What are the risks and complications associated with my procedure?
- ☐ How are complications handled?
- ☐ What are my options if I am dissatisfied with the outcome of my hand surgery?
- ☐ Do you have before-and-after photos I can look at for each procedure and what results are reasonable for me?

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Notes

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