



CARPAL TUNNEL RELEASE SURGERY

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THE DAY OF SURGERY:

Welcome! We will try to make your experience as easy as possible. Please leave valuables at home, but the surgery centers do require photo ID. Remove all rings and jewelry. Wear comfortable clothes. The surgery centers often don't know their final schedule until 1-2 days prior, so your arrival time and surgery time may change. Please confirm your arrival time with your surgery facility the day before your surgery, if you haven't heard from them (please see page 7 for the phone numbers).

We most commonly use one of two types of anesthesia, and the instructions for before surgery are different depending on which type of anesthesia you selected:

- **If Local Anesthesia** (also known as Straight Local or Novocaine Only or Wide Awake Anesthesia):
 - **With Local Anesthesia**, you will be completely awake during the surgery, without IV sedation or any other anesthesia, just like going to the dentist. We simply numb the area of your hand where we are going to be working. There will be no IV, and no breathing tube or mask. You will be laying down comfortably, with drapes up for sterility and so you don't have to look. I will inject the modern local anesthetic medicine to completely numb the area where we will be working. It will not numb your entire hand, just the small area where we will be working, so that you will be able to tell that we are working, but you will feel no pain. The numbing medicine does sting a little, for a few seconds, when it first goes in, but it works very quickly. And it usually lasts for 4-6 hours, so you will leave the surgery center with no pain. Occasionally there might still be some residual numbing or tingling effect even the next day.
 - **With Local Anesthesia**, you can:
 - Eat and drink normally on the day of your surgery.
 - Take all of your normal medications, including insulin.
 - You can safely continue to take any aspirin, baby aspirin, ibuprofen, advil, aleve, naproxyn, or other similar prescription Non-steroidal Anti-inflammatory drug (NSAID).
 - If you are on stronger blood thinner medication (coumadin, warfarin, plavix, clopidogrel, heparin, pradaxa, dabigatran, xarelto, rivaroxaban, others) please tell me before your surgery. Many of these medications you

can continue taking normally. Sometimes we will have you not take warfarin/Coumadin for 2-3 days before surgery depending on your blood thinner level (INR) and why you are taking the medication.

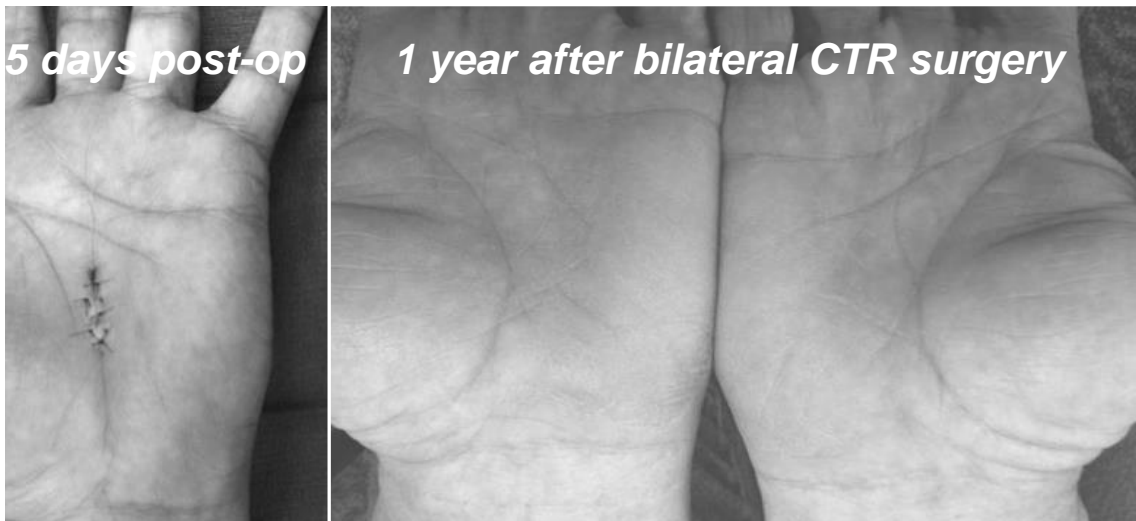
- If you take narcotic medication every day you can continue it normally.
- You can drive yourself to and from the surgery center, but not if you are having both hands operated on the same day.
- Your exact surgery time is, unfortunately, somewhat unpredictable, so please do not schedule or plan for work or meetings on the same day after your surgery.

• **If IV Sedation** (also known as Conscious Sedation or Twilight Anesthesia):

- **With IV Sedation anesthesia**, you will get an IV placed at the surgery center, and you will be given medication in the operating room by the anesthesia team to make you sleepy. Generally they do not put you completely asleep, but rather you will drift off to sleep and can be completely unaware of the surgery, if you want. You can discuss how sleepy or unaware you want to be with your anesthesia team in the pre-op area before surgery. Once you are sedated, I will completely numb the surgery site with the local anesthetic, so you will feel nothing of the injection or surgery. You will start to wake up when we are finishing with the surgery and putting on the bandages, and the sedation medicine usually wears off quite quickly. You will have no pain, and the numbing medication usually lasts about 4-6 hours, so you will leave the surgery center with no pain. Occasionally there might still be some residual numbing or tingling effect even the next day.
- **With IV Sedation anesthesia**, you will need to:
 - Have nothing to eat or drink for at least 8 hours prior to your surgery.
 - You can and should take your usual important medications with a sip of water on the day of your surgery. If there is ANY chance that you are pregnant please do a pregnancy test the day before surgery and notify the surgery center.
 - If you have Type 1 insulin dependent diabetes, please let me know and consult pre-operatively with your endocrinologist or family doctor. The plan generally includes taking all or half of your lantus or long-acting insulin the night before surgery, or continuing your normal basal rate on your pump overnight. Then depending on your morning blood sugar levels, either continue or lessen your basal rate so you don't get low. You may need to check your glucose more often than normal. Even without eating before surgery your blood sugar can rise due to the normal stress of surgery. You can continue wearing your pump during the procedure. Bring your meter, etc to the surgery center. If you do get low, of course take something, preferably glucose tabs or hard candy, or juice/coke if needed. You will need a driver to take you home, and a "responsible adult" to go over the post-op instructions with you at the surgery center.
 - You should not return to work or the office or attend meetings on the same day of your surgery.

DURING CARPAL TUNNEL SURGERY- WHAT IS DONE:

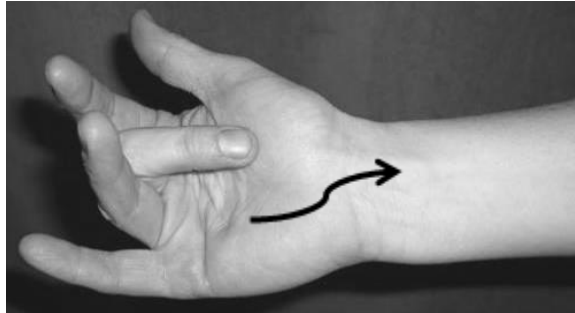
Carpal tunnel surgery is done to take pressure off of the median nerve in the carpal (wrist) tunnel. The tunnel is bone on three sides, and a thick, gristly ligament on the top, like a leather belt about an inch and a half wide and a quarter inch thick. The median nerve and nine flexor tendons run through the tunnel, under the ligament roof. At surgery, we simply cut the ligament, and do nothing with the nerve. Once cut, the ligament gaps apart about a half inch, and it will heal and the gap in the ligament will fill in with scar tissue over the next three months. This makes the ligament longer, and the tunnel bigger, and takes the pressure off of the nerve, like loosening your belt a notch after eating too much at Thanksgiving. Hopefully, your nerve will immediately feel better, and start to recover back to normal. There are no deep repair sutures, just skin stitches. Your post-op bandage will include a splint to protect your incision for a few days. It will be the same shape as your night splint or wrist brace, allowing for full finger motion.



AFTER CARPAL TUNNEL SURGERY:

- **Bandage/splint/surgical dressing care**
 - Please keep your hand elevated as much and as often as possible for 1-2 days after surgery. This helps reduce swelling, and your hand may throb and feel worse if it is hanging down.
 - Please keep your surgical bandage on and clean and dry until your post-operative appointment.
 - You may shower/bath, but keep the bandage dry. You can use a plastic bag taped up at the end, saran wrap or press-n-seal, or a long plastic disposable veterinary glove from Fleet Farm or the like.
- **Hand Therapy Exercises**
 - Most importantly, I want you to move your thumb and fingers and do the finger exercises often (see picture below). Your body will make scar tissue each night, and the exercises during the day will break apart the microscopic scar tissues that stick the tendons together. You cannot do these exercises too much or too frequently! You can move the fingers slowly. Speed doesn't help, but try to get the full excursion (range of motion), moving them as far as they can go.

1. Make a full closed fist
2. Extend (open) the fingers and thumb as far as they can go, then relax the hand
3. Then pull down each finger one at a time, touching the pulp tip of the finger to the palm (bandage). This is what we call the Independent FDS exercise.



- **Hand Use**
 - It is OK to use your fingers and thumb lightly as much as you are able. Typing, writing, eating, dressing and light tool use are all good. You will not be able to do any strong gripping or grasping, pulling or pushing, carrying with fingers, or operating of power tools. You can't damage or harm anything by using your fingers and thumb lightly. But it might hurt if you overuse it, so just go by how your hand feels.
- **Pain Management Expectations**
 - Your hand will be pain free when you leave the surgery center, and the numbing effect of the local anesthesia will likely last 4-6 hours but is variable. Occasionally there might still be some numbing/tingling effect even the next morning. We do not expect much pain after Carpal Tunnel Surgery. Many people do well with only non-narcotic medication, but pain pills for the first day or a few days are OK. I recommend taking the medicine before the lidocaine local anesthesia wears off, and/or at bedtime.
- **Pain Medications**
 - There are three types of pain pills. All three types can be taken together, and at the same time. Their pain-relieving effects are additive.
 - **Tylenol (acetaminophen)**
 - Non-narcotic, safe
 - Inexpensive, comes in generic
 - Regular strength is 325mg
 - Extra-strength is 500mg
 - The dose is 1000mg 3-4 times per day.
 - Many over the counter pain and cold preparations contain acetaminophen. It is also a fever reducer.
 - **Non-steroidal Anti-inflammatory drugs (NSAIDs)**
 - Ibuprofen (Advil)
 - Sold over the counter as 200mg pills

- Inexpensive, comes in generics
- Can take 1-3 pills every 6 hours or up to four times per day (lasts 6 hours)
- Do not take if you are already taking a prescription NSAID (there are many) as there is just extra risk and no extra pain relief.
- Do not take both ibuprofen and naproxen at the same time
- Naproxen (Aleve)
 - Sold over the counter as 220mg pills
 - Inexpensive, comes in generics
 - Can take 1-2 pills twice a day (lasts 12 hours)
 - Do not take if you are already taking a prescription NSAID (there are many) as there is just extra risk and no extra pain relief.
- **Narcotics**
 - Require a doctor's written prescription and generally cannot be refilled over a weekend or holiday.
 - Fairly safe for short-term use.
 - All types can become habit forming and addicting.
 - You can build up a tolerance to narcotics over time, meaning if you continue to take them long-term it takes a higher dose to produce the same effect (like alcohol).
 - They affect different people differently (like alcohol)
 - All are constipating. Best to take a stool softener (colace) and a bulk agent (metamucil, fiber, prunes) if you are susceptible to constipation or are taking these medications beyond a week.
 - All can cause some itching.
 - All can cause some nausea.
 - All are sedatives that cause varying degrees of sleepiness that can interfere with driving and decision making, and can cause unsteadiness and lightheadedness.
 - Best not combine narcotics with alcohol or other narcotics
 - Are often sold in a combination pill with acetaminophen (Tylenol).
 - Commonly used narcotic medications are:
 - Tramadol (Ultram)
 - 1 pill every 6 hours as needed
 - Generally the lightest and best tolerated with the least unpleasant side-effects
 - Hydrocodone with acetaminophen (Vicodin, Norco, Lortab)
 - 1-2 pills every 4-6 hours as needed
 - This medication requires the actual written prescription for any refill and cannot be called in.

- Oxycodone with acetaminophen (Percocet, roxicet)
 - 1-2 pills every 4-6 hours as needed
 - This medication requires the actual written prescription for any refill and cannot be called in.
- **Ice**
 - While ice is generally very good for pain and swelling for the first 48 hours after any injury or surgery, it is not too effective to ice through your dressing or splint or cast. Some people report that it feels good to ice the skin just above their dressing/splint/cast and that is OK, but not necessary.
- **Exercise (fitness)**
 - It is OK and beneficial to remain active after your surgery. Walking is good, and you can elevate your hand and do the FDS finger exercises while walking.
 - For a few weeks after surgery, it is OK to continue any kind of aerobic fitness routine, but you will not be able to swim, ride a regular bike, or lift dumbbells or barbells, or put weight on your palm during yoga. It is generally OK to do any exercise if you are able to do it comfortably, letting pain be your guide.
 - After 3-4 weeks, most people are able to return to all of their usual activities. Some people like to use a bicycling glove or padded work glove for heavy gripping activities for a few months after surgery.
- **Driving**
 - It is OK to drive a car if you can do it safely and you are not on narcotic medication. Most people are able to drive a manual transmission. You cannot drive a motorcycle or snowmobile until the brace is off. You should not drive for a week if you have both hands done at the same time.
- **Work**
 - Most people are off work for a short time (1-7 days), and then on light, restricted-duty work restrictions for the operated hand for about 3 more weeks. People are different, and their job demands are different, so your exact return to work plan will be individualized for you, and should be discussed ahead of time. Almost everyone can get back to doing their usual job eventually, without restrictions. Permanent restrictions are very unusual.
- **Diet/food/eating**
 - You can resume your usual diet, and there is no need for anything special or for any supplements.
- **Problems**
 - Please call us if you have:
 - Fever over 101.5 for more than a day
 - Foul smelling drainage from the dressing or wound
 - Excessive bleeding
 - Uncontrolled pain
 - Please seek ER evaluation or treatment if you have:
 - Persistent vomiting
 - Inability to void (urinate) for more than 8-10 hours after surgery
 - Shortness of breath or chest pain
 - Severe allergic reaction

YOUR FIRST POST- OPERATIVE VISIT:

You should return to the clinic office (not the surgery center) to see me or Julie the Hand Therapist about a week (4-10 days) after your surgery. Your stitches (sutures) will be removed, and skin steri-strips applied. If you have a removable night wrist splint please bring it with you to your visit. Some people wear their removable wrist splint during the day as needed for discomfort, for 2-3 weeks after surgery. Updated work slips will be issued at each and every clinic visit as needed.

Charges for all post-op doctor visits within 90 days of surgery are generally included with the surgery “global” fee. Charges for X-rays, splints, casts, supplies, medications and Hand Therapy visits are often not included in the surgery “global” fee. For questions about your bill from Twin Cities Orthopedics, please contact our Customer Service Department at 952-512-5625.

QUESTIONS?:

- For questions about your medical condition or surgery please contact me or Julie (my Hand Therapist) through our Care Coordinator Sarah at 952-456-7084.
- For questions about scheduling, insurance, paperwork, or work slips please call Sarah, our Care Coordinator, at 952-456-7084.
- For prescription refills please call Sarah at 952-456-7084.
- For questions about surgery arrival time or other day-of-surgery questions please contact your Surgery Center location directly.
 - Crosstown Surgery Center: 952-456-7333
 - WestHealth Surgery Center: 763-302-2863
 - Abbott Northwestern Hospital: 612-863-3138
- For after-hours medical urgent questions please reach the on-call Orthopedic Surgeon at 952-920-0970.
- Our Walk-In Access Clinic, TCO Orthopedic Urgent Care, is open every day at the Edina location from 8:00 am – 8:00 pm, for urgent problems with your cast or other urgent post-op problems. It is also open from 8am – 8pm on Saturday and Sunday. For any of the many other metro locations and hours for our Urgent Care centers, please visit our website www.tcomn.com.
- For billing questions, please call TCO Customer Service at 952-512-5625.
- For questions about your surgery center bill, co-pays or out-of-pocket costs please call your specific surgery center directly (above).
- For questions about your anesthesia bill, please call your anesthesia provided directly.

THANK YOU!