# 1) Ligament Reconstruction Tendon Interposition (LRTI) Experience

# And

# 2) Trapeziectomy Suture Suspensionplasty Experience (TSS)

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# How to prepare for your Surgery

### What You Should Know about your surgery

Both a Ligament Reconstruction Tendon Interposition (LRTI) and Trapeziectomy Suture Suspensionplasty (TSS) is a surgery performed to treat arthritis at the base of the thumb. When the cartilage deteriorates on the trapezium bone of your wrist (at the base of your thumb) there is potential for inflammation and pain. The trapezium bone is the pedestal upon which your thumb sits at the wrist. In an LRTI procedure, the trapezium bone is removed to get rid of the “bone on bone” rubbing that is causing pain. In order to stabilize the base of the thumb (i.e. provide a painless pedestal upon which the thumb sits), a “spare” tendon is taken from your forearm, wrapped into a ball, and inserted into the space previously occupied by the trapezium. The function of this tendon is replicated by other tendons in your wrist, so there is no noticeable loss of function. When the thumb heals, it sits on a painless tendon instead of a rough, hard bone. The TSS procedure is similar, but it used a strong suture (and not a tendon) to stabilize the thumb. The benefit of the TSS procedure is that a tendon does not have to be obtained from elsewhere to assist with the procedure. The downside of the procedure is that it can be more expensive and therefore may not be covered adequately by some insurers.

The surgery is performed through a 3-4 cm incision at the base of the affected thumb. In the LRTI procedure, there is a second 1-2 cm incision in your forearm to retrieve the tendon. The actual surgery takes approximately 1 hour; however, with anesthetic administration, set-up time, and dressing application a couple hours of time may be needed.

The surgery can generally be done under general or regional anesthetic in an operating room.

### What are the risks of surgery?

Every surgery runs the risk of infection, wound healing problems, loss of motion, and pain. This is particularly true in diabetic patients or those who are immunocompromised. Additional risks inherent to this surgery includes the risk of instability at the base of the thumb, weakness with pinching and gripping, and “settling” of the thumb into the space previously occupied by the resected bone. You are encouraged to ask Dr. Karlstad about your particular risks.

### What should I do before presenting for surgery?

* You may take all your normal medications the morning of your procedure. If you were told to discontinue blood thinners, please avoid these medications.
* Wash your hands aggressively with soap and water to clean your hands as much as possible before presenting for your surgery.
* Remove any rings and leave them at home before presenting for your surgery. Artificial nails may be left in place. Nail polish may be left in place unless it is chipped or cracked or susceptible to coming off during surgery.
* If your procedure will be performed in an operating room (i.e. at a hospital, or High Pointe Surgery Center). Discontinue eating, drinking, or chewing gum 8 hours prior to your scheduled surgery or as instructed.
* Due to the administration of anesthetic, you will be required to make arrangements to have someone drive you home.
* Call Dr. Karlstad at (651) 351-2647 before surgery if any of the following are true:
  + You have an active infection anywhere on your body (e.g. skin infection, strep throat, dental infection, tooth abscess, urinary tract infection). Common colds and viral respiratory infections are OK.
  + You have open cuts or sores on the affected hand, wrist, or forearm.

# what will happen the day of my LRTI experience?

### What happens preoperatively?

* You will be notified by the hospital or surgery center (generally the day before your procedure) about what time to arrive
* You will be checked in the hospital or surgery center. Please bring your insurance and contact information.
* You will be accompanied to the pre-op room where you will change into a gown and a brief medical assessment will be done. Dr. Karlstad will speak to you in the pre-op room and will explain the procedure and answer any questions you may have. An anesthesiologist will speak with you about anesthesia.
* You will be accompanied to the operating room where you will be placed on the operating table. Anesthesia will be provided as desired.
* Your procedure will be performed and you will awaken from sedation/anesthesia and be taken to the recovery suite.
* Dr. Karlstad will talk to you or a family member about the results of your surgery.
* Once the nurses are satisfied that you meet “discharge criteria” (i.e. pain controlled, nausea controlled, etc.), you will change back into your clothes and will be allowed to leave with your pre-arranged driver.
* You will be provided a prescription for pain medication (if not provided preperatively). This can be filled at the pharmacy of your choice.
* Call Twin Cities Orthopedics at (651) 439-8807 to arrange a follow-up appointment with Dr. Karlstad his physician assistant 10-14 days after your surgery.

# What should I do after surgery

The immediate postoperative instructions are the same for both the LRTI and TSS procedures. The following is Dr. Karlstad’s postoperative protocol for both procedures:

* **Leave your dressing intact until your postoperative visit.**
* Avoid pinching or gripping against your operative thumb.
* If you require the pain medication provided, feel free take it as instructed on the bottle.
* Confirm that you have a follow-up appointment with Dr. Karlstad or his physician assistant 10-14 days postoperatively.
* **From the day of surgery until your first follow-up appointment,** cover your dressing with a bag or Saran Wrap when showering or bathing to keep it dry. Large animal examination gloves (from veterinary supply stores), newspaper bags, or small garbage bags work well.
* Keep your hand elevated particularly if you experience increased pain, swelling, or throbbing.
* Move your fingers and massage the fluid out of your fingers as much as possible. Use your other hand to fully flex your fingers a few times a day. Finger stiffness due to swelling and inactivity is not uncommon after this procedure. If ignored, this can be as problematic as regaining use of your thumb. If your fingers swell at night, wrap them gently with veterinary wrap (sold at pet stores or Fleet Farm), 3M Coban tape, or Johnson and Johnson “Hurt Free” elastic tape.
* **At your follow-up appointment (generally 10-14 days after surgery)** your sutures will be removed.
* Notify Dr. Karlstad at (651) 351-2647 if you notice any of the following before your follow-up appointment:
  + Foul odor
  + An uncontrollable increase in pain in your hand. (This is particularly true a week out from surgery since this is when postoperative infections tend to manifest themselves.)
  + Your dressing become saturated.

# What happens during my recovery

**At your first follow-up visit (10-14 days postoperatively),** your postoperative splint will be removed and your sutures will be removed. You will be sent to therapy for application of a removable splint. Generally a splint that extends to the forearm is applied first, but this may be shortened to a thumb splint that leaves your wrist free between 4-6 weeks postoperatively.

**From 2 weeks postoperatively** **until about 3 months postoperatively** you will engage in therapy on your hand. Intermittent visits will be required. You will progress from range of motion exercises to strengthening exercises as your pain improves. You will wean out of your removable splint as your function improves. Dr. Karlstad, his assistant, and a hand therapist will see you intermittently in this course of treatment.

**After 3 to 4 months postoperatively** you will be able to complete most normal light activity without a splint. You are encouraged to continue your splint for labor intensive actives as needed until you maximize your strength. This may take up to a year.