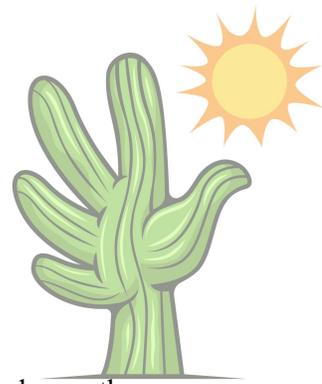


**John Dunn, MD**

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**FLEXOR TENDON INJURY**



**What is it?**

- There are two flexor tendons to each finger (deep and superficial) and one extensor tendon on the back (dorsum) of each finger.
- When the flexor tendon is cut – the finger will stick out and you will not be able to flex the finger.
- Very often when the tendon is cut, the artery and sensory nerve can also be cut.
  - o This causes numbness to the finger and can cause necrosis if multiple arteries are cut.
  - o The sensory nerve will be repaired at the time of surgery with microsurgery techniques.

**Who gets it?**

- Flexor tendon lacerations are rare but occur often when cutting items in the kitchen.
- Flexor tendons can also rupture with a sudden pull like when walking dogs or rock climbing.



**What can you do about it?**

- No MRI/CT is needed –a hand surgeon can diagnose this condition with only a physical exam
- A splint will help control the pain until you can get surgery.
- Surgery is (almost) always indicated otherwise you will not be able to flex your finger again.
  - o Surgery should be within 1-2 weeks depending on the location of injury.
  - o If surgery is not done quickly, the tendon can retract and adhesions can form – making surgery very difficult.
  - o If tendons are partially lacerated, you may not necessarily need surgical repair.

**Surgery:**

- The surgery involves a 4cm incision at the around the initial laceration.
- Both flexor tendons (deep and superficial) will be repaired along with the digital nerve
- A splint will be applied.

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### Post-operative course

- Pain pills may be needed for the first 3-4 days – but most people will make a rapid recovery.
- Black nylon sutures are removed at the first post-operative visit in 2 weeks.
  - o This suture is inert (does not react with your body) and is sturdy.
- You can text, type, and do light duties with the hand before the sutures are removed while the dressing is in place (but no weight bearing)
- After the sutures are removed you can wiggle your fingers in the splint.
  - o The splint is custom made by therapy – which keeps you from extending the fingers and pulling apart the repair (see below)
- Post-operative therapy very strongly encouraged.



### Outcomes

- Surgery helps regain finger function and patients often regain 80-90% of finger function.
  - o It takes many months of dedicated therapy to regain function.
  - o Unrestricted activity at 4-6 months.

### Complications

- Risk damage to neurovascular structures (including local sensory nerves), infection, wound complications, continued pain, and revision surgery.
- Joint contracture (from tendon adhesions): 17-25%.
- Re-rupture: 5-25% - but less likely with advanced surgical techniques.

### Additional consideration

- If the tendon is not repaired soon enough, other surgical procedures may be indicated including tendon graft or a two stage reconstruction (which takes several months)
  - o Stage I: A diseased tendon is removed and a silicone rode is placed in the tendon sheath.
  - o Stage II: A new tendon graft.