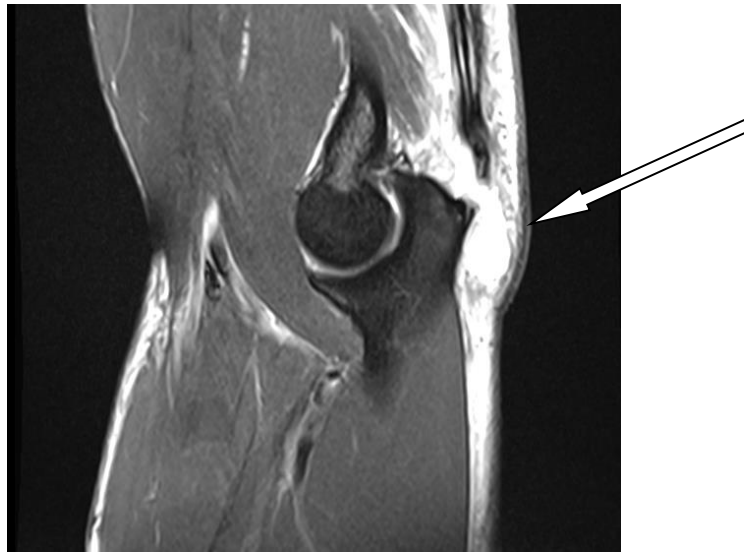


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Triceps Tendon Rupture

A triceps tendon rupture is a complete tear of the triceps tendon which connects the triceps muscle (back of the arm) to the bony prominence of the ulna (long forearm bone that is the elbow on one end) and is important for forcefully straightening the elbow. With a tear, there is loss of continuity between the triceps muscle and the elbow and thus loss of function of the triceps muscles resulting in inability to forcefully straighten the arm at the elbow and push.



MRI view from the side of the elbow showing the discontinuity between the Triceps tendon and its insertion on the elbow

Frequent Signs and Symptoms

- Pain, tenderness, swelling, warmth, or redness over the triceps tendon and/or above the back of the elbow
- Pop or rip felt at the elbow at the time of injury
- Pain and loss of strength when attempting to straighten the elbow (bench press or pushups)
- Crepitation (a crackling sound) when the tendon is moved or touched
- Inability to straighten the elbow against gravity such as trying to reach overhead
- Bruising at the triceps tendon and elbow after 48 hours
- Loss of firm fullness when pushing on the area where the tendon ruptured (a defect between the ends of the tendon where they separated from each other)



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Etiology (Causes)

- Strain from sudden increase in amount or intensity of activity or overuse of the triceps muscles and tendon
- Direct blow, laceration (cut), or injury to the triceps tendon

Risk Factors

- Sports that require sudden, explosive triceps contraction, such as football (particularly linemen), off-road mountain biking or motorcycle riding and jumping
- Weightlifting, particularly bench press and push-ups
- Poor physical conditioning (strength and flexibility, weak triceps)
- Steroid use
- Previous cortisone injection
- Untreated or partially treated incomplete tear of the triceps
- Previous triceps tendon injury

Prevention

- Appropriately warm up and stretch before practice or competition.
- Allow time for adequate rest and recovery between practices and competition.
- Maintain appropriate conditioning:
 - Elbow flexibility
 - Muscle strength and endurance
 - Cardiovascular fitness
- To help prevent recurrence, taping, protective strapping or bracing, or an adhesive bandage may be recommended for several weeks after healing is complete.

Outcomes

Outcomes are generally successful if the triceps tendon rupture is correctly diagnosed and repaired within 2-3 weeks of injury. Chronic tears (more than 3-6 weeks old) can also be repaired or reconstructed but outcomes are compromised. Return to activities range from 4-6 months.



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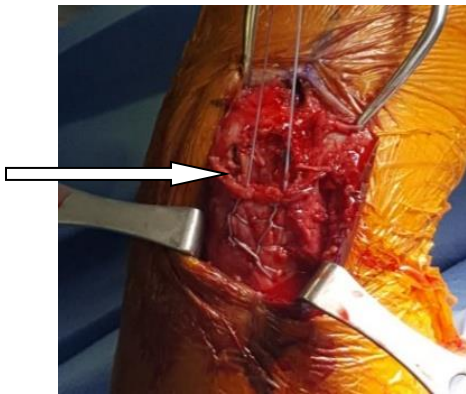
Potential Complications

- Permanent weakness of the triceps muscles, especially if untreated
- Re-rupture of the tendon after treatment
- Prolonged disability
- Risks of surgery, including bleeding, injury to nerves, elbow stiffness and loss of motion, elbow weakness, and re-rupture

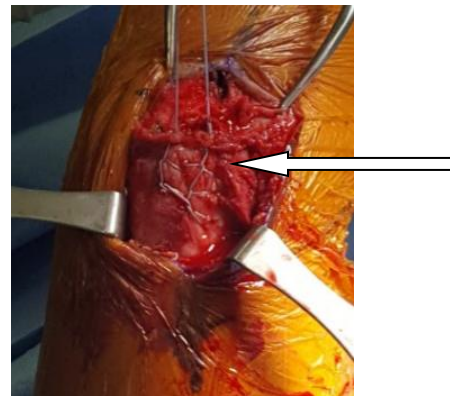
Treatment Considerations

Initial treatment consists of medication and ice to relieve the pain, application of a compressive elastic bandage, and elevation of the injured elbow to reduce swelling. Definitive treatment requires surgery to repair the tendon. Triceps muscle tone and contraction prevents the tendon ends from healing normally without surgery. Thus there is no role for non-surgical treatment in otherwise healthy and active patients. Surgical treatment usually involves sewing the ends of the tendon back together and possibly to bone, followed by immobilization in a cast or brace. After surgery, physical therapy is usually needed to regain elbow motion and strength.

Open Triceps Tendon Repair



Arrow indicating the space between the triceps tendon (with sutures in) and its insertion on the elbow due to rupture



Arrow indicating approximation of the triceps tendon to its insertion once sutures are pulled tight

Dr. Chudik performs this surgery through one small incision on the back of the elbow. Through the small single incision, Dr. Chudik retrieves the torn end of the tendon, passes sutures through the torn ends of the tendon and then through the bone of the olecranon. Then he ties the sutures approximating the torn tendon back to bone. Finally, the wound is closed and the elbow is splinted to protect the repair.



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Possible Medications

- Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take within 7 days before surgery), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact your physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur.
- Your physician may prescribe pain relievers as necessary. Use only as directed.

Modalities (Cold Therapy)

- **Cold** is used to relieve pain and reduce inflammation. Cold should be applied for 15 to 20 minutes every two to three hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage with a cloth between the ice and your skin to prevent burning /freezing your skin.

Notify My Office If Symptoms Worsen

