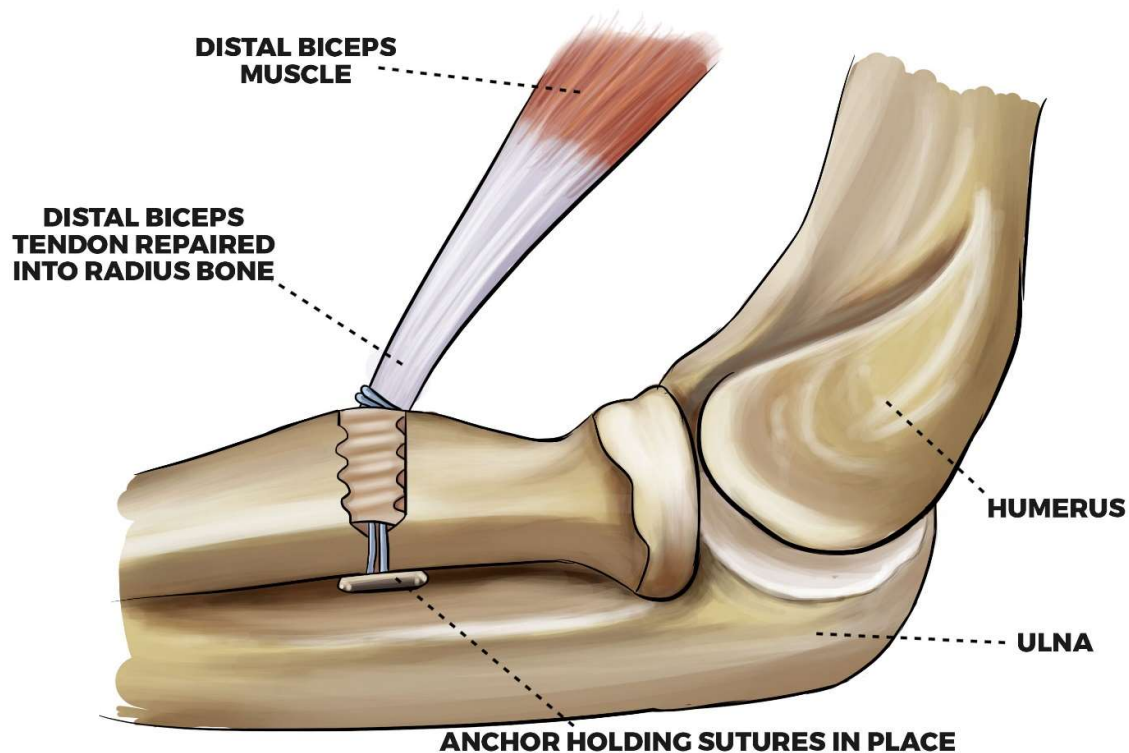


Distal Biceps Tendon Rupture

Dr Alan Dao

FRACS (Ortho), FA (Orth) A, MBBS, BaAppSc (Phty)

www.mysportsjoints.com.au



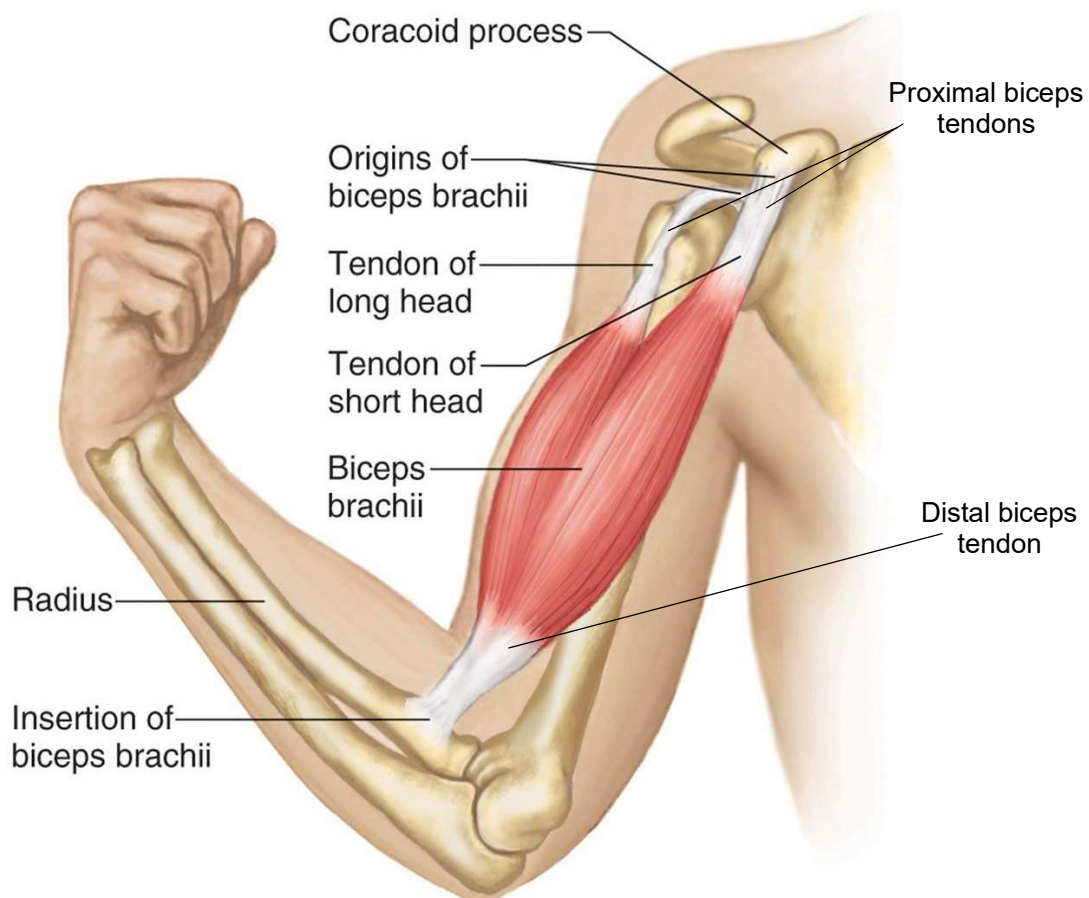
Suite 103, 68 Eldridge Rd, Bankstown NSW 2200
Suite 11, Level 7 POW Private Hospital, Barker St Randwick NSW 2031
Suite 209, Level 2, Strathfield Plaza, 11 The Boulevard Strathfield NSW 2137
Phone: (02) 8078 0633
Fax: (02) 8080 4344
Email: info@dralandao.com.au

Anatomy/Description

The biceps muscle is found towards the front of the upper arm between the shoulder and the elbow, it is a strong fibrous tissue that is held to the bone by tendons.

There are two proximal tendons that attach the bicep muscle to the shoulder, and one distal tendon that attaches it to the elbow. The distal biceps tendon attaches to the radial tuberosity, a small bump on the elbow joint.

A rupture of the distal biceps tendon is more common among men, and result in weakness of the arm. In order to regain strength and flexibility surgery to repair the tendon is normally recommended in healthy and active individuals.



What Causes a Biceps Rupture?

Though a distal biceps rupture is rare, once the tendon is torn it will not heal itself. The other muscles within the arm allow for continued use however the extent is limited, especially for supination (rotating the forearm from palm facing down to palm facing up) which is significantly weakened with this injury. The main cause of a biceps tendon tear is due to injury. This can occur when significant force and resistance oppose one another, for example, lifting a weight that is too heavy. When the elbow strains to bend but is forced to become straight the tendon tears away from the bone as the stress is too great.



Types of tears

There are two types of tears;

Partial Tears: These kinds of tears do not separate the tendon from the bone but they do damage the soft tissue.

Complete Tears: A complete tear is when the tendon is totally severed from the bone.

A complete tear is more common; the tendon is detached from the bone and it partially retreats upwards towards the shoulder. Men over the age of 30 are more susceptible, as are people who smoke or use nicotine or corticosteroid medications as these factors have been known to affect tendon quality and strength.

Symptoms.

- Weakness and discomfort
- Pain
- Inability and/or weakness in rotating the forearm (supination)
- A small bump over the hump of the biceps muscle (where the tendon has recoiled)
- Swollen elbow
- Bruising on the elbow and forearm
- You may feel a 'pop' when injury occurs

Surgical Treatment.

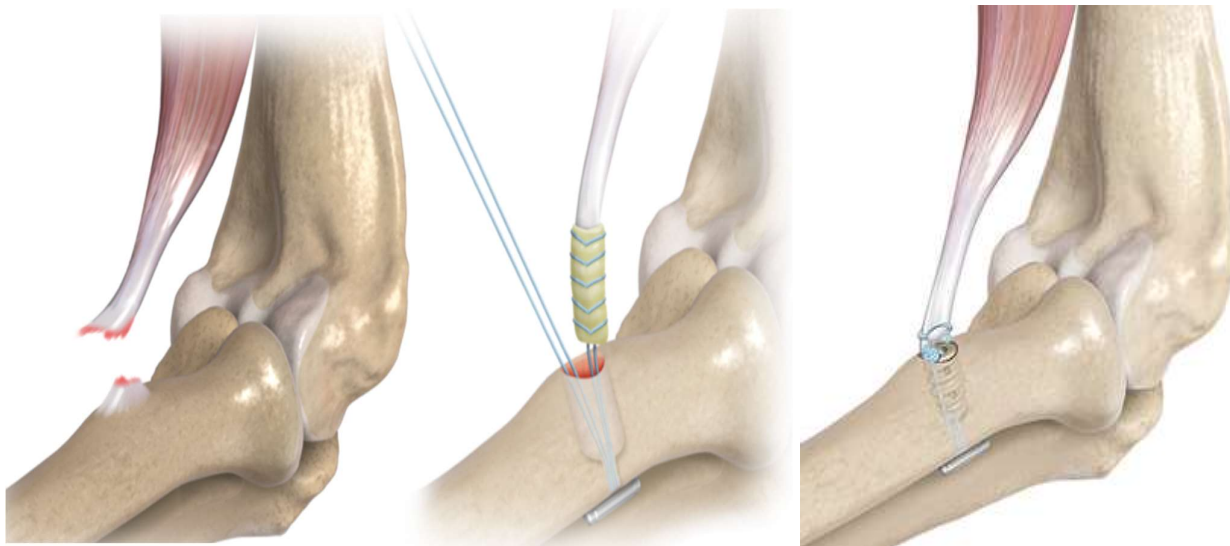
For some people surgery is unnecessary, if you are older, less active or the injury has affected your non-dominant arm and can tolerate a limited range of motion you may not choose to take further action. Some non-surgical treatments that may be of benefit include;

- Rest, avoid lifting heavy objects
- Sling, temporary immobilisation
- Nonsteroidal anti-inflammatory medication to help ease pain and discomfort
- Physiotherapy, once the pain has subsided you may commence gentle exercises to promote movement

However for some people, particularly young athletic people, surgical intervention is the most logical and beneficial option. The **surgical treatment should be performed within 3 weeks** from when the injury occurred to prevent muscle scarring and shortening. Delayed surgery after this period may impact the results negatively and exponentially increases the risks and complications of surgery to the point that it may not be recommended to proceed.

Surgery involves repairing the distal biceps tendon. The aim of the procedure is to reattach the ruptured tendon to the radius bone. Dr Dao does this by making a small incision approximately 3cm long just distal to the elbow crease, he debrides the tendon of damaged tissue and reinforces it with a stitch. Dr Dao then drills a tunnel through the radial bone and with a special device that has a 'button' like structure attached to the end of it, passes the tendon through the tunnel. The button structure ensures that the tendon does not pop back out of the tunnel. It has been shown to provide the strongest of repairs compared to various other techniques. The wound is then closed with skin stitches and small adhesive dressings are applied along with crepe bandaging.

An ice pack is often applied in recovery to help defuse swelling and ease pain. Your arm will be placed in a sling or shoulder immobilizer.



Recovery and Follow Up After Surgery

Immediately following surgery your arm will be temporarily in a sling. You will be encouraged to start moving it immediately particularly turning the arm in pronation (making the palm face downwards). After two weeks you will have a follow-up appointment with Dr Dao where he will remove your stitches and assess your progress. You will have another follow-up appointment with him after six weeks to check your progress and commence some gentle physiotherapy at that stage. It takes three months for the tendon to heal, so during this time you should not push, pull or lift anything more than a glass of water with the injured arm. Physiotherapy will help to gradually increase the strength in your arm once the tendon has healed.

To ensure the best outcome it is important to follow your post-operative plan that Dr Dao will discuss with you. A return to manual labour or heavy activities is achievable with time.

Frequently Asked Questions.

Q: Will the rupture heal by itself?

A. No, the tendon once torn will not repair itself.

Q: Will I need surgery to repair the rupture?

A. For people who are healthy and active, surgery is the best treatment option and the only way to repair the tendon. However for someone able to tolerate a reduced strength of supination, surgery may not be such a necessity.

Q. Are there any risks associated with the surgery?

A. All surgery has risks. Dr. Dao will discuss this with you, including;

- Anaesthetic risks
- Wound infection or deeper infection which may require further surgery
- Slow healing
- Damage to nerves and blood vessels in the area
- Numbness and/or weakness in the forearm (this usually subsides)
- Re-rupture (this is rare) – partial or complete

Q. Will the pain and discomfort in my bicep resolve?

A. Yes the pain and discomfort will resolve, however it is important to be patient and allow for at least three months for the healing process to be complete.

Q. What do I do if there is severe pain, discharge, increased swelling, worsening flexibility, inability to move my arm or any urgent concerns following surgery?

A. During business hours, please contact the rooms on 8078 0633 or outside business hours please attend your local emergency department.