

Distal Biceps Rupture

What is a Distal Biceps Rupture?

A distal biceps rupture occurs when the biceps tendon tears away from its attachment to the radius, a bone in the forearm. The biceps tendon is responsible for turning the palm face up and for flexing the elbow. Unlike the shoulder, there is only one attachment site for the biceps tendon in the forearm. Therefore, patients with Distal biceps ruptures will have significant loss of strength in rotation of the forearm and elbow flexion.

What causes a Distal Biceps Rupture?

Distal biceps ruptures generally result from heavy lifting, particularly with the elbows bent to around 90 degrees. Tendonitis, or inflammation of the portion of the muscle which attaches to the bone, may precede the rupture.

What are the symptoms?

Often, the patient feels a 'pop' in the elbow, followed by immediate pain and swelling. A bruise forms over the lower arm and elbow. There will be an immediate loss of strength. When the swelling subsides, a deformity will be present in the arm. Because the biceps muscle is under tension, it will retract up into the arm if its distal attachment ruptures. This causes the muscle to appear hollowed out in the lower part of arm, and balled up in the upper part.

How is a Distal Biceps Rupture diagnosed?

Distal biceps ruptures are diagnosed on clinical exam. Tenderness is present in the forearm where the tear occurred. The arm is swollen and painful, and a defect is seen in the lower portion of the muscle. X-rays are normal. MRI will confirm the tear.

How is it treated?

Non-operative

Because of the loss of strength, which is associated with these tears, non-operative treatment is recommended for only those patients who are unable to undergo surgery.

Operative

The surgeon will make an incision just below the crease in the elbow and locate the end of the torn tendon. He will then trim this to fresh, healthy tissue and suture the tip. The attachment site is exposed, and a socket created in the bone. The tendon is inserted into the socket and is held in place using a screw, button or both.

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