Orthopaedic Connection

Biceps Tendon Rupture

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Transforming patient information into patient understanding.

What is it?
Everyone knows that there is a biceps muscle in the front of the arm. The “popeye” muscle when you hold your arm up with elbow bent to show how strong you are.

Anatomy
To understand it better you have to know that the biceps muscle starts with attachment to the upper arm bone (humerus) and passes down towards the elbow to form into the biceps tendon. The tendon crosses the front of the elbow and inserts on the radius bone below the elbow.

The biceps muscle gives great power to the arm in pulling and lifting especially with the elbow bent. You can easily feel your own biceps tendon by pushing down on the skin with the elbow bent. Good. Now you know where the biceps tendon is.

Mechanism of Injury and Symptoms
You are lifting or straining doing something with the elbow somewhat bent (not straight) and you feel and hear a snap and intense pain follows instantly in the front of the elbow.

The pain is usually severe for a few hours (acute inflammatory response). Then it calms down to be a dull ache in the front of the elbow that is made worse by lifting.

Now What?
Some people head to the emergency room or urgent care clinic straightaway which is OK, but often it isn’t possible or convenient and you want to go to “your” ER or urgent care in the next day or two. Either is OK, but you should have it looked at as soon as you can. Don’t wait days to see if it improves. In the meantime decreased use of the arm and a sling are advised.

Exam and Tests
A careful exam of your injured arm is a must. Most of the time if the tendon is completely ruptured it can’t be felt. The area is swollen and always very tender. Signs of bleeding may not show up for a day or two. Range of motion may be OK, but strength is lacking

After a thorough exam (hopefully you will receive) of the affected arm from shoulder to wrist, and an x-ray of the elbow and upper arm should be done. If plain x-ray wasn’t done initially it will be done in the office. If the rupture of the biceps tendon was incomplete it can make diagnosis confusing.

Differential Diagnosis
It is important to rule out a fracture and there are some other pretty unusual things to be considered, but we don’t need to go into all of them.

MRI is very helpful in pinpointing the diagnosis. The tendon itself can be ruptured right off the bone, or it can pull off a piece of bone with it, or the rupture can be between the biceps muscle and tendon.

Treatment
Most patients with complete ruptures do better with surgical repair of the tendon. Non surgical management is used with older patients who are sedentary and do not need normal strength and endurance. Non surgical treatment may also be appropriate for the non dominant arm or if treatment is delayed beyond two weeks, which makes repair very difficult.

**Adverse Outcomes**

Loss of elbow strength in bending and rotation of the forearm can approach 50%. Results are usually better with surgery if it is indicated.

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Be well.

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