

DISEASES & CONDITIONS

Why does my arm look like Popeye's?

AN ORTHO-PINION

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The biceps muscle in the front of the arm helps bend the elbow and rotate the forearm. Two tendons attach this muscle to bone, one at the shoulder and one at the elbow. Rupture of the biceps tendon at the elbow is not as common as rupture of the upper tendon at the shoulder. Most occur in the dominant extremity, and almost all occur in men over the age of 35 to 40 years, although they can occur in younger patients participating in sports activities such as weight-lifting and contact sports. The most common cause of biceps tendon rupture at the elbow is straightening of the flexed elbow against resistance as in lifting a heavy object. Often a “pop” is heard and felt at the elbow. Pain is intense at first, but often subsides quickly. Because the biceps muscle is no longer attached to bone at the elbow, it retracts and bunches up in the upper arm, resulting in the bulge that resembles Popeye’s spinach-assisted muscle.

The diagnosis usually is obvious because of this bulging muscle and a gap in the front of the elbow where the tendon was attached. Although older, less active patients may function satisfactorily without surgical treatment, most of these ruptures should be repaired promptly (within 2 to 4 weeks), especially in younger active patients.

There are a variety of techniques from which the orthopaedic surgeon can choose, but the basic differences are in the number of incisions—one incision or two—and how the tendon is attached to the bone—through holes drilled in the bone or with metal implants.

Each technique has advantages and disadvantages, and good results have been reported with all of them. At our institution, we compared the results of mini-two-incision and one-incision repairs and found no significant differences in outcomes or complications. This confirmed my personal belief that there is no one repair technique that is best for every patient. The best outcomes are obtained when the surgeon chooses the technique that is best for a particular patient and with which the surgeon is most comfortable. The choice of technique is not as important as a well-done procedure and appropriate rehabilitation.

When the tendon is repaired to the bone, the biceps muscle is stretched back to its original position and the bulge in the upper arm disappears. Although the arm might not look as strong without the bulging Popeye muscle, successful repair restores strength of elbow flexion and supination, and almost all patients are able to return to daily and sports activities.

Learn more about [Biceps Tendon Tear at the Elbow](/en/diseases--conditions/biceps-tendon-tear-at-the-elbow/) (/en/diseases--conditions/biceps-tendon-tear-at-the-elbow/).



This Ortho-pinion was originally written for *A Nation in Motion*, the AAOS's award-winning public awareness campaign dedicated to sharing the stories of people whose lives were improved by orthopaedic surgery.

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