**Will I need surgery for a shoulder 'Popeye deformity'?**

Q: I'm on my third shoulder surgery now. Now I have what they call a "Popeye deformity." Will I need surgery for this?

A: A Popeye deformity is defined as any abnormal shortening or defect of the biceps muscle. The biceps tendon attaches between the elbow and the shoulder. It helps you lift your arm straight up and bend the elbow. There are two parts: the short- and long-heads of the biceps. Each one attaches in a slightly different place on the arm.

A Popeye deformity is usually pretty obvious. There's a dip where the long head of the biceps tendon has been surgically or traumatically released and retracted from the shoulder. A large bump along the front of the upper arm (making the biceps muscle look extra large) occurs when the muscle belly (not just the tendon) retracts (pulls back).

The most common problems are a cramp-like arm pain, loss of normal elbow strength (flexion or bending), and a change in the shape of the upper arm. This altered appearance of the upper arm is called a Popeye deformity.

This deformity is most obvious when the patient flexes the biceps muscle to bend the elbow. Picture the way Popeye (cartoon character) always showed off his bicep muscle after gaining strength from eating spinach. Only in the case of this problem or deformity, a "Popeye muscle" isn't a sign of strength. Instead, there is muscle weakness.

Surgery is not always advised. If there is no loss of motion, strength, or function and it's just a matter of a different appearance, then surgery can be avoided. If there is enough loss of motion and strength that you can't do your daily activities at home or at work, then surgical repair may be necessary.

Your surgeon is the best one to advise you on this. He or she will perform an examination and take into consideration all aspects of this problem. If cosmetic appearance (i.e., how it looks) is important to you, then it would be a good idea to ask your surgeon about all treatment options.