Adapted for patients of OrthoBalance PT from Move Forward; American Physical Therapy Association

Physical Therapist's Guide to Labral Tear of the Shoulder

An unstable shoulder joint can be the cause or the result of a labral tear. "Labral" refers to the glenoid labrum—a ring of cartilage that surrounds the base of the shoulder joint. Injuries to the labrum are common, can cause a great deal of pain, and may make it hard to move your arm. A labral tear can occur from a fall or from repetitive activities or sports that require you to use your arms raised above your head. Some labral tears can be managed with physical therapy; in severe cases, surgery may be required to repair the torn labrum.

What is a Labral Tear?

The glenoid labrum provides extra support for the shoulder joint, helping to keep it in place. A labral tear occurs when part of this ring is disrupted, frayed, or torn. Tears may lead to shoulder pain, an unstable shoulder joint, and, in severe cases, dislocation of the shoulder. Likewise, a shoulder dislocation can result in labral tears.

When you think of the shoulder joint, picture a golf ball (the head of the upper-arm bone, or humerus) resting on a golf tee (the glenoid fossa, a shallow cavity or socket located on the shoulder blade, or scapula). The labrum provides a rim for the socket (golf tee) so that the humerus (golf ball) does not easily fall off. If the labrum is torn, it is harder for the humerus to stay in the socket. The end result is that the shoulder joint becomes unstable and prone to injury.

Because the biceps tendon attaches to the shoulder blade through the labrum, labral tears can occur when you put extra strain on the biceps muscle, such as when you throw a ball. Tears also can result from pinching or compressing the shoulder joint when the arm is raised overhead. There are 2 types of tears:

- **Traumatic labral tears** usually happen because of a single incident, such as a shoulder dislocation or an injury from heavy lifting. People who use their arms raised over their heads—such as weight lifters, gymnasts, and construction workers—are more likely to have traumatic labral tears. Activities the force is at a distance from the shoulder, such as striking a hammer or swinging a racquet, also can create shoulder joint problems.

- **Nontraumatic labral tears** most often occur because of muscle weakness or shoulder joint instability. When the muscles that stabilize the shoulder joint are weak, more stress is put on the labrum, leading to a tear. People with nontraumatic tears tend to have more "looseness" or greater mobility throughout all their joints, which might be a factor in the development of a tear.
How Does it Feel?

With a labral tear, you might have:

- Pain over the top of your shoulder
- "Popping," "clunking," or "catching" with shoulder movement, because the torn labrum has "loose ends" that are flipped or rolled within the shoulder joint during arm movement and that may even become trapped between the upper arm and shoulder blade
- Shoulder weakness, often on one side
- A feeling that your shoulder joint will pop out

How Is It Diagnosed?

Not all labral tears cause symptoms. In fact, when tears are small, many people are able to function without pain. In some instances, the labrum might even heal on its own, if care is taken not to stress the injured tissues. Due to the lack of blood supply available at the labrum, complete healing may be difficult. The shoulder with a labral tear may pop or click without being painful; however, if a tear progresses, it is likely to lead to pain and weakness.

If your physical therapist suspects that you may have a labral tear, the therapist will review your health history and perform an examination that is designed to test the condition of the glenoid labrum (the ring of cartilage at the base of the shoulder). The tests will place your shoulder in positions that may recreate some of your symptoms, such as "popping," "clicking," or mild pain. Using this examination, your physical therapist will determine whether your shoulder joint is unstable. Magnetic resonance imaging (MRI) also may be used. Labral tears may be difficult to diagnose with certainty without arthroscopic surgery, where a tube-like instrument called an arthroscope is inserted into the joint through a small incision to view or repair an injury.

How Can a Physical Therapist Help?

When labral tears cause minor symptoms but don’t cause shoulder instability, they usually are treated with physical therapy. Your physical therapist will:

- Educate you about positions or activities to avoid
- Tailor a treatment plan for your recovery
- Design specific shoulder strengthening exercises, such as external rotation and internal rotation exercises, to help support the joint and decrease strain on the glenoid labrum
- Design stretching exercises, such as the cross-body stretch or the doorway stretch, to help improve the function of the muscles surrounding the shoulder
- Perform a special technique called manual therapy to decrease pain and improve movement

In more severe cases, when conservative treatments are unable to completely relieve the symptoms of a labral tear, surgery may be required to re-attach the torn labrum. Following surgery, your physical therapist will show you how to slowly and safely return to your daily activities.

A surgically repaired labrum takes 9 to 12 months to completely heal. Immediately following the repair, you should avoid putting excessive stress or strain on the repaired labrum and should increase stress to your shoulder slowly over time. Your physical therapist is trained to gradually introduce activity in a safe manner to allow you to return to your usual activities without re-injuring the repaired tissues.
Can this Injury or Condition be Prevented?

Forceful activities with the arms raised overhead may increase the likelihood of developing a labral tear. To avoid putting excessive stress on the labrum, you need to develop strength in the muscles that surround the shoulder and scapula. Your therapist will:

- Design exercises to help you strengthen your shoulder
- Show you how to avoid potentially harmful positions
- Determine when it is appropriate for you to return to your normal activities
- Train you to properly control your shoulder movement and modify your activities to reduce your risk of sustaining a labral injury

Real Life Experiences

After a day of heavy upper-body lifting at the gym, Jill notices that her shoulder is aching. She ignores the discomfort, thinking that it’s just post-workout soreness, and she continues with her normal routine. But when Jill returns to the gym the following week, she is unable to exercise as aggressively as she usually does because of right shoulder pain. Almost every time she raises her arm overhead, she feels a “clicking” in the shoulder that was never there before. What should she do?

- **Rest.** Jill should avoid overhead activities, to allow the irritated tissues to heal.
- **Ice.** Ice applied to the shoulder may help decrease her pain and any swelling.

Rest and ice do not completely get rid of her symptoms, so Jill decides to visit a physical therapist. The therapist conducts an examination designed to detect the amount of injury and how it is affecting her shoulder’s function. Based on the findings of the physical exam, Jill’s physical therapist determines her diagnosis is consistent with a labral injury and recommends the following treatments:

- **Strengthening exercises.** Improving the strength of the muscles of the shoulder will help Jill decrease the stresses placed on the torn labrum and allow for better healing. The therapist designs external rotation and internal rotation exercises that target the muscles of the shoulder blade and the shoulder joint.
- **Stretching exercises.** An imbalance in the muscles or a decrease in flexibility can result in poor posture or excessive stress within the shoulder joint. Jill's therapist prescribes stretching exercises to restore the normal balance of the muscles surrounding the shoulder to help them work better together.
- **Education.** Education is an important part of any physical therapy treatment plan. If Jill understands the injury, the reasons for modifying her activities, and the importance of doing the exercises provided by the physical therapist, she can help decrease her risk of future injury.
- **Home exercise program.** A home exercise program is an important companion to treatment in the physical therapy clinic. The physical therapist identifies the stretching and strengthening exercises that will help her continue to make improvements and meet her goals.

Following 6 weeks of physical therapy, Jill begins a progressive return to her weight-lifting activities. Her physical therapist gives her instruction in proper lifting techniques and training intensity, and Jill is able to make a safe and effective transition back to her lifting program. If Jill's pain and other symptoms return, her physical therapist will work with her and with an orthopedist to help determine whether she needs surgery to repair her labrum.

*This story was based on a real-life case. Your case may be different. Your physical therapist will tailor a treatment program to your specific case.*
What Kind of Physical Therapist Do I Need?

All physical therapists are prepared through education and experience to treat patients who have a dislocated shoulder, but you may want to consider:

- A physical therapist who is experienced in treating people with musculoskeletal problems. Some physical therapists have a practice with an orthopedic focus.
- A physical therapist who is a board-certified clinical specialist or who completed a residency or fellowship in orthopedics physical therapy has advanced knowledge, experience, and skills that may apply to your condition.

You can find physical therapists who have these and other credentials by using Find a PT, the online tool built by the American Physical Therapy Association [www.APTA.org] to help you search for physical therapists with specific clinical expertise in your geographic area.

General tips when you're looking for a physical therapist (or any other health care provider):

- Get recommendations from family and friends or from other health care providers.
- When you contact a physical therapy clinic for an appointment, ask about the physical therapists' experience in helping people with labral tears.
- During your first visit with the physical therapist, be prepared to describe your symptoms in as much detail as possible, and say what makes your symptoms worse.

Further Reading

The American Physical Therapy Association (APTA) believes that consumers should have access to information that could help them make health care decisions and also prepare them for their visit with their health care provider.

APTA has determined that the following articles provide some of the best scientific evidence for how to treat labral tears. The articles report recent research and give an overview of the standards of practice for treatment both in the United States and internationally. The article titles are linked either to a PubMed® abstract of the article or to free access of the full article, so that you can read it or print out a copy to bring with you to your health care provider.


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