

essential skills

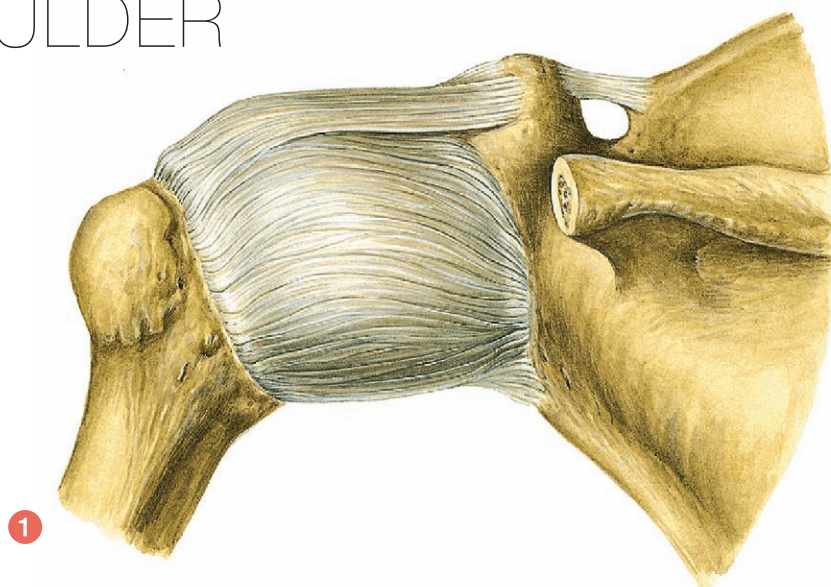
BY BEN E. BENJAMIN



FROZEN SHOULDER

Adhesive capsulitis, or traumatic arthritis of the shoulder, can be an extremely painful and debilitating condition. Traumatic arthritis is one of the many forms of arthritis (joint inflammation), and is the body's way of protecting a joint after it has been injured. Within the shoulder joint, that inflammation typically causes pain, swelling, stiffness, and limitation of movement—symptoms that inspired the common nickname for this condition: frozen shoulder.

The shoulder is a ball-and-socket joint that moves in more directions than any other joint in the body, making it particularly vulnerable to irritation and injury. (The more mobility there is in a joint, the more likely injury is to occur.) The ball of the shoulder is the humerus, and the socket is the glenoid fossa, a very shallow depression. The humerus is held in place by a series of ligaments, plus the four rotator cuff tendons; because the joint is so mobile and the joint depression is so shallow, these tendons are needed to add stability. Within the shoulder



Shoulder Joint Capsule. Sobotta: *Atlas der Anatomie des Menschen* @Elsevier GmbH, Urban & Fischer Verlag Munich.

joint are thousands of tough fibers (Image 1). When the shoulder has been traumatized in some way, many of these fibers shrink and develop adhesive scar tissue, making any movement that stretches them extremely painful.

Adhesive capsulitis is more common in women than in men, occurring with the greatest frequency in women between the ages of 40 and 50. Although there are a number of theories about why it occurs, there are no definitive answers. Some people wake up with this painful injury, while in others it occurs after falling on the shoulder, bumping into something, or even working in the garden. Most people can't recall any specific incident that set off the pain.

The symptoms of this condition can last for many months, or even years. Here is a typical progression:

- The person feels odd sensations in the upper arm and shoulder, and movement in certain directions gets difficult.
- A dull, aching pain develops around the shoulder and/or arm. This pain gets progressively more intense and spreads throughout the entire shoulder region.

- Pain begins to travel down the arm, sometimes all the way to the wrist. At this stage, the person may experience sharp pain when reaching forward or have difficulty putting on a coat or a shirt.
- Soon the person can't scratch his nose or brush his hair without intense pain.
- It becomes impossible to lie on the injured shoulder at night, and may even feel uncomfortable when lying on the good side.

Without treatment, adhesive capsulitis typically follows a three-stage cycle of pain.

THE THREE STAGES OF PAIN

The symptoms of adhesive capsulitis generally last 9–12 months, in three distinct stages.

STAGE 1. FREEZING

In the beginning, the condition is barely noticeable. Minor pain may be present for a day and then disappear, only to return several days later. Over the course of three to four months, pain continues to increase, while the mobility of the arm decreases. The person begins to experience

extreme pain when lying on the injured shoulder at night; continuous pain even without movement; and referred pain slowly traveling down the arm, even to the wrist.

STAGE 2. FROZEN

During the second three- to four-month period, the pain gradually lessens and retreats back up toward the shoulder from the arm. It gradually becomes easier to lie on the bad side, and the shoulder hurts only with specific movements. Movement is still limited, particularly when lifting the arm above the head or out to the side. (Muscles have their own check-and-balance system and will suddenly contract to prevent movements that could further injure the shoulder.)

STAGE 3. THAWING

With luck, during the last three- to four-month phase, pain lessens, movement returns, and the shoulder recovers fully. For less fortunate sufferers of this injury, pain continues unabated for many years. For others, the pain mostly subsides, but some limitation of movement remains, making the shoulder vulnerable to re-injury.

INJURY VERIFICATION

It is important to have a physician examine the shoulder to rule out other conditions that may be causing the person's pain. Adhesive capsulitis can easily be confused with other forms of arthritis or with bursitis (inflammation of the bursa—the small, fluid-filled sac that provides cushioning within the joint).

To conduct your own assessment, perform three tests:

PASSIVE LATERAL ROTATION

Stabilize the upper arm by placing one hand just above the client's elbow and pushing in toward the ribs, gently but



firmly, so the upper arm does not move away from the body (Image 2). Place the elbow at a right angle, holding the inside of the wrist with your free hand, and slowly rotate the forearm laterally. If there is a normal range of motion, the arm will rotate to a 180-degree angle. When adhesive capsulitis is present, this motion is very limited. Sometimes no rotation is possible.

SCAPULO-HUMERAL ABDUCTION

Standing behind the client, gently pinch the inferior angle of the scapula with your thumb and forefinger (Image 3). Place your other hand under the client's elbow and slowly lift the arm to the side, checking to see when the scapula begins to move. (Be sure the client is letting you move the arm, not actively lifting it.) In a normal shoulder, the scapula begins to move when the upper arm reaches a 90-degree angle with the body. When there is limitation of movement, the scapula begins to move sooner, typically at 30 or 40 degrees.



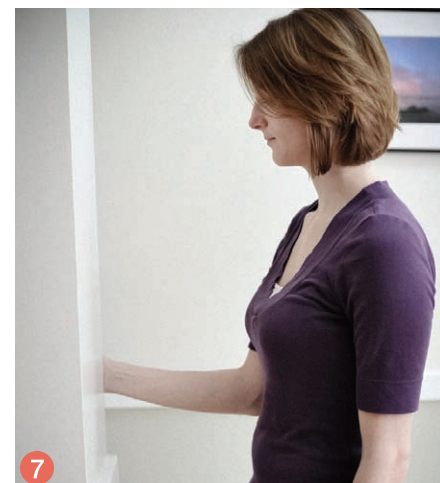
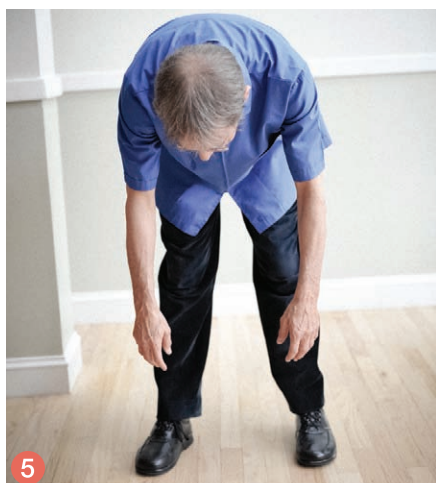
PASSIVE MEDIAL ROTATION

Place the client's arm behind the back, with the elbow bent (Image 4). The wrist should be resting against the lower spine. Standing behind the client and holding the wrist with your hand, slowly pull the person's hand back and up. You may want to place your other hand on the upper back to stabilize the body. If the person cannot lift the hand off the back, or cannot move the hand behind the back, the movement is very limited.

When traumatic arthritis is present, these three tests yield the following pattern of results:

- Passive lateral rotation is the most painful and has the most limited movement.
- Scapulo-humeral abduction is painful and the second most limited.
- Passive medial rotation is painful and the least limited.





TREATMENT CHOICES

SELF-TREATMENT

Time alone will usually heal clients' ills if they are patient enough to wait out the 9–12 months it may take for this condition to resolve. During the healing period, it is important to keep the shoulder mobile by performing various gentle exercises and stretches daily.

Following are client instructions for three exercises I recommend.

Hang and circle. Lean over and let the arms hang down (Images 5 and 6). Make a small circular motion with the affected arm or both arms, within the pain-free range of motion. Continue for a few minutes. Later, as the shoulder heals, hold a light weight while doing the motion. Start with 1 pound and work up to 3–5 pounds—whatever amount of weight you can hold without discomfort.

Lateral rotation. Stand inside a doorway, facing the doorframe (Images 7, 8, and 9). Bend the elbow of the affected arm to 90 degrees, and anchor your hand on the doorframe. Now turn your body so that the arm rotates laterally, going as far as you can without pain. A little pulling sensation is OK. Then turn your body back to the starting position, and repeat the motion 10–15 times.

Crawl up the wall. Standing in front of a wall, use your fingers to crawl your arm up the wall. Keep going until you begin to feel some pulling, but stop before you feel any pain. Bring the arm down, and then repeat 5–10 times.

Have the client perform each of these exercises three times per day.

CORTICOSTEROID INJECTIONS

Injections of a high-quality corticosteroid will often halt the pain cycle. This treatment is most effective when combined with the stretching techniques described in the following section. Two or three injections may be required to do the job.

ASSISTED STRETCHING AND RESISTED STRETCHING

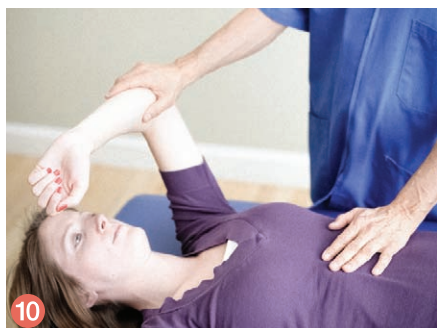
These techniques must be performed by a knowledgeable therapist. If the stretching is coupled with injections, it can be done at any phase of the injury. If not, in order to be effective, treatment must begin early in the first (freezing) phase, within a few weeks after the onset of the injury, or in the third (thawing) phase. Three to five weeks of stretching in either phase will often stop the pain cycle.

Overhead adhesions stretch. With the client lying supine, stand to the person's side and place one hand on the upper abdomen/lower chest to prevent





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the back from arching (Image 10). Place your other hand at the elbow and gently lift the affected arm to a vertical position. From there, slowly stretch the shoulder joint toward passive elevation until you meet resistance, then add a pound of pressure and hold for 30–60 seconds. Bring the arm back down to allow the client to rest for a moment, and then repeat. Repeat 5–6 times.

Overhead resistance stretch. Begin in the same position you used for the previous stretch. This time, you'll use the client's own resistance to help break the adhesions in the shoulder joint capsule (Images 11 and 12). Begin with the client's arm at an elevation that is relatively comfortable. Tell clients to push against you with 50 percent of their strength; then, after 8–10 seconds, tell them to let go. When they release, apply gentle pressure and move the joint a quarter-inch to a half-inch further into the stretch. Let the person rest a moment, and then begin again. Repeat this process for 3–5 minutes. Over time, the client will regain a normal range of motion, and the upper arm will lie flat on the table above the head.

Lateral rotation adhesions stretch. Again, have the client lie supine (Image 13). Use one hand to hold the upper arm next to the body, and use the other hand, placed on the person's wrist, to gently stretch the shoulder in lateral rotation. Exert a constant mild pressure to gently increase the rotation. Hold this position for 30–60 seconds. Repeat 2–3 times.

Lateral rotation resistance stretch. As in the previous stretch, use one hand to stabilize the upper arm next to the body and place your other hand on the wrist. Laterally rotate the shoulder to a relatively comfortable position (Image 14). Then ask clients to resist with medial rotation, using 50 percent of their strength, while you apply an equal and opposite pressure to prevent them from moving. Have them

continue pushing for 8–10 seconds, and then release. When they let go, gently move the shoulder into slightly more lateral rotation, just a quarter-inch to a half-inch. Let the person rest for a moment, and then begin again. Continue for 2–3 minutes. The goal of this stretch is to bring the shoulder into full lateral rotation, with the lower arm at a 180-degree angle to the body.

Once you've performed each of these four stretches, continue repeating both resisted stretches, alternating between the two for an additional 15–20 minutes.

CONCLUSION

Once you understand what it takes to treat adhesive capsulitis effectively, helping clients with this condition can be extremely satisfying. I've worked with many people who've endured great frustration and hardship because of this injury. Often they've received other treatment that wasn't quite sufficient. For these clients, getting connected to the right combination of treatments is a tremendous relief, with the promise of decreasing healing time from 9–12 months to 4–6 weeks. **m&b**

Ben E. Benjamin, PhD, holds a doctorate in education and sports medicine, and is founder of the Muscular Therapy Institute. He is the author of *Listen to Your Pain* (Penguin, 2007), *Are You Tense?* (Pantheon, 1978), and *Exercise Without Injury* (MTI, 1979), and coauthor of *The Ethics of Touch* (Sohnen-Moe Associates, 2003). He offers continuing education for massage therapists via webinars. He can be contacted at Ben@BenBenjamin.com.

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