Understanding Adhesive Capsulitis (Frozen Shoulder)

A Patient Guide to Recovery

What is Adhesive Capsulitis?

Adhesive Capsulitis, commonly known as "Frozen Shoulder," is a condition characterized by stiffness and pain in your shoulder joint.
Imagine your shoulder joint is surrounded by a flexible balloon called the **capsule**. In a healthy shoulder, this capsule is loose and lubricated, allowing for a wide range of motion. In Adhesive Capsulitis, the capsule thickens, swells, and tightens around the shoulder joint—much like shrink-wrap.
This process typically happens in three stages:

1. **Freezing:** Pain increases, and the shoulder begins to lose range of motion.
2. **Frozen:** Pain may improve slightly, but stiffness remains significant.
3. **Thawing:** Motion slowly begins to return.

The Endocrine Connection: Why Did This Happen?

While Frozen Shoulder can happen after an injury, it often occurs without a specific trauma. There is a strong link between this condition and your endocrine system (hormones). Perimenopause hormonal changes, thyroid disorders and diabetes have all been show to increase the risk of developing adhesive capsulitis
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The Role of Glucose and Collagen The most common risk factor is Diabetes or insulin resistance. Your shoulder capsule is made of a protein called **collagen**. When blood sugar levels are elevated or unstable, sugar molecules can stick to collagen fibers in a process called *glycosylation*.
This creates "sticky" bridges between collagen fibers, causing them to bond together abnormally. Instead of sliding past one another smoothly, the fibers become stiff and rigid. Thyroid disorders (both hyper- and hypothyroidism) also alter the metabolism of these proteins, increasing the risk of the capsule tightening.

Treatment: The "Window of Opportunity"

Treating Frozen Shoulder is a two-step process: reducing the inflammation and then physically stretching the tight capsule.

1. Intra-Articular Steroid Injection

Your doctor may recommend a steroid injection directly into the shoulder joint.

- **The Goal:** The primary goal is not just pain relief, but to reduce **synovitis** (inflammation of the joint lining).
- **The Benefit:** By calming the angry, inflamed tissue, the injection reduces pain significantly. This creates a "window of opportunity" where you can stretch the shoulder more effectively with less discomfort.

2. Gentle Daily Stretching

Once the inflammation is managed, mechanical stretching is required to lengthen the tightened capsule.

- **The Goal:** To physically remodel the collagen fibers back to their flexible state.
- **The Rule:** Consistency beats intensity. It is better to stretch gently 3–4 times a day than to force painful movement once a day.

Your Home Exercise Program

Frequency: Perform these exercises 2–3 times daily. **Intensity:** You should feel a "comfortable stretch" or mild discomfort, not sharp pain.

1. The Pendulum (Warm-Up)

This uses gravity to gently distract the humerus from the socket, loosening the capsule before deep stretching.

- Lean forward, supporting your non-injured arm on a table.
- Let your stiff arm hang down loosely like a rope.
- Use your body weight to gently sway the arm in circles (clockwise and counter-clockwise).
- **Duration:** 1 minute.

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2. Wall Walk (Flexion)

This targets the inferior capsule (the bottom of the shoulder joint) to improve lifting your arm.

- Stand facing a wall, about an arm's length away.
- Place your fingers on the wall at waist height.
- Slowly "walk" your fingers up the wall as high as you can comfortably go.

- Lean your body toward the wall at the top for a deeper stretch.
- **Hold:** 10–15 seconds. **Repeat:** 5 times.
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3. Cross-Body Stretch

This targets the posterior capsule (the back of the shoulder).

- Gently pull your stiff arm across your chest, using your good arm to apply pressure at the elbow.
- Keep your shoulder blade down (don't shrug).
- You should feel the stretch in the back of the shoulder.
- **Hold:** 30 seconds. **Repeat:** 3 times

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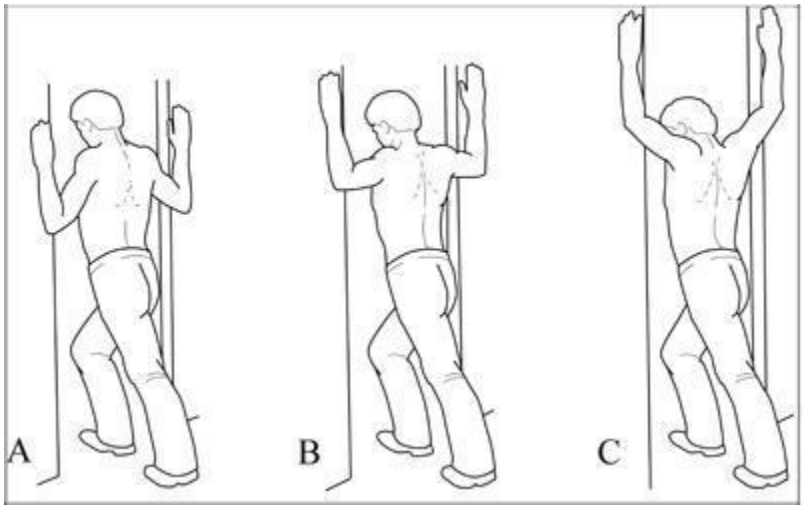
4. Doorway Stretch (External Rotation)

This targets the anterior capsule (the front of the shoulder) and chest. This is often the tightest part of the shoulder.

- Stand in a doorway.
- Bend your elbow to 90 degrees and place your forearm against the doorframe.
- Gently lean your body forward through the doorway until you feel a stretch in the front of your shoulder.
- **Hold:** 30 seconds. **Repeat:** 3 times.
- 

5. The Sleeper Stretch

This is a specific, highly effective stretch for the posterior capsule.

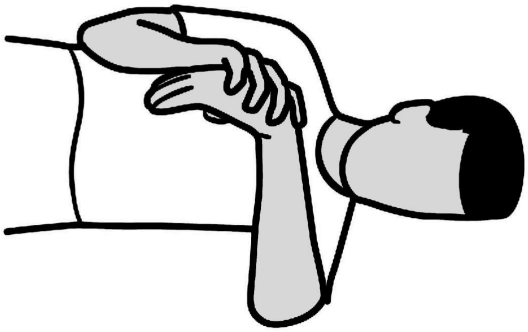
- Lie on your affected side on a firm surface (bed or floor).
- Extend your affected arm straight out from your shoulder, then bend the elbow 90 degrees

so your fingers point toward the ceiling.

- Use your good hand to gently push the wrist of the affected arm down toward the floor (palm facing down).
- Keep your shoulder blade tucked against the floor.
- **Hold:** 30 seconds. **Repeat:** 3 times.

Important Note: If you experience sharp, tearing pain, stop immediately and contact your physician. A dull ache during stretching is normal; sharp pain is not.

Sleeper position



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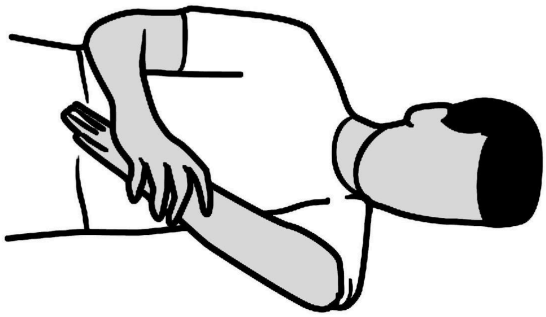

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