

Shoulder embolization

for frozen shoulder and chronic shoulder pain



A catheter-based option that may ease pain from frozen shoulder and some long-lasting shoulder pain when therapy and injections have not helped enough.

What it is

With frozen shoulder (adhesive capsulitis) and some other long-lasting shoulder problems, the tissue around the joint can become inflamed and grow extra small blood vessels. This extra blood flow is linked with pain, especially at night. Shoulder embolization slows that blood flow. A very thin tube (catheter) is placed at the wrist or groin and guided to the small arteries around the shoulder, where tiny particles are released. There is no cut into the shoulder. It does not repair a torn tendon.

Why the pain can last

Frozen shoulder (adhesive capsulitis) happens when the capsule around the shoulder joint becomes inflamed, then thick and tight. It often goes through phases: a painful 'freezing' phase, a stiff 'frozen' phase, and a slow 'thawing' phase that can take many months.

At a glance

- Outpatient, usually home the same day
- Light sedation and numbing
- Small opening at the wrist or groin
- About 1 to 2 hours
- No cut into the shoulder
- Results vary

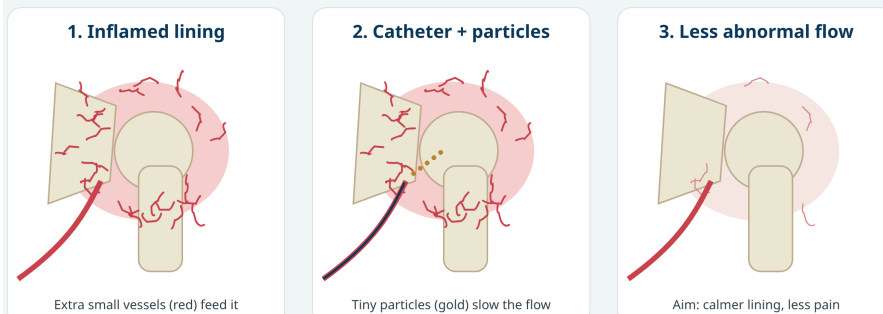
Who does what

Evaluation and workup:

GSMC providers at any of our 7 offices.

Procedure: Dr. Douglas Gibbens, interventional radiologist, at Manchester Surgery Center or Bey Lea Surgery Center.

How shoulder embolization works (simplified illustration)



Not to scale. Bones in beige, joint lining in pink, artery in red, catheter in navy.

✓ Who it may help

- ✓ Frozen shoulder (adhesive capsulitis) with pain that has lasted 3 months or more
- ✓ Shoulder pain, often worse at night, that has not improved with physical therapy, medicines or injections
- ✓ Some chronic shoulder pain from tendon inflammation, after an evaluation
- ✓ People who want to avoid or delay surgery, or who are not candidates for it

✗ May not be a good fit

- ✗ Infection in or near the shoulder
- ✗ A large or full-thickness rotator cuff tear that may need a surgical evaluation
- ✗ Pain mainly from the neck or another source
- ✗ Serious kidney disease or a severe allergy to contrast dye
- ✗ A bleeding problem
- ✗ Pregnancy

📍 Your evaluation at any GSMC office

GSMC providers select patients and complete the evaluation and workup at whichever of our 7 offices is closest to you. Your visit usually includes:

- A review of your symptoms, how long they have lasted and what you have tried
- An exam of the shoulder and nearby areas that can refer pain
- A review of X-rays, and MRI or ultrasound if needed
- A review of medicines, blood thinners, allergies and kidney function (the procedure uses contrast dye)
- An honest talk about options, expected results, risks and coverage

📋 Procedure day, step by step

- 1 Check in** at Manchester (Whiting) or Bey Lea (Toms River) Surgery Center with your driver.
- 2 Get ready.** A nurse places an IV. You get light sedation, and the wrist or groin is numbed.
- 3 Access and mapping.** A thin catheter is guided by live X-ray to the small arteries near the shoulder.
- 4 Embolization.** Tiny particles slow the abnormal blood flow. Usually 1 to 2 hours in all.
- 5 Rest and go home** the same day after monitoring.



Before your procedure

- Tell us about blood thinners, diabetes, kidney problems or a contrast dye allergy. Do not stop medicines on your own.
- Follow the eating instructions we give you, and arrange a driver.

Recovery timeline

Procedure day

Rest and monitoring after the procedure, then home with a driver. Keep the access site dry and covered; rest the arm or leg used.

Days 1-7

Light walking and daily tasks are usually fine. Avoid heavy lifting, hard exercise and soaking in a tub or pool with the access site. Mild soreness in the joint or a bruise at the wrist or groin is common.

Weeks 2-6

Most people are back to normal activities. Some notice pain starting to ease; for others, change is slower. Some people see a short-term skin color change over the joint that usually fades. Keep up with exercise or physical therapy.

About 3 months

A follow-up visit to review pain, function and goals. If embolization did not help enough, we talk through next options.

Risks, explained

- **Access site bruising or bleeding:** A bruise or small lump at the wrist or groin is common and usually fades. Larger bleeding is uncommon; pressure or a closure device is used to prevent it.
- **Skin color change over the joint:** Some people notice a temporary patchy discoloration or tenderness of the skin over the joint. It usually fades over days to weeks.
- **Particles reaching an unintended area:** Rarely, particles can reach small vessels that were not targeted, which may irritate or injure skin or other tissue. Careful imaging during the procedure is used to lower this risk.
- **Contrast dye reactions and kidneys:** The X-ray dye can cause an allergic reaction or strain the kidneys. We check your kidney function and allergies first.
- **Infection:** Uncommon. Keep the access site clean and call us for fever or redness.
- **No improvement:** Pain may not improve, or may return over time. Embolization does not rule out other treatments later.

When to call us

- Bleeding or a growing lump at the wrist or groin
- Fever over 101°F or chills
- A cold, pale, numb or very painful hand or foot
- Skin over the joint that becomes dark, blistered or open
- Pain much worse than before

Call 911 for chest pain or trouble breathing.

Questions? Call 732-202-3000.

Questions people ask

Is shoulder embolization surgery? No. It is a minimally invasive procedure done through a thin catheter at the wrist or groin. There is no cut into the shoulder.

Does it fix the shoulder? No. It does not repair cartilage or tendons. It aims to reduce the abnormal blood flow linked with inflammation and pain.

How soon might I feel a change? If it helps, the change often builds over several weeks. Results vary, and some people notice little or no change.

Will I stay overnight? Most people go home the same day after a period of rest and monitoring. Plan to have a driver.

How it compares with other options

Option	How it works	Good to know
Physical therapy and home stretching	Restores motion over time	Core of frozen shoulder care at every stage
Steroid injection	Reduces inflammation in the joint	Often helps pain in the early phase
Hydrodilataion	Stretches the tight capsule with fluid	Image-guided injection
Suprascapular nerve block or RFA	Calms the main nerve carrying shoulder pain	Needle-based; may help pain and sleep
PRP injection	Uses your own platelets	Usually self-pay; evidence still developing
Shoulder embolization	Reduces abnormal blood flow linked with inflammation	Catheter-based; mostly uncontrolled studies; coverage varies
Surgical release or repair	Releases the capsule or repairs a tear	A surgical option an orthopedic surgeon may discuss

What the research shows, in brief

What this means for you: early results are encouraging, but frozen shoulder can also improve on its own over time, and studies without a comparison group can't separate the procedure's effect from natural recovery. Results vary.

Insurance and cost

Coverage for embolization varies. Many insurers consider genicular artery embolization, and embolization for the shoulder or hip, investigational, so it may not be covered. Our team will check your plan and talk with you about costs before anything is scheduled.

Questions to ask at your visit

- Is my pain coming from the shoulder joint?
- What results are realistic for me?
- What are my specific risks?
- Is it covered by my plan? If not, what is the cost?

My notes

Call 732-202-3000

One number for all 7 offices: Whiting · Toms River · Brick · Barnegat · Manahawkin · Freehold · West Long Branch

Procedure sites: Manchester Surgery Center, 1100 Route 70 West, Whiting · Bey Lea Surgery Center, 54 Bey Lea Road, Bldg 2, Toms River

gsmedicalcenter.org/treatments/shoulder-artery-embolization/

