

CLAVICLE FRACTURE REPAIR

Physical Therapy Protocol

PATIENT

SURGEON

Andrew L. Merritt, MD

DATE OF SURGERY

PT START DATE

For the patient

Your collarbone (clavicle) was fixed with **two small low-profile plates**, so the bone itself is secure from day 1. We move step by step to protect the layer of tissue over the plates, which was opened during surgery and needs about **6 weeks** to heal. **Passive motion**, where your therapist or your other arm moves the shoulder, is safe right away. Using your own shoulder muscles to lift, push, or pull is added in stages over 6 weeks.

PROTOCOL AT A GLANCE

SLING	For comfort and protection. Most of the time early, off for exercises and showering. Weaned by 2 to 4 weeks
MOTION	Passive only until your 2-week visit. Then lifting the arm yourself up to shoulder height, working toward 90° by week 4 . Overhead from week 4, full by week 6
LIFTING	Hand, wrist, and elbow for light tasks at your side. Nothing over 1 to 2 pounds , no pushing or pulling, until 6 weeks
PHYSICAL THERAPY	Starts 5 to 7 days after surgery, 2 times a week at first
KEY PRECAUTIONS	No strengthening until 6 weeks and full motion. Don't sleep on the surgery side. No contact sports until the bone heals
RETURN TO ACTIVITY	Desk work as soon as you are comfortable (sling is OK). Heavy or overhead work 8 to 10 weeks . Contact sports after the X-ray shows healing, 3 to 4 months or later

Recovery Timeline

Phase	When	PT visits	Focus
1	Weeks 0–2	2× a week	Sling, passive shoulder motion, elbow, wrist, and hand motion
2	Weeks 2–6	2× a week	Active motion to 90° by week 4, full elevation by week 6, sling off
3	Week 6 onward	2× a week, then 1× a week + home program	Strengthening, return to overhead work and sport after healing is confirmed

For the Therapist

Check the surgeon notes first. They override anything else in this protocol. Questions or setbacks: call (425) 656-5060.

Surgeon notes and special instructions

General principles

- **The deltotrapezial fascia is the limiting structure.** Clavicle ORIF uses 90-90 angle-stable dual plating (two small low-profile plates), which is rigid from day 1. Restrictions protect the fascial closure, not the hardware. Resisted deltoid and trapezius contraction before the fascia heals risks disrupting the repair.
- **Milestones:** passive motion immediately; active motion from week 2, limited to 90° and working toward 90° by week 4; above 90° from week 4 and full active motion by week 6; strengthening once full active motion is confirmed, at or after week 6.
- **Passive before active.** Passive motion (therapist or other arm, without deltoid or rotator cuff activation) is permitted immediately. Active motion is staged.
- **Distal joint maintenance.** Elbow, wrist, and hand exercises begin immediately; distal stiffness is preventable. Maintain cervical mobility throughout.
- **Sling for comfort,** not as a structural requirement. Most of the time early (off for exercises and showering); wean as comfort allows, discontinued by week 2–4.
- **Driving:** not until the sling is off, arm control is comfortable, and the patient is off narcotics; discussed at the PA visit.
- **Cold therapy:** 20 minutes on, 20 minutes off, after exercise and as needed.

Return to work and activity

DESK WORK	As soon as comfortable; the sling is OK
HEAVY · OVERHEAD WORK	Manual labor and overhead work: 8–10 weeks, with union confirmed
OVERHEAD SPORT	Throwing, swimming, volleyball: typically 3–4 months, with full motion and strength criteria met
CONTACT SPORT	Contact and collision sport after radiographic union is confirmed; minimum 3–4 months
HARDWARE	Symptomatic plates are common and can be removed electively after full union, typically no sooner than 12 months

PHASE

1

Protection and Passive Motion

Weeks 0–2

For the patient: what to expect

Your shoulder can be moved gently by your therapist or with your other arm. This is passive motion, and it is completely safe. **Keep your shoulder muscles relaxed.** Wear the sling for comfort, and use your hand and elbow for light tasks at your side. No lifting, reaching overhead, pushing, or pulling with the surgery arm, and don't sleep on that side.

ARM USE	Sling for comfort except during exercises and showering. Hand, wrist, and elbow for light daily tasks at the side. No lifting, overhead reaching, or pushing and pulling
SLING	Most of the time early, especially in crowds, at night, and when tired. Wean by weeks 2–4 as comfort allows
MOTION	Passive shoulder motion only. Full active and passive elbow, forearm, wrist, and finger motion from day 1

Goals

- Pain and swelling managed
- Passive shoulder motion maintained
- Full elbow, wrist, and hand motion
- Patient understands passive vs active motion
- Sling comfort and wound care

Move on when

- ☐ Pain controlled, wound healing well
- ☐ Passive flexion and abduction $\geq 90^\circ$ without pain
- ☐ Full elbow, wrist, and hand motion
- ☐ Cleared at the 2-week PA visit to start active motion

Exercises

Exercise	How
Pendulums (Codman)	Gravity-assisted passive circles; 2 × 5 min daily. Shoulder muscles stay off
Passive flexion · abduction	Supine, therapist or other arm assisting; 3 × 10, to comfortable range
Passive external rotation	Arm at the side; 3 × 10
Elbow · forearm · wrist	Full motion; 3 × 15 each
Grip strengthening	Putty or soft ball; 3 × 15
Neck motion	Flexion, extension, rotation, side bending; 3 × 10 each
Scapular retraction	Gentle, pain-free, minimal deltoid; 3 × 10
Ice	20 min on, 20 min off, after exercise and as needed

Precautions

- No active shoulder elevation: deltoid or cuff contraction loads the fascial repair before it has initial strength
- Pendulums must be passive: the patient leans forward and lets gravity swing the arm
- No overhead reaching, pushing, or pulling with the surgery arm
- No sleeping on the surgery side

Why: The deltotracheal fascia is opened to expose the clavicle and repaired at closure. For the first 2 weeks it is held by suture alone. Passive motion does not load the closure and is safe from day 1.

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2

Active Motion Progression

Weeks 2–6

For the patient: what to expect

After your 2-week visit, you can start lifting your arm with your own muscles, **up to shoulder height (90°)**, forward and to the side. Aim to reach shoulder height comfortably by week 4. Overhead motion starts at week 4, and the goal is full motion by week 6. **No strengthening yet**; moving the arm is different from loading it.

ARM USE	Light daily tasks at and below shoulder height from week 2. Nothing over 1–2 lb and no pushing or pulling until week 6. Overhead motion exercises from week 4; no loaded overhead reaching until week 6
SLING	Wean during weeks 2–4; off by week 4 at the latest
MOTION	Active motion limited to 90° for weeks 2–4, working toward 90° by week 4. Above 90° from week 4; full by week 6. Passive motion unrestricted

Goals

- Active flexion and abduction to 90° by week 4
- Full active elevation (150°+) by week 6: flexion and abduction 160°+, ER 60°+, IR to T8
- Full passive motion in all planes
- Sling off by week 4

Move on when

- ☐ Active flexion and abduction to 90° without pain by week 4
- ☐ Sling off by week 4
- ☐ Full active flexion (160°+) by week 6
- ☐ Surgeon clearance at 6 weeks to start strengthening

Exercises

Exercise	How
Active-assisted flexion	Wand or pulley; 3 × 10, progress range daily
Active flexion · abduction	To 90°, from week 2; 3 × 15
Above 90°	Active elevation from week 4, progressing to full. Overhead pulley, 3 × 10, from week 4
Passive stretch	Supine flexion, ER, cross-body IR; 3 × 30 sec each
Active-assisted ER · IR	Wand; 3 × 15
Scapular work	Retraction and depression, no weight, 3 × 15. Prone Ts from week 3; prone Ys from weeks 4–6. Body weight only, 3 × 10
Distal · neck	Elbow, wrist, hand motion and grip, 3 × 15. Neck mobility and posture

Precautions

- Active elevation limited to 90° until week 4
- No resistance exercise: moving the arm is allowed; loading it is not until week 6 and full motion
- No contact sports or fall risk onto the shoulder before union
- No pushing or pulling (chest press, rowing)

Why: The fascia gains tensile strength between weeks 2 and 6. Staged limits (active motion from week 2 to 90°, full elevation at week 6) match that healing.

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3

Strengthening and Return to Activity

Week 6 onward

For the patient: what to expect

Strengthening starts at 6 weeks, but only once your arm moves fully overhead. It then builds over the next 6 to 8 weeks. Heavy lifting and overhead work usually return at **8 to 10 weeks**. Contact sports wait until an X-ray shows the bone has healed, usually **3 to 4 months** or later.

ARM USE	Unrestricted. Graduated return to lifting, overhead activity, and sport with strength recovery and surgeon clearance
MOTION	Full and unrestricted

Goals

- Shoulder strength 80% of the other side by weeks 10–12
- Full active and passive motion maintained
- Full work and recreational activity
- Return to sport with clearance (typically 3–4 months for contact or overhead sport)

Move on when

- ☐ Full active motion (required to start strengthening)
- ☐ Strength 80% of the other side by weeks 10–12
- ☐ Full overhead activity without pain
- ☐ X-ray callus or union at follow-up; surgeon clearance for contact sport

Exercises

Exercise	How
Isometrics	Flexion, abduction, ER, IR from week 6 if motion is not yet full; switch to isotonic once it is
Rotator cuff	Band ER and IR, arm at side, 3 × 15. Side-lying ER with light dumbbell, 3 × 15
Scapular	Prone row 3 × 12, prone Ys and Ts 3 × 10, light dumbbell. Serratus (wall slides, push-up plus) 3 × 15
Raises	Lateral raise to 90°, forward raise, scaption; 3 × 15, progress load
Push-ups	Wall → incline → floor; 3 × 10
Overhead press	From weeks 8–10, when strength below 90° is adequate
Functional	Sport or work-specific patterns; sport skill and conditioning

Precautions

- No strengthening until full active motion; loading a stiff shoulder reinforces compensation
- No contact sport until radiographic healing (typically 10–14 weeks)
- Symptomatic hardware (prominent plate, tenderness): report to Dr. Merritt; elective removal after union

Why: Clavicle union typically occurs at 8–14 weeks. Impact before union can fatigue or fail the hardware, so return is tied to clinical milestones and X-ray healing.

Return to Activity

All criteria must be met before clearance.

Measure	Target
Motion	Full active motion, equal to the other side
Strength	≥80% of the other side (flexion, abduction, ER, IR)
Symptoms	No pain with overhead or sport-specific movement
Healing	X-ray union confirmed by Dr. Merritt
Manual labor · overhead work	8–10 weeks, with union confirmed
Overhead sport	Typically 3–4 months
Contact · collision sport	Minimum 3–4 months, after union
Clearance	Formal clearance from Dr. Merritt

Functional testing

- Active range of motion compared with the other side
- Shoulder strength: flexion, abduction, ER, IR
- X-ray healing at surgeon follow-up