



# FIX YOUR PRESSES GUIDE


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Master Your Shoulder Biomechanics

Expanded Edition: Exercise Library, Trigger Point Guide & Programming

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# 1. Introduction

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Pressing movements are fundamental to upper body strength. Whether you are overhead pressing, bench pressing, or performing push ups, the shoulder is doing the heavy lifting. But when shoulder pain creeps in, most lifters either push through it (making things worse) or abandon pressing entirely (losing strength and muscle). Neither approach works.

This guide takes a different path. Instead of just telling you to "fix your form," it walks you through the actual biomechanics behind why your shoulders hurt during presses, gives you specific corrective exercises with sets and reps, maps out the trigger points that contribute to pressing pain, and provides ready to use warm up protocols you can implement today.

***"The goal is not just to lift heavy weight, but to lift it intelligently and sustainably."***

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## 2. The Shoulder System: Beyond Ball and Socket

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The shoulder is not a single joint. It is an integrated movement system composed of four key structures that must work together for pain free pressing:

### **Humerus (upper arm bone)**

The "ball" of the ball and socket. Its position relative to the scapula determines whether you press cleanly or impinge soft tissue.

### **Scapula (shoulder blade)**

The "socket" side. It must rotate, tilt, and glide along the ribcage to keep the joint centered during pressing.

### **Ribcage**

The foundation the scapula rides on. Ribcage position directly affects scapular mechanics. A flared ribcage pulls the scapula out of alignment.

### **Thoracic spine**

The upper back. Thoracic extension creates the space the shoulder needs to move through its full range of motion.

## Scapulohumeral Rhythm

The coordinated movement between the scapula and humerus is called scapulohumeral rhythm. In a healthy shoulder, for every 2 degrees of humeral elevation, the scapula contributes about 1 degree of upward rotation. When this rhythm breaks down, the humeral head migrates superiorly into the subacromial space, compressing tendons and bursa. This is what most people experience as "impingement" or that pinchy feeling at the top of overhead presses.

The takeaway: impingement is usually a movement coordination problem, not a structural one. Fix the rhythm, fix the pain.

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## 3. Overhead Pressing Biomechanics

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Pain or a "pinchy" sensation during overhead pressing is frequently caused by restricted scapular movement. For a healthy and efficient overhead press, the scapula must perform three coordinated actions simultaneously:

**Upward rotation:** The inferior angle of the scapula swings outward and upward, keeping the glenoid fossa aligned with the humeral head as the arm elevates.

**Posterior tilt:** The top of the scapula tilts backward, opening up subacromial space and reducing impingement risk.

**Protraction (slight):** The scapula glides forward around the ribcage, allowing full overhead lockout without compensatory lumbar extension.

### The Serratus Anterior: Your Overhead Pressing Muscle

The serratus anterior is the primary driver of scapular upward rotation and protraction. It originates on the ribs (1 through 8 or 9) and inserts on the medial border of the scapula. When it fires properly, it pulls the scapula around the ribcage and locks it in position during overhead movements. When it is weak or inhibited, the scapula "wings" off the ribcage, the ribcage flares, and the shoulder compensates by hyperextending the lumbar spine.

### Coaching Cues for Overhead Pressing

■ **"Reach as you press"**

Actively push the ceiling away at lockout. This drives protraction and upward rotation, ensuring the scapula completes its full movement arc.

■ **"Let the shoulder blade move"**

Actively resist the urge to pin your scapulae down and back. The OHP requires scapular freedom, not rigidity.

■ **"Get long at the top"**

Instead of jamming the weight overhead, think about creating maximum distance between your ear and your shoulder at lockout.

■ **"Rotate your scapula up around the ribcage"**

Shift your focus from "lifting your arm" to "rotating your shoulder blade." This mental reframe often cleans up the entire movement pattern.

■ **"Exhale and stack at lockout"**

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A strong exhale at the top pulls the ribcage down, engages the core, and creates a stable column from hips to hands.

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## 4. Bench Pressing Biomechanics

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The bench press presents a unique biomechanical challenge: the bench itself restricts natural scapular movement. Unlike the overhead press where the scapula moves freely, the bench press demands scapular stability against a fixed surface. This means your setup is everything.

### Optimal Bench Setup Checklist

- **Scapular retraction and depression:** Pull your shoulder blades together and down toward your back pockets before you unrack. This creates a stable, elevated platform for pressing.
- **Controlled thoracic arch:** Arch through your upper back, not your lower back. The goal is to shorten the range of motion and optimize pec line of pull, not to create a bridge.
- **Ribcage control:** Your ribcage should remain "stacked" over your pelvis. A flared ribcage breaks the scapular connection with the bench and creates instability.
- **Elbow angle: 45 to 75 degrees:** The optimal tuck depends on your anatomy, but most lifters do best with a moderate tuck. Extreme flaring (90 degrees) overloads the anterior shoulder; extreme tucking stresses the triceps and reduces pec recruitment.
- **Bar path:** The bar should travel in a slight arc from the lower chest at the bottom to roughly over the shoulders at lockout.

### Coaching Cues for Bench Pressing

- **"Screw your shoulders into the bench"**

As you retract, think about rotating your shoulders externally into the pad. This locks the scapulae in place.

- **"Bend the bar"**

Grip the bar and try to "bend" it into a U shape. This activates external rotation and creates a more stable pressing groove.

- **"Push yourself away from the bar"**

Instead of pressing the bar off your chest, think about pushing your body into the bench. This cue helps maintain scapular retraction under load.

- **"Lead with the chest, not the shoulders"**

If you feel your shoulders rolling forward at the bottom, you have lost retraction. Reduce the weight and rebuild the pattern.

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## 5. Stability vs. Mobility

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One of the most common mistakes lifters make is applying stability cues to mobility movements and vice versa. Here is a clear breakdown:

Characteristic	Bench Press	Overhead Press	Push Ups
Scapular demand	Stability (fixed)	Mobility (free)	Mobility (free)
Scapula position	Retracted + depressed	Upwardly rotated + protracted	Protracts at top, retracts at bottom
Ribcage role	Slightly extended (arch)	Stacked / neutral	Stacked / neutral
Core demand	Leg drive + arch stability	Anti-extension brace	Plank stability
Key muscle	Rhomboids / mid traps	Serratus anterior	Serratus anterior

A well rounded pressing program includes both categories. If you only bench and never overhead press or do push ups with protraction, you are training scapular stability without ever training scapular mobility. This imbalance is a common driver of the "front of shoulder" pain that bench press specialists develop.

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## 6. Common Mistakes and Fixes

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### ✗ **Mistake:** Pinning the scapula down and back during OHP

**Why it happens:** This locks the scapula in place and prevents the upward rotation needed for full overhead range of motion. The humerus runs out of room and impinges.

✓ **Fix:** Allow the scapula to move. Use the "reach as you press" cue. If this feels unfamiliar, practice wall slides and serratus push ups first.

### ✗ **Mistake:** Losing scapular retraction during bench press

**Why it happens:** When the scapulae protract mid-rep, the shoulders roll forward. The anterior shoulder takes over as the prime mover instead of the pecs.

✓ **Fix:** Practice the "push yourself away from the bar" cue. Record yourself from the side. If your shoulders visibly roll forward at the bottom, reduce load until retraction holds.

### ✗ **Mistake:** Flaring the ribcage on any pressing movement

**Why it happens:** A flared ribcage disconnects the scapula from its foundation. The core loses tension, the lower back compensates, and the shoulder joint becomes unstable.

✓ **Fix:** Exhale hard before pressing. Think about pulling the front of your ribcage toward your pelvis. Imagine closing the space between your lowest rib and your hip bone.

### ✗ **Mistake:** Hyperextending the lower back during OHP

**Why it happens:** This is almost always a serratus anterior problem. When the serratus cannot pull the scapula into full upward rotation, the body compensates by leaning back to "reach" overhead.

✓ **Fix:** Strengthen the serratus anterior directly (wall slides, serratus push ups). Practice pressing with your back against a wall to build awareness of spinal position.

### ✗ **Mistake:** "Front of shoulder" pain during bench press

**Why it happens:** Usually caused by poor timing between the humerus and scapula during the descent. The humeral head glides forward as the bar lowers, stressing the anterior capsule and biceps tendon.

✓ **Fix:** Slow down the eccentric. Use a 3 second lowering phase. Focus on "pulling" the bar to your chest using your lats, not just letting it drop.

### ✗ **Mistake:** Ignoring snapping or popping sounds

**Why it happens:** While often benign, these sounds indicate that tendons or bursae are catching on bony structures. This happens when scapulohumeral rhythm is off.

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✓ **Fix:** Incorporate the warm up protocols in Section 9. If popping persists after 2 to 3 weeks of consistent warm up work, consider a movement assessment from a qualified professional.

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## 7. Exercise Library: Scapular Health and Shoulder Prep

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These exercises directly address the movement deficits that cause pressing pain. They are organized by function so you can select the ones most relevant to your needs.

### Serratus Anterior & Scapular Protraction

#### ■ Serratus Wall Slide

**Target:** Serratus anterior activation, upward rotation patterning

**Programming:** 2 to 3 sets of 8 to 12 reps, slow and controlled

**Execution:** Stand facing a wall with your forearms flat against it, elbows at shoulder height. Slide your arms upward while pressing your forearms firmly into the wall. At the top, actively push your shoulder blades apart (protract). Hold the top position for 2 seconds. Slowly reverse.

*Coach Note:* If you feel the burn in your upper traps instead of the side of your ribcage, you are shrugging. Drop your elbows lower and focus on the pushing into the wall.

#### ■ Scapular Push Ups (Serratus Push Ups)

**Target:** Serratus anterior strength, scapular protraction and retraction control

**Programming:** 2 to 3 sets of 12 to 15 reps

**Execution:** Start in a plank position with arms locked out. Without bending your elbows, let your chest sink toward the floor by allowing your shoulder blades to come together (retract). Then push the floor away, spreading your shoulder blades as far apart as possible (protract). The movement is entirely in the scapulae, not the elbows.

*Coach Note:* Elevate your hands on a bench or countertop to regress. Add a band around your back to progress.

#### ■ Bear Crawl Hold with Protraction

**Target:** Serratus anterior endurance, core integration, scapular stability

**Programming:** 2 to 3 sets of 20 to 30 second holds

**Execution:** Set up on hands and knees with knees hovering 1 inch off the floor. Push the floor away hard, spreading your shoulder blades. Hold this protracted position while breathing normally. Do not let the shoulder blades collapse inward.

*Coach Note:* This is an excellent warm up for both bench and overhead pressing days.

#### ■ Serratus Anterior Punch (Cable or Band)

**Target:** Serratus anterior strength through range, dynamic protraction

**Programming:** 2 to 3 sets of 10 to 12 reps per arm

**Execution:** Stand with a cable or band at chest height behind you. Press forward in a punching motion, but at the end of the press, actively reach further by protracting the shoulder blade. Hold the fully

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protracted position for 1 to 2 seconds. Return slowly.

*Coach Note:* Keep the ribcage down and avoid rotating the trunk. The extra reach at the end is where the serratus does its work.

## Scapular Retraction & Mid Back

### ■ Band Pull Aparts

**Target:** Rhomboids, mid/lower traps, posterior deltoid, scapular retraction

**Programming:** 2 to 3 sets of 15 to 20 reps

**Execution:** Hold a light resistance band at shoulder height with arms extended. Pull the band apart by squeezing your shoulder blades together. Pause at end range for 1 second. Return slowly. Keep your ribcage stacked (do not flare).

*Coach Note:* Vary the angle: at forehead height targets lower traps more; at hip height targets rhomboids more.

### ■ Scapular Pull Ups

**Target:** Lower trap activation, scapular depression and retraction under load

**Programming:** 2 to 3 sets of 8 to 12 reps

**Execution:** Hang from a pull up bar with straight arms. Without bending your elbows, pull your shoulder blades down and together (depress and retract). You should rise 1 to 2 inches. Hold the top for 1 second, then slowly release back to a dead hang.

*Coach Note:* This exercise is essential for lifters who lack scapular control under load. If you cannot do these smoothly, your overhead press and bench press will both suffer.

### ■ Prone Y Raise

**Target:** Lower trapezius activation, overhead scapular control

**Programming:** 2 to 3 sets of 10 to 12 reps

**Execution:** Lie face down on an incline bench (30 to 45 degrees). With thumbs pointing up, raise your arms in a Y shape overhead. Squeeze the lower traps at the top. Hold for 2 seconds. Lower slowly.

*Coach Note:* Use very light weight or no weight initially. If you feel this in your upper traps or neck, the load is too heavy.

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## Rotator Cuff & Shoulder Stability

### ■ Side Lying External Rotation

**Target:** Infraspinatus, teres minor (external rotators of the rotator cuff)

**Programming:** 2 to 3 sets of 12 to 15 reps per side

**Execution:** Lie on your side with your working arm on top, elbow bent to 90 degrees and tucked against your side. Rotate your forearm upward (externally rotate) while keeping the elbow pinned to your side. Slowly lower. Use a light dumbbell (3 to 8 lbs for most people).

**Coach Note:** This is a small, controlled movement. If you need to use momentum or your body rolls backward, the weight is too heavy.

### ■ Banded External Rotation at 90/90

**Target:** Rotator cuff strength in the pressing position, dynamic shoulder stability

**Programming:** 2 sets of 10 to 12 reps per side

**Execution:** Attach a band at elbow height. Stand sideways to the anchor. Raise your arm to 90 degrees of abduction with elbow bent 90 degrees (like a field goal position). Rotate your forearm from pointing down to pointing up against the band resistance. Control the return.

**Coach Note:** This directly mimics the shoulder position during pressing. Excellent pre-bench activation.

### ■ Turkish Get Up (Partial: Floor to Elbow)

**Target:** Full shoulder stabilizer integration, rotator cuff endurance under load

**Programming:** 2 sets of 3 to 5 reps per side

**Execution:** Lie on your back with a kettlebell pressed to lockout in one hand. Roll to the opposite elbow while keeping the kettlebell directly over the shoulder. Pause at the elbow position for 3 seconds. Reverse slowly back to the floor.

**Coach Note:** Use a shoe on your fist before adding load if this is new to you. The goal is shoulder stability, not maximal weight.

## Thoracic Mobility

### ■ Foam Roller Thoracic Extension

**Target:** Thoracic spine extension, improved overhead range of motion

**Programming:** 2 sets of 8 to 10 reps, plus 30 second hold at end

**Execution:** Place a foam roller perpendicular to your spine at mid back level. Support your head with your hands. Extend over the roller, allowing your upper back to open up. Do not extend through the lower back. Move the roller up or down to address different segments.

**Coach Note:** Pair this with deep breathing. Inhale as you extend over the roller, exhale as you return to neutral.

### ■ Open Book (Side Lying Thoracic Rotation)

**Target:** Thoracic rotation, pec/anterior shoulder stretch

**Programming:** 2 sets of 8 to 10 reps per side, with 3 second hold at end range

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**Execution:** Lie on your side with knees stacked and bent to 90 degrees. Start with both arms extended in front of you. Open the top arm up and over, rotating through the thoracic spine, trying to touch the floor on the other side. Follow your hand with your eyes. Exhale as you open.

*Coach Note:* If your knees lift off each other, your rotation is coming from the lumbar spine, not the thoracic. Press the bottom knee into the top to anchor.

## ■ Cat Cow (Segmental Focus)

**Target:** Spinal segmental mobility, scapular awareness

**Programming:** 1 to 2 sets of 10 reps, slow and deliberate

**Execution:** On all fours, move through flexion (cat) and extension (cow) slowly, trying to articulate one vertebra at a time. Spend extra time in the upper back segments. During the "cow" phase, actively pull the shoulder blades together. During "cat," push them apart.

*Coach Note:* Use this as a movement awareness tool, not just a stretch. The slower you go, the more you get from it.

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## 8. Trigger Point Release Guide

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Trigger points are hyperirritable spots within taut bands of muscle that refer pain to predictable locations. The following trigger points are the most common contributors to pressing related shoulder pain. Use a lacrosse ball (or similar firm ball) for all release work.

### General Technique

Place the lacrosse ball between your body and a wall (or the floor). Find the tender spot. Apply moderate pressure (discomfort level 5 to 7 out of 10, never sharp pain). Hold for 30 to 90 seconds until you feel the tissue release (a noticeable softening or reduction in tenderness). Then move to an adjacent area. Spend no more than 2 to 3 minutes total per muscle group.

***"If it hurts in a "good hurt" way, you are in the right spot. If it feels sharp, electric, or makes you want to pull away, you are on a nerve. Move the ball."***

### Key Trigger Points for Pressing Pain

#### ● Infrapinatus

**Where to find it:** On the back of the shoulder blade, in the meaty area below the spine of the scapula. There are typically two primary trigger points: one near the medial border (closer to the spine) and one near the center of the muscle belly.

**Referral pattern:** Deep anterior shoulder pain, pain down the front of the arm, difficulty reaching behind the back. This is one of the most common mimics of "rotator cuff pain."

**Technique:** Lean against a wall with the lacrosse ball positioned on the back of your shoulder blade. Roll slowly until you find the tender spot. Hold and breathe. Cross your arm across your chest to expose the muscle more.

#### ● Subscapularis

**Where to find it:** On the underside of the scapula (between the scapula and the ribcage). Access it by reaching into the "armpit" area from the side, just behind the fold of the lat.

**Referral pattern:** Posterior shoulder pain, restricted internal rotation, pain at rest that worsens with pressing.

**Technique:** Place the lacrosse ball between your side (just behind the armpit fold) and a wall. Lean in gently. This area is sensitive, so start with low pressure. You can also use your thumb to apply direct pressure in the armpit region while lying down.

#### ● Upper Trapezius

**Where to find it:** The meaty area between your neck and the tip of your shoulder. The primary trigger point is usually halfway between the two, slightly posterior.

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**Referral pattern:** Headaches, neck tension, "carrying stress in your shoulders" feeling, pain that radiates to the temple or behind the ear.

**Technique:** Place the ball between your upper trap and a wall. Lean in and hold. You can also simply press into this area with your opposite hand while tilting your head away to create a stretch/compression combination.

### ● Pec Minor

**Where to find it:** Just below the collarbone, about 3 to 4 inches from the sternum, angled slightly toward the armpit. The muscle attaches to the coracoid process of the scapula and ribs 3 through 5.

**Referral pattern:** Front of shoulder pain, rounded shoulder posture, difficulty achieving full overhead range. A tight pec minor tilts the scapula anteriorly, directly opposing the posterior tilt you need for overhead pressing.

**Technique:** Face a wall corner or doorframe. Place the lacrosse ball on the pec minor (just below the collarbone, lateral to the sternum). Lean in gently. This area bruises easily, so use moderate pressure. Roll slowly.

### ● Posterior Deltoid / Teres Minor Region

**Where to find it:** The back of the shoulder, just below and behind the bony tip of the shoulder (the acromion). The teres minor sits between the infraspinatus above and the teres major below.

**Referral pattern:** Localized pain at the back of the shoulder, pain during the eccentric phase of pressing, difficulty controlling the lowering portion of bench press.

**Technique:** Lie on your back with the lacrosse ball under the back of your shoulder. Adjust position to find the tender spot between the deltoid and the rotator cuff muscles. Small arm movements (internal/external rotation) while on the ball can help pin and release the tissue.

### ● Lat / Teres Major

**Where to find it:** Along the outer edge of the scapula and the side of the ribcage, roughly at armpit level. The teres major is just above where you feel the lat "shelf" when you flex.

**Referral pattern:** Pain reaching overhead, restricted shoulder flexion, compensatory lumbar extension during overhead press. Tight lats directly limit overhead range of motion.

**Technique:** Lie on your side with the lacrosse ball under your armpit area, just behind the lat fold. Roll slowly along the outer border of the scapula. You can extend the arm overhead while on the ball to increase the stretch effect.

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## 9. Sample Warm Up Protocols

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These protocols take 8 to 12 minutes and are designed to be performed immediately before pressing. Choose the protocol that matches your training day.

### Pre Overhead Pressing Warm Up

Order	Exercise	Sets x Reps
1	Foam roller thoracic extensions	2 x 8 reps + 30s hold
2	Open book thoracic rotation	2 x 8 per side
3	Lacrosse ball infraspinatus release	60 to 90 seconds per side
4	Lacrosse ball pec minor release	60 seconds per side
5	Serratus wall slides	2 x 10
6	Scapular push ups	2 x 12
7	Band pull aparts	1 x 15
8	Empty bar OHP with exaggerated reach at top	2 x 8

### Pre Bench Pressing Warm Up

Order	Exercise	Sets x Reps
1	Foam roller thoracic extensions	2 x 8 reps
2	Lacrosse ball infraspinatus release	60 to 90 seconds per side
3	Lacrosse ball posterior deltoid/teres minor release	60 seconds per side
4	Band pull aparts	2 x 15
5	Banded external rotation at 90/90	2 x 10 per side
6	Side lying external rotation	1 x 12 per side
7	Scapular retraction holds on bench (no weight)	3 x 10 second holds
8	Empty bar bench with 3 second eccentric	2 x 8

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# 10. Programming Your Pressing

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Knowledge without application is just entertainment. Here is how to integrate everything from this guide into your actual training.

## If You Currently Have Shoulder Pain

Reduce pressing volume and intensity by 30 to 50 percent. Replace the removed sets with corrective work from the exercise library. Perform the relevant trigger point release before every session. Gradually reintroduce pressing volume over 3 to 4 weeks as pain decreases. If pain does not improve within 2 to 3 weeks, consult a qualified professional (physical therapist or sports medicine physician).

## If You Are Pain Free and Want to Stay That Way

Perform the appropriate warm up protocol before every pressing session. Include 2 to 3 exercises from the exercise library as part of your warm up or as accessory work. Alternate between overhead pressing and bench pressing emphasis across training blocks to develop both scapular stability and mobility. Perform trigger point release 2 to 3 times per week on your most restricted areas, even on non training days.

## Weekly Template Example

### Day 1: Upper (Bench Focus)

Pre bench warm up protocol. Bench press: working sets. Accessories: rows, lateral raises. Finish: scapular push ups 2 x 15.

### Day 2: Lower

Include cat cow and thoracic rotation during warm up to maintain mobility.

### Day 3: Upper (OHP Focus)

Pre OHP warm up protocol. Overhead press: working sets. Accessories: pull ups, face pulls. Finish: serratus wall slides 2 x 12.

### Day 4: Lower

Trigger point release: infraspinatus and pec minor, 90 seconds each side.

### Off Days

Thoracic foam rolling and trigger point work. 10 minutes maximum. No pressing.

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***"Consistency with the basics beats perfection with the advanced. Do the warm up. Do the trigger point work. Your shoulders will thank you in six months."***

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## 11. About the Author

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This guide was created by @Costafitnessllc, a fitness coach dedicated to helping lifters train smarter by understanding the biomechanics behind the movements they perform every day. The approach is simple: understand why something works (or does not), apply the fix, and get back to building strength without pain.

## TAKE THE NEXT STEP

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This guide gives you the framework. Personalized coaching gives you the execution.

- Follow @Costafitnessllc on Instagram for daily tips and movement breakdowns
- DM "PRESS" on Instagram for a free shoulder mobility assessment
- Explore one on one online coaching at [costafitnessllc.com](https://costafitnessllc.com)

**Your journey to stronger, pain free presses starts now.**