Six Reasons You Have Shoulder Pain When Bench Pressing
Why Do My Shoulders Hurt When Benching?

The #1 reason that athletes avoid (or dislike) the bench press exercise, is shoulder pain. Specifically, a deep achy pain experienced in the front of the shoulder. There are several possible reasons for this pain, but the problem is the same: a nagging pain that occurs when you lower the bar to your chest, a pain that you need to push through, in order to raise the bar back to the start position. This book will review the six most common causes of shoulder pain when bench pressing, as well as discuss the appropriate treatments for each cause.

Cause #1: Too much/too soon (or simply too much volume).

Let’s start with the obvious. If your body isn’t properly adapted to a load (which occurs over time), there exists the possibility of tearing a pectoral muscle or straining one of your shoulder muscles as you attempt to bench press an inappropriate weight. This gradual increase of stress put onto the body during weightlifting is termed **progressive overload**. Muscle growth aka hypertrophy as well as bone, ligament, tendon, and cartilage strength are stimulated via progressive overload. Circulation and nerve connections between the brain and the involved muscles are also increased via this principle. If an athlete doesn’t build up strength slowly, overtraining can result, which can present with many symptoms including feelings of depression, fatigue, sluggishness, irritability, and a sudden decreased motivation to exercise.
**Treatment #1.**

Create progressive overload by increasing the weight that you lift slowly, do not jump up more than five pounds each benching day. Yes, that means busting out those wimpy 2.5 pound plates! You may feel silly putting those onto the ends of the barbell, but your patience will pay off as you make slow, steady gains. Ramping up more quickly than that is recipe for injury (not to mention frustration once you quickly hit a plateau). In terms of volume, three working sets is plenty to build strength. One or two warm-up sets with lighter weights are allowed, even encouraged, but there’s no need to do more than three heavy sets. Adding additional sets can cause acute shoulder pain during bench pressing, as well as unnecessary pain or soreness 24-48 hours later (DOMS aka Delayed Onset Muscle Soreness).

**Periodization** is one technique that can help stave off overtraining, and incorporates such methods as varying the weights of an exercise over time, allowing for adequate recovery, and mixing up the strength training program so that the athlete is not doing the same exercise too often. If the only chest exercise that you perform is the bench press, you may want to incorporate some of these principles of periodization, or work with a coach who is familiar with programming and can help you design a healthy weightlifting program.

The phrase “Terrible twos” doesn’t just apply to stormy, cranky toddlers. Too much/too soon in bench pressing can feel like a full-blown tantrum in your shoulders. Four possibilities to prevent the terrible twos include:

1. Take a few extra rest days.

2. De-load your bench pressing:
   a. After several weeks of slow steady gains, back-off 10-15% for two weeks
   b. Vary the number of sets and the repetitions per set for less overall volume
3. Switch up the bench press with one of the following:
   a. Bodyweight or weighted pushups
   b. Decline bench press
   c. TRX chest presses or pushups
   d. Dynamic chest work (medicine ball passes, plyometric pushups)

4. Assure proper recovery (see next section).
**Cause #2: Improper recovery.**

The strength and volume of a muscle are not created during bench pressing. The strenuous contractions actually break-down the muscle fibers, whereas it is the recovery time that allows for the muscle cells to repair and grow. Skeletal muscles need between 24 and 48 hours for proper recovery, which is why it is common advice to avoid performing exercises that work the same muscle group on back-to-back days.

**Treatment #2.**

In addition to rest, nutrition plays a critical role in muscle recovery. Eat adequate protein (especially in the one hour post-workout window) to allow the muscle fibers to repair themselves during their resting period. Animal protein sources could include eggs, chicken, turkey, fish, beef, or pork. Non-animal sources of protein usually come from dairy or grains (or questionably healthy protein powders). While some athletes feel just fine after drinking a glass of milk or eating some cottage cheese or a bowl of quinoa, others discover that they feel bloated, lethargic, or heavy after consuming those foods. There is fair evidence that grains and dairy may contribute to systemic inflammation in the body, so you may want to experiment with eliminating these foods and beverages if you suspect you are sensitive. A functional medicine specialist can help you identify which foods you might be sensitive to, and can help you develop an individual nutrition protocol that will help you recovery more optimally.

Drinking plenty of water is also important to helping your body stay hydrated during the recovery process. If you were to view this on a molecular level, the biochemical pathway that drives protein synthesis, requires the building blocks found in water, do proceed efficiently. It’s important to know that sometimes, plain water is just not enough to replenish fluids lost through exercise. This may not apply to every weightlifting session, but since most people who strength train also engage in cardiovascular activities, it is good to know that you may need to replenish your sodium stores after a sweaty workout.

Other crucial factors to muscle and joint recovery include getting enough sleep, managing your stress, and engaging in some variation of mind-body activity (yoga, meditation, tai chi etc.)
**Cause #3: Improper form.**

**Treatment #3.**

There are three big mistakes that lifters make on the bench press:

**A: Elbows flared out**

If you allow your elbows to flare out to your sides, you place your shoulders in a more internally rotated position. Since internal rotation under heavy load can cause shoulder impingement (experienced as pain in the front of your shoulder), you’ll want to be mindful about keeping your elbows tucked in closer to your body. They won’t actually touch your ribs, but send them in that direction. There’s actually a trick to getting this alignment correct: set your foundation first, and your shoulders will naturally be in an ideal position and you won’t have to think to hard about where your elbows are in space. Let’s look at setting a proper foundation:

**B: Unstable foundation**

Plant your feet on the ground. Don’t put them up on the bench, don’t lift them in the air. Just plant them firmly on the ground! Shorter than 5’6” or have short legs? Place two 45 pound plates on the ground, and then plant your feet atop the plates. You will want to use your legs to help drive the movement so you need to feel secure in your ground contact. Next thing, arch your back as much as feels comfortable; there will be space between your low back and the bench, and your glutes and shoulder blades will remain in contact with the bench. Squeeze your shoulderblades together and pull your arms all the way back into their sockets. Having trouble picturing this? Lie on your back, and then reach your arms up so your fingertips reach for the ceiling. Now, reach two inches higher! You get this extra reach by protracting your shoulder blades. This is sometimes the position that novice weightlifters will adopt when reaching up to unrack the bar, but it is the exact opposite of proper form for the lift! From here, keep your arms straight, and imagine that you could drop the top of your arm bone directly into the cup of your shoulder. Finally, squeeze your rhomboid muscles to pinch your shoulder blades together underneath you. A final cue is to think about pulling the bar apart just before you lower it. That’s your bench pressing position: retracted shoulder blades and arched back. This also prevents the top of your shoulder from rolling anteriorly (forward), which would shorten the pectoralis minor muscle, creating aberrant shoulder biomechanics.
TIP #1: You will benefit from receiving a lift-off (hand-off) from a spotter so you can maintain this close-packed shoulder arrangement. If you’re lifting the bar off the supports on your own, you may need to reset your shoulder position once you get the bar steadied at the top of your lift.

TIP #2: If this shoulder set-up isn’t feeling natural to you just yet, you can practice this on a foam roller. Place it lengthwise along your spine. Plant your feet on the ground, arch your back, and then pull your shoulder blades together and feel them “wrapping” tightly around the roller. Keep your arms straight. Release the squeeze and reach up towards the ceiling, protracting your shoulder blades, and then go back and forth several times to really understand the difference between scapula protraction and scapular retraction.

C: Touching your chest on every rep

For a lift to be considered valid in a powerlifting competition, the athlete must touch the bar to their chest, and then wait for the “green light” to lift the bar off their chest. These details of judging were developed to attempt to standardize the bench press exercise and to assure that no lifter was “cheating” by bouncing the bar off their chest. There are certain sacrifices that every athlete must decide whether they are willing to endure during the pursuit of personal or team records. For most people’s anatomy and biomechanics, lowering the bar all the way to their chest, creates a dangerous position for the shoulder to press a load. Getting the bar all the way down creates some internal rotation in the shoulder as well as forward translation of the top of the arm bone in the shoulder socket.

To geek out on biomechanics for a moment: for a muscle to generate optimal force at a joint, the bones must be properly centrated, that is, their surfaces need to be in the most optimal contact. When the humerus translates forward, it throws off the centration of the joint, preventing the muscles that attach to the arm and shoulder bones from generating proper force, and placing the shoulder in a position that invites injury. The acute risks are tearing a pectoral muscle, tearing a deltoid muscle, or causing damage to the joint capsule of the shoulder.

There is a second category of risks that is lesser known. This is the cumulative effect of repetitive motions performed from a compromised shoulder position. These risks would include shoulder impingement and rotator cuff strain. There are tricks designed to lessen the distance between the top position of the bar and the lifter’s chest, such as positioning the spine in an extremely arched position,
and taking an extra wide grip on the barbell. Also, for individuals with very large or barreled chests, this issue presents less of a problem.

Powerlifters who wish to set records in competitions accept these risks as part of the sport, but for the majority of gym-goers, there is no need to lower the bar all the way to the chest. Take a video of your next lift or ask a friend to watch you, and then make sure you stop when you reach a 90 degree bend at your elbows.
**Cause #4: Muscle imbalance.**

Even with proper form and adequate recovery, if you are pushing more than you are pulling, you are setting yourself up for shoulder pain and dysfunction due to muscle imbalance between the anterior chest and shoulder muscles and the posterior shoulder and back muscles. This imbalance is often referred to as **Upper Crossed Syndrome**.

**Treatment #4.**

Make sure you are doing some version of horizontal pull for every horizontal push and likewise: one vertical pull for every vertical push.

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It’s also crucial to add in at least one rotator cuff exercise each “push” day, to assure proper shoulder health.
Rotator Cuff Exercise Options  
(Choose your favorite equipment)

Tuck a rolled-up hand towel into your armpit before you begin these exercises, this will keep your shoulder in the correct position. Pick one of these three options, and perform 3 sets of 15. Use very light resistance for these! Descriptions are for right shoulder rotator cuff strengthening. Reverse directions for left side.

Option 1, Cable machine:
Set the cable machine to it's lightest setting. Stand in between the two cable stands, so that you could easily grab one with each hand. Use your right hand to reach across to grab the handle on your left. Return your body to the starting position and slowly step to your right until you feel adequate tension on the cable when your right elbow is tucked into your side at a 90° bend and your hand is facing forward.

Slowly externally rotate (pull your right hand out towards your right side) against the resistance of the cable. Slowly return your hand to the starting position. There shouldn’t be any “bicep-curl” action happening, rather your elbow should stay at 90° throughout the motion.

Now you can use that same cable for this internal rotation exercise, just position your body so you are facing the opposite way. Your starting position will be your right hand swung out to the side (remember elbow is still bent), and then you will internally rotate (pull your right hand in towards the midline) until it ends up in front of your elbow. Slowly release the tension to return to the starting position.

Option 2, Thera-band tubing:
Anchor tubing securely to your left (at elbow level). Grab the end with your right hand, and proceed as you would in the cable machine option.

Option 3, Dumbbell:
Hold a light dumbbell (2 to 5 pounds) in your right hand, and then lie prone on a table with your right arm hanging off to the side and your elbow bent to 90° and supported with a small pillow or towel. Keeping your elbow stationary, raise and lower the weight in an arc from full external rotation to full internal rotation. Repeat for 3 sets of 15 arcs.
If you are experiencing any shoulder pain during bench pressing, de-load your bench pressing for a few weeks and focus on pull exercises and rotator cuff rehab. If the issue still doesn’t resolve, a sports chiropractor can help you determine the exact cause of your pain and set you in the right direction for treatment and rehab so you can get back to bench pressing pain free.

**Cause #5: Joint fixation.**

**Treatment #5:**

This isn’t the most common reason for shoulder pain when bench pressing, but when fixation (subluxation) is present in either the shoulder or the thoracic spine, restoring normal motion to the involved joint(s) brings huge relief to the painful shoulder(s). If you’ve perfected your form, allow for proper recovery, are pressing an appropriate load, and are balancing your pushing with your pulling, this may be what’s holding you back. A sports chiropractor can perform an exam to find out whether you have joint fixation, and would perform the appropriate adjustment(s) to restore the biomechanics of the area.

**Cause #6: Soft tissue adhesion and/or trigger points.**

Any time a muscle becomes chronically overworked or overused, it tightens up, receives decreased supply of circulation, and if left untreated, develops scar tissue (adhesion) that limits range of motion, decreases muscle firing time, and causes pain. Common muscles in the upper body that develop adhesion are the pectoralis major, pectoralis minor, anterior deltoid, and the infraspinatus and teres minor muscles of the rotator cuff.

In addition to developing adhesion, muscles can also develop trigger points. Trigger points are taut, irritable bands (knots) that develop in a muscle when it is injured or overworked. Commonly a cause of joint pain, they are known to cause headaches, neck and jaw pain, low back pain, tennis elbow, and carpal tunnel syndrome. They are usually sensitive to pain when compressed, and may send referred pain to other specific parts of the body.

Trigger points are slightly different than a muscle spasm. A muscle spasm is an entire muscle contracting vigorously, whereas a trigger point is a local twitch response concentrated in a small point within a muscle.
The good news is that you can generally use the same tools to address both adhesion and trigger points. If you notice any tenderness or tightness in any of these muscles, your first line of action should be self-myofascial release followed by static stretching.

**Treatment #6.**

**Self Myofascial release (self massage) for trigger points:**

Trigger point therapy can reduce the discomfort associated with trigger points. This is done by applying pressure directly to the trigger point. Find the trigger points by palpating your tissues for areas of “knots” and discomfort. Hold pressure at each trigger point for 30 seconds or until the tenderness dissipates. This technique also generally helps to breakup adhesions.

**What tools should I use for treating my trigger points?**

- Fingers/elbow/knuckles
- Foam roller
- Handheld tool
- Theracane
- Tennis ball, hard rubber ball, racquetball
Is it time to call in a professional?

If you can’t locate the source of your pain, or repeated self-treatments aren’t lessening your pain, it’s time to call in an Active Release Techniques (ART) specialist. ART certified sports chiropractors are trained to locate the problematic muscles and treat them appropriately to reduce the adhesion and allow you to bench press without pain.

How is your bench pressing going? Continuing to hit PRs? Or experiencing nagging shoulder pain? What steps are you going to take to resolve your pain? If you have any questions please feel free to send an email to Dr. Sandy Baird at info@riverstonechiropractic.com.