The Complete

Shoulder Injury Guide

From Injury to Independence through Exercise

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About the Author

Dr. Kareem Samhouri is the president and owner of Global Fitness LLC. Through his company people are able to realize complete wellness, as they serve nutrition, massage, physical therapy, and personal training. Dr. K is a graduate of the University of Miami Doctor of Physical Therapy program and has earned a bachelor's of science from the Pennsylvania State University in Kinesiology. Additionally, Dr. K is a licensed physical therapist and holds a Health and Fitness Instructor certification from the internationally recognized American College of Sports Medicine.

Dr. K has worked in some of the best hospitals, rehabilitation facilities, outpatient physical therapy services, and elite performance gyms in the United States. He has taught personal trainers and physical therapists alike in their roles as one, united front in the best interest of the patient/client. Dr. K has spent his career surrounding himself with only *the best in his field* and intends to provide you with *the best* information out there.

Dr. K has trained countless clients in the fitness industry, while mentoring and teaching other fitness professionals at the same time. He speaks regularly to corporations and individuals on improving well being at the workplace. He is a dynamic and interesting speaker. Most recently, Dr. K has realized the necessity of bridging the gap between physical therapy and personal training. He has been recognized on many occasions as *the expert* in creating this bridge.

Dr. K is also an avid supporter of many charities and associations. He regularly endorses and donates to the following organizations: American Diabetes Association (ADA), Women's Fund, Phlare Magazine (for corporate women), American College of Sports Medicine (ACSM), American Physical Therapy Association (APTA), MS Society, Philadelphia Expo to combat Childhood Obesity, Miami-Dade Children with Disabilities, the Foundation for Physical Therapy, the Special Olympics, and the Para Olympics.

Before you Begin: Need Immediate Relief?

"Wait! Dr. K, I'm in too much pain right now. I'm going to go to the doctor… I really am, but is there anything that I can do right now to take away some of the pain? My shoulder hurts all day every day and I don't have an appointment for another week. There must be something that I can do…"

Yes, the good news is that I do have suggestions for you, but first you have to ask yourself certain questions:

1. Has the pain gotten much worse very recently?
2. Am I having trouble walking?
3. Are my arms or legs feeling weaker than usual?
4. Have I had any change in my bowel or bladder habits?
5. Do I have numbness or tingling into my arms or hands?
6. Could I have injured my neck at the same time I injured my shoulder?

If you have answered yes to any one of these questions, you must go to the emergency room. Do not wait for your doctor's appointment. It's simply not worth the risk.

On the other hand, if you were able to answer 'no' to all of the questions above, I recommend you do the following:

Choose Ice over Heat

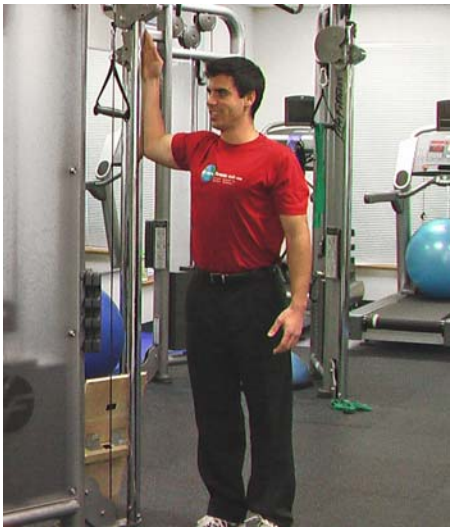
If there is even a chance that you recently aggravated your shoulder, you should definitely choose ice instead of heat. Heat may increase the amount of swelling that you have, despite the relaxing feeling that it produces. You should ice with a wet paper towel draped over your shoulder for 5-7 minutes at least. (please see below for further details on ice)

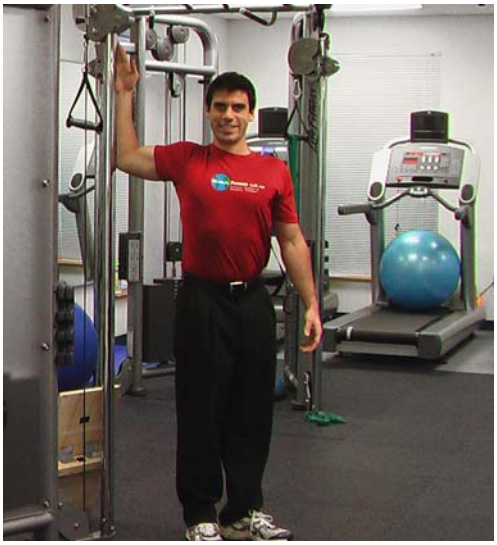
Pain-Free Movement as Much as Possible

It's very important that you keep your shoulder moving during times of injury. In order to properly deliver blood that is rich with nutrients it is essential that the shoulder keep moving in any pain-free way possible. On the contrary, if a movement does create pain, then your shoulder may become more swollen, further restricting blood flow and delaying healing. Even if you can't move your arm voluntarily without pain, you may want to use your other arm to help out or grab onto a stick and move them together.

Stretch your Chest

Your posture is very important when considering the mechanics of the shoulder. In order to reduce stress on the shoulder as much as possible, it is necessary to have as close to perfect posture as possible. One great way of achieving better posture, provided that this does not create pain, is by stretching the pectoral muscles in the chest. Follow the diagram below as I place my forearm against the wall with a ninety-degree angle at both my armpit and elbow. Now, I'm going to rotate away from my arm, further opening my chest, and stretching my pecs. Once I feel a light stretch, I simply hold for 30 seconds and then de-rotate slowly back towards the wall.





How to use the Complete Shoulder Injury Guide:

If you want to be successful with this guide, be sure to follow the directions EXACTLY as they are written.

It is important that you do not self diagnose. If you have severe shoulder pain, you should not use this book as a substitute for a real medical evaluation from a physician and/or a physical therapist.

This book is intended to serve as a guide to better understand the nature of your injury and provide you with an optimal set of exercises to increase the speed of healing. Through proper exercise you can strengthen all surrounding muscles, which provides more opportunity for the injured tissue to rest. Through rest and increased blood flow, which provides nutrients and oxygen to the injury site, your body becomes a natural healer and recovery time goes way down.

The exercise program included in this guide additionally serves for injury prevention. By following these exercise guidelines and performing these exercises on a regular basis you can greatly decrease the risk of injury. This isn't only important for athletes who need to play in every game, but also for people with families who want to play with their children, busy executives that need to be on the go, and weekend warriors.

Step 1:

Here are the 5 rules to the shoulder strengthening process:

1) Improve posture

2) Balance muscles around the shoulder

3) Rest what's injured

4) Stretch what's tight

5) Strengthen what's weak

You shouldn't be performing movements that cause you pain. Whenever a movement causes you pain, think of it on a scale of 0 to 10, where:

- 0 = no pain whatsoever
- 10 = emergency level pain
- Your goal is less than 3 out of 10

Whenever you have pain that is 3 out of 10 or less, the chances are you are not irritating the area as much as you are strengthening it. Therefore, you shouldn't have to worry about the after effects of swelling, etc. that would take place with 3 out of 10 pain.

If your pain climbs above 3/10 during any point during the workout, be sure to ice as soon as possible for 5-7 minutes, with a wet paper towel directly over your shoulder (single layer) and a bag of ice.

Note: You should attempt to avoid pain less than 3 out of 10, but this may occur. Icing stops inflammation, but it does not get rid of swelling. Therefore, the sooner you ice, the better. The wet paper towel makes the ice work better and deeper. Similar to electricity, the water increases conductance.

Hint: Before eliminating an exercise from your routine, be sure that you had proper posture during the exercise. This means:

- Light tension in your glutes and abs
- Chest out with shoulder blades pinched down and back.

Step 2:

Realize the power of a proper warm up. You should be spending a minimum of 5-7 minutes warming up (ideally 20 minutes.) Warm-up increases circulation to injured tissue and speeds up healing. Warm-up should be anything that doesn't cause pain in your shoulder. Great examples include:

- A brisk walk (if you can count to "Three one-thousand" without taking a breathe, you are going too slow.)
- Elliptical cross-trainer machine – with or without arm component depending on pain scale

- Stairmaster machine
- Recumbent bicycle

Step 3:

Begin strengthening program for your injury. Never go beyond 3 out of 10 pain.

Follow your exercise program in order:

Phase 1 **Phase 2** **Phase 3**

You should be exercising 4 or more days per week, using this program for at least 3.

Step 4:

Your shoulder exercises are now done. Perform the rest of your workout, with careful attention to avoid painful movements.

Remember, the more fit you are, the more your body becomes a natural healer. By choosing to improve your fitness level, you are cutting out most of the work.

If there was ever a time to focus on becoming fit, the time is NOW.

Too many people rest when they have an injury. It should be the opposite. If you have a shoulder injury, you should be sure to exercise more, not less.

You do not need to exercise your shoulder anymore. Your exercise program should consist of the rest of the exercises you would do, but your arms are now done.

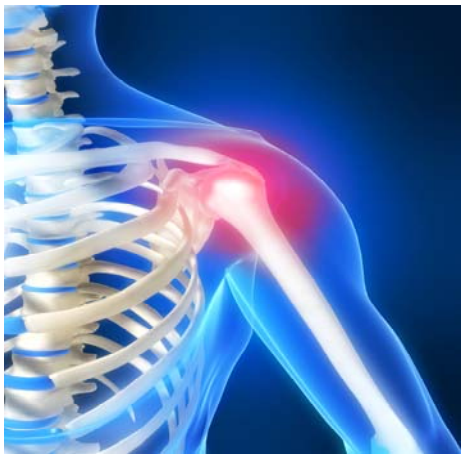
Muscles of the shoulder joint:

Understanding Injuries and Rehab for the Shoulders

Rotator Cuff Tendonitis – Supraspinatus, Infraspinatus, Teres Minor, Subscapularis = muscles of the rotator cuff (acronym = SITS)

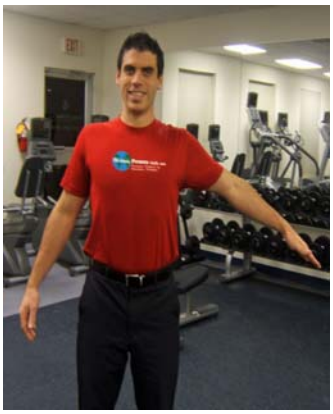
Classic Symptoms:

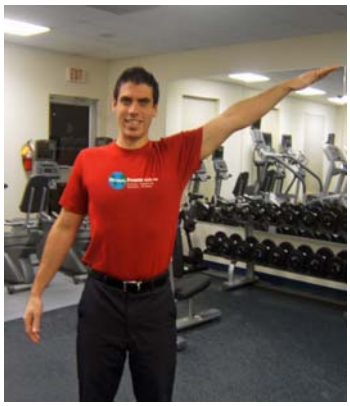
Pain in the top of the shoulder and down outside of upper arm.



Pain usually comes on “all of the sudden” or “over a period of days,” although this is a result of a gradual breakdown of the tissue.

Painful Arc





End Range Pain – top of the arc

This responds extremely well to a postural strengthening program, as is detailed in the exercise program below.

Some examples of daily tasks that will bother you if you have rotator cuff tendonitis: All overhead activities, reaching and grabbing, throwing, sleeping on your side, picking up a baby.

Possible Cause:

Rotator Cuff Tendonitis: Rotator cuff tendonitis is caused from overuse trauma. Examples of overuse activities causing this breakdown include: basketball, throwing sports, golf, tennis, heavy labor-intensive jobs, and repeated lifting in overhead positions.

Most of the time, this is a result of muscle imbalances and poor posture leading to eventual breakdown of one or more of the rotator cuff tendons. Because the tendon is where a muscle attaches to bone, it is much thinner and receives less blood supply. Areas with less blood supply have a harder time healing, and therefore require much more rest.

On the contrary to natural overuse and altered biomechanics (joint movement and position), some people have an inherited deformity of their shoulder blade. In particular, this is the part of your shoulder blade called your Acromion Process. There are three types: normal, flat, and hooked. Flat and hooked acromion processes cause more rubbing and eventual breakdown of the rotator cuff tendons through normal movement. In this case the only way to prevent a tear or create a solution for a present tear is by shaving down this roughened part of the acromion process.

Rotator Cuff Tear: Repeated overuse with one traumatic event causing tear. For example, you might have had tendonitis for several weeks or months, with a dull ache or pain in the top of

your shoulder, and then you tore your rotator cuff while playing basketball on the weekend or throwing a really fast pitch. There are several ways for your rotator cuff to tear, but normally it is a result of poor posture and muscle imbalances over time. In some cases, as in sports, it is possible for you to tear your rotator cuff from a blocked shot, being hit, or hitting someone with poor form.

Self Tests:

You may have rotator cuff tendonitis if you have pain with the following movements:

a) Resisted Abduction – palm towards hip, stand next to wall, with elbow straight, push back of hand directly into the wall.

b) Scaption – thumbs up, hands diagonally out in front of you with elbows straight, move your arms up and down. Repeat with thumbs down. (Hint: This is like picking up a can of soda diagonally in front of you and then dumping it out while keeping your elbow straight)

c) Abduction – palm in towards hip, raise arm out to your side slowly until your arm is next to your ear. If you have pain in the middle of this movement, you may have rotator cuff tendonitis.

d) Flexion – palm facing your stomach, raise arm straight out in front of you until your fingers are pointing straight in the air and your elbow is next to your ear. If you have pain in the middle of this movement, you may have rotator cuff tendonitis.

e) Drop Arm test – Raise your arm to 90 degrees of Abduction (straight out to your side), palm facing floor. Slowly lower your arm back down towards your hip ten times. If you have severe pain with this or you have difficulty controlling the speed of your arm, you may have a rotator cuff tear. Go see your doctor.

f) External rotation – laying on your side, painful side up; keeping your elbow pressed against your side, slowly raise back of hand up towards the ceiling.

g) Internal rotation – this is the same movement as unhooking your bra strap or reaching your hand towards the middle of your back.

How to Manage the Injury:

In order to allow this injury the best opportunity to heal, you'll need to work on posture first. Also, try to avoid overhead activities for at least a couple of weeks (i.e. reaching for a glass out

of a cabinet, taking things off of shelves, painting, changing lightbulbs, etc.) You should also follow the icing guidelines listed below. Try to hold objects close to your body with your elbow tucked in. This will put less stress on the rotator cuff. Lastly, try sleeping on your back with a pillow supporting both your head and your shoulders.

What Someone at Work Can Do:

You may want to place a pillow in your low back for extra support. By preventing slouching, you'll also be improving your shoulder posture. Some people even prefer a rolled up towel, placed vertically against their spines. Try to pre-position objects within reach so that you can minimize the stress on your rotator cuff throughout the day. Take frequent breaks (i.e. 2 minutes per hour.) You'll also want to follow the pec stretches that are listed below. Lastly, try to ice at least once throughout the day.

Special Concerns:

Try not to play any aggressive sports for the time being. Also, shoulder pain can sometimes mask problems that are really beginning at the neck. Likewise, shoulder pain can also lead to a sore neck. If you have any concern about your neck whatsoever, be sure to have that evaluated as well. Common signs of nerve involvement from the neck include:

a) Loss of balance

b) Dizziness

c) Numbness/tingling into arms/hands

d) Weakness of arms/legs

e) Nausea

f) Severe headache

g) Blurry vision

If you have any of these signs, be sure to be checked by your physician as soon as possible.

What to Expect From the Doctor:

Your doctor is probably going to want to send you to an orthopedist. Sometimes, a physician may order an X-ray or an MRI to get a better view of the inside of your shoulder, and rule out a tear or more serious issues. Many times, you will be given the option of physical therapy to

restore range of motion, joint movement, and strength. If you have a tear, your physician may suggest surgery. Not everyone who tears his/her rotator cuff ends up getting surgery, but this is a conversation to have with your surgeon and therapist in order to assess what movements you are most concerned with having in the future. For example, if you are a professional athlete, you are definitely going to want to have the repair.

Expected Recovery Time:

Rotator cuff tendonitis: You should have significant return of strength and reduction in pain within 6-8 weeks of beginning an exercise program.

Rotator cuff tear: Without surgery, your recovery is based upon pain, range of motion, and strength for altered movement patterns. Again, you should have great return of function within 6-8 weeks of an exercise program. Please be advised that you'll need to be sure your joint is moving correctly before beginning an exercise program. With surgery, it is fair to expect the recovery time to be up to 6-7 months before full return to activity. In some cases, people say they do not feel normal for up to 1 year, although they are participating in nearly all activities within half that time frame.

Sample Rehab Program:

Also do “Plank” for 30 seconds x 3 every day

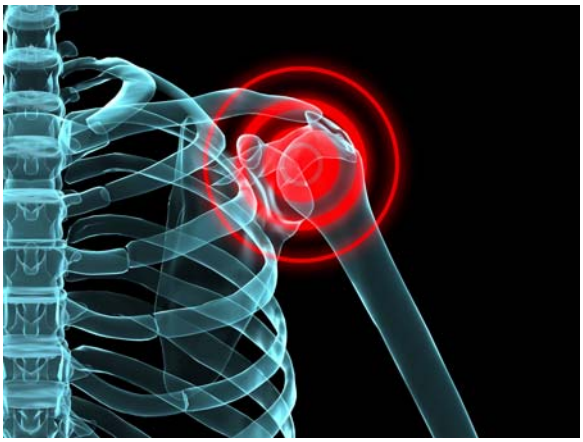
	Phase 1 (1st-2nd week)	Phase 2 (3rd-4th week)	Phase 3 (5th-6th week)
Day 1: 10 reps	Middle trap Lower trap TB Rows	Lat Pull Middle trap Lower Trap TB Rows Post. Deltoid/ Rhomboid Pulls Bicep curls	Lat Pull Middle Trap Lower Trap TB Rows Post. Deltoid/ Rhomboid Pulls TB High Rows Bicep Curls Pull Up Super set
Day 1: 15 reps	Lat Pull Post. Deltoid/ Rhomboid Pulls TB High Rows Bicep Curls	TB High Rows Pull up Superset	None
Day 2: 10 reps	Tricep Rope Skull Crushers Serratus Push-up Tree Cutters	Bench Incline Lateral delt raise Tree Cutters	Bench Incline Decline Cable Cross Pec Push ups on ball Front delt raises Lateral delt raises Tree Cutters
Day 2: 15 reps	Bench Incline Crossed ext.	Decline Push ups on ball Front Delt Raises	Crossed ext. Serratus push up

	Lateral delt raise	Crossed ext. Cable Cross Pec	
Day 3: 10 reps	Middle trap Lower trap T-Band Rows	Lat Pull Middle trap Lower Trap TB Rows Post. Deltoid/ Rhomboid Pulls Bicep curls	Lat Pull Middle Trap Lower Trap TB Rows Post. Deltoid/ Rhomboid Pulls TB High Rows Bicep Curls Pull Up Super set
Day 3: 15 reps	Lat Pull Post. Deltoid/ Rhomboid Pulls TB High Rows Bicep Curls	TB High Rows Pull up Superset	None
Day 4: 10 reps	Tricep Rope Skull Crushers Serratus Push-up Tree Cutters	Bench Incline Lateral delt raise Tree Cutters	Bench Incline Decline Cable Cross Pec Push ups on ball Front delt raises Lateral delt raises Tree Cutters
Day 4: 15 reps	Bench Incline Crossed ext. Lateral delt raise	Decline Push ups on ball Front Delt Raises Crossed ext.	Crossed ext. Serratus push up

Biceps Tendonitis

Classic Symptoms:

You may have pain and swelling in the front of the shoulder, sometimes with a sensation of pulsating. Also, referral pattern of pain is the top and outside of the shoulder.



This responds extremely well to a postural strengthening program, as is detailed in the exercise program below.

Some examples of daily tasks that will bother you if you have biceps tendonitis: Throwing (or cocking back motion involved with throwing), picking up an object from your side, or palm up directly in front of you.

Possible Cause:

Biceps tendonitis can be caused from overuse injury as well. Normally, it is the result of poor posture and/or poor throwing and lifting technique. The biceps tendon receives a lot of stress when there is a large stretch on the front of your shoulder capsule. This can occur from cocking the ball back in a throwing motion, improper technique with bench press or push-ups, or repeated micro trauma from reaching across your body to lift something improperly. Reaching across your body with your arm overhead can cause the biceps tendon to be squeezed between two bones in your shoulder, resulting in pain and swelling. Because a tendon is where a muscle inserts onto bone, it is thin and has a small blood supply. Without a large blood supply, healing takes much longer.

Self Tests:

a) Flexion (palm up) – Flexion – palm facing your stomach, raise arm straight out in front of you until your fingers are pointing straight in the air and your elbow is next to your ear. If you have pain in the middle of this movement, you may have biceps tendonitis.

b) Abduction – palm away from hip, raise arm out to your side slowly until your arm is next to your ear. If you have pain in the middle of this movement, you may have biceps tendonitis. If you have pain with your palm up and your arm straight out to the side, you may have torn your labrum. It is worthwhile to confirm or disconfirm a SLAP lesion with your physician.

(Note: this is a very similar pain pattern as rotator cuff tendonitis. Location of pain and self-tests help differentiate whether or not you have rotator cuff or biceps tendonitis.)

How to Manage the Injury:

In order to allow this injury the best opportunity to heal, you'll need to work on posture first. Also, try to avoid overhead activities for at least a couple of weeks (i.e. throwing, reaching across your body for a glass out of a cabinet, taking things off of shelves, painting, changing lightbulbs, etc.) You should also follow the icing guidelines listed below. Try to hold objects close to your body with your elbow tucked in. This will put less stress on your biceps tendon. Also, avoid forceful screwing motions, as this places a large amount of torque through the biceps muscle and may aggravate your condition. Lastly, try sleeping on your back with a pillow supporting both your head and your shoulders.

What Someone at Work Can Do:

You may want to place a pillow in your low back for extra support. By preventing slouching, you'll also be improving your shoulder posture. Some people even prefer a rolled up towel, placed vertically against their spines. Try to pre-position objects within reach so that you can minimize the stress on your rotator cuff throughout the day. Take frequent breaks (i.e. 2 minutes per hour.) You'll also want to follow the pec stretches that are listed below. Lastly, try to ice at least once throughout the day.

Special Concerns:

Try not to play any aggressive sports for the time being. Also, shoulder pain can sometimes mask problems that are really beginning at the neck. Likewise, shoulder pain can also lead to a sore neck. If you have any concern about your neck whatsoever, be sure to have that evaluated as well. Common signs of nerve involvement from the neck include:

a) Loss of balance

b) Dizziness

c) Numbness/tingling into arms/hands

d) Weakness of arms/legs

e) Nausea

f) Severe headache

g) Blurry vision

If you have any of these signs, be sure to be checked by your physician as soon as possible.

What to Expect From the Doctor:

Your physician will probably send you to an orthopedist for further workup. Many times, a regular schedule of Aleve or Ibuprofen is suggested to see if the pain disappears. If this does not work, your physician may prescribe an x-ray or MRI to see exactly what is going on inside your shoulder. Physical therapy is usually prescribed for biceps tendonitis.

Expected Recovery Time:

You should have significant return of strength and reduction in pain within 6-8 weeks of beginning an exercise program. Within 4-6 months, you should be able return to full speed with throwing sports and heavy lifting without pain. For normal activity, you should be able to return at full capacity with the 4-6 week time frame.

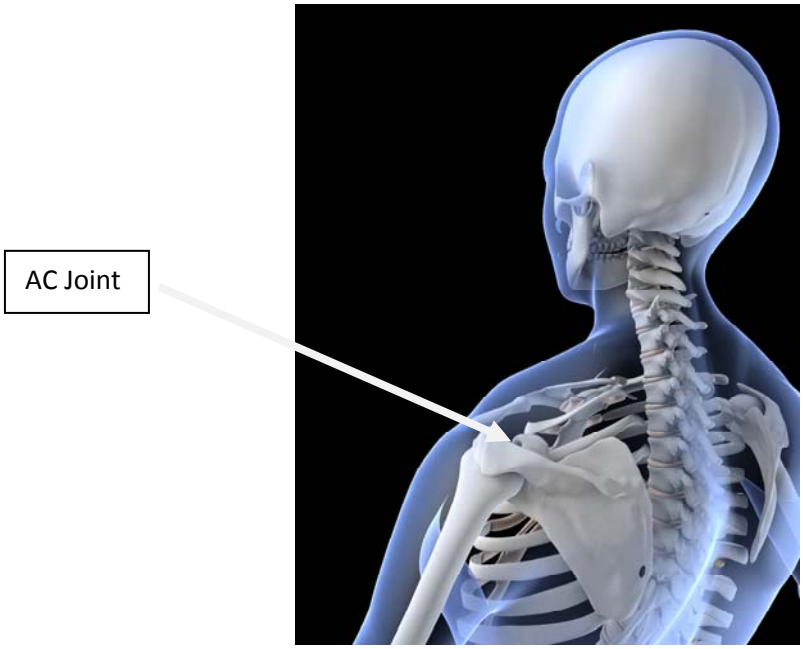
Sample Rehab Program:

add 3 x 30 seconds of Plank to each workout

	Phase 1 (1st-2nd week)	Phase 2 (3rd-4th week)	Phase 3 (5th-6th week)
Day 1: 10 reps	Middle trap Lower trap TB Rows	Lat Pull Middle trap Lower Trap TB Rows Post. Deltoid/ Rhomboid Pulls	Lat Pull Middle Trap Lower Trap TB Rows x 60 sec fast Post. Deltoid/ Rhomboid Pulls TB High Rows Bicep Curls Pull Up Super set
Day 1: 15 reps	Lat Pull Post. Deltoid/ Rhomboid Pulls TB High Rows	TB High Rows Pull up Superset Bicep Curls	None
Day 2: 10 reps	Tricep Rope Skull Crushers Serratus Push-up	Tricep Rope Skull crushers Bench Lateral delt raise Tree Cutters V Delt Raise	Bench Incline Decline Cable Cross Pec Push ups on ball Front delt raises Lateral delt raises Tree Cutters
Day 2: 15 reps	Bench Crossed ext. V Delt raise	Incline Decline Push ups on ball Front Delt Raises	Crossed ext. Serratus push up

		Crossed ext. Cable Cross Pec	
Day 3: 10 reps	Middle trap Lower trap T-Band Rows	Lat Pull Middle trap Lower Trap TB Rows Post. Deltoid/ Rhomboid Pulls	Lat Pull Middle Trap Lower Trap TB Rows x 60 sec fast Post. Deltoid/ Rhomboid Pulls TB High Rows Bicep Curls Pull Up Super set
Day 3: 15 reps	Lat Pull Post. Deltoid/ Rhomboid Pulls TB High Rows	TB High Rows Pull up Superset Bicep Curls	none
Day 4: 10 reps	Tricep Rope Skull Crushers Serratus Push-up Tree Cutters	Bench Incline Lateral delt raise Tree Cutters	Bench Incline Decline Cable Cross Pec Push ups on ball Front delt raises Lateral delt raises Tree Cutters
Day 4: 15 reps	Bench Incline Crossed ext.	Incline Decline Push ups on ball Front Delt Raises Crossed ext. Cable Cross Pec	Crossed ext. Serratus push up Decline

AC Joint - Acromioclavicular Joint – the location where the top of your shoulder blade and your collar bone meet. This joint has very little movement, and has tightly bound ligaments that protect your shoulder and help maintain stability.



Classic Sign of Grade II (or worse) AC Joint injury:

Step-off deformity: The appearance is a bump on the top of your shoulder, directly where your collar bone meets your shoulder blade.

Classic Symptoms:

Normally, you will have pain on top of your shoulder, usually relieved by ice and rest. You may have swelling in the same location, with restricted movement as a result. This is a small space so swelling usually creates more pain as a result of increased pressure in a confined area. Inflammation management is key in reducing pain with this injury.

You may notice a bump on the top of your shoulder, where your collar bone meets your shoulder blade. It's a good idea to get checked out if this is the case.

Note: AC joint injury usually only occurs if you fall onto the top of your shoulder or play a contact sport.

This injury responds extremely well to a regular ice schedule as well as a postural strengthening program.

Possible Cause:

Normally, an AC joint injury occurs from severe impact to the top of the shoulder. This can occur from a hitting sport or from landing on the top of your shoulder. Other causes of AC joint sprain are far less likely.

Self Tests:

Mirror: Look directly at yourself with your shirt off in the mirror. If you have a noticeable bump on the top of your shoulder that looks like a "step," you may have a Grade II or worse AC joint injury. Go see your doctor.

The Scarf Test: Perform the same movement you would to put on a scarf: For example, to test your right AC joint, reach your right hand across your body and touch the top of your left shoulder. If this creates pain in the aforementioned location, you may have an AC joint injury.

Aka: Horizontal Adduction – with arm straight in front of you, reaching towards the opposite shoulder

Squeeze test: You'll need someone to do this for you: Have someone gently squeeze the front and back of your shoulder together (i.e. your shoulder blade and collar bone). If this produces more pain on your suspected injury side than the other side, you may have an AC joint injury.

End-range Flexion – palm down, raise your arm straight in front of you until your arm is next to your ear. If you have pain at the end of this movement, you may have an AC joint injury.

End-range Abduction - standing with your arms at your sides, palm facing your hips, slowly raise your arm out to the side until your arm is next to your ear. If you have pain as you approach your ear, you may have an AC joint injury.

How to Manage the Injury:

In order to allow this injury the best opportunity to heal, you'll need to rest the injured area and work on posture first. In order to properly rest your AC joint, try to avoid overhead activities for at least a couple of weeks (i.e. basketball, reaching across your body for a glass out of a cabinet, taking things off of shelves, painting, changing lightbulbs, etc.) You should also follow the icing guidelines listed below. Try to hold objects close to your body with your elbow tucked in. This will put less stress through your shoulder joint. Try to avoid putting pressure through

the top of your shoulder, sleeping on your injured side, reaching straight up in the air, and putting on a scarf.

What Someone at Work Can Do:

Avoid lifting objects off of shelves. Try to ice at least once per day. Sit up tall in your seat. You may want to place a rolled up towel vertically against your spine to enhance your posture. Try to avoid long periods of pressing your ear against your shoulder to hold the phone. Ice at least once while at work if at all possible.

Special Concerns:

In the case of the AC joint it is rare, but possible, that your collar bone can move down during the injury. If this is the case, it is imperative that you go to the emergency room to be checked out as this could cause life-threatening damage. This is why it is always wise to be checked if you have a "step-off deformity."

Otherwise, there is always risk with a traumatic shoulder injury for neck injury as well. If you have any of the following symptoms, please be sure to be checked out immediately:

a) Loss of balance

b) Dizziness

c) Numbness/tingling into arms/hands

d) Weakness of arms/legs

e) Nausea

f) Severe headache

g) Blurry vision

What to Expect From the Doctor:

Your physician will most likely send you to the orthopedist. If necessary, they may perform an X-ray to gain a better view of the inside of your shoulder and rule out any possibility of a more serious situation. Otherwise, your doctor may suggest a regular schedule of rest, ice, and anti-inflammatory medication. After a couple of weeks rest, your doctor may suggest physical therapy if there is no improvement. You will be restricted from forceful overhead activities for at least 2-3 weeks.

Expected Recovery Time:

You should have significant return of strength and reduction in pain within 3-6 weeks of beginning an exercise program. For normal activity, you should be able to return at full capacity with the 4-6 week time frame. If you have a "step-off deformity", you will always continue to have this deformity. However, you should be able to move almost perfectly, regardless. Most of the swelling should be gone within 2 weeks if properly rested and iced.

Sample Rehab Program:

	Phase 1 (1st-2nd week)	Phase 2 (3rd-4th week)	Phase 3 (5th-6th week)
Day 1: 10 reps	Middle trap Lower trap Tree Cutters TB Rows Crossed Ext.	Middle trap Lower trap Tree Cutters TB Rows Post Delt/ Rhomboid Pulls Bicep Curls TB High Rows	Lat Pull Middle Trap Lower Trap TB Rows x 60 sec Post Delt./ Rhomboid Pulls Bicep curls TB High Rows
Day 1: 15 reps	Post Delt/ Rhomboid Pulls Bicep Curls TB High Rows	Lat Pull Crossed ext.	Crossed Ext.
Day 2: 10 reps	Skull Crushers Push ups on ball All Delt raises Serratus Push up	Skull Crushers Push ups on ball All Delt Raises Serratus Push up Bench Decline Cable Cross Pec	Skull Crushers Push ups on ball All Delt Raises Bench Incline Decline Cable Cross Pec
Day 2: 15 reps	Bench Decline	Incline Pull up Superset	Serratus push up

	Cable Cross Pec		
Day 3: 10 reps	Middle trap Lower trap Tree Cutters TB Rows Crossed ext.	Middle trap Lower trap Tree Cutters TB Rows Post Delt/ Rhomboid Pulls Bicep Curls TB High Rows	Lat Pull Middle Trap Lower Trap TB Rows x 60 sec Post Delt./ Rhomboid Pulls Bicep curls TB High Rows
Day 3: 15 reps	Post Delt/ Rhomboid Pulls Bicep Curls TB High Rows	Lat Pull Crossed ext.	Crossed Ext.
Day 4: 10 reps	Skull Crushers Push ups on ball All Delt raises Serratus Push up	Skull Crushers Push ups on ball All Delt Raises Serratus Push up Bench Decline Cable Cross Pec	Skull Crushers Push ups on ball All Delt Raises Bench Incline Decline Cable Cross Pec
Day 4: 15 reps	Bench Decline Cable Cross Pec	Incline Pull up Superset	Serratus push up

Labral Tear

2 Types:

SLAP lesion – you will also have pain with the Biceps tendon, as this is most likely involved. Exercise helps quite a bit, but be careful not to make it worse. Sometimes a SLAP lesion is worth repairing surgically, although strengthening always helps. In any case, you'll want to visit a doctor to verify if this is an injury that requires surgery.

Bankart lesion – when lying on your back, create right angles with your elbow and shoulder and press the back of your arm into the bed (palm up.) If you are uncomfortable, this may the problem. Bankart lesions involve tears in the anterior, inferior glenohumeral ligament, normally associated with a capsular stretch or tear as well. This basically means that you don't have a ligament to protect your shoulder when you put your hands behind your head. Over time, this could lead to friction and breakdown of surrounding tissues. Exercise helps quite a bit, but be careful not to make the tear bigger through poor technique and volatile movements. Again, surgery is sometimes recommended for this type of labral tear, but not always.

Your labrum functions to form a "vacuum seal" around your upper arm bone (humerus) and shoulder blade (scapula). In doing so, it also deepens the groove where these two bones meet. The result is a pressurized area where your shoulder muscles can rest during quiet standing. Your shoulder muscles are also able to rest if you have perfect posture, due to the angle your arm sits on your shoulder blade. As your shoulders move forward, this angle is lost and the rotator cuff muscles need to work to bring your shoulder back into place. The rotator cuff muscle group was not meant for this function and eventually breaks down if your posture is poor and your labrum is torn.

Classic Symptoms:

Labral tears can be relatively asymptomatic. Normally, you'll feel pain when it occurs, but it may be vague pain on the top and outside of your shoulder. In the case of a Bankart tear, you may experience a feeling of dislocation with throwing motions, or you may just feel like your shoulder is going to come out of place, even if that is not happening. Strengthening your shoulder will markedly decrease your symptoms and improve surgical outcome. Therefore, you should always try to strengthen first (if pain free). Its very important not to place unnecessary strain on a torn labrum, so that the tear is not progressive. Be very careful with form, and work on strengthening your posture first.

Possible Cause:

Labral tears are most common from throwing motions, excessive pressure through the arm (i.e. falling on an outstretched arm), or progressive biceps tendonitis, which may be from overuse. To learn more about biceps tendonitis, please see above. Labral tears might also occur from improper weight lifting technique or stabilizing your arm on a moving object.

Self Tests:

Full external rotation - laying on your side, painful side up; keeping your elbow pressed against your side, slowly raise back of hand up towards the ceiling.

Supinated Abduction - standing with your arms at your sides, palm facing away from your hips, slowly raise your arm out to the side. If this hurts, you may have a SLAP lesion.

Horizontal Abduction – elbowing someone behind you at shoulder height

Hands behind your head test – Place your hand behind your head so that you have the front of your shoulder exposed and your elbows directly out to your sides. If this causes a feeling of uneasiness or pressure in the front of your shoulder, you may have a capsular or labral injury.

How to Manage the Injury:

Go see a doctor if you suspect that you have this injury. It is wise to know how bad your tear is, in the event that you might need surgery. Regardless, a proper strengthening program for your

rotator cuff and surrounding muscles is highly recommended. Be sure to control inflammation as much as possible through regular icing and your pain scale.

Some daily tasks that will bother you with a torn labrum include: throwing, lifting objects to the side with your elbow straight, and lifting objects in front or to the side of you with your elbow straight.

What Someone at Work Can Do:

You should try and sit with good posture. A vertical towel roll that goes up/down your spine and/or a pillow in the small of your back can be very helpful. The better your posture, the less your rotator cuff will become overworked. If you suspect that you are slouching throughout the day you should ice at least once.

Special Concerns:

Usually, caring for any signs of rotator cuff damage is the #1 priority. Seeing a doctor is mandatory. Rarely, but occasionally, neck problems can be confused with labral tears because of having pain in the top and outside of your shoulder. As a rule, you should review the list below.

If you have any of the following symptoms, please be sure to be checked out immediately:

a) Loss of balance

b) Dizziness

c) Numbness/tingling into arms/hands

d) Weakness of arms/legs

e) Nausea

f) Severe headache

g) Blurry vision

What to Expect From the Doctor:

Your family doctor will probably send you to an orthopedic physician. S/he may decide to order an MRI to get a better picture of your shoulder. If surgery is needed, s/he will discuss this with you. Feel free to discuss advantages/disadvantages of this procedure if you desire. Ask about a pre-surgical strengthening program if surgery is recommended.

Expected Recovery Time:

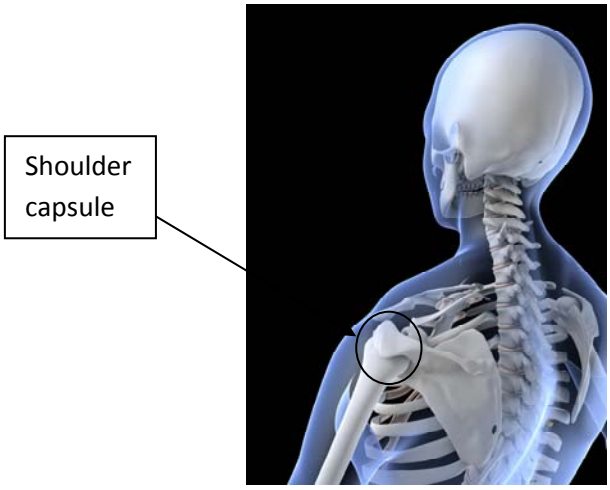
Following surgery, you will need 2-4 months. Within 8 weeks you will be able to participate in most normal activity. Within about 4-6 weeks, most of your pain should be gone. However, it takes about 4 months before you can comfortably bear weight through your arms and play more aggressive sports.

Sample Rehab Program:

	Phase 1 (1st-2nd week)	Phase 2 (3rd-4th week)	Phase 3 (5th-6th week)
Day 1: 10 reps	Middle trap Lower trap TB Rows	Lat Pull Middle trap Lower Trap TB Rows Post. Deltoid/ Rhomboid Pulls Bicep curls	Lat Pull Middle Trap Lower Trap TB Rows Post. Deltoid/ Rhomboid Pulls TB High Rows Bicep Curls Pull Up Super set
Day 1: 15 reps	Lat Pull Post. Deltoid/ Rhomboid Pulls TB High Rows Bicep Curls	TB High Rows Pull up Superset	None
Day 2: 10 reps	Tricep Rope Skull Crushers Serratus Push-up Tree Cutters	Bench Incline Lateral delt raise Tree Cutters	Bench Incline Decline Cable Cross Pec Push ups on ball Front delt raises Lateral delt raises Tree Cutters
Day 2: 15 reps	Bench Incline Crossed ext. Lateral delt raise	Decline Push ups on ball Front Delt Raises Crossed ext.	Crossed ext. Serratus push up

		Cable Cross Pec	
Day 3: 10 reps	Middle trap Lower trap T-Band Rows	Lat Pull Middle trap Lower Trap TB Rows Post. Deltoid/ Rhomboid Pulls Bicep curls	Lat Pull Middle Trap Lower Trap TB Rows Post. Deltoid/ Rhomboid Pulls TB High Rows Bicep Curls Pull Up Super set
Day 3: 15 reps	Lat Pull Post. Deltoid/ Rhomboid Pulls TB High Rows Bicep Curls	TB High Rows Pull up Superset	None
Day 4: 10 reps	Tricep Rope Skull Crushers Serratus Push-up Tree Cutters	Bench Incline Lateral delt raise Tree Cutters	Bench Incline Decline Cable Cross Pec Push ups on ball Front delt raises Lateral delt raises Tree Cutters
Day 4: 15 reps	Bench Incline Crossed ext. Lateral delt raise	Decline Push ups on ball Front Delt Raises Crossed ext.	Crossed ext. Serratus push up

Capsule



Classic Symptoms:

Capsular restrictions in the shoulder are very obvious. There is usually pain associated, but their hallmark sign is the restriction in motion. While capsular restrictions usually only occur on one side at a time, you are at greater risk for both shoulders if this has happened to one. Plain and simple, you'll have decreased shoulder movement, sometimes referred to as "frozen shoulder." Frozen shoulder refers to a specific pattern of capsular restriction called a "capsular pattern" (more details on a capsular pattern below.) It creates a feeling of being "stuck." If you are not totally "frozen", meaning you can move your shoulder through most movements, you will respond very well to strengthening your shoulder in the available range of motion that does not create additional pain.

Possible Cause:

Capsular restrictions are caused most often by trauma or immobilization. This means that you can have a whole body response through your fascial system that restricts your capsule by pulling tightly on it. Your fascial system is a system of fiber that helps compose the shape of your body. Often, following trauma, it becomes wound up, creating tension in some area of your body. In the case of a car accident, you might experience direct trauma on your shoulder, then scar tissue will be laid down, creating pull of surrounding fascia until your capsule becomes restricted. Because fascia is inside of everything (arteries, veins, lymph vessels, organs, bones, muscles, skin) restrictions can occur anywhere. Restrictions in fascia can sometimes be the result of emotional, or psychological trauma as well. Our bodies respond to stress in strangely powerful ways, and sometimes our stress is manifested through our bodies.

The second way for capsular restrictions to occur is through immobilization. If you broke your arm, for example, and had to wear a sling for 6 weeks, your body would have responded to this lack of movement. For this reason, it's so important to get your body moving as quickly as possible when you have capsular restrictions: your body responds to movement just the same as your body responds to lack of movement.

When we rest our arm in one position for a period of weeks our capsule learns to sense the new position, feel that it is not being stretched, and respond by tightening. Over time, this tightening pattern can become problematic. However, sometimes it's medically necessary to wear a sling or airplane cast and have no movement.

Self Tests:

There are three main restrictions in movement. In order to qualify as a true "capsular pattern," they would be in this order:

a) External rotation - laying on your side, painful side up; keeping your elbow pressed against your side, slowly raise back of hand up towards the ceiling.

b) Abduction - standing with your arms at your sides, palm facing your hips, slowly raise your arm out to the side.

c) Internal rotation - this is the same movement as unhooking your bra strap or reaching your hand towards the middle of your back.

Restrictions in any or all of these movements would be reason for concern of a capsular restriction. Note that pain alone would not be the same as a true restriction of movement. This means that you are trying to move in one direction but your arm simply won't go there.

How to Manage the Injury:

In order to treat the capsular restriction itself, I recommend that you go and see an orthopedic surgeon, who will likely refer you to physical therapy. It's important that someone performs joint mobilizations on you to help release the capsule. A joint mobilization is simply a skilled technique to move one bone on the other in order to create more normal movement of a joint.

Once you have restored normal movement, you should begin a strengthening program immediately. Even during the time of restoring movement, it is wise to stay as strong as possible in your available range of motion. This means you should only do exercises that do not create more pain, and only strengthen the range of motion you can comfortably use.

What Someone at Work Can Do:

At work you should try and move your arm as often as possible. One great way of doing this is by leaning forward, hanging your arm, and rocking your body back and forth to keep it moving. Another way is by grabbing a stick, umbrella, or golf club with both hands and using your good side to assist your injured side.

Special Concerns:

Some daily tasks may bother you with capsular pain/issues. Examples include:

- Opening doors ("I have to turn my whole body to open the door")
- Lifting arm to side ("It just won't go!")
- Unhooking a bra strap – ("I just can't get to it")

It is also wise to take preventative measures to reduce the risk of your opposite shoulder having the same problem in the future. Most importantly, you'll need to strengthen your shoulders and perform a regular exercise routine. Please refer below for suggestions on the ideal exercise program.

What to Expect From the Doctor:

Your doctor will likely send you to an orthopedic surgeon for an examination. Depending on the severity, your surgeon may offer to break the "adhesions" under anesthesia. In severe cases, this is a great option. More conservatively, you'll be sent to a physical therapist who can help you strengthen your available range of motion while gradually increasing your range through joint mobilizations.

Expected Recovery Time:

This truly varies depending upon time of diagnosis. Some people wait until they really have very little movement left in their shoulders. In this case, recovery can take up to 5-6 months. If you are cared for quickly, however, you may have restored motion within 2 weeks. Following restoration of movement, you should participate in a minimum of a 6 week strengthening program.

If you cannot move your shoulder anywhere close to normal, this will require skilled physical therapy and a visit to your doctor. It is impossible to strengthen a joint that does not move on its own. Refer to your doctor if you have this problem.

Sample Rehab Program:

Add 3x Plank for 30 seconds to each workout

	Phase 1 (1st-2nd week)	Phase 2 (3rd-4th week)	Phase 3 (5th-6th week)
Day 1: 10 reps	Middle trap Lower trap Tree Cutters TB Rows Bicep Curls Crossed ext.	Middle trap Lower trap Tree Cutters TB Rows Bicep Curls Post. Delt./ Rhomboid Pulls	Middle trap Lower trap Tree Cutters TB Rows Bicep Curls Post. Delt./ Rhomboid Pulls Lat Pull TB High Rows
Day 1: 15 reps	Post Delt./ Rhomboid Pulls	Lat Pull TB High Rows Crossed ext.	Pull up Superset Crossed extension
Day 2: 10 reps	Tricep Rope Serratus Push-up	Tricep Rope Cable Cross Pec Skull Crushers Push ups on Ball Front Delt Raises "V" Delt Raises Serratus Push ups	Tricep Rope Cable Cross Pec Skull Crushers Push ups on Ball Front Delt Raises "V" Delt Raises Lateral Delt Raises Bench
Day 2: 15 reps	Cable Cross Pec Skull Crushers Push ups on Ball Front Delt Raises	Bench Lateral Delt Raises	Incline Decline Serratus push up

	"V" Delt Raises		
Day 3: 10 reps	Middle trap Lower trap Tree Cutters TB Rows Bicep Curls Crossed ext.	Middle trap Lower trap Tree Cutters TB Rows Bicep Curls Post. Delt./ Rhomboid Pulls	Middle trap Lower trap Tree Cutters TB Rows Bicep Curls Post. Delt./ Rhomboid Pulls Lat Pull TB High Rows
Day 3: 15 reps	Post Delt./ Rhomboid Pulls	Lat Pull TB High Rows Crossed ext.	Pull up Superset Crossed extension
Day 4: 10 reps	Tricep Rope Serratus Push-up	Tricep Rope Cable Cross Pec Skull Crushers Push ups on Ball Front Delt Raises "V" Delt Raises Serratus Push ups	Tricep Rope Cable Cross Pec Skull Crushers Push ups on Ball Front Delt Raises "V" Delt Raises Lateral Delt Raises Bench
Day 4: 15 reps	Cable Cross Pec Skull Crushers Push ups on Ball Front Delt Raises "V" Delt Raises	Bench Lateral Delt Raises	Incline Decline Serratus push up

Bursitis There are two main forms of bursitis: Deltoid and Subacromial. A bursa is like a fluid filled sack, or bubble, that overfills with fluid when agitated. Deltoid and subacromial refer to locations of bursae.

Classic Symptoms:

Classically, you'll have pain on the top of your shoulder, sensitive to pressure and touch. Your pain should be at least somewhat relieved by ice and non-aggressive movements

Possible Cause:

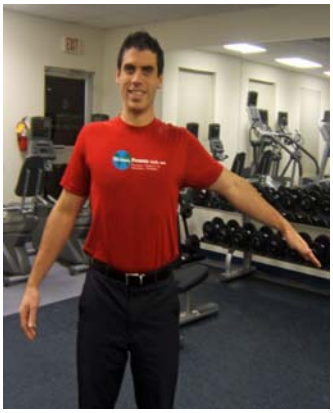
Bursitis is usually caused from direct trauma. A direct blow to your shoulder joint from a contact sport, car accident, or anything else that may hit the top of your shoulder would be good examples. In some cases, bursitis can occur from an inflammatory response as a result of tendonitis and general swelling in the area.

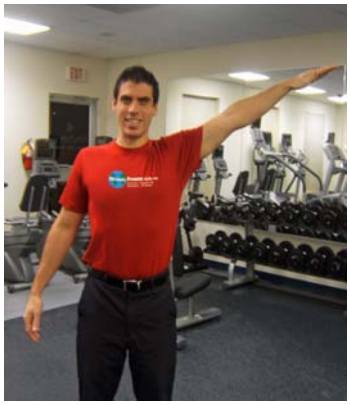
Self Tests:

Same as rotator cuff, except relieved by fixing hand on object and pulling up with body (i.e. taking the pressure off – feeling like you are separating your arm from your shoulder)

Pain with arm overhead (arm against ear, hand straight in the air, palm away from body)

Painful arc





Resisted Abduction: Standing sideways next to wall, palm towards hips, pushing into wall with back of hand.

How to Manage the Injury:

First and foremost, you'll need to be on a regular icing schedule. Be sure that at a minimum that you are icing for 5-7 minutes first thing in the morning, during the middle of the day, and last thing before you go to bed. I would discourage the use of heat, as this may cause more inflammation.

Strengthen your shoulder as much as you can without pain and this will help re-distribute the stressors causing you pain. Try to keep your heart rate up and be sure to exercise the rest of your body (away from the injury.) By focusing on exercise, your body will be able to increase circulation of blood and nutrients to the shoulder joint, aiding in a faster recovery process.

What Someone at Work Can Do:

While at work it is really important to remember good posture and regular icing. Through good posture you can decrease the amount of work your rotator cuff muscles need to do, thereby decreasing the amount of friction on the bursa. Ice is important, because your main problem here is inflammation. If you can prevent more swelling from occurring, you stand a better chance of healing quickly.

Special Concerns:

Daily tasks that may bother you if you have bursitis (also same as rotator cuff): All overhead activites, reaching and grabbing, and throwing. Because of the similarity in symptoms to a rotator cuff injury, there is also the possibility that you have pain in your shoulder that is truly originating from your neck. If you have any of the following symptoms, you should be sure to get seen immediately:

a) Loss of balance

b) Dizziness

c) Numbness/tingling into arms/hands

d) Weakness of arms/legs

e) Nausea

f) Severe headache

g) Blurry vision

What to Expect From the Doctor:

Your doctor will probably suggest that you rest and take anti-inflammatories. S/he may also recommend that you see an orthopedist and possibly get an MRI or X ray to rule out more serious issues. Physical therapy is often recommended and a strengthening program to follow is highly encouraged.

Expected Recovery Time:

4-6 weeks. In some cases it may take longer. However, without other associated injury and a proper rest and exercise schedule, you should be able to have nearly full relief of pain within 4-6 weeks. Be cautious, however, as this bursa is now more prone to have re-injury in the future. It may always be this way, although a long rest period without re-injury may give your bursa the chance it needs to restore its normal shape and size.

Sample Rehab Program:

add 3x Plank for 30 seconds to each workout

	Phase 1 (1st-2nd week)	Phase 2 (3rd-4th week)	Phase 3 (5th-6th week)
Day 1: 10 reps	Middle Trap Lower Trap TB Rows Crossed ext.	Middle Trap Lower Trap TB Rows Crossed ext. Lat Pull Post Delt./ Rhomboid Pulls TB High Rows Bicep Curls	Middle Trap Lower Trap TB Rows Lat Pull Post Delt./ Rhomboid Pulls TB High Rows Bicep Curls Pull up Superset
Day 1: 15 reps	Lat Pull Post. Delt./ Rhomboid Pulls TB High Rows Bicep Curls	Pull up Superset	Crossed ext.
Day 2: 10 reps	Tricep Rope Skull Crushers "V" Delt raises Serratus Push ups	Tricep Rope Skull Crushers "V" Delt Raises Serratus Push ups Front Delt Raises	Tricep Rope Skull Crushers "V" Delt Raises Front Delt Raises Lateral Delt Raises Bench Incline Cable Cross Pec Push ups on Ball
Day 2: 15 reps	Front Delt Raises	Bench Incline Cable Cross Pec Push ups on Ball	Serratus Push ups Decline

		Lateral Delt Raise	
Day 3: 10 reps	Middle Trap Lower Trap TB Rows Crossed ext.	Middle Trap Lower Trap TB Rows Crossed ext. Lat Pull Post Delt./ Rhomboid Pulls TB High Rows Bicep Curls	Middle Trap Lower Trap TB Rows Lat Pull Post Delt./ Rhomboid Pulls TB High Rows Bicep Curls Pull up Superset
Day 3: 15 reps	Lat Pull Post. Delt./ Rhomboid Pulls TB High Rows Bicep Curls	Pull up Superset	Crossed ext.
Day 4: 10 reps	Tricep Rope Skull Crushers "V" Delt raises Serratus Push ups	Tricep Rope Skull Crushers "V" Delt Raises Serratus Push ups Front Delt Raises	Tricep Rope Skull Crushers "V" Delt Raises Front Delt Raises Lateral Delt Raises Bench Incline Cable Cross Pec Push ups on Ball
Day 4: 15 reps	Front Delt Raises	Bench Incline Cable Cross Pec Push ups on Ball Lateral Delt Raise	Serratus Push ups Decline

Malalignment/Poor Posture

An example of Forward Shoulder and Forward Head causing Cervical Rib Pain deep in the Upper Trap

Posture is the leading cause of all non-traumatic shoulder problems. With correct posture many of the most commonly injured muscles and structures in the shoulder receive much less stress than with incorrect posture. These are muscles and structures that are not made to absorb a lot of stress, friction, and pull over the course of a normal day. These muscles are able to recover well, considering their innate disadvantage to supporting abnormal stressors, but they are not able to recover everyday over a period of months or years. Through correction of posture you will be able to avoid nearly all shoulder injuries forever. The best way to correct posture is through exercise. Think about it: if you exercise with good posture, you'll be working your muscles in the right positions, and as you slouch at home or work, you'll feel soreness because they are on stretch. Naturally, to reduce soreness, you'll return to an upright position. Over a period of about 6 weeks your muscles and nervous system will begin to recognize the new position and it will become less work.

Classic Symptoms:

Symptoms can vary depending on your position. Many times your position is aggravating one or more of the structures in your shoulder, causing you to have pain related to rotator cuff tendonitis, biceps tendonitis, bursitis, or capsulitis. Please see above for further details on each condition.

Once you stand up tall, you should be able to relieve most if not all of the pain. Also, any restriction of movement will disappear once you stand up tall and squeeze your shoulder blades togeth

Possible Cause:

Work, sleep, school, or an unbalanced weight-lifting program. At work we spend most of our days sitting, often with a computer screen, chair, and desk that are at the wrong heights. While we sleep, we may also be doing damage to our shoulder posture. By sleeping on your side, you are inevitably pushing your shoulder forward as you rest on it. Sleeping on your back, however, offers much more support, provided that you have the pillow reach all the way down to your shoulders (not just your head.) Believe it or not, with the pillow just under your head, you are actually pushing your neck forward, which places a similar stress into your shoulders and pushing your shoulders forward. In school, much like work, we spend most of our day sitting. As the day goes on, look around the classroom and more and more students will be slouching. Through repetition of this poor position our bodies adapt and learn to believe that faulty posture is our desired posture.

Self Tests:

The Look Test: Have someone look at you from the side when you are standing normally (please don't focus on good posture or you'll ruin the point of this test.) They should check see that your ear is directly over your shoulder, your shoulder is over your hip, your hip is over your knee, and your knee is over your ankle. Also, you should have a small curve in the small of your back. If you're not sure about the size of the curve in your back, simply compare to three or four people and you'll get a better idea of normal.

How to Manage the Injury:

Postural strengthening is the best way to handle this condition. You should mind your posture whenever lifting weights, as well as perform the exercises below to assist in strengthening the postural stabilizers of your body.

What Someone at Work Can Do:

At work you can place a rolled up towel vertically along your spine, and perhaps a second towel roll in the small of your back. You should be sure that your feet rest comfortably on the floor in front of you, with right angles at both your hips and knees. Adjust your chair height as necessary. Try to have the middle of your computer screen at eye level to prevent extending your neck or curling your shoulders forward.

Special Concerns:

Poor posture can lead to increased neck pain.

All shoulder movements will be restricted at end ranges ("I just can't move all the way up, down, in, or out anymore")

Some daily effects of poor posture include:

- Decreased energy – as a result of less oxygen being delivered to your tissues
- Shoulder pain (imitating other shoulder problems)
- Eventual breakdown of your rotator cuff muscles – poor posture *does* lead to tendonitis
- Rounded back (hunchback)
- Neck pain
- Substitution method to achieve "normal" movement, which is elevating your shoulder in the air instead of just moving arm up (see "Substitution" section below)

In the event that you have any of the symptoms below, it is wise to be seen by your physician immediately:

a) Loss of balance

b) Dizziness

c) Numbness/tingling into arms/hands

d) Weakness of arms/legs

e) Nausea

f) Severe headache

g) Blurry vision

What to Expect From the Doctor:

Your doctor's response will be dependent upon your complaint. If your posture has become poor enough to begin the "wear and tear" process of another structure, s/he will give you advice related to healing of that structure, in particular. Typically, you'll only be sent to physical therapy if you have another problem as a result.

Expected Recovery Time:

6 weeks of a postural strengthening program and regular exercise maintenance is the key to enhancing posture.

Sample Rehab Program:

add 3x Plank for 30 seconds to each workout

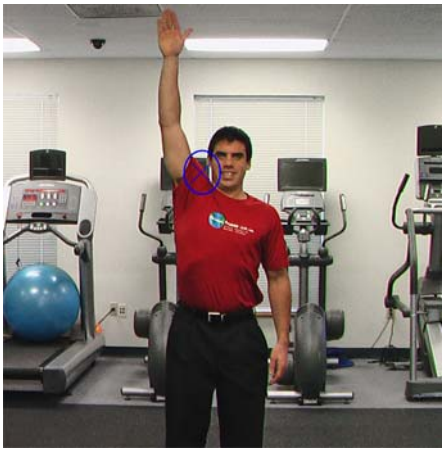
	Phase 1 (1st-2nd week)	Phase 2 (3rd-4th week)	Phase 3 (5th-6th week)
Day 1: 10 reps	Middle Trap Lower Trap TB Rows Crossed ext. Lat Pull Post. Delt./ Rhomboid Pulls TB High Rows Bicep Curls Pull up Superset	Middle Trap Lower Trap TB Rows Crossed ext. Lat Pull Post Delt./ Rhomboid Pulls TB High Rows Bicep Curls Pull up Superset	Middle Trap Lower Trap TB Rows Lat Pull Post Delt./ Rhomboid Pulls TB High Rows Bicep Curls Pull up Superset
Day 1: 15 reps	None	Crossed ext.	Crossed ext.
Day 2: 10 reps	Tricep Rope Skull Crushers “V” Delt raises Lateral Delt Raise Front Delt Raise Serratus Push ups Front Delt Raises Cable Cross Pec	Tricep Rope Skull Crushers “V” Delt raises Lateral Delt Raise Front Delt Raise Serratus Push ups Front Delt Raises Cable Cross Pec Bench Incline Push ups on Ball	Tricep Rope Skull Crushers “V” Delt raises Lateral Delt Raise Front Delt Raise Front Delt Raises Cable Cross Pec Bench Incline Push ups on Ball Decline
Day 2: 15 reps	Bench Incline	Decline	Serratus Push ups

	Push ups on Ball		
Day 3: 10 reps	Middle Trap Lower Trap TB Rows Crossed ext. Lat Pull Post. Delt./ Rhomboid Pulls TB High Rows Bicep Curls Pull up Superset	Middle Trap Lower Trap TB Rows Crossed ext. Lat Pull Post Delt./ Rhomboid Pulls TB High Rows Bicep Curls Pull up Superset	Middle Trap Lower Trap TB Rows Lat Pull Post Delt./ Rhomboid Pulls TB High Rows Bicep Curls Pull up Superset
Day 3: 15 reps	None	Crossed ext.	Crossed ext.
Day 4: 10 reps	Tricep Rope Skull Crushers "V" Delt raises Lateral Delt Raise Front Delt Raise Serratus Push ups Front Delt Raises Cable Cross Pec	Tricep Rope Skull Crushers "V" Delt raises Lateral Delt Raise Front Delt Raise Serratus Push ups Front Delt Raises Cable Cross Pec Bench Incline Push ups on Ball	Tricep Rope Skull Crushers "V" Delt raises Lateral Delt Raise Front Delt Raise Front Delt Raises Cable Cross Pec Bench Incline Push ups on Ball Decline
Day 4: 15 reps	Bench Incline Push ups on Ball	Decline	Serratus Push ups

What is Substitution? How do We Compensate?

Substitution is when you use a bigger muscle to try and take over the action of a smaller one. It is your body's natural way of protecting itself.

We compensate in flexion for example by using our upper trapezius muscle to do most of the work. See below for a picture (left) of flexing your shoulder properly and a picture (right) of flexing your shoulder improperly with the use of your upper trapezius.

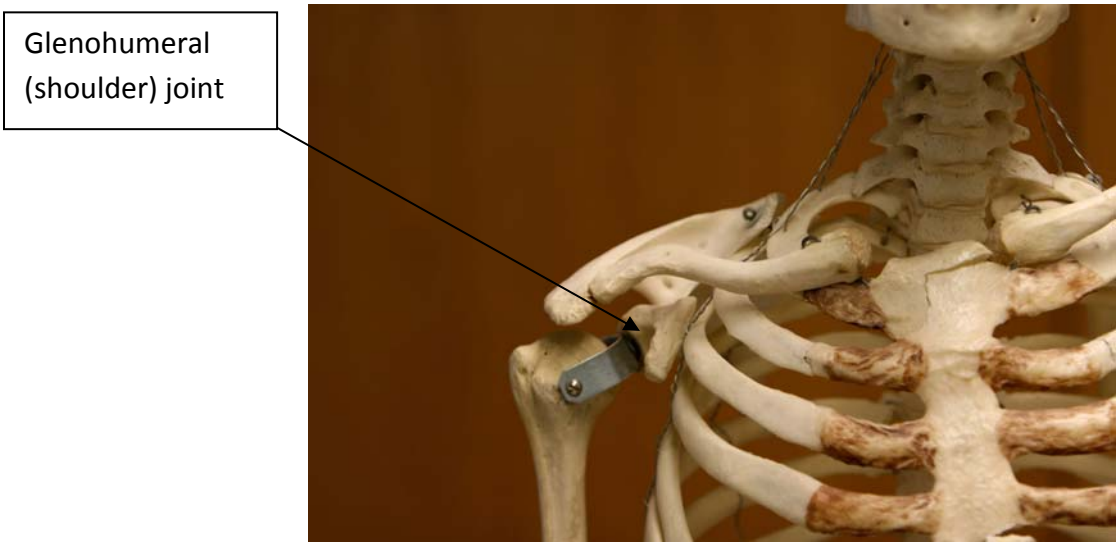


Muscle guarding – this is most often the reason why shoulder problems lead to neck pain

Neck pain with shoulder injury is caused as a result of too much substitution of the upper trapezius muscle. Your trapezius muscle ("Trap") begins at the base of your skull, runs out to the top of your shoulder, and connects all the way down your upper spine. As a result, your "upper trap" ends pulling on your neck and upper back in order to protect your shoulder. Since we tend to injure one side of our bodies at a time, this creates asymmetry. You can think of it as if you are constantly turning your head in one direction; your spine is constantly being pulled in just one direction.

Joint mobility:

The Shoulder Joint



Sometimes it's not only what your muscles are doing to help your joint move, but the joint itself. In the case of the shoulder, your humerus (upper arm bone) has to rotate and slide properly on your scapula (shoulder blade) in order for you to have normal movement. There is a very specialized technique that physical therapists and D.O.'s (doctors of osteopathic medicine) use in order to help facilitate this movement. Unfortunately, there is no safe way to explain this to you to do on your own. However, if you do all of the exercises below, normally this will not be needed.

In the case of the "Frozen Shoulder" or "capsular" problems, it is very important to find a PT or DO to help you with this. Otherwise, there is a good chance that it will correct itself once your posture, strength, and flexibility have been addressed.

Healing

Rest – you should rest your shoulder from any painful activities/sports until you have reached at least the beginning of week 4 (the end of Phase 2.)

- Proper rest is an essential component of the strengthening process.
- After you begin activities again, be sure to rest whenever you have pain that is >3/10. Immediately ice when this occurs.

Ice - prevents new inflammation, but does not take away swelling that is already there.

5-7 minutes with a single layer of a wet paper towel directly over your shoulder and a Ziploc bag of ice over the paper towel.

- First thing every morning when you wake up
- After any painful activity - IMMEDIATELY
- Last thing every night before you go to bed

Circulation/Joint Nutrition - Any form of exercise, even far away from your shoulder (i..e walking) brings extra blood and circulation to your injured shoulder. Blood carries nutrients and oxygen, two essential components for successful healing. Fish oil is also known to stimulate healing. Click here to learn more.

Strengthening

Support structures – strengthen any support structures that do not involve your injury as much as possible. By strengthening surrounding muscles, you are able to re-distribute the stress on your shoulder, allowing more healing time for the injured tissue.

All surrounding structures are accounted for in your exercise program below.

- The injury itself – rest early in the program and ease into strengthening as you progress.
- See phases on strengthening for more details on exactly how much to do here.

Posture is Key! Good posture allows key muscles in your shoulder to be able to rest and recover.

The posture you lift with is likely the posture you'll stay in. Think about it: When you are sore from your workouts and you try to stretch, it hurts. Therefore, if you slouch, you will be stretching muscles out of the position you strengthened them, and they will be sore. This serves as a great reminder to enhance posture.

Re-distribution of stress - Your arm is like a screwdriver – The longer, the more torque, right?

More torque is produced when using a long screwdriver, making it easier to screw/unscrew an object. In the example of your arm, an outstretched arm places much more torque into your

shoulder, causing undue stress. Yes, some movements may be more difficult with your elbow next to your body, just as it is more difficult to use a small screwdriver, but your shoulder will be protected.

Straight arm causes much more stress to the shoulder joint.


Try to hold objects close to your body. Keeping your elbow close to your side when lifting (heavy) objects helps recruit larger muscles from your back, which will prevent much undue stress to injured tissue. This allows smaller and injured muscles to have more rest time and less chance for re-injury. Do not reach for objects, especially when the objects are heavy.

Products/Services That We May Recommend:

Fish Oil + Omega 3 Fatty Acids - speeds the recovery of your injuries by stimulating your lymphatic system. Personally, I use EFA Icon. Click here.

A Workout Recovery Shake composed of carbohydrates and proteins – enhance muscle recovery, and offer you a healthy snack for after a workout to keep your metabolism up all day. I like to use Prograde Workout. Click here.

Eating a healthy snack is a great way to keep your metabolism up throughout the day. This helps to avoid "crashing in the middle of the afternoon. Some good options are:

- Almonds
- Low fat cottage cheese & crackers
- Or, my favorite snack - Cravers - Try this. Click here.

Timeline: 6 weeks – careful strengthening

3 Phases of strengthening

Phase 1 (weeks 1-2)

Do all pain-free exercises – see sample rehab program for suggestions

Do very light resistance of painful exercises (this is coded as 15 reps on your sample rehab program.)

Aim for 15 repetitions at very low resistance. These may cause pain, but do not allow your pain to become greater than a 3/10 (see scale above)

Phase 2 (weeks 3-4)

Begin light resistance with all previously painful exercises. Aim for 15 repetitions at a very low resistance

Increase resistance and decrease repetitions with the exercises that were previously 15 repetitions. (see sample rehab program for exercise selection)

Aim for 10 repetitions of these exercises at a moderate resistance.

Phase 3 (weeks 5-6)

Strengthen all noted Phase 2 exercises from 15 reps to 10 reps

See sample rehab program for suggestions of appropriate exercises.

Continue strengthening all 10 repetition exercises

Aim for 10 repetitions at a relatively high resistance

Modify as needed to reduce pain with exercise. Never allow pain to climb above 3/10 on pain scale.

Exercises to Strengthen Shoulder Girdle:

Lat Pull

Sit tall on the ball with shoulders back and good posture.

Lean slightly backwards, until you feel your abdominals engaged. (keep shoulders back)

Pull lat bar down to chest, just in front of chin.

Return to starting position, maintaining good posture throughout.

Note: Keep your position firmly. The weight should not carry you forward on the way up; you should not be pulling yourself backward on the way down. The ball should remain steady.

Middle Trap on Ball

Place feet against the wall and lay face down on ball (ball should be at pelvic to mid-abdominal level)

Extend the full length of your wingspan, so that there is a 90 degree angle at your armpit. Turn your palms up to the sky.

Gently move your arms up and down as a bird does its wings. Focus on the movement being guided by your shoulder blades. You should be pinching your shoulder blades together at the top of the motion and spreading them at the bottom of the motion. (Hint: it's not important how high your arms can go in the air)

Lower Trap on Ball

Assume same position as ‘middle trap on the ball’, face down, with feet against the wall.

Place arms diagonally out in front of you, with thumbs facing up.

Guide your arms up and down in the shape of a ‘V’, while attempting to relax the top of your shoulders as much as possible (Hint: Release the tension in your neck)

Posterior Deltoid/Rhomboid Pulls

Place left knee and left hand with extended elbow on the bench.

Place right foot on the right side of the bench, and flatten back as much as possible. (Hint: It helps to have a mirror to look at yourself from the side)

Palm facing your feet, grasp weight with right hand.

Place elbow out to the side; guide your arm towards the ceiling until your shoulder blades pinch together.

Repeat on other side to complete one set.

Tree Cutters (upright rows)

Place left knee and left hand with extended elbow on the bench.

Place right foot on the right side of the bench, and flatten back as much as possible. (Hint: It helps to have a mirror to look at yourself from the side)

Palm facing in, grasp weight with right hand, maintaining constant tension between your shoulder blades.

Guide the weight up towards your right side, keeping your elbow as close to your body as possible. Rotate the weight as it rises so that your palm is facing your feet by the top of the movement.

Repeat on other side to complete one set.

Bench Press

Lay face up on bench with feet flat on bench or floor (feet flat on bench is less steady, but better for your back.)

Grasp dumbbells with palms facing your head. Keep your abdominal muscles tight so that you do not arch your back.

Raise dumbbells while rotating dumbbells so that palms face your feet by the top of the movement. Dumbbells should now be just above nipple level, over your chest.

Slowly return dumbbells to starting position, while de-rotating so that your palms face your head once again.

Incline Bench Press

Sit face up on inclined bench with feet flat on floor.

Grasp dumbbells with palms facing your head. Keep your abdominal muscles tight so that you do not arch your back.

Raise dumbbells while rotating dumbbells so that palms face your feet by the top of the movement. Dumbbells should now be just above nipple level, over your chest.

Slowly return dumbbells to starting position, while de-rotating so that your palms face your head once again.

Decline Bench Press

Lay face up on bench with legs over first set of cushions and feet under second set of cushions.

Grasp dumbbells with palms facing your head. Keep your abdominal muscles tight so that you do not arch your back.

Raise dumbbells while rotating dumbbells so that palms face your feet by the top of the movement. Dumbbells should now be just above nipple level, over your chest.

Slowly return dumbbells to starting position, while de-rotating so that your palms face your head once again.

Cable Crossover Pec Exercise

Facing forward, grasp one handle from cable crossover machine in each hand, so that your arms are raised at each side.

With shoulders back, tall posture, and abdominal muscles engaged, slowly pull the cables in to meet just below your belly button, while squeezing your pectoral muscles (chest) and holding for 5 seconds.

Return the weights to the starting position by slowly releasing.

Check posture and begin next repetition.

T-Band Rows

Wrap Theraband around pole at eye level, grasping one end with each hand.

Squat slightly as if you were about to sit into a chair. (No leaning backwards or forwards, sit up tall!)

With shoulder blades squeezed together, and palms up, pull Theraband into side while keeping your elbows close to your body. Rotate your palms to face down as you perform this rowing movement.

Slowly return to starting position, while de-rotating your to end with your palms facing upward once again.

Re-assess your posture and squatting position and then perform the next repetition. (Hint: The top of your shoulders and neck should be relaxed… this movement comes from lower)

T-Band High Rows

Wrap Theraband around pole at eye level, grasping one end with each hand.

Squat slightly as if you were about to sit into a chair. (No leaning backwards or forwards, sit up tall!)

With shoulder blades squeezed together, and palms down, pull Theraband towards you while keeping your elbows high and your arms out to the side.

Slowly return to starting position, with your arms straight in front of you.

Re-assess your posture and squatting position and then perform the next repetition. (Hint: The top of your shoulders and neck should be relaxed… this movement comes from muscles located in the back of your shoulder and between your shoulder blades)

Pull-up Super Set on Pull-up Assist Machine

Adjust machine to proper amount of assistance (i.e. If you weight 150lbs. and you put the machine on 60lbs., you are effectively lifting 90lbs. with each pull-up.)

With knees on pad, and arms above you, perform 5 pull ups in each one of the following positions:

Example of movement:

Wide grip – palms away from you, pinkies on outer surface of outer grip.

Wide chin up – same location as above, but palms facing you, pinkies on inner surfaces of grips.

Hammer Grip Pull Up – Grasp pull up machine with palms facing inward.

Close Grip Chin Up – Grasp pull up machine with hands as close as possible, palms facing you (pinkies in).

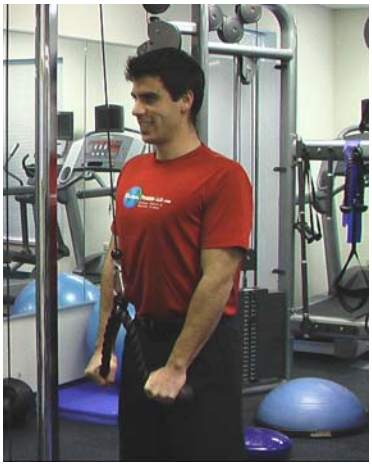
Front Hammer Grip – Maintain core so that you are not leaning forward/backward. Grasp pull up machine with palms facing inward (palms facing each other). Pull up while keeping elbows out in front, shoulder-width apart.

Maintain excellent posture throughout. Keep mild tension in your abdominal muscles to prevent arching your back. Be very careful not to arch your back. (Hint: Do not release arms so much that you feel them pulling out of socket. Keep your shoulder blades squeezed down and back to prevent this from occurring.)

Tricep Pully Rope

Stand facing machine, light tension in your glutes, shoulders back, relaxed at the neck, elbows at your side, feet shoulder-width apart.

Palms facing each other to start, pull rope down and turn your palms down toward the ground as your arms straighten. (Hint: Imagine holding a washcloth at your side, clenched between your elbows and your rib cage.)



Allow your elbows to bend, as you return to starting position. Re-assess position and begin again.

3 Position Skull Crushers with Dumbbells

Lay face up on bench with feet flat on bench or floor (feet flat on bench is less steady, but better for your back.)

Point elbows straight up towards the ceiling, maintaining no movement in your upper arm. Grasp dumbbells with palms facing your head. Keep your abdominal muscles tight so that you do not arch your back.


Straighten your arms against gravity, while holding the dumbbells in the same position. Dumbbells should now be directly above your shoulders.

Slowly bend your elbows and return to the starting position. (Hint: Be sure to pick a weight that you can safely hold, as you will be holding the dumbbells almost directly over your face!)

Change hand position. Repeat with palms facing each other, and with palms facing the ceiling, alternating between each repetition.


3 Position Bicep Curls with Dumbbells on Ball

Sit towards front of ball with feet and knees close together.

Hold dumbbells at your side with your palms facing up, such that your elbows are straight and pressed against your rib cage.

Curl dumbbells upward by bending your elbows.

Slowly straighten your arms to return to the starting position.

Repeat above directions with palms facing each other, and palms facing floor, alternating after each repetition between the 3 hand positions.




Plank

Place forearms and elbows onto balance discs, with elbows directly under your shoulders, and palms facing up.

Assume push-up like position, with your feet on the ground, and the rest of your body braced into position. (Hint: It helps to have light tension in your abs and glutes in order to maintain a straight back… no mountains or valleys here!)

Hold for 30 seconds.

Crossed Extension

Position yourself on all 4's, with both knees under your hips, and both hands under your shoulders.

Slowly extend out your right arm and left leg, without allowing any rotation to occur at your spine.

Slowly return them to the starting position, on the ground.

Repeat on opposite side, alternating after each repetition. (Hint: It's not important how far you can stretch your arm and leg out… rather focus on keeping your spine stable. You will progress over time.)

Push-up Progression on Ball

3 Sections: 5 Push-ups in each section.

Place hands on the ground (under shoulders), supporting your abdomen by the exercise ball with your feet in the air. Do 5 push ups.


Walk out on the ball, so that it is now supporting your pelvis and upper thighs. Do 5 more push ups.


Walk out even further, so that the ball is now supporting your knees/shins. Do 5 more push ups.


Return to Position 2, 5 push ups. Return to Position 1, 5 push ups.

Maintain tension in abs and glutes to prevent your back from arching. Don't worry if you can walk all the way out yet. It's much more important to support your low back and build up over time.

Shoulder-blade stabilization – 3 Position delt raises

Stand with feet shoulder-width apart, knees slightly bent, and arms at your sides holding dumbbells.

Palms facing inward, and elbows straight, raise arms in diagonal pattern up to shoulder level. (Hint: Careful not to extend backwards and put stress on your back)


Palms down, and elbows straight, raise arms directly in front of you, parallel to your shoulders. (Hint: The tendency to lean backwards is greatest here. Bend your knees a bit extra to prevent putting stress through your low back)


Palms facing your side, and elbows straight, raise arms directly out to your sides until you've reached 90 degrees at your armpit. (Hint: The tendency is

elevate your shoulders here and tense your neck… be careful not to do this. Instead, relax the top of your shoulders and pick a weight that you can comfortably lift to 90 degrees.)

Keep light tension in your abs and glutes to steady your posture. Follow hand positions carefully, as well as degree-markers, in order to prevent awkward positioning for your rotator cuff.

Serratus Push –ups

Assume push-up position, body diagonal, light tension in the glutes and abs so that you prevent yourself from arching/rounding your back.

Squeeze shoulder-blades together as starting position, with elbows extended and hands underneath your shoulders.

Push through your hands, maintaining straight elbows, to round your upper back and cave in your chest. (Hint: This is really coming from your shoulder blades. In the starting position, you are squeezing them together; in the ending position, you are spreading them apart as much as possible. Always relax the top of your shoulders.)

Note: You are not actually doing a push up here. Instead you are just in push up position and pushing through your straight arms.