



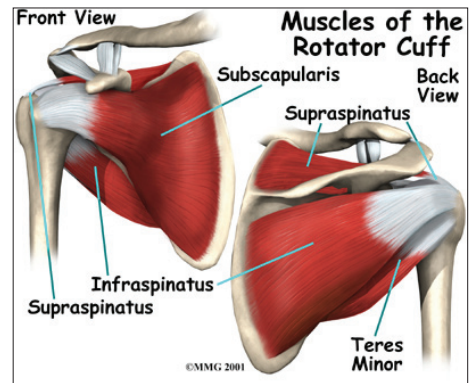
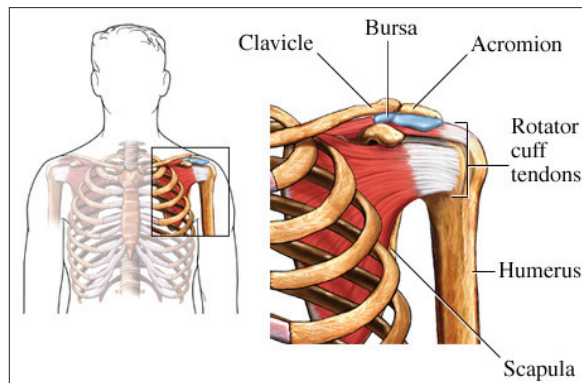
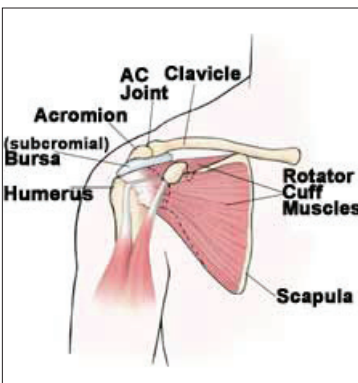
Shoulder Rehabilitation

Treatment includes activity modification, stretching, and strengthening the affected limb.

P Protection	R Rest	I Ice	C Compression	E Elevation
Consider using a shoulder sling for the first 1-2 days if your shoulder is painful with everyday living activities.	You should rest from all activities that cause shoulder pain. Consider using a shoulder sling when available.	Place an ice bag on the shoulder for 15-20 minutes, 3-5 times a day for the first 24-72 hours. After 72 hours, ice the shoulder after activity or exercise.	N/A. Wear sling if swelling is noticed until it decreases.	N/A. Make sure to rest from all painful activities until swelling subsides. Always be sure to ice your shoulder after you complete your exercises. Apply for 15-20 minutes.

Shoulder injuries are very common in the college-aged population. The shoulder consists of two anatomical joints: the Gleno-humeral joint and the Acromio-clavicular joint. The Gleno-humeral joint is the connection of the arm with the scapula (“shoulder blade”) The Acromio-clavicular joint is the connection of the clavicle (“collar bone”) and the scapula. A large number of muscles and ligaments are important to the shoulder. The most important are the rotator cuff muscles and the Acromio-clavicular ligaments along with the Gleno-humeral joint capsule. The rotator cuff is a group of muscles and tendons, which hold the Glenohumeral joint together and help lift the arm overhead, such as throwing a ball or swimming.

The shoulder rehabilitation protocol consists of two major components; flexibility and strength. Flexibility is the first component of shoulder rehabilitation and consists of range of motion (ROM), static stretching, and dynamic stretching. ROM is desired degrees of range of motion of movement pattern that is pain free and maybe assisted with a stick/ towel or unassisted. Static stretching are stretches that are pain free and held for 20-30 seconds and repeated 3-6 reps. Dynamic stretching are stretches that are pain free and held for 1-5 seconds and repeated 10-15 reps. Strength is the second component of shoulder rehabilitation and consists of dumbbell, tubing, and functional exercises.



The first phase of rehabilitation begins with Flexibility: ROM, Static Stretch, and Dynamic Stretch

ROM

1- Codman's/Pendulum

Bend over chair/table, hang affected arm straight down. Keep arm completely relaxed, being pain free move your arm using your momentum: Do each exercise for 30-40 seconds.

- a. Front and Back
- b. Side to Side
- c. Circles, Clockwise and Counter Clockwise



2- Active Assistive ROM with Stick

Hold stick between both hands hip width apart. Elbows straight, palms facing body. Keep affected arm relaxed, do not lift affected arm on its own. Move through the motion slowly. Go through each motion 10 times holding at the end point for 3-5 seconds.

a. Flexion- Lift both arms straight up in front of you, letting your unaffected arm lift the affected arm. Return slowly.



b. Extension- Push the affected arm back behind you. Keep the trunk upright.



c. Abduction- Push the affected arm up to the side of your body. Return slowly.

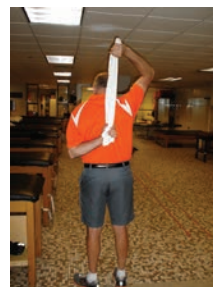


d. IR(Internal Rotation)/Extension- Hold stick behind you with your hands as close together as possible, slowly raise hands up back, return slowly to start.



3- Towel Stretch IR/Extension

Hold towel behind back, involved arm on the bottom grasping bottom of towel. Slowly elevate your arm by pulling up with your uninvolved top arm. Hold at your maximum pain free range for 20-30 seconds. Repeat 3-6 times.



STATIC STRETCH

4- Sleeper Stretch

Lie on affected side with body perpendicular to table. Have shoulder perpendicular to your chest and parallel to bench. Flex your elbow to 90 degrees. Apply downward pressure on your forearm with the opposite arm. Hold for 20-30 seconds and repeat for 3-6 reps.



5- Horizontal Abduction (3 Angle Stretch)

Place a palm on the wall with your shoulder in extension, turn your body away from the wall until a stretch is felt. Repeat in 3 different angles, low, medium, high. Hold for 20-30 seconds and repeat for 3-6 reps.



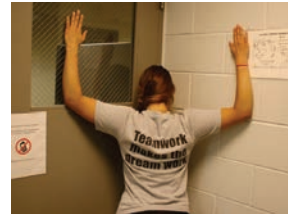
6- Horizontal Adduction (3 Angle Stretch)

Bring shoulder across the front of the body resting the palm of your hand on the wall turning your body away from the wall until a stretch is felt. Repeat in 3 different angles, low, medium, and high. Hold for 20-30 seconds and repeat for 3-6 reps.



7- Doorway Stretch

In standing position, place yourself, facing in a corner between the door and wall. Place one arm on the door and one arm on the wall, with your shoulders and elbows flexed at 90 degrees. Now, lean into the corner and you should feel a stretch across your chest. Hold for 20-30 seconds and repeat for 3-6 reps.



8- Pectoral Stretch on the Foam Roller

Lie supine on the foam roller or rolled up pillow, place your arms and elbow bent to 90 degrees to your side. Keep your elbows off the ground as you bring the back of your hands to the ground, you should feel this stretch in your chest. This stretch can also be done with your arms at 45 degrees, which brings your arms closer to your body. Hold stretch for 30 seconds, 3 reps at 90 degrees and 3 reps at 45 degrees.



DYNAMIC STRETCH

9- Kneeling Lat Stretch Foam Roller

Start this stretch on all fours, with the foam roller under the arm you will be stretching. Gently roll the foam roller towards the opposite shoulder and hold it at the end of the ROM. Hold for 2-5 sec. Repeat 10-15 times.



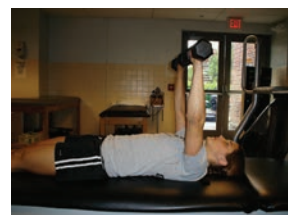
Begin the second phase of rehabilitation with these strengthening exercises once you have completed and feel comfortable with the stretching protocol: Progress through each section as you become more comfortable and stronger with the previous section.

Strength: Dumb Bells, Tubing, and Functional Exercises. As the exercises get easier, you can add repetitions, and/or add weight.

DUMB BELLS

1- Supine Protraction with Dumb Bells

Lie on back with shoulder blades on the table with a weight in each hand, raise your arms so that your fists are directly toward the ceiling as you lift your shoulders from the table. Hold for 3 seconds and return to the start position. Do 10-15 reps and 2-3 sets.



2- Scaption

Start in standing with feet shoulder width apart and knees slightly flexed. Hold dumbbells at side with an overhand grip. Raise both arms, thumbs up at a 45 degree angle in front of the body until hands reach eye level. Keep shoulder blades retracted and depressed. Do not arch back. Do 10-15 reps and 2-3 sets.



3- Anterior Raise

Stand with feet shoulder width apart and dumbbells held at the side with an overhand grip. While keeping your body still raise weights in front of the body to shoulder height. Do not arch back. Do 10-15 reps and 2-3 sets.



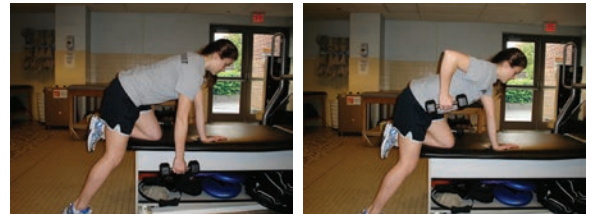
4- Lateral Raise

Stand with feet shoulder width apart and dumbbells held at the side with an over hand grip. While keeping your body still raise weights to the side of your body to shoulder height. Do not arch back. Do 10-15 reps and 2-3 sets.



5- Bent Over Single Arm Rows

Start with one leg kneeling on bench, arm on same side supporting your upper body, have affected arm hanging straight down and thumb pointing forward. Raise arm up, bending at the elbow slowly return to start, do not raise wrist higher than the level of your waist. Do 10-15 reps and 2-3 sets.



6- Biceps Curls-

Start with arm straight at side, keep abs tight. Bend at the elbow, contracting the bicep muscle. Return in a slow controlled manner. Move only at the elbow; do not move your shoulder. Do 10-15 reps and 2-3 sets.



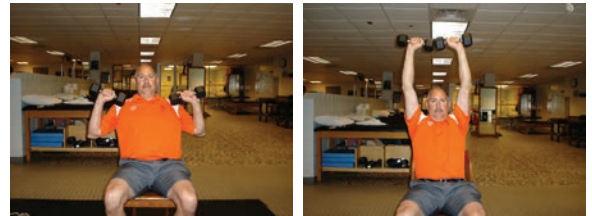
7- Triceps Extension

Either standing or seated, start with your shoulder in full flexion (180 degrees) and your elbow in full flexion (0 degrees), now extend your elbow above your head to full elbow extension (180 degrees.) Do 10-15 reps and 2-3 sets. The starting weight for this exercise should be 5-10 pounds and progress as tolerable to no more than 20 pounds.



8- Seated Overhead Press with Dumb Bells

In the seated positions with your arms at your side (0 degrees shoulder flexion); now press your arms up, finishing with your arms, over your head (180 degrees shoulder flexion.) Do 10-15 reps and 2-3 sets. The starting weight for this exercise should be 5-10 pounds and progress as tolerable to no more than 20 pounds



TUBING

9- IR in Neutral (bands or dumb bells)

Start in standing position with feet shoulder width apart. Set shoulder blades in neutral position, keep upper arm down to your side with the elbow at 90 degrees, and forearm facing forward wrist in neutral. Rotate your upper arm toward your body without moving your elbow forward and backwards. Do 10-15 reps and 2-3 sets.



10- ER (external rotation) in Neutral (bands or dumbbells)

Start in standing position with feet shoulder width apart. Set shoulder blades in neutral position, keep upper arm down to your side with the elbow at 90 degrees, and forearm toward body wrist in neutral. Rotate your upper arm away from your body without moving your elbow forward or backwards. Do 10-15 reps and 2-3 sets.



11- No Money

Start in the standing position, with your arms at your side and elbow flexed to 90 degrees with your palms facing up. Now externally rotate your arms out about six inches and slowly let the tension of the tubing pull you back into the starting position. Make sure to keep your upper arm and elbow locked down to the side of your body. Do 10-15 reps of 2-3 sets.



12- Horizontal Abduction

At 0 degrees, 90 degrees, 120 degrees-Start in standing position, with your arms in one of three positions: arms down your side (0 degrees shoulder flexion), arms raised to shoulder level(90 degrees shoulder flexion), or arms raised to eye level (120 degrees shoulder flexion.) Now, push your arms away from your body about six inches and slowly let the tension of the tubing pull you back to the starting position. Do 10-15 reps and 2-3 sets.



13- Flexion

Start in standing position, with your arm at your side (0 degrees shoulder flexion) and bring your arm forward to shoulder level (90 degrees shoulder flexion) , eye level (90 degrees shoulder flexion), or above head (120 degrees shoulder flexion). Once you reached your desired degree of ROM, return in a slow controlled manner to the start position. Do 10-15 reps and 2-3 sets.



14- Extension

Start in standing position with your arm at your side (0 degrees shoulder flexion) and bring your arm into extension as far back as you can raise your arm without flexing forward at your trunk. Once you reached your desired ROM, slowly let the tension of the tubing pull you back to your starting position. Do 10-15 reps and 2-3 sets



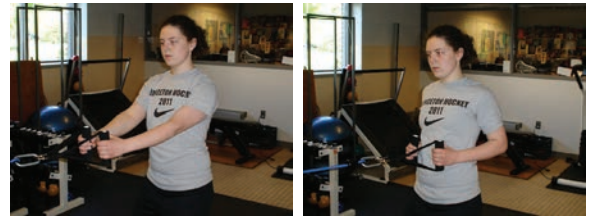
15- Adduction

Start in standing position with your arm abducted about 45 degrees away from the body and the tubing taught in hand. Pull the tubing in toward your side (0 degrees of abduction). Return in a slow controlled manner to the start position. Do 10-15 reps and 2-3 sets.



16- Row

Start with feet hip width apart hold tubing with arms extended at chest level. With knees slightly flexed, row tubing by flexing elbows and retracting and depressing shoulder blades. Do 10-15 reps and 2-3 sets.



FUNCTIONAL EXERCISES

17- Table Sides

Sitting next to a table elbow bent to 90 degrees with a towel placed under your hand, slide the hand forward until desired ROM is reached, do not move the body. Do 10-15 reps and 2-3 sets.



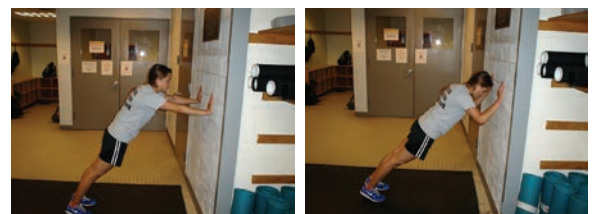
18- Seated Scapular Depression

Sitting in chair, back straight. Clasp seat of chair and lift your bottom from the seat by straightening your elbows and pushing the shoulders down. Do not let chin protrude forward. Do 10-15 reps and 2-3 sets.



19- Wall Push-ups- (single/double arm)

Start with arms at shoulder level and feet and hands shoulder width apart. Perform a push-up on the wall, leading with forehead. Keep shoulder blades down and together. Keep hands on the wall throughout the exercise. Do not lead with chin. Do 10-15 reps and 2-3 sets.



a. *Push-ups on Bench-* (single/double arm)



b. *Push-ups on Knees-* (single/double arm)



c. *Push-ups-* (single/double arm)



d. *Push-ups on Medball-* (single/double arm)



20- Blackburn Prone Horizontal Scaption T's, Neutral

Lie face down on table, with a towel under your forehead for support. Start with arms hanging straight down with palms facing in. Raise arms straight up to the side. Return slowly. Do not extend beyond the level of your shoulder/back. Do not swing arms. Do 10-15 reps and 2-3 sets.



21- Blackburn Prone Horizontal Scaption T's, Thumb up

Lie face down on table, with towel under your forehead for support. Start with arms hanging straight down with palms facing toward head. Raise arms straight up to the side with your thumb toward ceiling do not move beyond shoulder level. Return slowly. Do not swing arms. Do 10-15 reps and 2-3 sets.



22- Blackburn Prone Horizontal Scaption Y's, Neutral

Lie face down on table, with towel under your forehead for support. Start with arms hanging straight down with palms facing in. Raise arms up at a 45 degree angle making a "Y" with your palms facing the ground; do not move beyond shoulder level. Return slowly. Do not swing arms. Do 10-15 reps and 2-3 sets.



23- Blackburn Prone Horizontal Extension

Lie face down on table, with towel under forehead for support. Start with arms hanging straight down with palms facing away from your body. Raise arms behind you into extension, with your thumbs facing the ground, do not move beyond your body level. Return slowly. Do not swing arms. Do 10-15 reps and 2-3 sets.

