Health Plus

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Common Exercise Induced Injuries: Stretches and Exercises for Prevention and Treatment

Rotator Cuff Injuries: The most common upper-extremity problem experienced by both recreational and professional athletes. The rotator cuff is made up of four muscles that help stabilize and move the shoulder: supraspinatus, infraspinatus, teres minor, and subscapularis (SITS).

Common Injuries:

Rotator cuff impingements (squeezing of tendons under joint structures and surfaces)
Rotator cuff tendonitis (inflammation, pain, and swelling)
Rotator cuff tears (partial or complete tears of rotator cuff tendons)

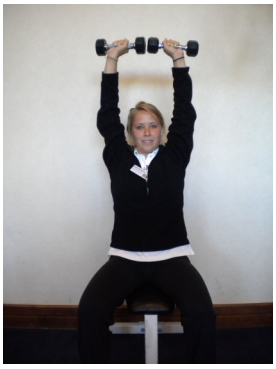
Common symptoms include pain, weakness, and loss of range of motion in the shoulder.

Self-Care Treatment:

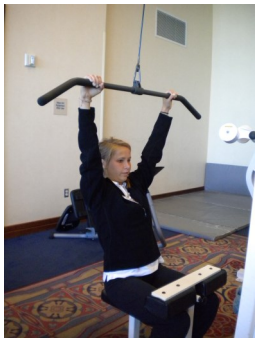
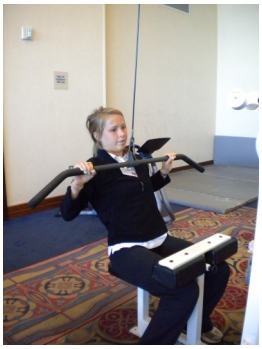
Rest and ice multiple times a day.
Over the counter anti-inflammatory medication can help control swelling and pain.

Strengthening Exercises for Prevention of Rotator Cuff Injuries:

Exercise #1: Shoulder Press — Keep bar or dumbbells slightly in front of shoulder and above ear level.



Exercise #2: Lateral Pull– Down – Pull bar down in front of head.

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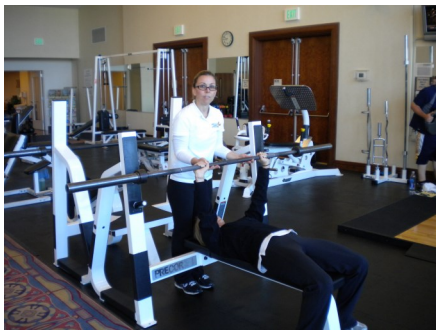
Exercise #3: Bench Press – Keep bar a few inches above chest when lowering and keep arms close to the body.



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Exercise #4: Reverse Incline Dumbbell Flys — Let arms hang to both sides with elbows slightly bent. Raise dumbbells as if you are touching elbows to the ceiling until elbows are parallel to the floor.

IT Band Injuries: Iliotibial band syndrome – an overuse injury common in runners, cyclists, and participants of other aerobic activities. Pain is often felt in the outside of the knee when the hip is flexed or the knee is bent.

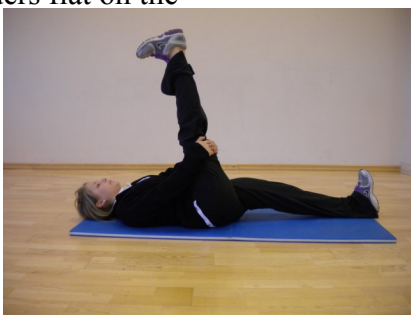
Self-Care Treatment:

Rest and stretching are the first steps in treatment.

Use the foam roller to roll injured leg over the roller. Increase the time each day.

Once most of the pain and swelling has started to subside, you can begin stretching and strengthening exercises to strengthen the hip and knees.

Stretch #1: Lie flat on your back with your legs straight and cross the injured leg across your body, keeping your shoulders flat on the ground. Hold position and repeat with other leg.



Stretch #2: Lie flat on your back and pull the knee of injured leg toward your chest. Keep both legs straight and the uninjured leg flat on the ground. Hold and repeat with other leg.

Stretch #3: Pull the foot of your injured leg to the back of your buttocks and cross uninjured leg over injured leg and push down. Hold position and repeat with other leg.

Stretch #4: Cross injured leg over the uninjured side and pull the leg as close to your chest as possible. Hold and repeat with other leg.

Exercise #1: Clams — Lie on your side with your hips and shoulders in a straight line. Bend your knees so your thighs make a 90 degree angle with your body. Keeping your feet together, slowly rotate the top leg so that the knee opens. Return to starting position and repeat with both legs.

Start

Finish

Exercise #2: Dirty Dog — Get in a hands and knees position with your hips over your knees and your wrists in line with your shoulders. Your neck should be in line with your spine throughout the movement. Without moving the rest of the body, slowly lift one knee out and up to the side. Hold this position and lower back to starting position. Repeat with both legs.

Start

Finish

Exercise #3: Squat — Stand with feet shoulder width apart and bend knees until reaching a 90 degree angle with the ground. Keep the knees from going over the front of your toes by lowering as if you are sitting into a chair.

Plantar Fasciitis: Pain and inflammation of the thick band of tissue, the plantar fascia, that runs through the bottom of your foot, connecting your heel bone and your toes, and supporting the arch of your foot. This is one of the most common causes of heel pain. The stabbing pain usually emerges in the morning during your first few steps, after standing for a long period of time, or standing up from a seated position.

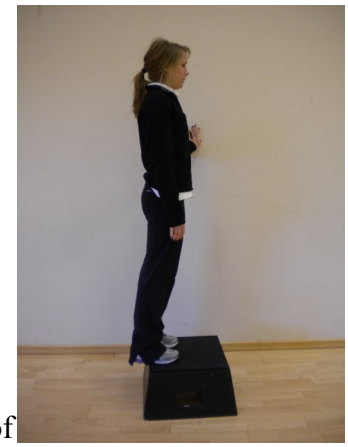
Self-Care Treatment:

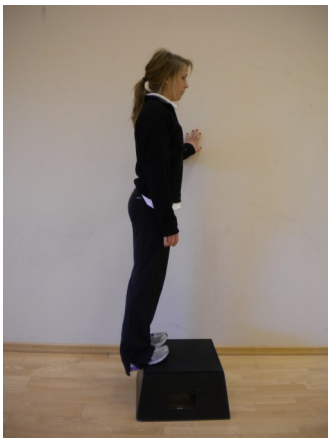
Rest and ice.
Heat calf muscle before getting out of bed in the morning in order to increase blood flow.
Self-massage beginning over foreleg and continuing to the foot.
Once most of the pain and swelling has started to subside, you can begin stretching and strengthening exercises to strengthen the foot and ankle muscles.

Stretch #1: With legs extended, wrap towel around forefoot and point toes down toward the ground. The towel should add resistance. Then pull toes back toward your body. The towel should help increase the stretch.

Start **Finish**

Stretch #2: Bring feet under your buttocks (toes pointing forward) and sit back on your heels. Gradually increase the pressure so that you feel a stretch in the sole of your foot. Do not bounce.





Start **Finish**

Stretch #3: Stand on a step with your heels hanging off of the back edge. Relax your calf muscles which allows your heels to lower down over the edge of the step. You should feel a stretch in the sole of your foot and through the back of your leg. Hold and then lowly return to starting position.

Stretch #4: Stand facing a wall with arms extended about eye level. Place leg to be stretched about a foot behind the other, keeping the heel on the ground. Slowly bend the front leg until you feel a stretch in the calf. This can be done with the back leg straight and then repeated with the back leg slowly bent.

Exercise #1: Starting out seated and then progressing to standing, roll a tennis ball with the arch of your foot.

Exercise #2: While seated, place your foot on a towel and using your toes, scrunch the towel toward you and then away from you. Progress this exercise by adding a weight to the far end of the towel.

Exercise #3: Place marbles, or marble like objects on the floor next to a cup or container. One at a time, pick up the marbles with your toes and place them in the cup.

Alternate Fitness Options During Recovery:

- Overall weight training program
- Bicycling
- Water training

Shin Splints: Many exercise-induced leg injuries are referred to as shin splints. These injuries are most commonly caused by overuse.

Common Injuries (referred to as shin splints):

Medial Tibial Stress Syndrome (MTSS or periostitis)
Chronic Compartment Syndrome (causes pain over the front of the shin bone and is quickly relieved by rest)
Stress Fractures (a small fracture of a bone caused by repeated physical strain)

Alternate Fitness Options During Recovery:

Stationary Bike
Pool Workouts

Self-Care Treatment:

Discontinue workout as soon as you feel pain.
Ice the shin multiple times a day to help reduce the inflammation.
Anti-inflammatory medication can help control swelling and pain.
Once most of the pain and swelling has started to subside, you can begin stretching and strengthening exercises to strengthen the lower leg and ankle muscles.

Stretch #1: Stand on a step with your heels hanging off of the back edge. Relax your calf muscles which allows your heels to lower down over the edge of the step and then lift as high as you can onto your toes. Repeat multiple times.

Start

Finish

Stretch #2: Stand facing a wall with arms extended about eye level. Place leg to be stretched about a foot behind the other, keeping the heel on the ground, and slowly bend the other leg until you feel a stretch in the calf. Hold and repeat multiple times. Then repeat again, this time slowly bending the back leg while still keeping heel on the ground.

Stretch #3: To stretch the front of the lower leg, kneel down and sit on your heels, toes pointing backwards. Carefully push down on the heels and hold this position and repeat.

Stretch #4: Sit in a chair with shoes off and injured leg extended. Flex the foot back toward the body, and then point the toes away. Repeat multiple times and perform with both legs.

Strengthening Exercises:

Exercise #1: Walk on your heels with toes up toward your body.

Exercise #2: Toe raises — Sit with both feet flat on the floor. Keep heel on the ground and lift the toes of one foot up off the ground as high as possible. Hold for a few seconds and lower back to starting position. Repeat multiple times and with both legs.

Exercise #3: Calf raises — Stand with legs shoulder width apart and knees straight. Lift heels off ground as high as possible so you are standing on your tip toes and slowly lower back to starting position. Repeat multiple times. Start with two legs at the same time and progress to one leg at a time.

* For any of the above injuries, if symptoms do not improve or get worse, seek attention from a medical provider. If you have any questions about this workout, e-mail us at health.plus@vumc.org.