

## **Using the Patient Handouts**

This DVD includes patient handouts that you can download and print out for yourself and your patients. For easy access to the handouts, you may wish to copy and paste the pdf file from the DVD to your desktop or the destination of your choice.

When you open the file, you will see a Bookmarks menu to the left, which lists the documents available.

## **Customizing the Handouts**

At the top of each patient handout are two customizable fields: one for you to insert the patient's name (up to 38 characters), and one for your practice information (up to 7 lines of 46 characters).

## **Printing and Saving Documents**

You will be able to customize these two fields and print out individual handouts using *Acrobat Reader*, which is available as a free download. However, if you wish to **save** the customized documents onto your computer, you will need to purchase the complete *Acrobat* application. Both *Acrobat Reader* and the complete *Acrobat* application can be accessed through the Adobe web site. Go to [www.adobe.com/products](http://www.adobe.com/products) where you can find a link to download *Acrobat Reader*, as well as information about how to order the full *Acrobat* application.

To print the patient handout for a specific condition, specify the appropriate page numbers (for example, the handout for rotator cuff tear is pages 8 and 9) in the page range field in the print menu.

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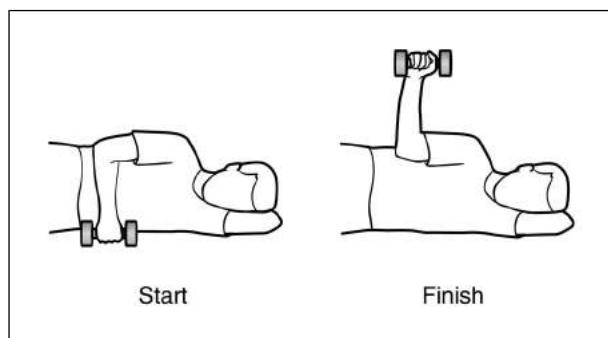
Exercise program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR ACROMIOCLAVICULAR INJURIES

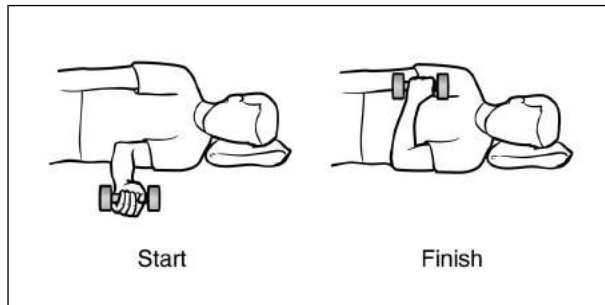
Perform the exercises in the order listed. To prevent inflammation, apply ice, such as a bag of crushed ice or frozen peas, to the shoulder for 20 minutes after performing all the exercises. You should not experience any pain with the exercises. If you are unable to perform any of the exercises because of pain or stiffness, call your doctor.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
External rotation	Infraspinatus Teres minor	8 to 10 repetitions/2 sets, progressing to 15 repetitions/3 sets	3	2 to 3
Internal rotation	Subscapularis Teres major	8 to 10 repetitions/2 sets, progressing to 15 repetitions/3 sets	3	2 to 3
Scapular retraction/protraction	Middle trapezius Serratus	8 to 10 repetitions/2 sets, progressing to 15 repetitions/3 sets	3	2 to 3



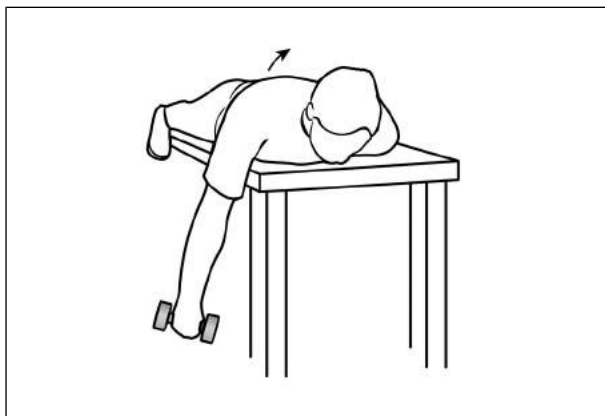
### EXTERNAL ROTATION

Lie on your side on a firm, flat surface with the unaffected arm under you, cradling your head. Hold the injured arm against your side as shown, with the elbow bent at a 90° angle. Slowly rotate the arm at the shoulder, keeping the elbow bent and against your side, to raise the weight to a vertical position, and then slowly lower the weight to the starting position to a count of 5. Begin with weights that allow 2 sets of 8 to 10 repetitions, and progress to 3 sets of 15 repetitions. Add weight in 1-pound increments to a maximum of 5 pounds, starting over at 2 sets of 8 to 10 repetitions each time weight is added. Perform the exercise 3 days a week. Continue for a total of 2 to 3 weeks.



## INTERNAL ROTATION

Lie on your side on a firm, flat surface with the affected arm under you and with a pillow or folded cloth under your head to keep your spine straight. Hold the injured arm against your side as shown, with the elbow bent at a 90° angle. Slowly rotate the arm at the shoulder, keeping the elbow bent and against your torso, to raise the weight to a vertical position, and then slowly lower the weight to the starting position. Begin with weights that allow 2 sets of 8 to 10 repetitions, and progress to 3 sets of 15 repetitions. Add weight in 1-pound increments to a maximum of 5 pounds, starting over at 2 sets of 8 to 10 repetitions each time weight is added. Perform the exercise 3 days a week, continuing for a total of 2 to 3 weeks.



## SCAPULAR RETRACTION/ PROTRACTION

Lie on your stomach on a table or bed with the injured arm hanging over the side. Keeping the elbow straight, lift the weight slowly by moving the scapula toward the opposite side as far as possible. Do not shrug the shoulder. Then slowly return to the starting position. Begin with a weight that allows 2 sets of 8 to 10 repetitions without pain. Progress to 3 sets of 15 repetitions. Then add weight in 1-pound increments to a maximum of 5 pounds, starting over at 2 sets of 8 to 10 repetitions each time weight is added. Perform the exercise 3 days a week, continuing for a total of 2 to 3 weeks.

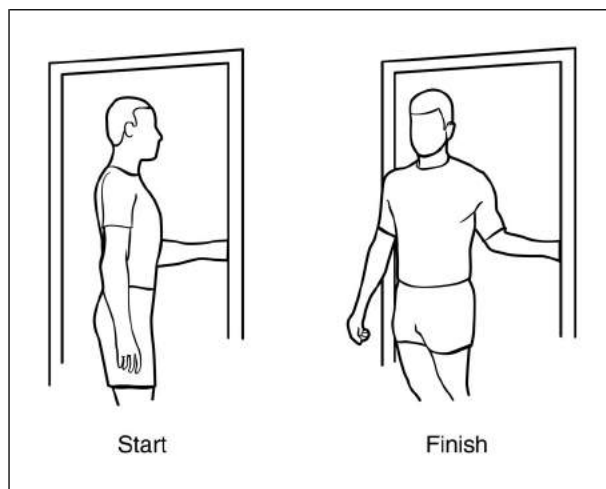
Exercise program for:

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## HOME EXERCISE PROGRAM FOR FROZEN SHOULDER

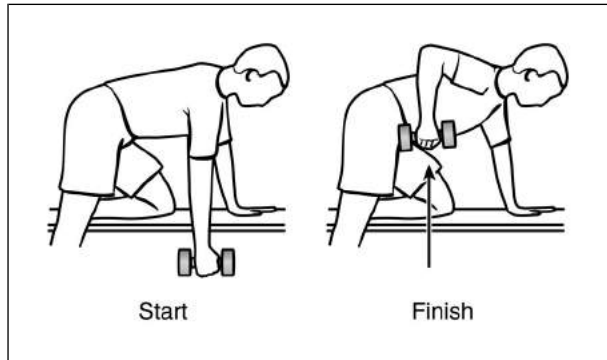
Perform the exercises in the order listed. Apply moist or dry heat to the shoulder for 5 or 10 minutes before the exercises and during the external rotation passive stretch. If you experience pain during or after the exercises, call your doctor.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
External rotation passive stretch	Anterior capsule	4 repetitions/3 sets	Daily	3 to 4
Bent over rowing	Posterior deltoid Middle trapezius	8 to 10 repetitions/2 sets, progressing to 15 repetitions/3 sets	3	3 to 4



### EXTERNAL ROTATION PASSIVE STRETCH

Stand in a doorway, facing the doorjamb. With the affected arm held next to your side and the elbow bent 90°, grasp the edge of the doorjamb. Keeping the hand in place, rotate your upper body as shown in the illustration. Hold the stretch for 30 seconds; then return to the starting position for 30 seconds. Perform 3 sets of 4 repetitions daily, continuing for 3 to 4 weeks.



## BENT OVER ROWING

Stand next to a bench or chair with your knee and hand resting on the bench and your free hand grasping a weight. Lift the weight while you count to 3 slowly by bending the elbow, squeezing the shoulder blade across the back. Lower the weight slowly to a count of 3. Begin with a weight that allows 2 sets of 8 to 10 repetitions without pain. Progress to 3 sets of 15 repetitions. Add weight in increments up to 5 pounds, returning to 8 to 10 repetitions and 2 sets each time weight is added. Perform the exercise 3 days a week, continuing for 3 to 4 weeks.

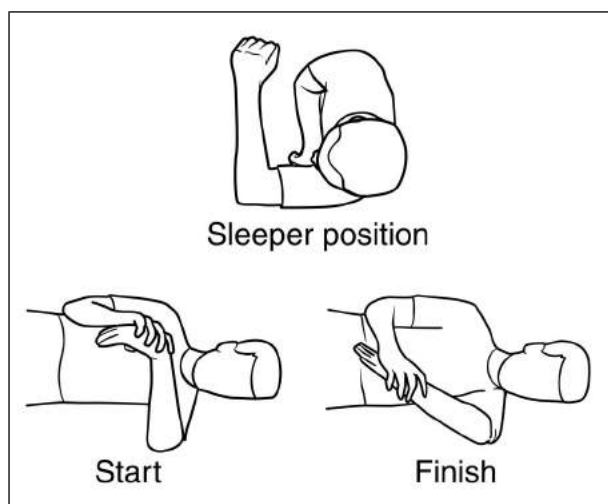
Exercise program for:

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## HOME EXERCISE PROGRAM FOR SHOULDER IMPINGEMENT

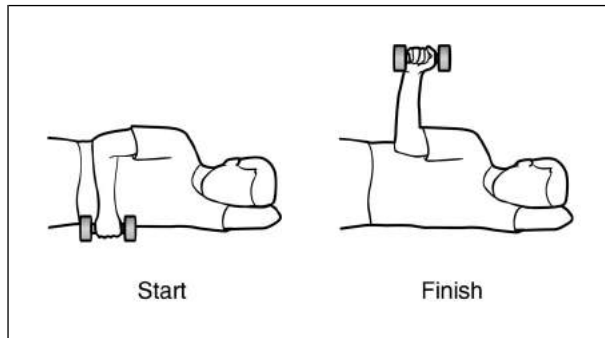
Perform the exercises in the order listed. Apply a bag of crushed ice or frozen peas to the shoulder for 20 minutes after performing the exercises to prevent inflammation. These exercises should not increase the pain in your shoulder, although you may experience muscle soreness and a stretching sensation. Call your doctor if you experience increased pain or if you do not see improvement in your ability to perform overhead activities without pain after performing the exercises for 3 or 4 weeks.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Sleeper stretch	Posterior rotator cuff Posterior inferior capsule/glenohumeral ligament	4 repetitions/3 to 4 sets	Daily	3 to 4
External rotation	Infraspinatus Teres minor	8 repetitions/2 sets, progressing to 15 repetitions/3 sets	3 to 4	6 to 8
Internal rotation	Subscapularis Teres major	8 repetitions/2 sets, progressing to 15 repetitions/3 sets	3 to 4	6 to 8



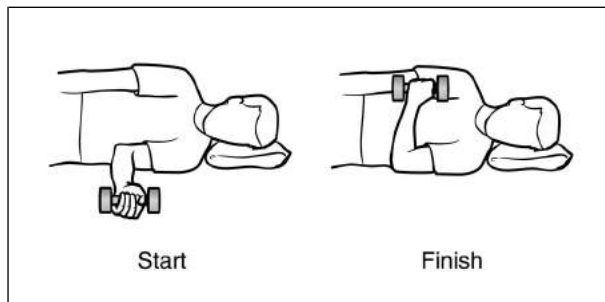
### SLEEPER STRETCH

Lie on your side on a firm, flat surface with the affected shoulder under you and the arm positioned as shown, keeping your back perpendicular to the surface. With the unaffected arm, push the other wrist down, toward the surface. Stop when you feel a stretching sensation in the back of the affected shoulder. Hold this position for 30 seconds, then relax the arm for 30 seconds. Perform 3 or 4 sets of 4 repetitions daily, continuing for 3 to 4 weeks.



## EXTERNAL ROTATION

Lie on your side on a firm, flat surface with the unaffected arm under you, cradling your head. Hold the affected arm against your side as shown, with the elbow bent at a 90° angle. Slowly rotate the arm at the shoulder, keeping the elbow bent and against your side, to raise the weight to a vertical position, and then slowly lower the weight to the starting position to a count of 5. Begin with weights that allow 2 sets of 8 repetitions (approximately 1 to 2 pounds), progressing to 3 sets of 15 repetitions. Add weight in 1-pound increments, starting over at each new weight level with 2 sets of 8 repetitions up to a maximum of 3 to 6 pounds, depending on your size and fitness level. Perform the exercise 3 or 4 days a week, continuing for 6 to 8 weeks.



## INTERNAL ROTATION

Lie on your side on a firm, flat surface with the affected arm under you and with a pillow or folded cloth under your head to keep your spine straight. Hold the affected arm against your side as shown, with the elbow bent at a 90° angle. Slowly rotate the arm at the shoulder, keeping the elbow bent and against your torso, to raise the weight to a vertical position, and then slowly lower the weight to the starting position. Begin with weights that allow 2 sets of 8 repetitions, progressing to 3 sets of 15 repetitions. Add weight in 1-pound increments, starting over at each new weight level with 2 sets of 8 repetitions up to a maximum of 3 to 6 pounds, depending on your size and fitness level. Perform the exercise 3 or 4 days a week, continuing for 6 to 8 weeks.

Exercise Program for:

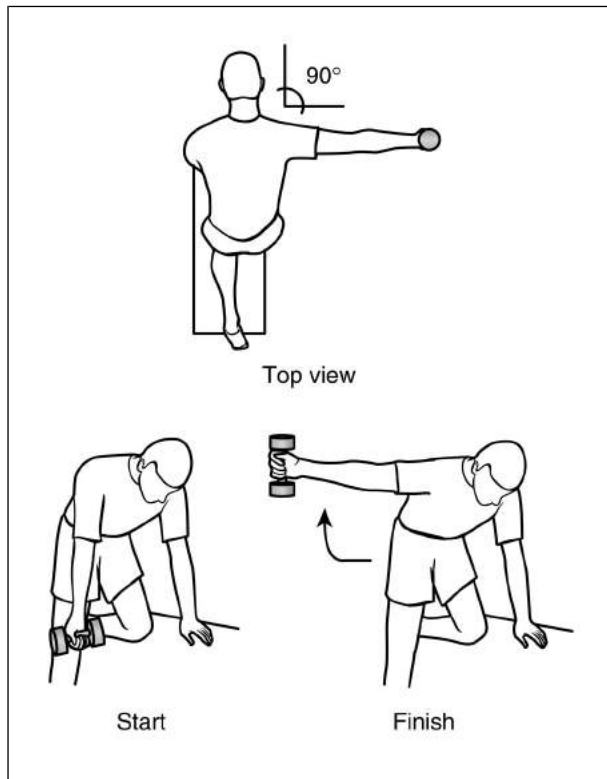
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## HOME EXERCISE PROGRAM FOR ROTATOR CUFF TEAR

Perform the exercises in the order listed. Apply a bag of crushed ice or frozen peas to the shoulder for 20 minutes after performing both exercises to prevent any further inflammation or pain. You should not experience pain with any of the exercises. If pain or stiffness occurs that prevents you from performing any of the exercises correctly, call your doctor.

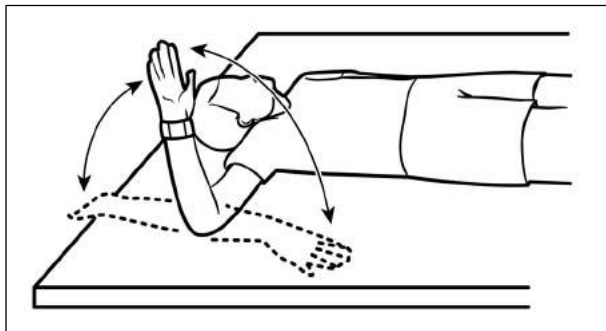
Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Trapezius strengthening	Middle and posterior deltoid Supraspinatus Middle trapezius	20 repetitions/3 to 4 sets, decreasing to 8 to 10 repetitions/3 to 4 sets as weight is added, then progressing to 15 repetitions/3 sets	3 to 5	3 to 4
Internal and external rotation at 90° or 45° elevation	<i>Internal rotation:</i> Anterior deltoid Pectoralis Subscapularis Latissimus <i>External rotation:</i> Posterior deltoid Infraspinatus Teres minor	20 repetitions/3 to 4 sets, decreasing to 8 to 10 repetitions/3 to 4 sets as weight is added, then progressing to 15 repetitions/3 sets	3 to 5	3 to 4





## TRAPEZIUS STRENGTHENING

Stand next to a bench or chair with your knee and hand (on the unaffected side) resting on the bench. The other hand should be at your side, palm facing the body. As you lift the arm slowly, rotate the hand to the thumb-up position, stopping when the arm is parallel to the floor. Slowly lower the arm to the original position to a count of 5. Begin with a light enough weight to allow 3 to 4 sets of 20 repetitions without pain. Decrease the repetitions to 8 to 10 and add no more than 2 to 3 pounds of weight so that the last few repetitions are difficult but pain free. Progress to 3 sets of 15 repetitions at each weight increment. Perform the exercise 3 to 5 times a week, continuing for 3 to 4 weeks.



## INTERNAL AND EXTERNAL ROTATION

Lie on your back on the floor or a bed. Extend your arm straight out from the shoulder and bend the elbow 90°. Keeping your elbow bent, slowly move your arm in the arc shown in the illustration. Change the angle of the arm to 45° if you experience pain at 90°. Begin with a light enough weight to allow 3 to 4 sets of 20 repetitions without pain. Decrease the repetitions to 8 to 10 and add no more than 2 to 3 pounds of weight so that the last few repetitions are difficult but pain free. Progress to 3 sets of 15 repetitions at each weight increment up to a maximum of approximately 5 to 7 pounds. Perform the exercises 3 to 5 times a week, continuing for 3 to 4 weeks.

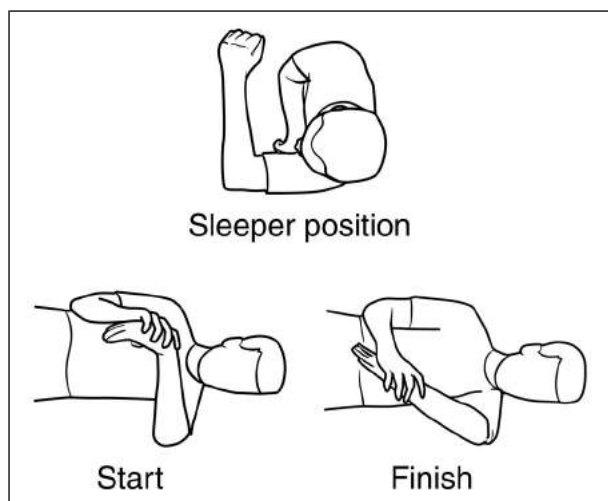
Exercise Program for:

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## HOME EXERCISE PROGRAM FOR SLAP LESIONS

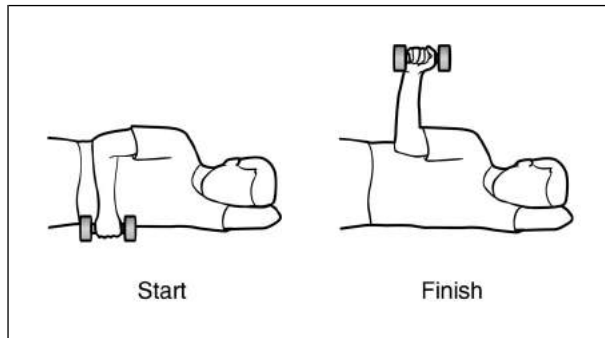
Perform the exercises in the order listed. Apply dry or moist heat to the shoulder prior to the exercises and during the sleeper stretch. To reduce inflammation, apply a bag of crushed ice or frozen peas to the shoulder for 15 to 20 minutes after performing both exercises. You should not experience pain during or after the exercises. If the exercises cause pain, call your doctor. Avoid activities that may cause additional damage to the labral tear, such as arm curls while lifting heavy objects (heavier than 5 pounds), overhead sports activities (a tennis serve or throwing a baseball), and reaching overhead or behind your body.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Sleeper stretch	Infraspinatus Teres minor Posterior capsule	4 repetitions/2 to 3 sets	Daily	2 to 3
External rotation	Infraspinatus Teres minor Posterior deltoid	8 to 10 repetitions/2 sets, progressing to 15 repetitions/3 sets	3	2 to 3



### SLEEPER STRETCH

Lie on your side on a firm, flat surface with the affected shoulder under you and the arm positioned as shown, keeping your back perpendicular to the surface. With the unaffected arm, push the other wrist down, toward the surface. Stop when you feel a stretching sensation in the back of the affected shoulder. Hold this position for 30 seconds, then relax the arm for 30 seconds. Perform 2 to 3 sets of 4 repetitions daily. Continue for a total of 2 to 3 weeks.



## EXTERNAL ROTATION

Lie on your side on a firm, flat surface with the unaffected arm under you, cradling your head. Hold the injured arm against your side as shown, with the elbow bent at a 90° angle. Slowly rotate the arm at the shoulder, keeping the elbow bent and against your side, to raise the weight to a vertical position, and then slowly lower the weight to the starting position to a count of 5. Begin with weights that allow 2 sets of 8 to 10 repetitions and progress to 3 sets of 15 repetitions. Add weight in 1-pound increments, starting over with 8 to 10 repetitions each time weight is added. Perform the exercise 3 days a week. Continue for a total of 2 to 3 weeks.

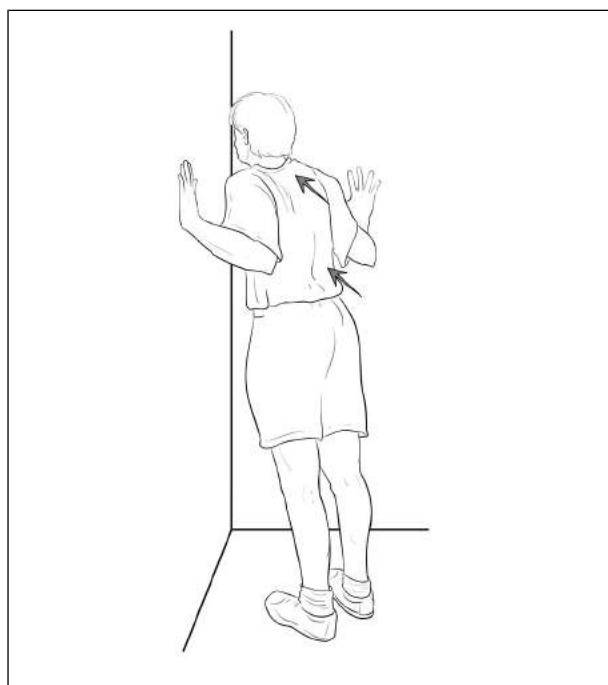
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR THORACIC OUTLET SYNDROME

The following exercises are designed to stretch the soft-tissue structures that may be compressing the neurovascular bundle. Perform the exercises in the order listed. If any of the exercises causes an increase in your symptoms, discontinue the exercises and call your doctor.

Exercise Type	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Corner stretches	10 repetitions/2 sets	Daily	12
Neck stretches	10 repetitions/2 sets	Daily	12
Shoulder rolls	10 repetitions/2 sets	Daily	12
Neck retractions	10 repetitions/2 sets	Daily	12



### CORNER STRETCHES

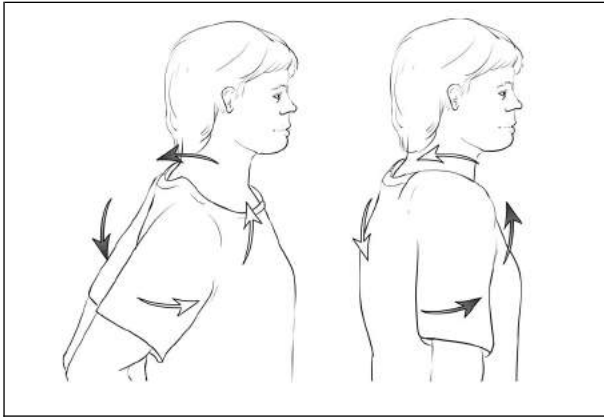
Stand in a corner with your hands against the walls at shoulder height. Lean into the corner until you feel a gentle stretch. Hold for 5 seconds.

Adapted with permission from Visual Health Information, Tacoma, WA.



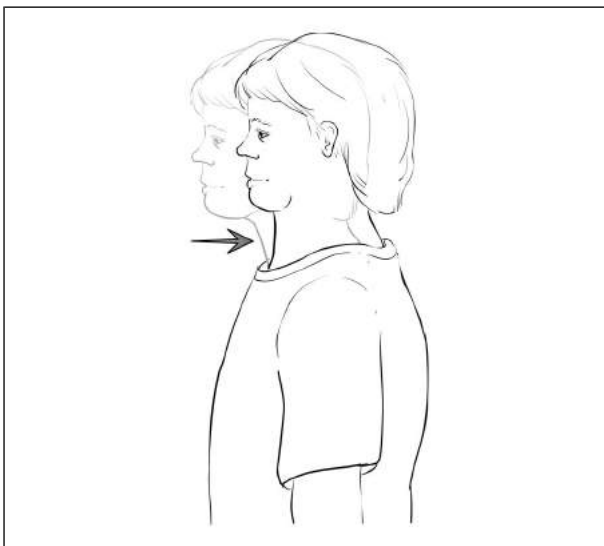
## NECK STRETCHES

Place your left hand on the far side of your head and your right hand behind your back. Pull your head toward your shoulder until you feel a gentle stretch. Hold for 5 seconds. Switch hand positions and repeat the exercise in the opposite direction.



## SHOULDER ROLLS

Roll your shoulders up, back, and then down in a circular motion.



## NECK RETRACTIONS

Pull your head straight back, keeping your jaw level. Hold in the retracted position for 5 seconds.

Adapted with permission from Visual Health Information, Tacoma, WA.

Exercise Program for:

Prepared by:

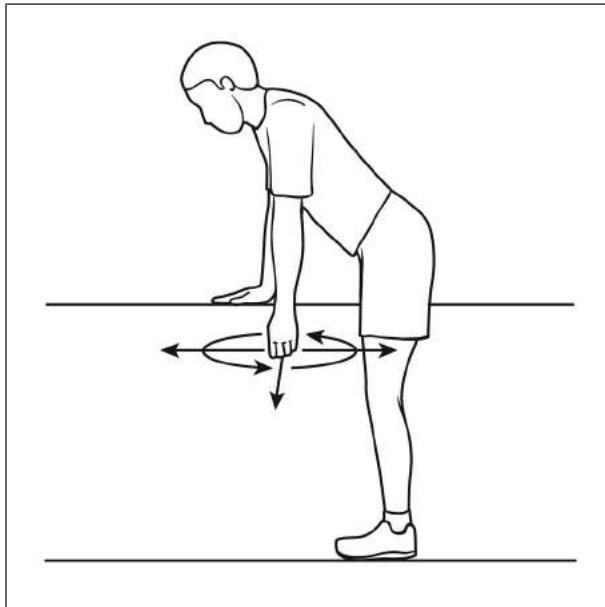
## HOME EXERCISE PROGRAM FOR SHOULDER CONDITIONING

For the exercises that use a stick, you may use a yardstick or stick of similar size. The exercises should never be performed at a level that causes pain. If the exercises cause pain, call your doctor.

### Stretching and Strengthening Exercises for the Shoulder

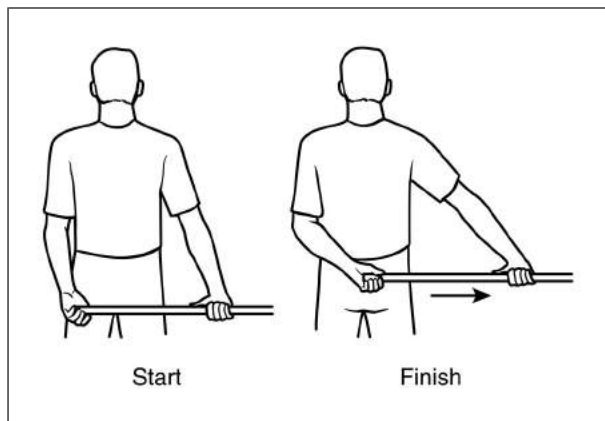
Exercise	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
<b>Stretching</b>				
Pendulum	General	10 repetitions/2 sets, progressing to 15 repetitions/3 sets	5 to 6	2 to 3
Passive internal rotation	Subscapularis Pectoralis major and minor	4 sets	5 to 6	6 to 8
Passive external rotation	Infraspinatus Teres minor	4 sets	5 to 6	6 to 8
Cross-over arm stretch	Posterior deltoid	4 sets	5 to 6	6 to 8
<b>Strengthening</b>				
External rotation	Infraspinatus Teres minor	8 repetitions/3 sets, progressing to 12 repetitions/3 sets	3	8
Standing row	Middle trapezius Rhomboid	8 repetitions/3 sets, progressing to 12 repetitions/3 sets	3	8
Internal rotation	Pectoralis major and minor Subscapularis	8 repetitions/3 sets, progressing to 12 repetitions/3 sets	3	8
Bent-over horizontal abduction	Middle and lower trapezius	8 repetitions/3 sets, progressing to 12 repetitions/3 sets	3	8
Elbow flexion	Biceps	8 repetitions/3 sets, progressing to 12 repetitions/3 sets	3	8
Elbow extension	Triceps	8 repetitions/3 sets, progressing to 12 repetitions/3 sets	3	8

## STRETCHING EXERCISES



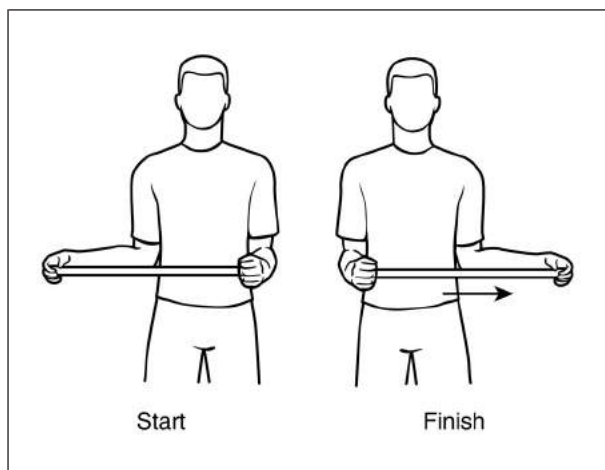
### PENDULUM

Lean forward, supporting the body with one arm and relaxing the muscles of the other arm so that it hangs freely. Gently move the arm in forward-and-back, side-to-side, and circular motions. Repeat on the other side.



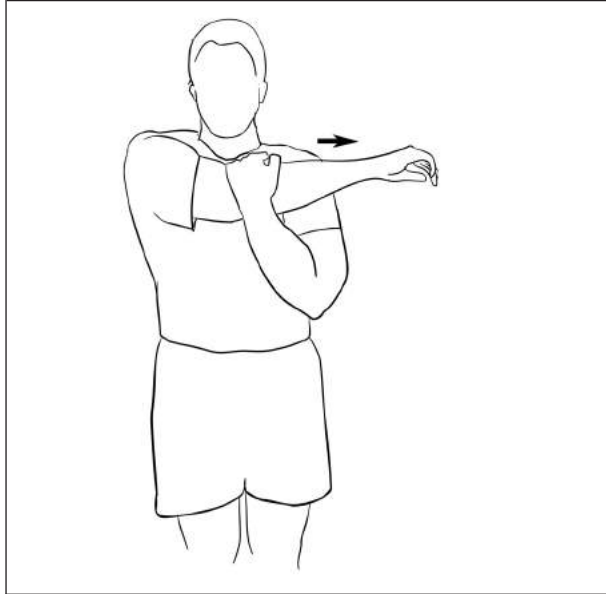
### PASSIVE INTERNAL ROTATION

Behind your back, grasp the stick with one hand and lightly grasp the other end of the stick with the other hand. Pull the stick horizontally as shown so that the arm is passively stretched to the point of feeling a pull without pain. Hold for 30 seconds and then relax for 30 seconds. Repeat on the other side.



### PASSIVE EXTERNAL ROTATION

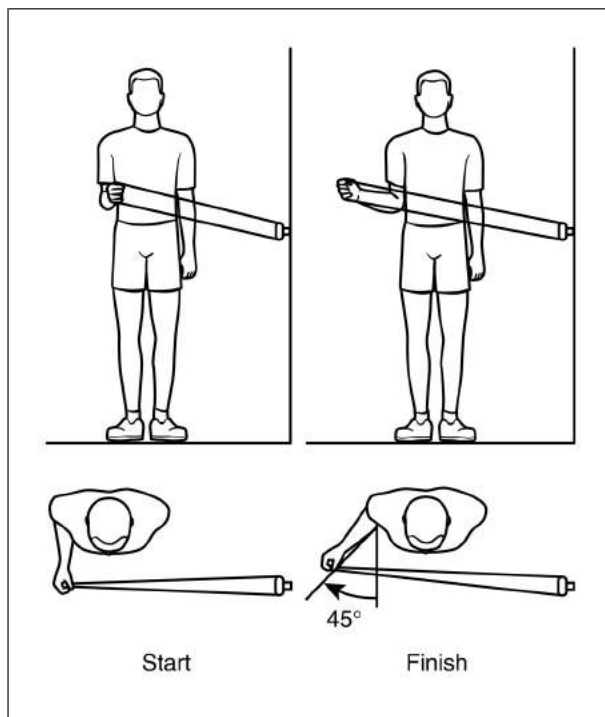
Grasp the stick with one hand and cup the other end of the stick with the other hand. Push the stick horizontally as shown, keeping the elbow against the side of the body so that the arm is passively stretched to the point of feeling a pull without pain. Hold for 30 seconds and then relax for 30 seconds. Repeat on the other side.



## CROSS-OVER ARM STRETCH

Gently pull the elbow of one arm across the chest as far as possible without feeling pain. Hold the stretch for 30 seconds and then relax for 30 seconds. Repeat on the other side.

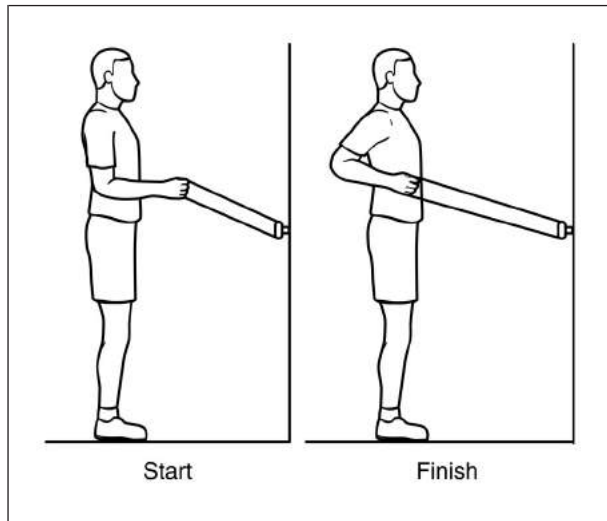
## STRENGTHENING EXERCISES



## EXTERNAL ROTATION

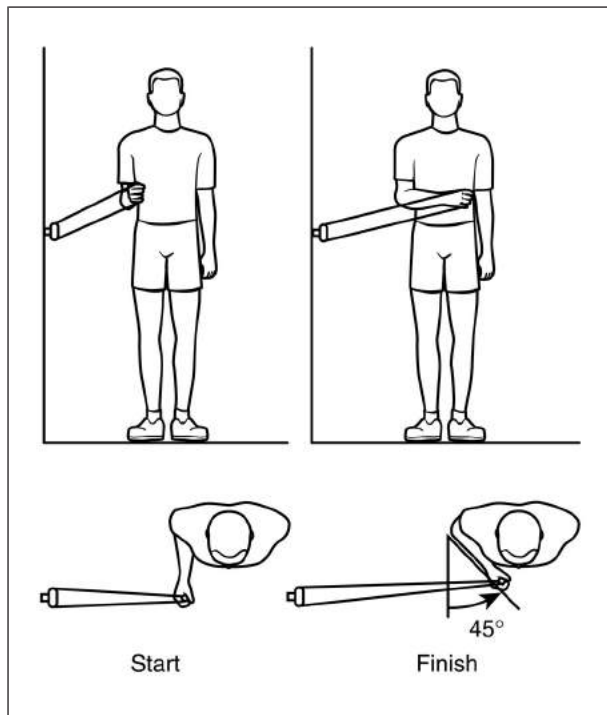
Make a 3-foot-long loop with the elastic band and tie the ends together. Attach the loop to a doorknob or other stable object. Standing with your side to the wall, hold the loop as shown in the Start position. Keeping your elbow close to your side, rotate the arm outward slowly and then slowly return to the Start position. Repeat on the other side.





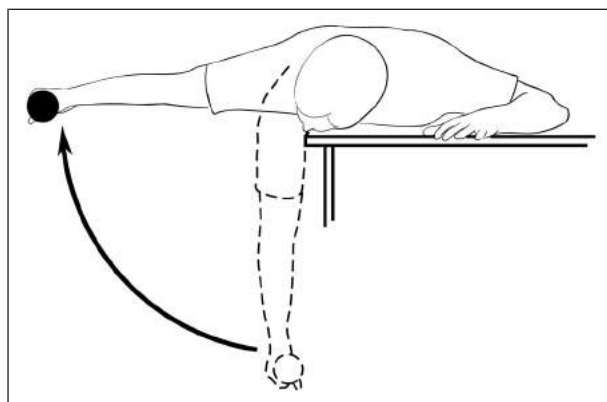
## STANDING ROW

Make a 3-foot-long loop with the elastic band and tie the ends together. Attach the loop to a doorknob or other stable object. Standing facing the wall, hold the loop as shown in the Start position. Keeping your arm close to your side, slowly pull the arm straight back and then slowly return to the Start position. Repeat on the other side.



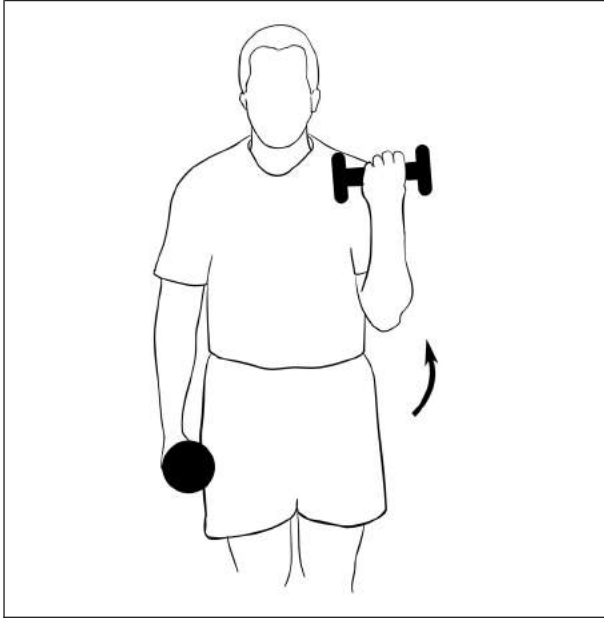
## INTERNAL ROTATION

Make a 3-foot-long loop with the elastic band and tie the ends together. Attach the loop to a doorknob or other stable object. Standing with your side to the wall, hold the loop as shown in the Start position. Keeping your elbow close to your side, rotate the arm across your body slowly and then slowly return to the Start position. Repeat on the other side.



## BENT-OVER HORIZONTAL ABDUCTION

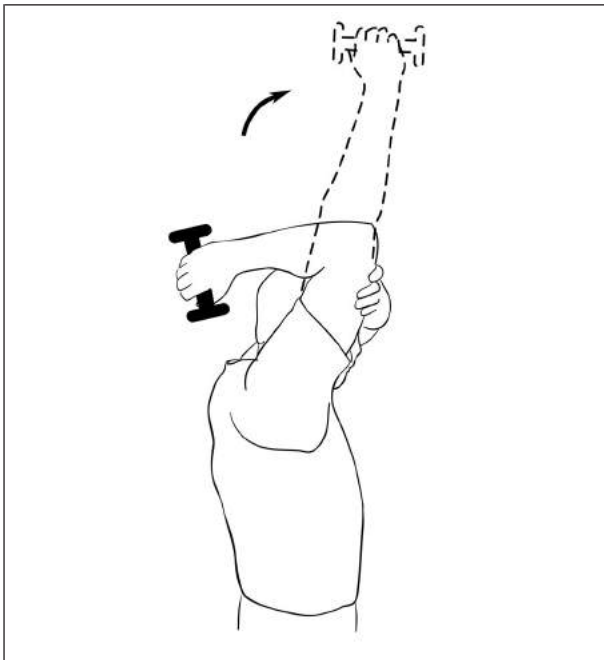
Stand next to a table. Bend at the waist with your side supported on the table and the other arm hanging straight down and holding a light weight (up to 5 pounds). Keeping the arm straight, slowly raise the hand up to eye level and then slowly lower it back to the starting position. Repeat on the other side.



## ELBOW FLEXION

Stand with your weight evenly distributed over both feet. Holding a light weight (up to

5 pounds) and keeping the arm close to the side, slowly bend the elbow up toward the shoulder as shown; hold for 5 seconds, slowly return to the starting position, and then relax. Repeat on the other side.



## ELBOW EXTENSION

Stand with your weight evenly distributed over both feet. Holding a light weight (up to

5 pounds), raise your arm with the elbow bent and with your opposite hand supporting your elbow. Slowly straighten the elbow overhead, hold for 5 seconds, and then slowly lower the arm to the starting position. Repeat on the other side.

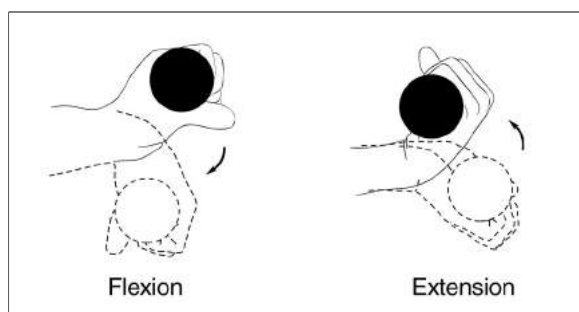
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR EPICONDYLITIS AND RADIAL TUNNEL SYNDROME

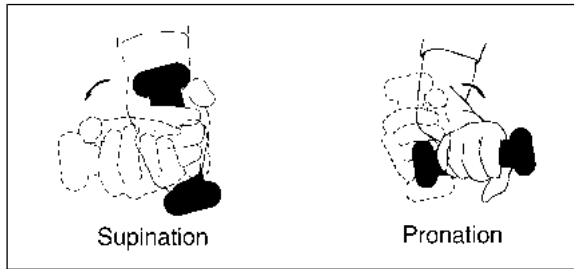
Perform the exercises in the order listed. To prevent inflammation, apply ice, such as a bag of crushed ice or frozen peas, to the painful area of the elbow for 20 minutes after performing both exercises. If you are unable to add weight or perform the indicated number of repetitions because of pain, call your doctor.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Wrist flexion and extension	Flexor and extensor muscle groups	25 repetitions/3 sets, progressing to 45 repetitions/4 sets	5 to 7	3 to 4
Forearm pronation and supination	Pronator teres Supinator	25 repetitions/3 sets, progressing to 45 repetitions/4 sets	5 to 7	3 to 4



### WRIST FLEXION AND EXTENSION

To exercise the wrist flexors, rest the forearm on a hard surface with the palm up. Flex the wrist as shown. Perform 3 sets of 25 repetitions, progressing to 4 sets of 45 repetitions. To exercise the wrist extensors, rest the forearm on a hard surface with the hand extending over the side. Extend the wrist as shown. Perform 3 sets of 25 repetitions, progressing to 4 sets of 45 repetitions. Use no weight initially; add weight in 1-pound increments to a maximum of 5 pounds. Perform the exercises 5 to 7 days a week for 3 to 4 weeks.



## FOREARM SUPINATION AND PRONATION

Hold the forearm parallel to the ground, with the elbow bent 90°. For the forearm supination exercise, supinate the forearm and then return to vertical as shown. Perform 3 sets of 25 repetitions, progressing to 4 sets of 45 repetitions. For forearm pronation, pronate the forearm and then return to vertical as shown. Perform 3 sets of 25 repetitions, progressing to 4 sets of 45 repetitions. Use no weight initially; add weight in 1-pound increments to a maximum of 5 pounds. Perform the exercises 5 to 7 days a week for 3 to 4 weeks.

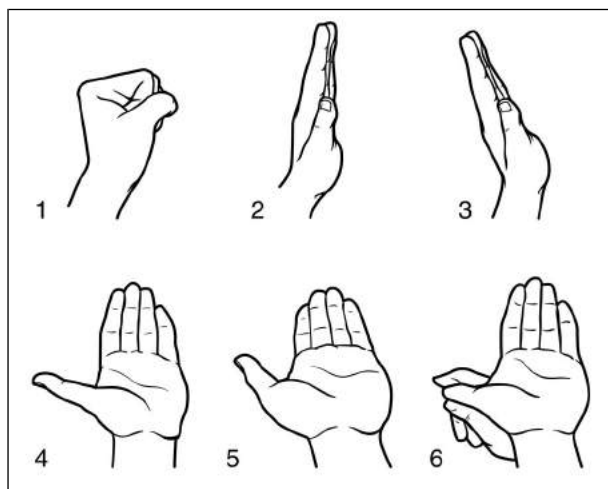
Exercise Program for:

Prepared by:

## HOME PHYSICAL THERAPY PROGRAM FOR CARPAL TUNNEL SYNDROME

Apply heat to the hand for 15 minutes before performing the exercises, and apply ice (a bag of crushed ice or frozen peas) to the hand for 20 minutes after each exercise session to prevent inflammation. If numbness steadily worsens, if the exercises increase the pain, or if the pain does not improve after you have performed the exercises for 3 to 4 weeks, call your doctor.

Exercise Type	Targeted Structure	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Nerve gliding	Median nerve	10 to 15 repetitions	6 to 7	3 to 4



(Adapted with permission from Donatelli R, Wooden M (eds): *Orthopaedic Physical Therapy*. Philadelphia, PA, Elsevier.)

### NERVE GLIDING

Begin with the affected hand raised.

(1) Make a fist, with the thumb outside the fingers. (2) Extend the fingers, keeping the thumb close to the side of the hand.

(3) Extend the hand at the wrist (bend it backward, toward the forearm), keeping the fingers straight. (4) With the wrist straight, extend the thumb as shown.

(5) Keeping the thumb extended, extend the hand at the wrist. (6) Reach behind your hand and grasp the thumb with the thumb and forefinger of the opposite hand. Pull the thumb downward, away from the palm of your hand.

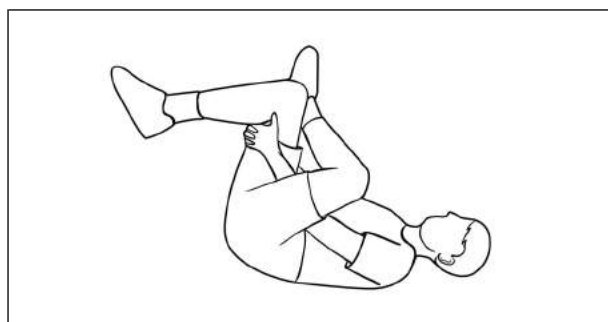
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR SNAPPING HIP

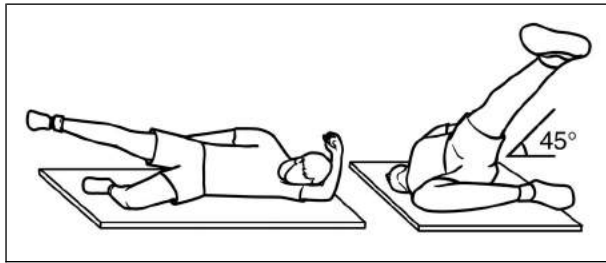
Perform the exercises in the order listed. Apply dry or moist heat to the hip for 5 to 10 minutes before the exercises to prepare the tissues. Alternatively, riding a stationary bicycle for 10 minutes will also prepare the tissues for stretching. Apply a bag of crushed ice or frozen peas to the hip for 20 minutes after the exercises to help reduce inflammation. If you experience pain in the hip during or after the exercises, discontinue the exercises and call your doctor.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Iliotibial band stretch	Tensor fascia	4 repetitions/2 to 3 sets	5 to 7	2 to 3
Hip abduction	Gluteus medius	8 repetitions/2 sets, progressing to 15 repetitions/3 sets	3	2 to 3



### ILIOTIBIAL BAND STRETCH

Lie on your back and bend both knees so that your feet are flat on the floor. Place the ankle of the affected leg on the opposite knee and clasp your hands behind the thigh as shown. Pull the thigh toward you until you feel a stretch in the hip. Hold the stretch for 30 seconds, then relax for 30 seconds. Perform 2 to 3 sets of 4 repetitions 5 to 7 days a week, continuing for 2 to 3 weeks.



## HIP ABDUCTION

Lie on your side with the affected hip on top, cradling your head in your arm, and with the bottom leg bent to provide support. Slowly move the top leg up and back to 45°, keeping the knee straight. Hold this position for 5 seconds. Slowly lower the leg and relax it for 2 seconds. Ankle weights should be used, starting with light enough weight to allow 2 sets of 8 repetitions. Progress to 3 sets of 15 repetitions. Then return to 2 sets of 8 repetitions and add weight. Perform the exercise 3 times per week, continuing for 2 to 3 weeks.

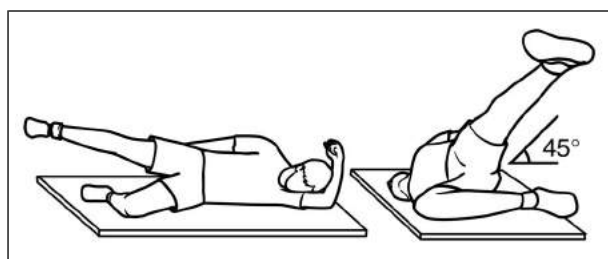
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR STRAINS OF THE HIP

Perform the exercises in the order listed. After each set of exercises, apply ice, such as a bag of ice cubes or crushed ice or a bag of frozen peas, to the hip for 20 minutes. If the pain in the hip is aggravated by the exercises or does not go away within 3 to 4 weeks, call your doctor.

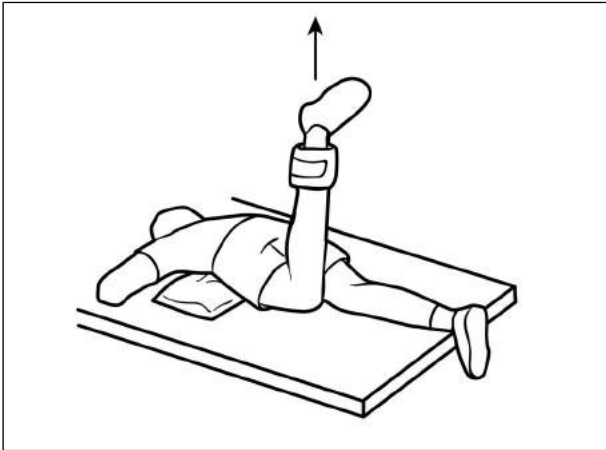
Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Hip abduction	Gluteus medius	8 repetitions/2 sets, progressing to 12 repetitions/3 sets	3	3 to 4
Hip extension	Gluteus maximus	8 to 12 repetitions/2 to 3 sets	3	3 to 4
Hip rotations	<i>External:</i> Piriformis <i>Internal:</i> Medial hamstring	8 to 12 repetitions/2 to 3 sets	3	3 to 4



### HIP ABDUCTION

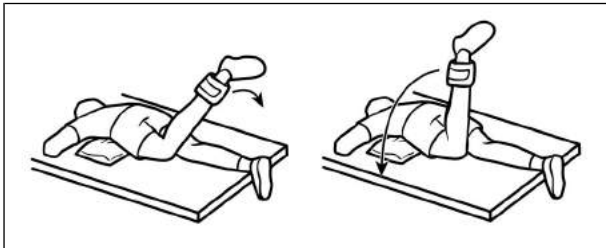
Lie on your side with the affected hip on top, cradling your head in your arm, and the bottom leg bent to provide support. Slowly move the top leg up and back to 45°, keeping the knee straight. Hold this position for 5 seconds. Slowly lower the leg and relax it for 2 seconds. Ankle weights should be used, starting with light enough weight to allow 2 sets of 8 repetitions, progressing to 3 sets of 12 repetitions. Then return to 2 sets of 8 repetitions and add weight. Perform the exercise 3 days a week, continuing for 3 to 4 weeks.





## HIP EXTENSION

Lie face down with a pillow under your hips and the knee on the affected side bent 90°. Elevate the leg off the floor to a count of 5, lifting the leg straight up with the knee bent. Ankle weights should be used, starting with light enough weight to allow 2 sets of 8 repetitions, progressing to 3 sets of 12 repetitions. Then return to 2 sets of 8 repetitions and add weight. Perform the exercise 3 days a week, continuing for 3 to 4 weeks.



## HIP ROTATIONS

Lie face down with a pillow under your hips and the knee on the affected side bent 90°. Rotating from the hip, move the ankle slowly from side to side, attempting to touch the floor. Ankle weights should be used, starting with light enough weight to allow 2 sets of 8 repetitions, progressing to 3 sets of 12 repetitions. Then return to 2 sets of 8 repetitions and add weight. Perform the exercise 3 days a week, continuing for 3 to 4 weeks.

Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR STRAINS OF THE THIGH

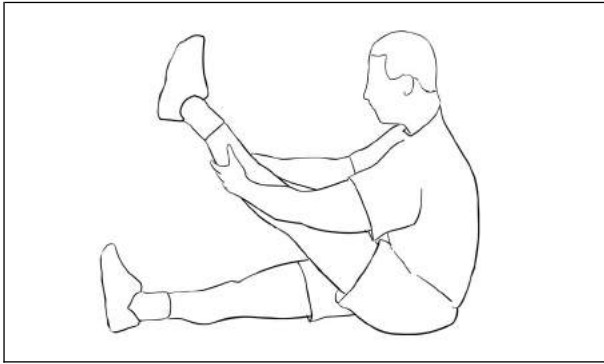
Perform the exercises in the order listed. Apply dry or moist heat to the thigh for 5 to 10 minutes before exercising to prepare the tissues, and apply a bag of crushed ice or frozen peas for 20 minutes after exercising to prevent inflammation. If the exercises increase pain or the pain does not go away after adhering to the program for 3 to 4 weeks, call your doctor.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
2-person hamstring stretch <i>or</i> 1-person hamstring stretch	Hamstrings	4 repetitions/2 to 3 sets	Daily	3 to 4
Hip abduction	Gluteus medius	8 to 12 repetitions/2 to 3 sets	3	3 to 4



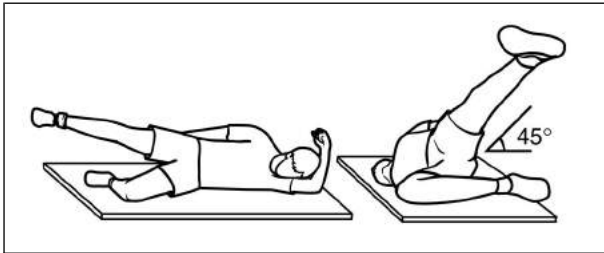
### 2-PERSON HAMSTRING STRETCH

Lie on the floor with your legs straight or with one leg bent slightly at the knee if that is more comfortable. Your partner raises one leg just to the point of tightness and applies resistance for 30 seconds while you try to lower the leg. Do the same with the other leg. Repeat the cycle 4 times. Perform 2 to 3 sets of 4 repetitions daily, continuing for 3 to 4 weeks.



## 1-PERSON HAMSTRING STRETCH

Sit on the floor with your legs straight. Grasp the calf of one leg and slowly pull the leg toward your ear, keeping your back straight. Hold for 5 seconds. Do the same with the other leg. Repeat the cycle 4 times. Perform 2 to 3 sets of 4 repetitions daily, continuing for 3 to 4 weeks.



## HIP ABDUCTION

Lie on your side with the affected hip on top, cradling your head in your arm, and with the bottom leg bent to provide support. Slowly raise the top leg up and back to 45°, keeping the knee straight. Slowly lower the leg to a count of 5 and relax it for 2 seconds. Ankle weights should be used, starting with a weight that allows 2 sets of 8 repetitions and progressing to 3 sets of 12 repetitions. Then return to 2 sets of 8 repetitions and add weight in 2- to 3-pound increments, progressing each time to 3 sets of 12 repetitions. Perform the exercise 3 days a week for 3 to 4 weeks.

Exercise Program for:

Prepared by:

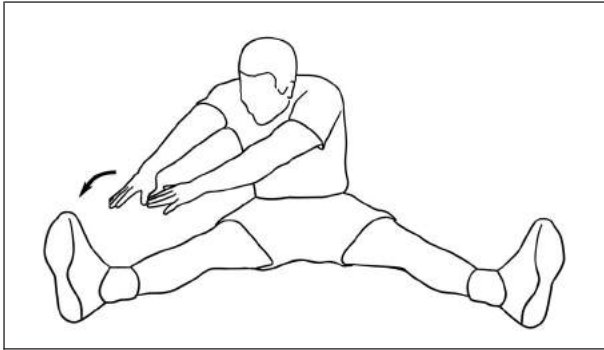
## HOME EXERCISE PROGRAM FOR HIP CONDITIONING

The stretching exercises below may be done in addition to or in place of riding a stationary bicycle or jogging for 10 minutes. When performing the exercises, you should stretch slowly to the limit of motion, taking care to avoid pain. If you experience pain with the exercises, call your doctor.

### Stretching and Strengthening Exercises for the Hip

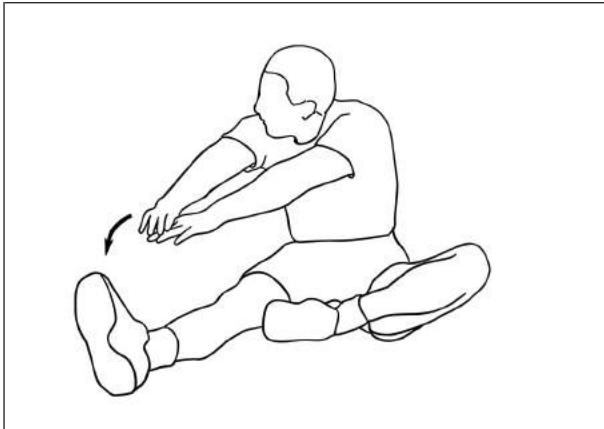
Exercise	Muscle Group	Number of Repetitions/Sets	Number of Days per Week
<b>Stretching</b>			
Seat side straddle	Adductor muscles Medial hamstrings Semitendinosus Semimembranosus	4 repetitions/2 to 3 sets	Daily
Modified seat side straddle	Hamstrings Adductor muscles	4 repetitions/2 to 3 sets	Daily
Leg stretch	Hamstrings	4 repetitions/2 to 3 sets	Daily
Sitting rotation stretch	Piriformis External rotators Internal rotators	4 repetitions/2 to 3 sets	Daily
Knee to chest	Posterior hip muscles	4 repetitions/2 to 3 sets	Daily
Leg cross-over	Hamstrings	4 repetitions/2 to 3 sets	Daily
Cross-over stand	Hamstrings	4 repetitions/2 to 3 sets	Daily
Iliotibial band stretch	Tensor fascia	4 repetitions/2 to 3 sets	Daily
Prone quadriceps stretch	Quadriceps	4 repetitions/2 to 3 sets	Daily
<b>Strengthening</b>			
Prone hip extension	Gluteus maximus	6 to 8 repetitions, progressing to 12 repetitions	2 to 3
Side-lying hip abduction	Gluteus medius	6 to 8 repetitions, progressing to 12 repetitions	2 to 3
Internal hip rotation	Medial hamstrings	6 to 8 repetitions, progressing to 12 repetitions	2 to 3
External hip rotation	Piriformis	6 to 8 repetitions, progressing to 12 repetitions	2 to 3

## STRETCHING EXERCISES



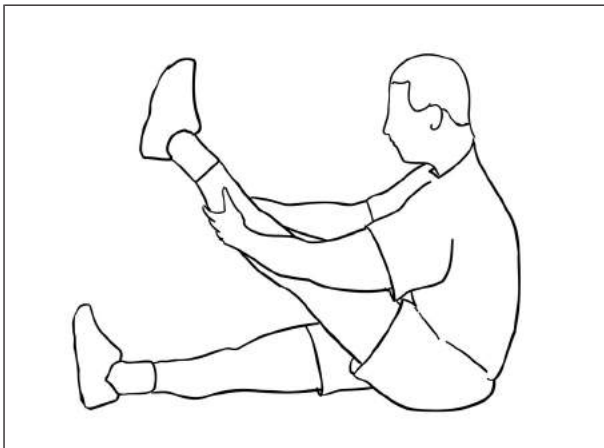
### SEAT SIDE STRADDLE

Sit on the floor with your legs spread apart. Place both hands on the same ankle and bring your chin as close to your knee as possible. Hold the maximum stretch for 30 seconds and then relax for 30 seconds. Repeat on the other side. Repeat the sequence 4 times.



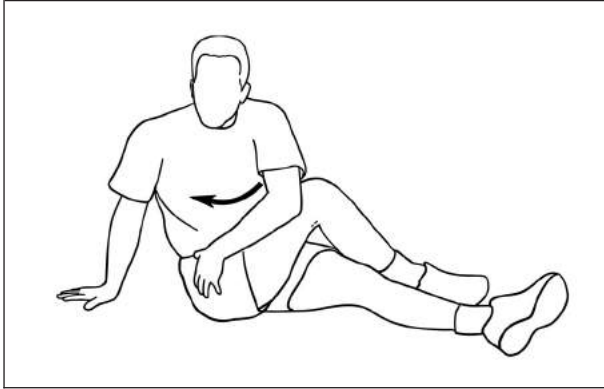
### MODIFIED SEAT SIDE STRADDLE

Sit on the floor with one leg extended to the side and the other leg bent as shown. Place both hands on the ankle of the extended leg and bring your chin as close to your knee as possible. Hold the maximum stretch for 30 seconds and then relax for 30 seconds. Reverse leg positions and repeat on the other side. Repeat the sequence 4 times.



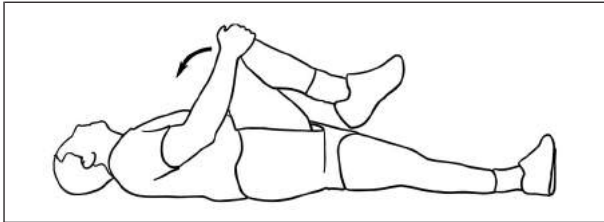
### LEG STRETCH

Sit on the floor with your legs straight and your hands grasping the calf of one leg. Slowly lift and pull the leg toward your ear, keeping your back straight and the other leg flat on the floor or bent slightly if necessary for comfort. Hold the maximum stretch for 30 seconds and then relax for 30 seconds. Repeat with the other leg. Repeat the sequence 4 times.



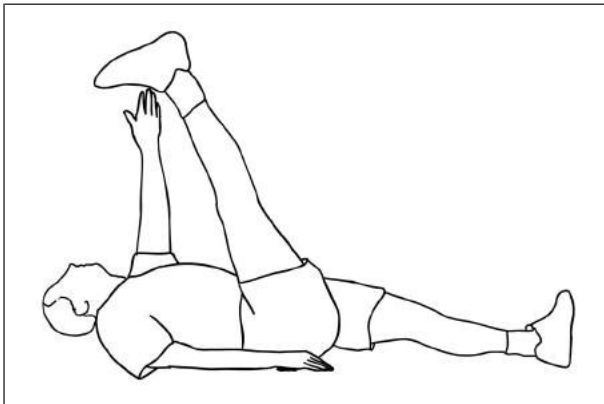
## SITTING ROTATION STRETCH

Sit on the floor with both legs straight out in front of you. Cross one leg over the other, place the elbow of the opposite arm on the outside of the thigh, and support yourself with your other arm behind you. Rotate your head and body in the direction of the supporting arm. Hold the maximum stretch for 30 seconds and then relax for 30 seconds. Reverse positions and repeat the stretch on the other side. Repeat the sequence 4 times.



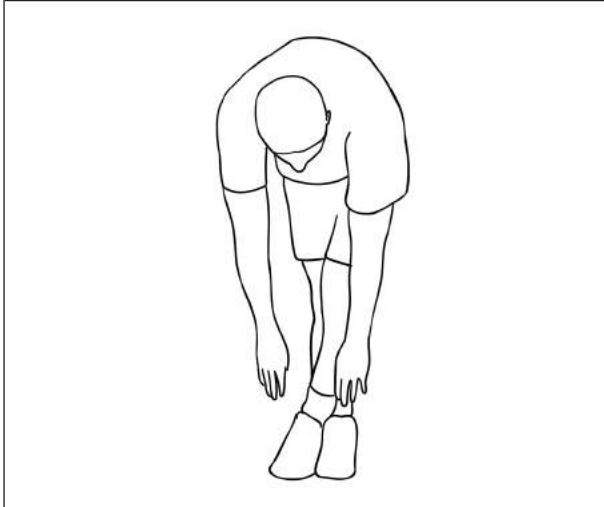
## KNEE TO CHEST

Lie on your back on the floor with your knees bent and your heels flat on the floor. Grasp one knee and slowly bring it toward your chest as far as it will go. Hold the maximum stretch for 30 seconds and then relax for 30 seconds. Repeat with the other leg, then do both legs together. Repeat the sequence 4 times, working up to 3 sets of 10.



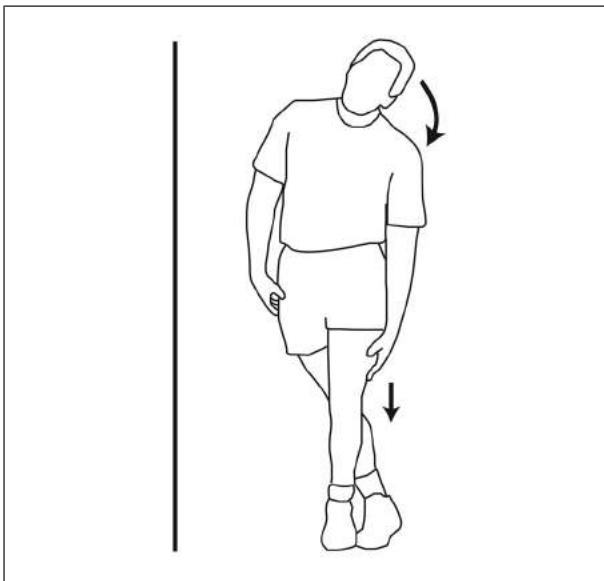
## LEG CROSS-OVER

Lie on the floor with your legs spread and your arms at your sides. Keeping the leg straight, bring your right toe to your left hand. Try to keep the other leg flat on the floor, but you may bend it slightly if needed for comfort. Hold the maximum stretch for 30 seconds and then relax for 30 seconds. Repeat with the left leg and the right hand. Repeat the sequence 4 times.



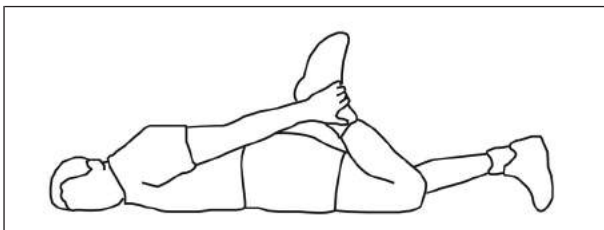
## CROSS-OVER STAND

Stand with your legs crossed, with the feet close together and the legs straight. Slowly bend forward and try to touch your toes. Hold the maximum stretch for 30 seconds and then relax for 30 seconds. Repeat with the position of the legs reversed. Repeat the sequence 4 times.



## ILIOTIBIAL BAND STRETCH

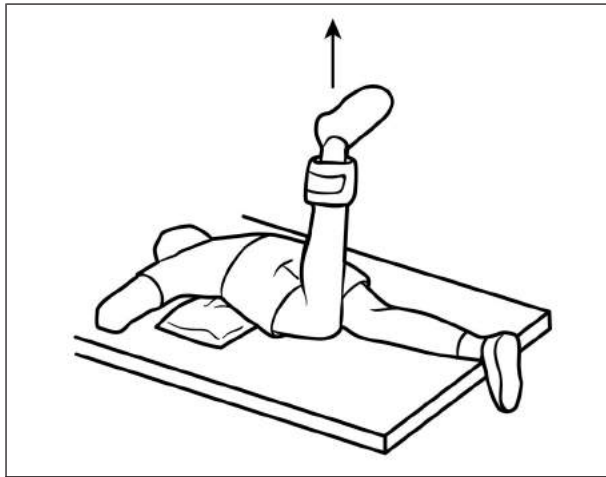
Stand next to a wall for support. Begin with your weight distributed evenly over both feet, and then cross one leg behind the other. Lean the hip of the crossed-over leg toward the wall until you feel a stretch on the outside of the leg. Hold the maximum stretch for 30 seconds and then relax for 30 seconds. Repeat the sequence 4 times.



## PRONE QUADRICEPS STRETCH

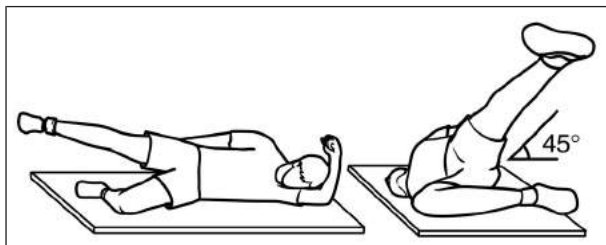
Lie on your stomach with your arms at your sides and your legs straight. Bend one knee up toward your buttocks and grasp the ankle with the hand on the same side. Pull on the ankle and hold at the point of maximum stretch for 30 seconds, then relax for 30 seconds. Repeat on the opposite side. Repeat the sequence 4 times.

## STRENGTHENING EXERCISES



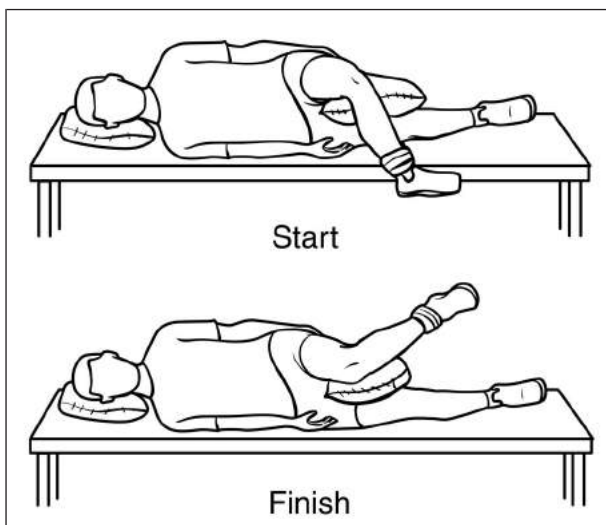
### PRONE HIP EXTENSION

Lie face down with a pillow under your hips and the knee on the affected side bent 90°. Elevate the leg off the floor, lifting the leg straight up with the knee bent. Lower the leg to the floor slowly, to a count of 5. Ankle weights should be used, starting with light enough weight to allow 6 to 8 repetitions, working up to 12 repetitions. Then add as much weight as can be lifted only 8 times. Work up to 12 repetitions again. Continue this cycle of adding weight and increasing repetitions.



### SIDE-LYING HIP ABDUCTION

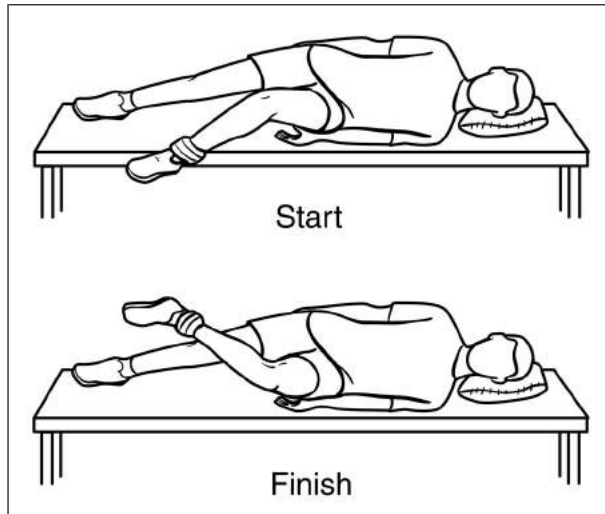
Lie on your side with the affected hip on top, cradling your head in your arm, and the bottom leg bent to provide support. Slowly move the top leg up and back to 45°, keeping the knee straight. Lower the leg slowly, to a count of 5, and relax it for 2 seconds. Ankle weights should be used, starting with light enough weight to allow 6 to 8 repetitions, progressing to 12 repetitions. Then add as much weight as can be lifted only 8 times. Work up to 12 repetitions again. Continue this cycle of adding weight and increasing repetitions.



### INTERNAL HIP ROTATION

Lie on your side on a table with a pillow between your thighs. Bend the top leg 90° at the hip and 90° at the knee. Start with the foot of the top leg below the level of the top of the table; lift to the Finish position, which is rotated as high as possible. Lower the leg slowly, to a count of 5. Begin with an ankle weight that allows 6 to 8 repetitions, progressing to 12 repetitions. Then add as much weight as can be lifted only 8 times. Work up to 12 repetitions again. Continue this cycle of adding weight and increasing repetitions.





## EXTERNAL HIP ROTATION

Lie on your side on a table with the bottom leg bent  $90^\circ$  at the hip and  $90^\circ$  at the knee. Start with the foot below the level of the top of the table; lift to the Finish position, which is rotated as high as possible. Lower the leg slowly, to a count of 5. Begin with an ankle weight that allows 6 to 8 repetitions, progressing to 12 repetitions. Then add as much weight as can be lifted only 8 times. Work up to 12 repetitions again. Continue this cycle of adding weight and increasing repetitions.

Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR ACL TEAR

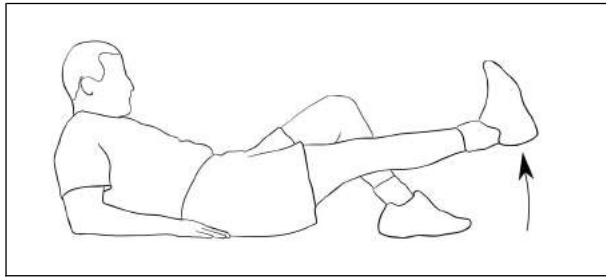
Perform all five exercises, in the order listed. After each exercise session, apply ice (such as a bag of crushed ice or a bag of frozen peas) to the knee for 20 minutes, keep the leg elevated, and apply a compression bandage to the knee. If pain or swelling increases at any time or if it does not improve after you have adhered to the program for 3 to 4 weeks, call your doctor.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Hamstring curls (standing)	Hamstrings	20 repetitions/3 sets	4 to 5	3 to 4
Straight-leg raises	Quadriceps	20 repetitions/3 sets	4 to 5	3 to 4
Hip abduction	Gluteus medius	20 repetitions/3 sets	4 to 5	3 to 4
Straight-leg raises (prone)	Gluteus maximus	20 repetitions/3 sets	4 to 5	3 to 4
Wall slides	Quadriceps Hamstrings	20 repetitions/3 sets	4 to 5	3 to 4



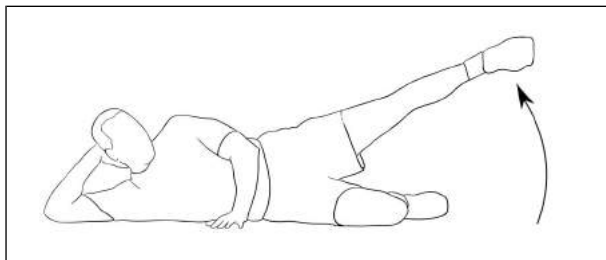
### HAMSTRING CURLS

Stand on a flat surface with your weight evenly distributed on both feet. Hold onto the back of a chair or the wall for balance. Bend the injured knee, raising the heel of the affected leg toward the ceiling as far as you can without pain. Hold this position for 5 seconds and then relax. Perform 3 sets of 20 repetitions, 4 to 5 days a week, continuing for 3 to 4 weeks.



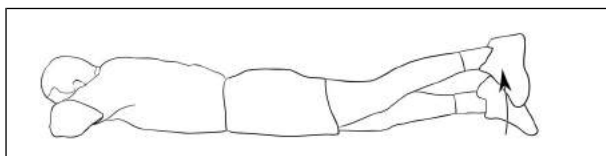
## STRAIGHT-LEG RAISES

Lie on the floor, supporting your torso with your elbows as shown. Keep the injured leg straight and bend the other leg at the knee so that the foot is flat on the floor. Tighten the thigh muscle of the injured leg and slowly raise it 6 to 10 inches off the floor. Hold this position for 5 seconds and then relax. Perform 3 sets of 20 repetitions, 4 to 5 days a week, continuing for 3 to 4 weeks.



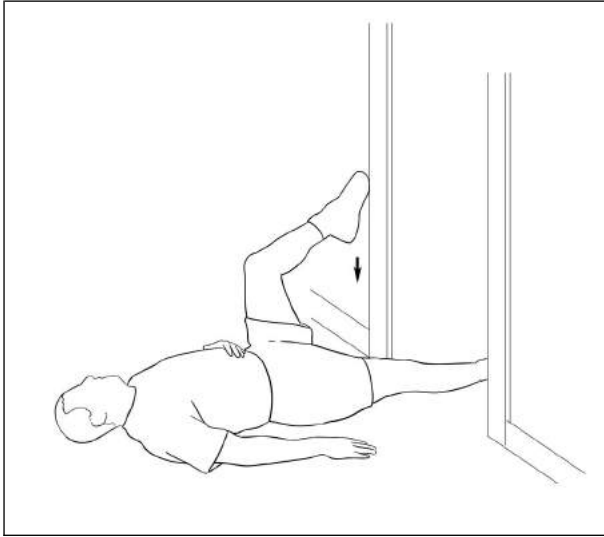
## HIP ABDUCTION

Lie on your side with the injured side on top and with the bottom leg bent to provide support. Slowly raise the top leg to 45°, keeping the knee straight. Hold the position for 5 seconds. Slowly lower the leg and relax it for 2 seconds. Perform 3 sets of 20 repetitions, 4 to 5 days a week, continuing for 3 to 4 weeks.



## STRAIGHT-LEG RAISES (PRONE)

Lie on the floor on your stomach with your legs straight. Tighten the hamstrings of the injured leg and raise the leg toward the ceiling as far as you can. Hold the position for 5 seconds. Lower the leg and rest it for 2 seconds. Perform 3 sets of 20 repetitions, 4 to 5 days a week, continuing for 3 to 4 weeks.



## WALL SLIDES

Lie on your back with the uninjured leg extending through a doorway and the injured leg extended against the wall. Let the foot gently slide down the wall. Hold the position of maximum flexion for 5 seconds and then slowly straighten the leg. Perform 3 sets of 20 repetitions, 4 to 5 days a week, continuing for 3 to 4 weeks.

Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR COLLATERAL LIGAMENT TEAR

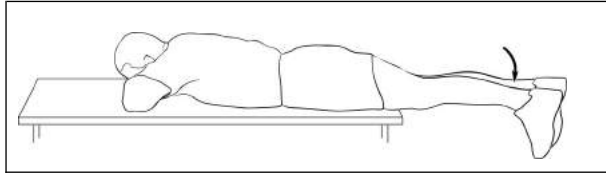
Perform the exercises in the order listed. Dry or moist heat may be applied to the back of the knee during the passive knee extension. Apply a bag of crushed ice or frozen peas to the injured side of the knee for 20 minutes after completing the exercises to prevent additional inflammation. If pain increases at any time or does not improve after performing these exercises for 3 to 4 weeks, call your doctor.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Hamstring curls	Hamstrings	25 to 45 repetitions/3 sets	5 to 6	3 to 4
Passive knee extension (prone)	Hamstrings	1 repetition/2 to 3 sets	5 to 6	3 to 4
Passive knee extension (seated)	Quadriceps	25 to 50 repetitions/3 sets	5 to 6	3 to 4



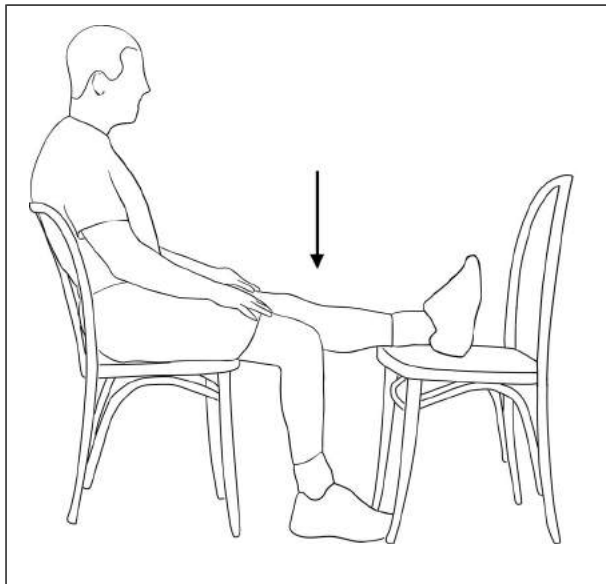
### HAMSTRING CURLS

Stand on a flat surface with your weight evenly distributed on both feet. Hold onto the back of a chair or the wall for balance. Bend the injured knee, lifting the heel toward the ceiling as far as possible without pain. Hold this position for 5 seconds and then relax. Perform 3 sets of 25 to 45 repetitions, 5 to 6 days a week, continuing for 3 to 4 weeks. Seated version: Sit on a chair with your feet flat on the floor. Raise the injured knee off the chair and hold the position for 5 seconds.



## PASSIVE KNEE EXTENSION (PRONE)

Lie face down on a table or bed with your thighs supported just above the knee. Relax your legs and let gravity pull the knees down (into extension). Stay in this position for 5 to 10 minutes. Repeat this 2 to 3 times per day, 5 to 6 days a week, continuing for 3 to 4 weeks.



## PASSIVE KNEE EXTENSION (SEATED)

Sit in a chair with your injured leg propped up on another chair of equal height, as shown. Relax your leg and let gravity pull the knee down (into extension). Hold the position for 10 seconds. Perform 3 sets of 25 to 50 repetitions, 5 to 6 days a week, continuing for 3 to 4 weeks.

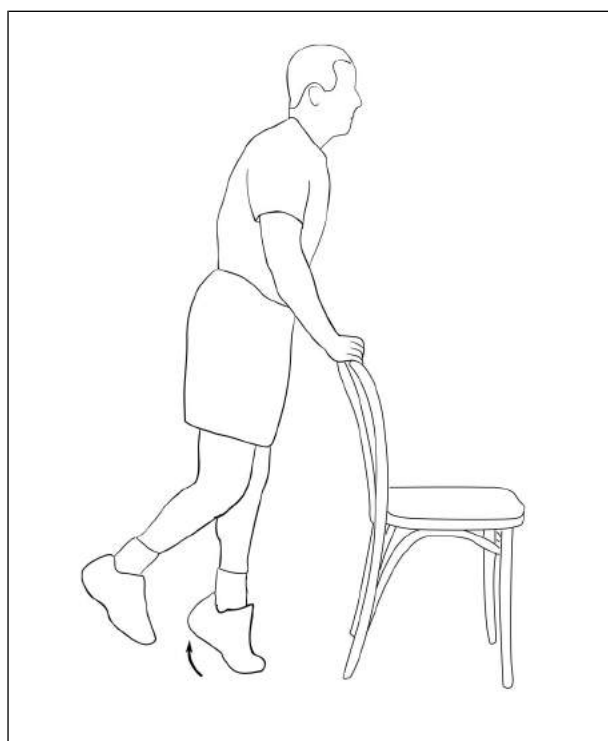
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR MEDIAL GASTROCNEMIUS TEAR

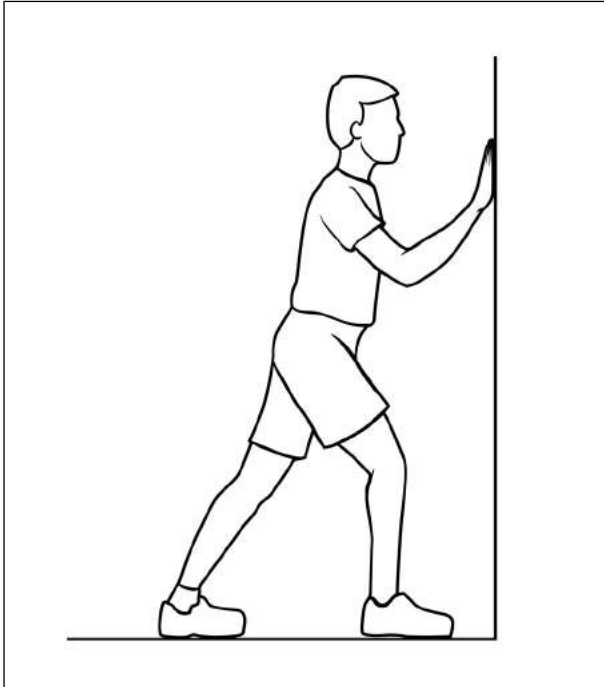
Perform the exercises in the order listed. After performing the calf raises, apply a bag of crushed ice or frozen peas to the injured area for 20 minutes to prevent further inflammation. Apply moist or dry heat to the injured area before and during the heel cord stretch. If the exercises increase the pain or if the pain does not improve after you have performed the exercises for 3 to 4 weeks, call your doctor.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Calf raises	Gastrocnemius/soleus	10 repetitions/3 sets	3 to 4	3 to 4
Heel cord stretch	Gastrocnemius/soleus	4 repetitions/2 to 3 sets	Daily	3 to 4



### CALF RAISES

Stand on a flat surface with your weight evenly distributed on both feet. Hold onto the back of a chair or the wall for balance and lift the foot on the uninjured side. Keeping the knee of the injured leg straight, raise the heel off the floor as high as you can, using your body weight as resistance. Work up to 3 sets of 10 repetitions, 3 to 4 days a week, continuing for 3 to 4 weeks.



## HEEL CORD STRETCH

Stand facing the wall with the affected leg straight and the knee of the unaffected leg bent, as shown. The toe of the affected leg should be pointed in, and the heel should not come off the ground. Hold the stretch for 30 seconds with the knee straight and then relax for 30 seconds. Perform 2 to 3 sets of 4 repetitions daily, continuing for 3 to 4 weeks.



Exercise Program for:

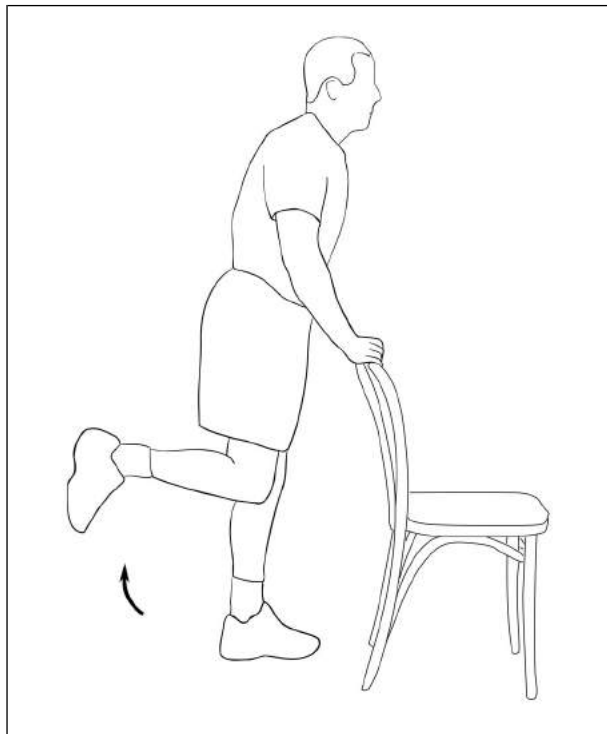
Prepared by:

## HOME EXERCISE PROGRAM FOR MENISCAL TEAR

Perform the exercises in the order listed. To prevent inflammation, apply a bag of crushed ice or frozen peas to the injured side of the knee for 20 minutes after completing the exercises.

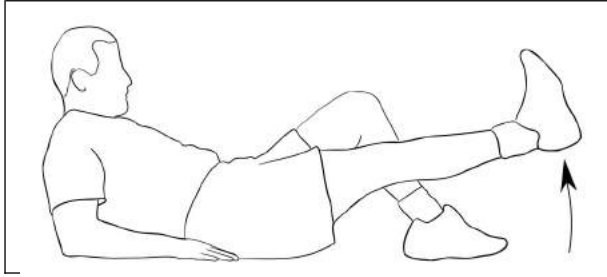
If the exercises increase the pain in your knee or if the pain does not improve after performing the exercises for 3 to 4 weeks, call your doctor.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Hamstring curls	Hamstrings	25 repetitions/3 sets	4 to 5	3 to 4
Straight-leg raises	Quadriceps	10 repetitions/3 sets	4 to 5	3 to 4



### HAMSTRING CURLS

Stand on a flat surface with your weight evenly distributed on both feet. Hold onto the back of a chair or the wall for balance. Bend the injured knee, raising the heel toward the ceiling as far as possible without pain. Hold this position for 5 seconds and then relax. Perform 3 sets of 25 repetitions 4 to 5 days a week, continuing for 3 to 4 weeks. Seated version: Sit on a chair with your feet flat on the floor. Raise the injured knee off the chair and hold the position for 5 seconds.



## STRAIGHT-LEG RAISES

Lie on the floor, supporting your torso with your elbows as shown. Keep the injured leg straight and bend the other leg at the knee so that the foot is flat on the floor. Tighten the thigh muscle of the injured leg and slowly raise it 6 to 10 inches off the floor. Hold this position for 5 seconds and then relax. Perform 3 sets of 10 repetitions 4 to 5 days a week, continuing for 3 to 4 weeks.

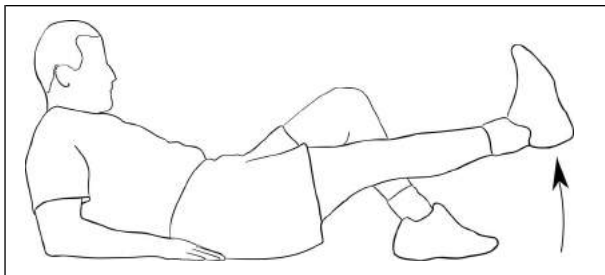
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR PATELLAR/QUADRICEPS TENDINITIS

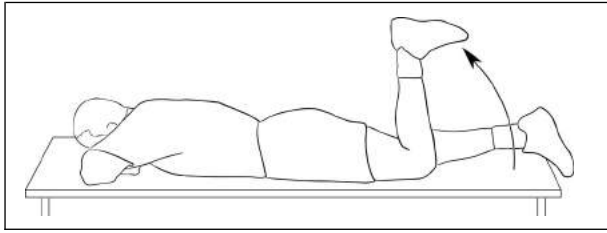
Perform the exercises in the order listed. To prevent inflammation, apply a bag of crushed ice or frozen peas just below the kneecap after completing all the exercises. If the pain continues or gets worse, call your doctor.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Straight-leg raises	Quadriceps	10 repetitions/3 sets	Daily	3 to 4
Knee flexion	Hamstrings	25 repetitions/3 sets, progressing to 45 repetitions/3 sets	4 to 5	3 to 4
Prone quadriceps stretch	Quadriceps	4 repetitions/2 to 3 sets	5 to 6	3 to 4



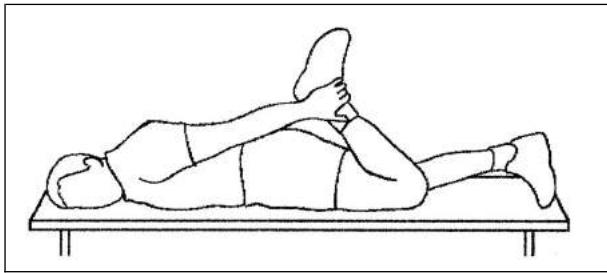
### STRAIGHT-LEG RAISES

Lie on the floor, supporting your torso with your elbows as shown. Keep the affected leg straight and bend the other leg at the knee so that the foot is flat on the floor. Tighten the thigh muscle of the affected leg and slowly raise it 6 to 10 inches off the floor. Hold this position for 5 seconds and then relax. Perform 3 sets of 10 repetitions daily, continuing for 3 to 4 weeks.



## KNEE FLEXION

Lie face down on a flat surface with your legs together. Slowly flex the affected knee (bend it up toward your buttocks) as far as possible without pain and then lower it. To add resistance, use rubber tubing while doing the exercise. Perform 3 sets of 25 repetitions, progressing to 3 sets of 45 repetitions. Perform the exercise 4 to 5 days a week, continuing for 3 to 4 weeks.



## PRONE QUADRICEPS STRETCH

Lie face down on a flat surface with your arms at your sides and your legs straight. Bend the affected knee and grasp the ankle with your hand (or use a towel or rubber tubing). Keeping your thigh flat on the surface, pull gently and hold for 30 seconds; then relax for 30 seconds. Perform 2 to 3 sets of 4 repetitions 5 to 6 days a week, continuing for 3 to 4 weeks.

Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR PATELLOFEMORAL PAIN

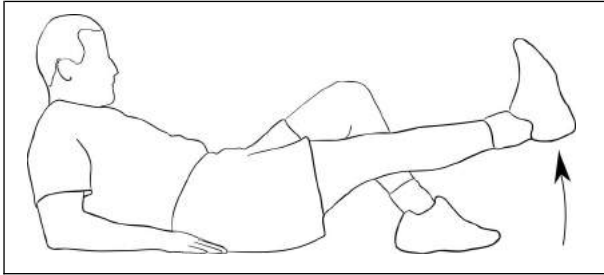
Perform the exercises in the order listed. To prevent inflammation, apply a bag of crushed ice or frozen peas along the sides of the kneecap for 20 minutes after completing the exercises. If the pain worsens or does not improve, call your doctor.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Hamstring curls	Hamstrings	25 repetitions/3 sets, progressing to 45 repetitions/3 sets	4 to 5	3 to 4
Straight-leg raises	Quadriceps	10 repetitions/3 sets	4 to 5	3 to 4
Straight-leg raises (prone)	Quadriceps	10 repetitions/3 sets	4 to 5	3 to 4



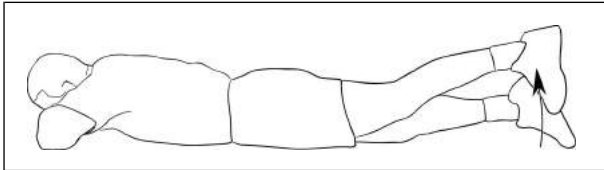
### HAMSTRING CURLS

Stand on a flat surface with your weight evenly distributed on both feet. Hold onto the back of a chair or the wall for balance. Bend the affected knee, raising the heel toward the ceiling as far as possible without pain. Hold this position for 5 seconds and then relax. Perform 3 sets of 25 repetitions, progressing to 3 sets of 45 repetitions. Perform the exercise 4 to 5 days a week, continuing for 3 to 4 weeks. Seated version: Sit on a chair with your feet flat on the floor. Raise the affected knee off the chair and hold the position for 5 seconds.



## STRAIGHT-LEG RAISES

Lie on the floor, supporting your torso with your elbows as shown. Keep the affected leg straight and bend the other leg at the knee so that the foot is flat on the floor. Tighten the thigh muscle of the affected leg and slowly raise it 6 to 10 inches off the floor. Hold this position for 5 seconds and then relax. Perform 3 sets of 10 repetitions 4 to 5 days a week, continuing for 3 to 4 weeks.



## STRAIGHT-LEG RAISES (PRONE)

Lie on the floor on your stomach with your legs straight. Tighten the hamstrings of the affected leg and raise the leg toward the ceiling as far as you can. Hold the position for 5 seconds. Lower the leg and rest it for 2 seconds. Perform 3 sets of 10 repetitions 4 to 5 days a week, continuing for 3 to 4 weeks.

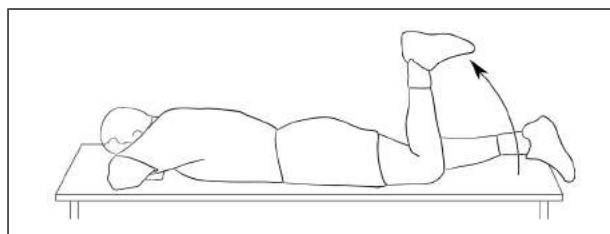
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR PLICA SYNDROME

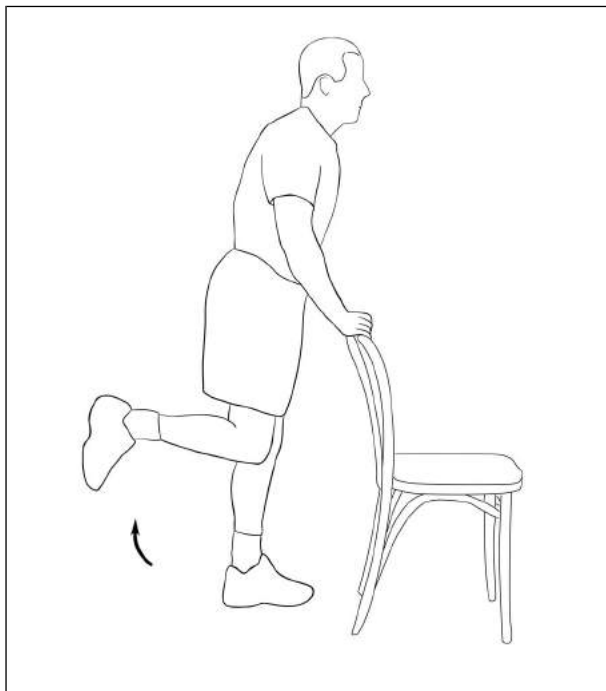
Perform the exercises in the order listed. To prevent inflammation, apply a bag of crushed ice or frozen peas to the injured side of the knee for 20 minutes after completing the exercises. You should experience improved range of motion and less pain in your knee. If the pain does not change or becomes worse, call your doctor.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Knee flexion	Hamstrings	25 repetitions/3 sets, progressing to 45 repetitions/3 sets	4 to 5	3 to 4
Hamstring curls	Hamstrings	25 to 45 repetitions/3 sets	4 to 5	3 to 4
Straight-leg raises	Quadriceps	Work up to 10 repetitions/3 sets	Daily	3 to 4



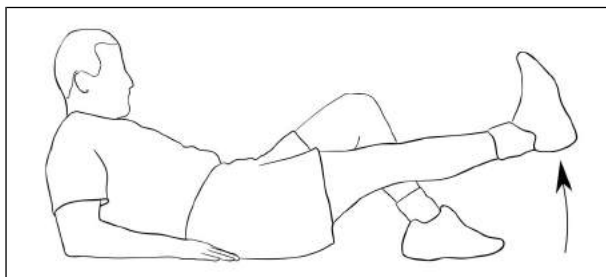
### KNEE FLEXION

Lie face down on a flat surface with your legs together. Slowly flex the affected knee (bend it up toward your buttocks) as far as possible without pain and then lower it. To add resistance, use rubber tubing while you do the exercise. Perform 3 sets of 25 repetitions, progressing gradually to 3 sets of 45 repetitions. Perform the exercise 4 to 5 days a week, continuing for 3 to 4 weeks.



## HAMSTRING CURLS

Stand on a flat surface with your weight evenly distributed on both feet. Hold onto the back of a chair or the wall for balance. Bend the affected knee, raising the heel toward the ceiling as far as possible without pain. Hold this position for 5 seconds and then relax. Perform 3 sets of 25 repetitions, progressing gradually to 3 sets of 45 repetitions. Perform the exercise 4 to 5 days a week, continuing for 3 to 4 weeks. Seated version: Sit on a chair with your feet flat on the floor. Raise the affected knee off the chair and hold the position for 5 seconds.



## STRAIGHT-LEG RAISES

Lie on the floor, supporting your torso with your elbows as shown. Keep the affected leg straight and bend the other leg at the knee so that the foot is flat on the floor. Tighten the thigh muscle of the affected leg and slowly raise it 6 to 10 inches off the floor. Hold this position for 5 seconds and then relax. Work up to 3 sets of 10 repetitions daily, continuing for 3 to 4 weeks.



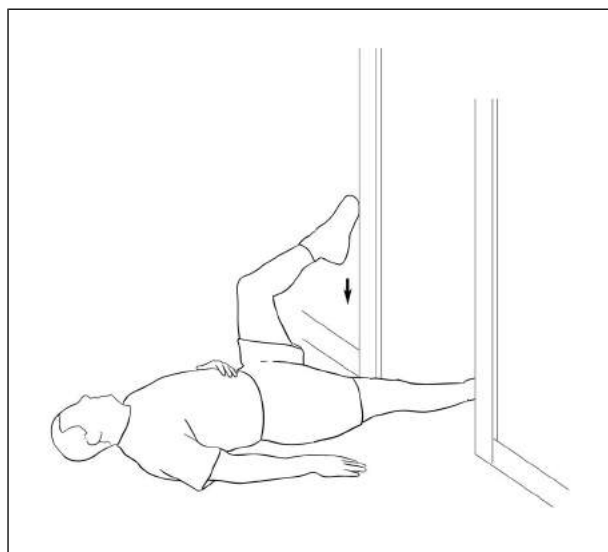
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR PCL INJURY

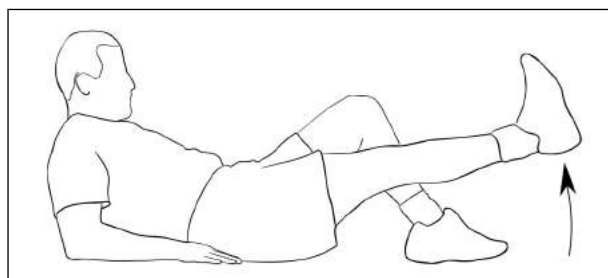
Perform the exercises in the order listed. Apply a bag of crushed ice or frozen peas to the back of the knee for 20 minutes after completing all the exercises to prevent inflammation. If pain does not improve or worsens or if the knee joint becomes inflamed, call your doctor.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Wall slides	Hamstrings/ quadriceps	25 repetitions/3 sets, progressing to 45 repetitions/3 sets	6 to 7	3 to 4
Straight-leg raises	Quadriceps	10 repetitions/3 sets	6 to 7	3 to 4
Straight-leg raises (prone)	Quadriceps	10 repetitions/3 sets	6 to 7	3 to 4



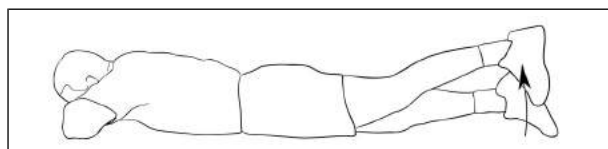
### WALL SLIDES

Lie on your back with the uninjured leg extending through a doorway and the injured leg resting against the wall. Let the leg gently slide down the wall to a position of maximum flexion. Hold this position for 5 seconds and then slowly straighten the leg. Begin with 3 sets of 25 repetitions, progressing to 3 sets of 45 repetitions. Perform the exercise 6 to 7 days a week, continuing for 3 to 4 weeks.



## STRAIGHT-LEG RAISES

Lie on the floor, supporting your torso with your elbows as shown. Keep the injured leg straight and bend the other leg at the knee so that the foot is flat on the floor. Tighten the thigh muscle of the injured leg and slowly raise it 6 to 10 inches off the floor. Hold this position for 5 seconds and then relax. Perform 3 sets of 10 repetitions 6 to 7 days a week, continuing for 3 to 4 weeks.



## STRAIGHT-LEG RAISES (PRONE)

Lie on the floor on your stomach with your legs straight. Tighten the hamstrings of the injured leg and raise the leg toward the ceiling as far as you can. Hold the position for 5 seconds. Lower the leg and rest it for 2 seconds. Perform 3 sets of 10 repetitions 6 to 7 days a week, continuing for 3 to 4 weeks.

Exercise Program for:

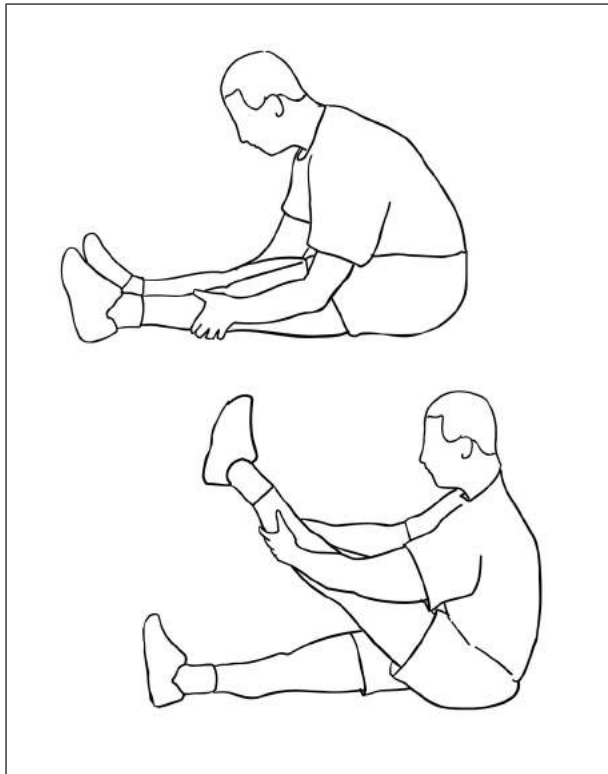
Prepared by:

## HOME EXERCISE PROGRAM FOR KNEE CONDITIONING

Stretching and Strengthening Exercises for the Knee

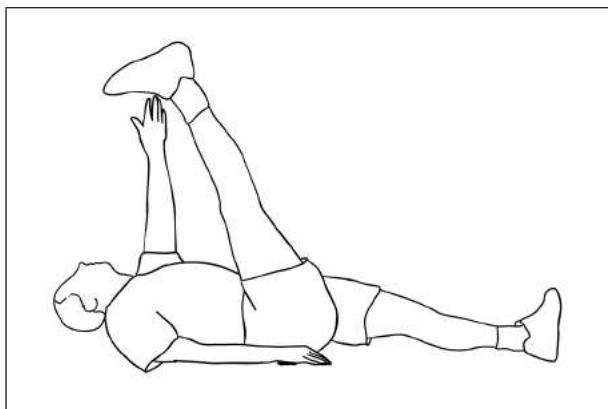
Exercise	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
<b>Stretching</b>				
Leg stretch	Hamstrings	3 to 6 repetitions/3 sets	Daily	6 to 8
Leg cross-over	Hamstrings	3 to 6 repetitions/3 sets	Daily	6 to 8
Cross-over stand	Hamstrings	3 to 6 repetitions/3 sets	Daily	6 to 8
Straight-leg raise	Quadriceps	Work up to 3 sets of 10 repetitions	Daily	6 to 8
Straight-leg raise (prone)	Gluteus maximus	Work up to 3 sets of 10 repetitions	Daily	6 to 8
Wall slide	Quadriceps Hamstrings	Work up to 3 sets of 10 repetitions	Daily	6 to 8
<b>Strengthening</b>				
Forward lunge	Quadriceps	Work up to 3 sets of 10 repetitions	3	6 to 8
Hamstring curl	Hamstrings	10 repetitions/5 sets/3 times a day	3	6 to 8
Side-lying hip abduction	Gluteus medius	6 to 8 repetitions, progressing to 12 repetitions	3	6 to 8
Hip extension	Gluteus maximus	6 to 8 repetitions, progressing to 12 repetitions	3	6 to 8

## STRETCHING EXERCISES



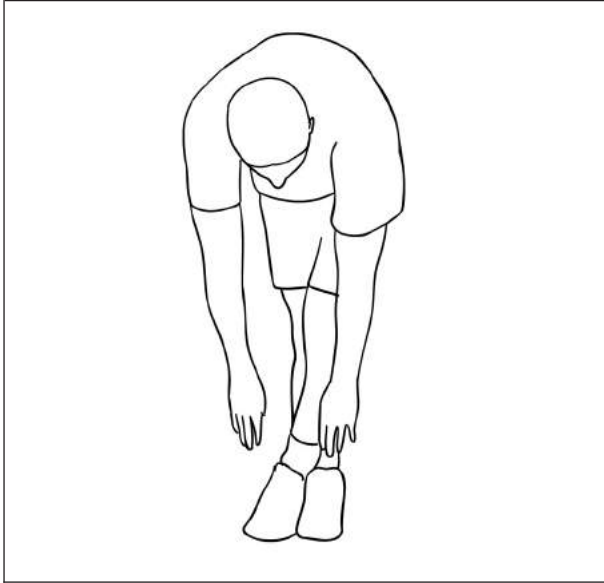
### LEG STRETCH

Sit on the floor with your legs straight in front of you and place your hands on the backs of your calves. Slowly lift and pull one leg toward your ear, keeping your back straight. Hold the stretch for 5 seconds. Alternate from side to side. Repeat each leg 3 to 6 times. For comfort, you may slightly bend the leg not being stretched.



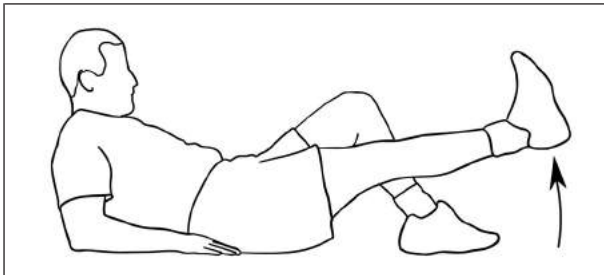
### LEG CROSS-OVER

Lie on the floor with your legs spread and your arms out to the sides. Bring your right toe to your left hand, keeping the leg straight. Hold the stretch for 5 seconds. Alternate from side to side. Repeat each leg 3 to 6 times. For comfort, you may slightly bend the leg not being stretched.



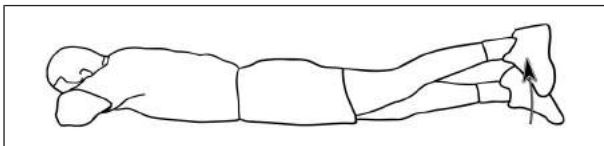
## CROSS-OVER STAND

Stand with your legs crossed. Keeping your feet close together and your legs straight, slowly bend forward toward your toes. Hold the stretch for 5 seconds. Repeat with the opposite leg crossed in front.



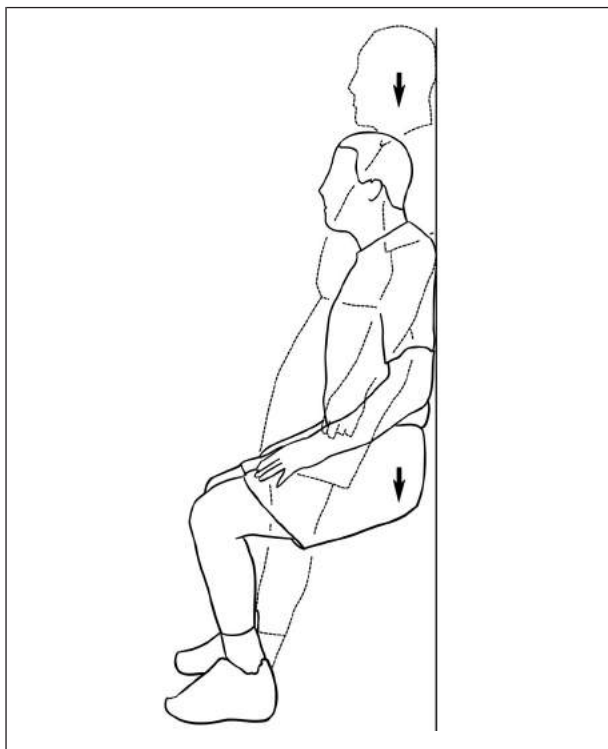
## STRAIGHT-LEG RAISE

Lie on the floor with one leg straight and the other leg bent. Tighten the thigh muscle of the straight leg and slowly raise it 6 to 10 inches off the floor. Hold this position for 5 seconds. Repeat with the opposite leg. Work up to 3 sets of 10.



## STRAIGHT-LEG RAISE (PRONE)

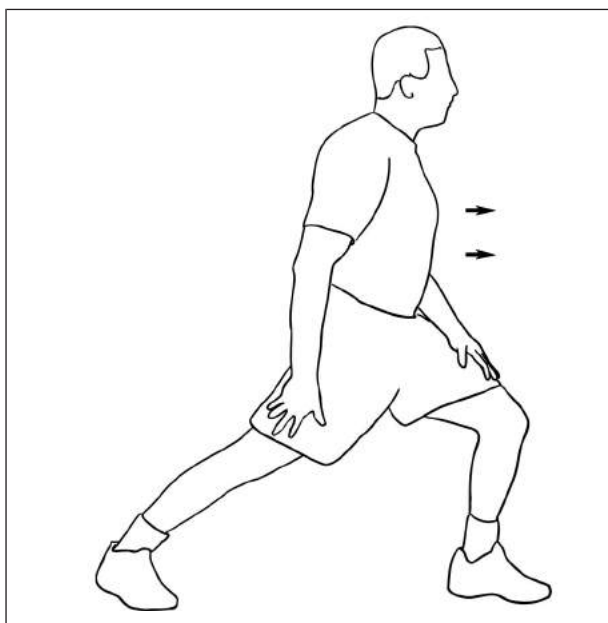
Lie on the floor on your stomach with your legs straight. Keeping the leg straight, tighten the hamstrings of one leg and raise the leg as high as you can. Hold this position for 5 seconds. Repeat with the opposite leg. Work up to 3 sets of 10.



## WALL SLIDES

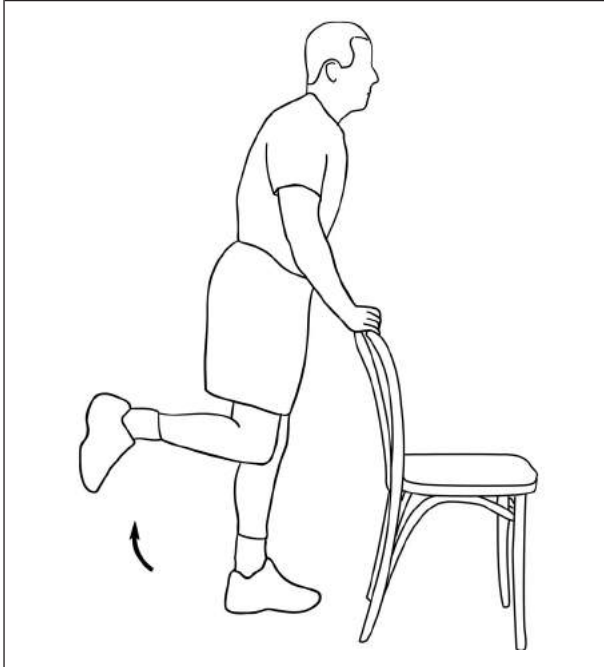
Stand with your back against a wall and your feet about 1 foot from the wall. Tuck your pelvis under so that your lower back is flat against the wall. Stop when your knees are bent 90°. Hold for 5 seconds and then relax. Work up to 3 sets of 10.

## STRENGTHENING EXERCISES



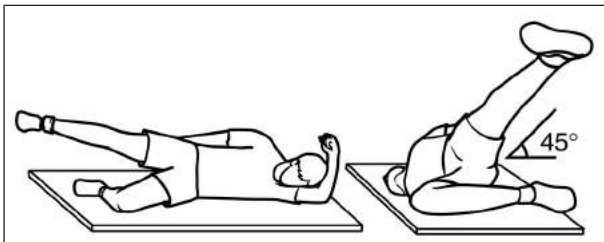
## FORWARD LUNGES

Stand up with the feet about 3 to 4 feet apart and with the forward foot pointing forward and the back foot angled to provide support. Lunge forward, bending the forward knee and keeping the back and the back leg straight. You should feel a slight stretch in the left groin area. Hold the stretch for 5 seconds. Repeat with the opposite leg.



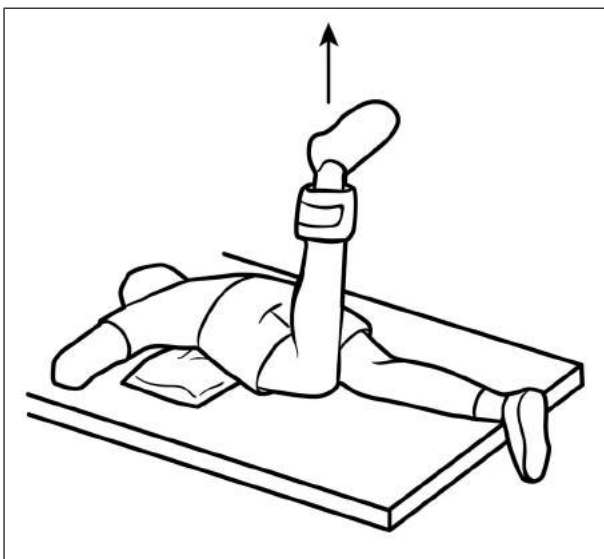
## HAMSTRING CURLS

Stand on a flat surface with your weight evenly distributed over both feet. Hold onto the back of a chair or the wall for balance. Raise the heel of one leg toward the ceiling. Hold this position for 5 seconds and then relax. Perform 5 sets of 10, 3 times a day.



## SIDE-LYING HIP ABDUCTION

Lie on your side with the affected hip on top, cradling your head in your arm, and the bottom leg bent to provide support. Slowly move the top leg up and back to 45°, keeping the knee straight. Hold this position for 5 seconds. Slowly lower the leg and relax it for 2 seconds. Ankle weights should be used, starting with light enough weight to allow 6 to 8 repetitions, progressing to 12 repetitions. Then return to 6 to 8 repetitions and add weight.



## HIP EXTENSION

Lie face down with a pillow under your hips and the knee on the affected side bent 90°. Elevate the leg off the floor to a count of 5, lifting the leg straight up with the knee bent. Ankle weights should be used, starting with light enough weight to allow 6 to 8 repetitions, working up to 12 repetitions. Then return to 6 to 8 repetitions and add weight.

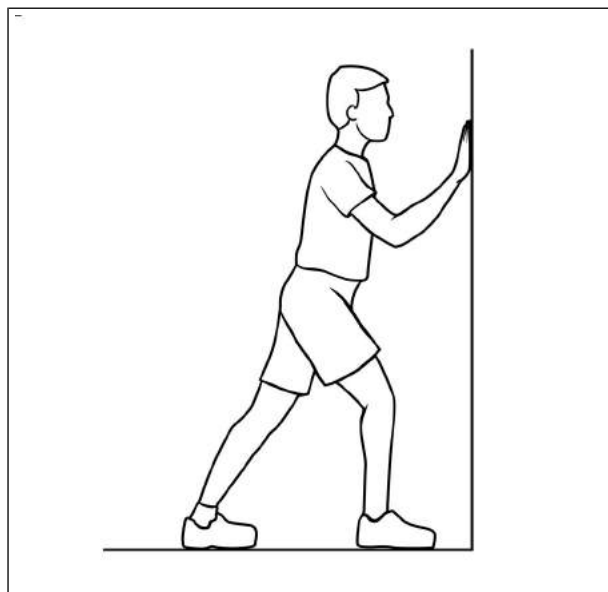
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR ACHILLES TENDON RUPTURE

Begin gentle movement of the ankle, such as by using a stationary bicycle, on day 7 after the injury. Add the heel cord stretch on day 14 after the injury. Before stretching, warm up the tissues by applying moist heat or riding a stationary bicycle for 10 minutes. To prevent inflammation, apply a bag of crushed ice or frozen peas to the heel for 20 minutes after exercising. You should not experience pain with the exercises. If you are unable to perform the exercise because of pain or stiffness or if your symptoms do not improve in 3 to 4 weeks, call your doctor.

Exercise	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Heel cord stretch	Gastrocnemius-soleus complex	4 repetitions/2 or 3 sets	Daily	3 to 4



### HEEL CORD STRETCH

Stand facing a wall with the knee of the unaffected limb bent for support, the affected limb straight, and the toes pointed in slightly. Keeping the heels of both feet flat on the floor, lower your hips toward the wall. Hold the stretch for 30 seconds and then relax for 30 seconds. Repeat 4 times. Perform this exercise 2 or 3 times a day, 6 or 7 days a week.



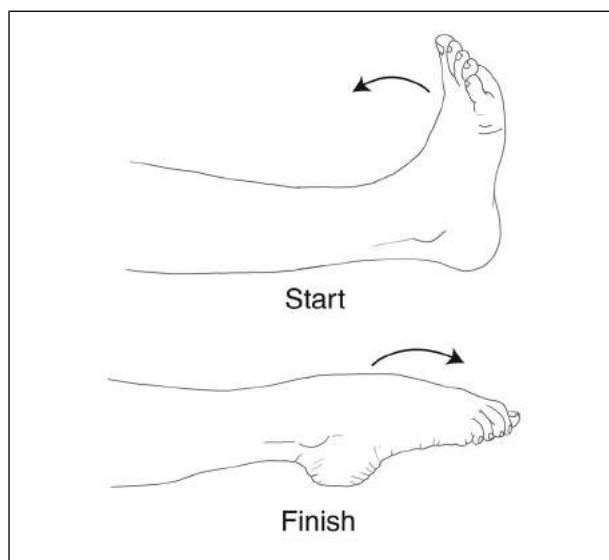
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR ANKLE SPRAIN

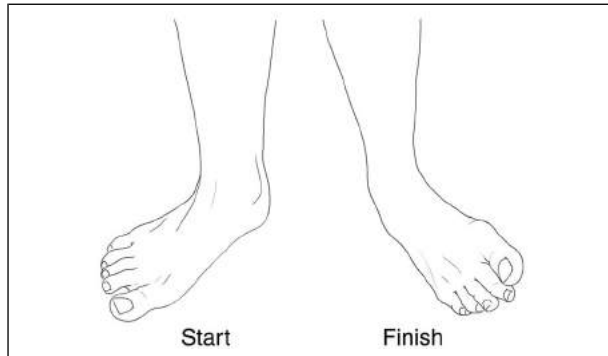
To prevent inflammation, apply a bag of crushed ice or frozen peas to the ankle for 20 minutes after performing the exercises. You should not experience pain with the exercise. If you continue to experience pain or limited mobility of the ankle after performing the exercises for 2 to 3 weeks, call your doctor.

Exercise	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Ankle curls	Anterior tibialis Gastrocnemius-soleus complex	25 repetitions/3 sets, progressing to 45 repetitions/3 sets	Daily	2 to 3
Ankle eversion/inversion	Posterior tibialis Peroneus longus and peroneus brevis	25 repetitions/3 sets, progressing to 45 repetitions/3 sets	Daily	2 to 3



### ANKLE CURLS

Find a position where your weight is off your feet, such as lying on a bed or on the floor or seated on a chair. Pull your toes toward you and then extend them as far as possible. Begin with 3 sets of 25 repetitions and increase gradually to 3 sets of 45 repetitions. Perform the exercise daily, continuing for 2 to 3 weeks.



## ANKLE EVERSION/INVERSION

Find a position where your weight is off your feet, such as lying on a bed or on the floor or seated on a chair. Slowly move your foot from side to side, keeping the lower leg motionless and moving only at the ankle. Begin with 3 sets of 25 repetitions and increase gradually to 3 sets of 45 repetitions. Perform the exercise daily, continuing for 2 to 3 weeks.

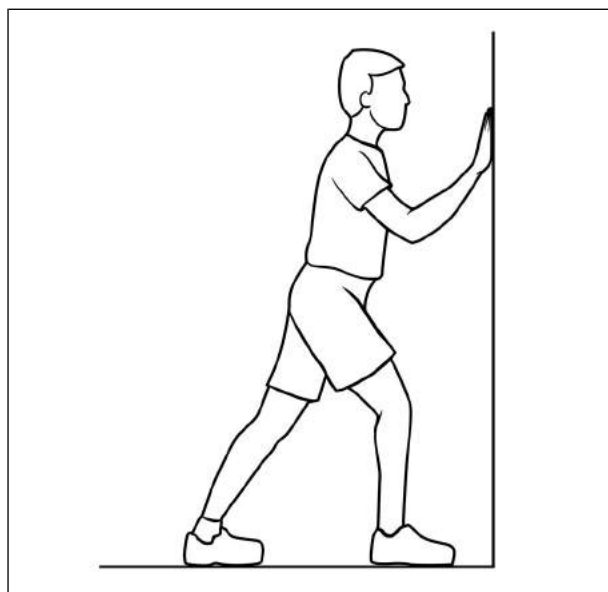
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR PLANTAR FASCIITIS

Apply moist or dry heat to the painful area of the foot during the exercise. To prevent inflammation, apply a bag of crushed ice or frozen peas to the heel for 20 minutes after performing the exercise. You should not experience pain with the exercise. If you are unable to perform the exercise because of pain or stiffness or if your symptoms do not improve after performing the exercise for 3 to 4 weeks, call your doctor.

Exercise	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Heel cord stretch	Gastrocnemius-soleus complex	4 repetitions/2 or 3 sets	Daily	3 to 4



### HEEL CORD STRETCH

Stand facing a wall with the knee of the unaffected limb bent, the affected limb straight, and the toes pointed in slightly. Keeping the heels of both feet flat on the floor, lower your hips toward the wall. Hold the stretch for 30 seconds and then relax for 30 seconds. Repeat 4 times. Perform this exercise daily, 2 or 3 times a day.

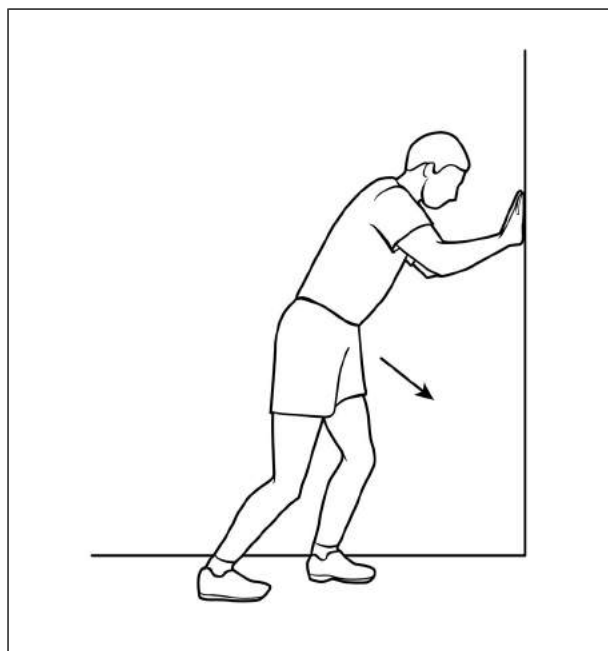
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR POSTERIOR HEEL PAIN

Apply moist or dry heat to the heel while exercising, and to prevent inflammation, apply a bag of crushed ice or frozen peas to the heel for 20 minutes after performing the exercise. You should not experience pain with the exercise. If your symptoms do not improve after performing the exercise for 3 to 4 weeks, call your doctor.

Exercise	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Heel cord stretch with knee bent	Soleus	4 repetitions/2 or 3 sets	Daily	3 to 4



### HEEL CORD STRETCH WITH KNEE BENT

Stand facing a wall with the unaffected limb in front and with the knee bent for support, the affected limb in back and with the knee also bent, and the toes pointed in slightly. Keeping the heels of both feet flat on the floor, lower your hips toward the wall. Hold the stretch for 30 seconds and then relax for 30 seconds. Perform 2 or 3 sets of 4 repetitions daily.

Exercise Program for:

Prepared by:

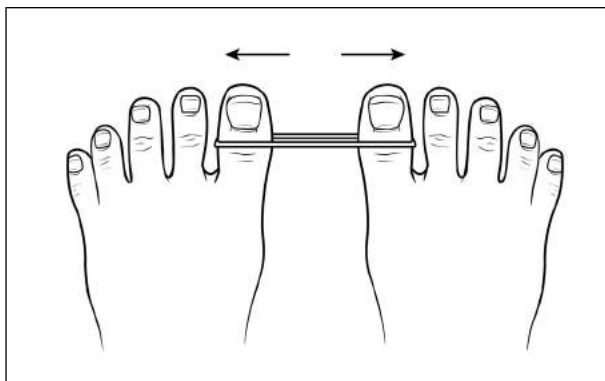
## TOE STRENGTHENING PROGRAM

EXERCISE	RECOMMENDED FOR	REPETITIONS OR DURATION
TOE SQUEEZE	HAMMER TOES, TOE CRAMPS	10
BIG TOE PULLS	BUNIONS, TOE CRAMPS	10
TOE PULLS	BUNIONS, HAMMER TOES, TOE CRAMPS	10
GOLF BALL ROLL	PLANTAR FASCIITIS, ARCH STRAIN, FOOT CRAMPS	2 MINUTES
MARBLE PICK-UP	PAIN IN BALL OF FOOT, HAMMER TOES, TOE CRAMPS	UNTIL ALL MARBLES HAVE BEEN PICKED UP
TOWEL CURLS	HAMMER TOES, TOE CRAMPS, PAIN IN BALL OF FOOT	5



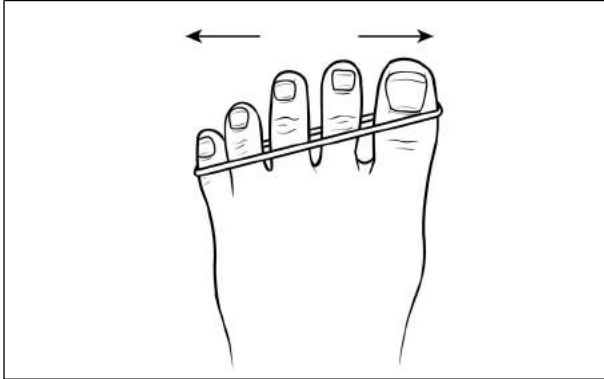
### TOE SQUEEZE

Place small sponges or corks between the toes and hold a squeeze for 5 seconds. Repeat 10 times.



### BIG TOE PULLS

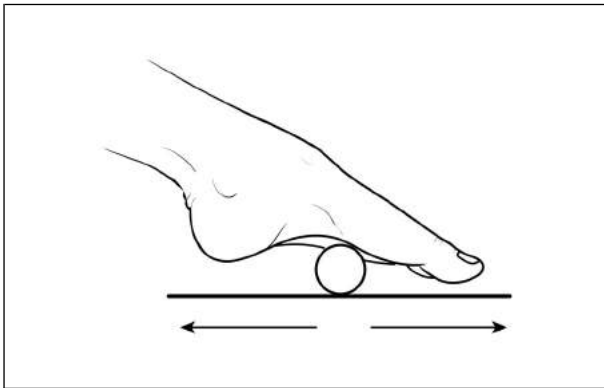
Place a thick rubber band around both big toes and pull the big toes away from each other and toward the small toes. Hold for 5 seconds. Repeat 10 times.



Figures adapted from Brochure: *Bunion Surgery*. Rosemont, IL, American Academy of Orthopaedic Surgeons, 1995.

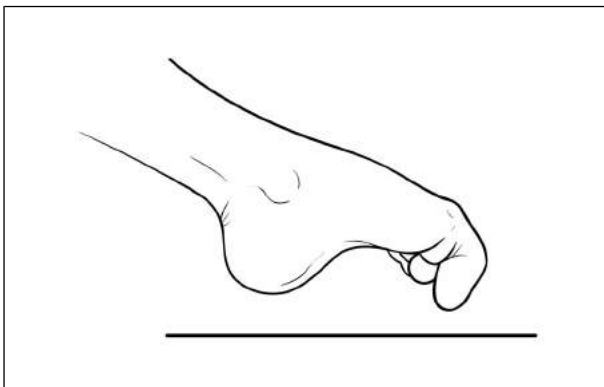
## TOE PULLS

Put a thick rubber band around all your toes and spread them. Hold this position for 5 seconds. Repeat 10 times.



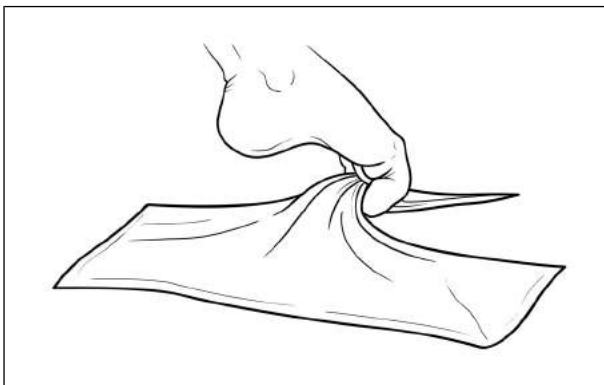
## GOLF BALL ROLL

Roll a golf ball under the ball of your foot for 2 minutes to massage the bottom of the foot.



## MARBLE PICK-UP

Place 20 marbles on the floor. Pick up one marble at a time and put it in a small bowl. Repeat until you have picked up all 20 marbles.



## TOWEL CURLS

Place a small towel on the floor and curl it toward you, using only your toes. You can increase the resistance by putting weight on the end of the towel. Relax and repeat 5 times.

Figures adapted from Brochure: *Bunion Surgery*. Rosemont, IL, American Academy of Orthopaedic Surgeons, 1995.

Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR FOOT AND ANKLE CONDITIONING

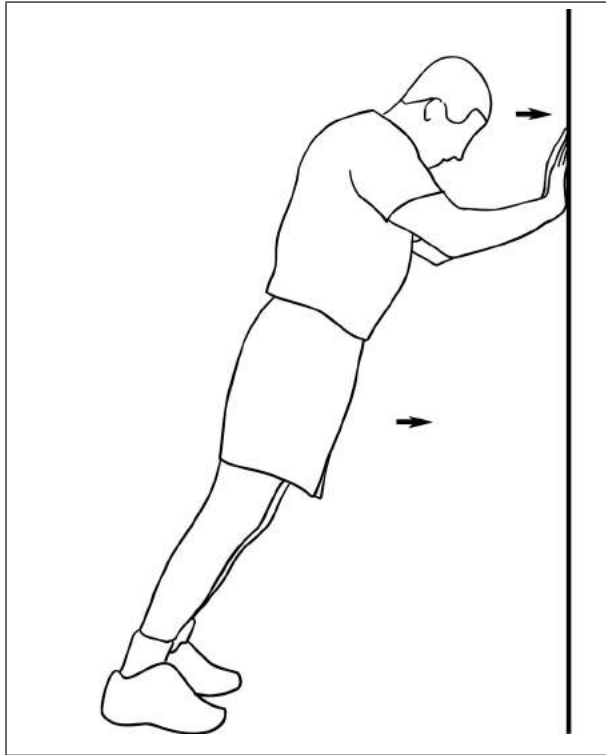
Stretching and Strengthening Exercises for the Foot and Ankle

Exercise	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
<b>Stretching</b>				
Heel cord stretch	<i>Knee straight:</i> Gastrocnemius <i>Knee bent:</i> Soleus	4 to 5 repetitions/2 to 3 sets	Daily	6 to 8
<b>Strengthening</b>				
Calf raises	Gastrocnemius-soleus complex	10 repetitions/3 sets	3	6 to 8
Ankle curls	Anterior tibialis	10 repetitions/3 sets	3	6 to 8
Ankle eversion/inversion	Posterior tibialis Peroneus longus Peroneus brevis	10 repetitions/3 sets	3	6 to 8

### Toe Strengthening Program

Exercise	Recommended for	Repetitions or Duration
Toe squeeze	Hammer toes, toe cramps	10
Big toe pulls	Bunions, toe cramps	10
Toe pulls	Bunions, hammer toes, toe cramps	10
Golf ball roll	Plantar fasciitis, arch strain, foot cramps	2 minutes
Marble pick-up	Pain in ball of foot, hammer toes, toe cramps	Until all marbles have been picked up
Towel curls	Hammer toes, toe cramps, pain in ball of foot	5

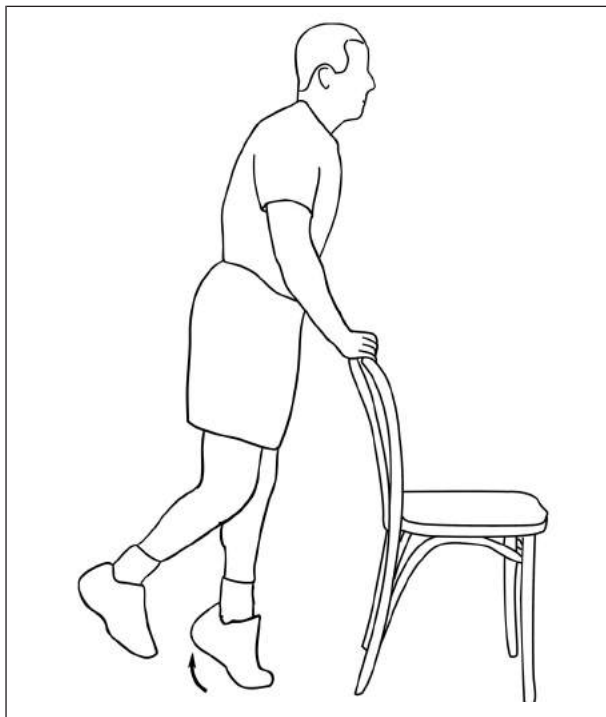
## STRETCHING EXERCISE



### HEEL CORD STRETCH

Support yourself against a wall with your feet pointed straight ahead. *Stretch with knee straight:* Keeping the heel in contact with the ground and the knee straight, place the foot as far back as possible until a stretch is felt in the calf. *Stretch with knee extended:* Same position but bend the knee of the leg being stretched. Hold the stretch for 30 seconds, then relax for 30 seconds. Repeat on the other side. Perform 2 to 3 sets of 4 to 5 repetitions of each exercise.

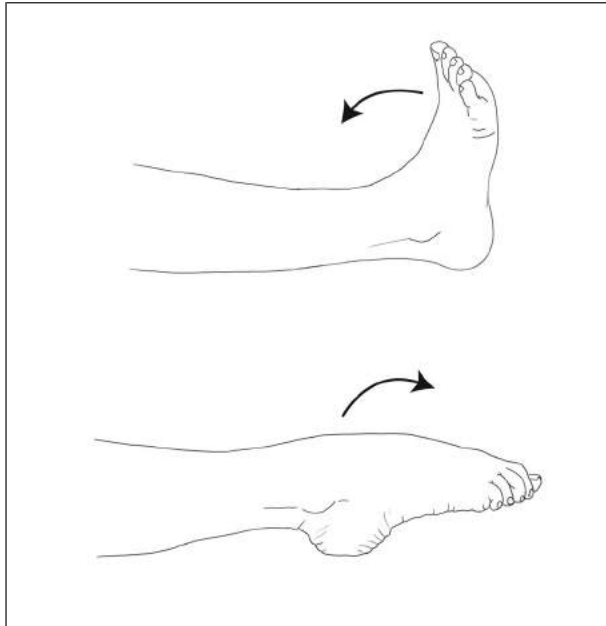
## STRENGTHENING EXERCISES



### CALF RAISES

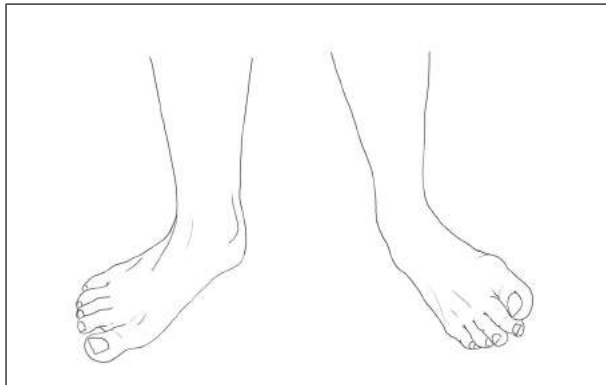
Stand with your weight evenly distributed over both feet. Hold onto the back of a chair or the wall for balance. Lift one foot so that all your weight is on the other foot. Then lift the heel off the floor as high as you can. Repeat on the other side. Work up to 3 sets of 10 repetitions.





## ANKLE CURLS

Find a position where your weight is off your feet, such as lying on a bed or on the floor or seated on a chair. Pull your toes toward you and then extend them as far as possible. Perform 2 to 3 sets of 10 repetitions.



## ANKLE EVERSION/INVERSION

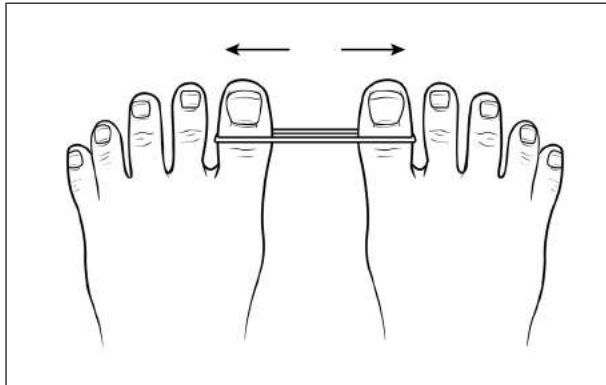
Find a position where your weight is off your feet, such as lying on a bed or on the floor or seated on a chair. Slowly move your foot from side to side, keeping the lower leg motionless and moving only at the ankle. Perform 2 to 3 sets of 10 repetitions.

## TOE STRENGTHENING EXERCISES



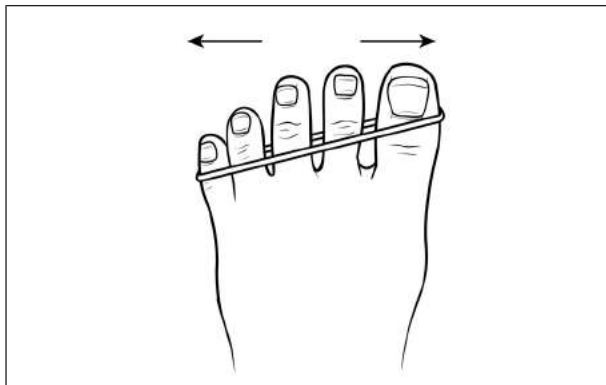
### TOE SQUEEZE

Place small sponges or corks between the toes and hold a squeeze for 5 seconds. Repeat 10 times.



### BIG TOE PULLS

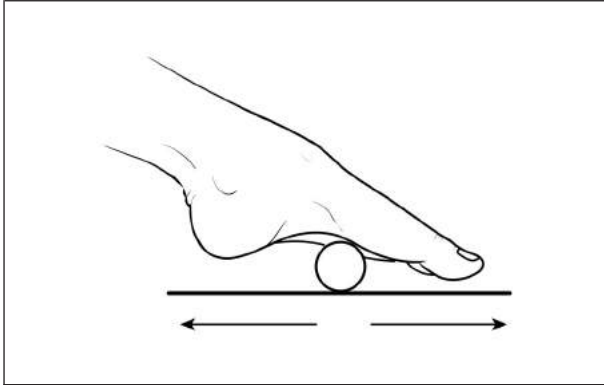
Place a thick rubber band around both big toes and pull the big toes away from each other and toward the small toes. Hold for 5 seconds. Repeat 10 times.



### TOE PULLS

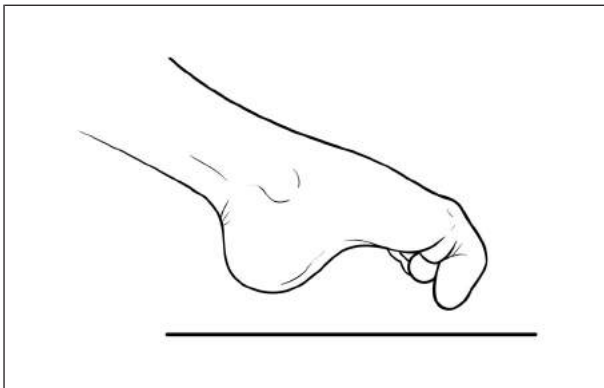
Put a thick rubber band around all your toes and spread them. Hold this position for 5 seconds. Repeat 10 times.

Figures adapted from Brochure: *Bunion Surgery*. Rosemont, IL, American Academy of Orthopaedic Surgeons, 1995.



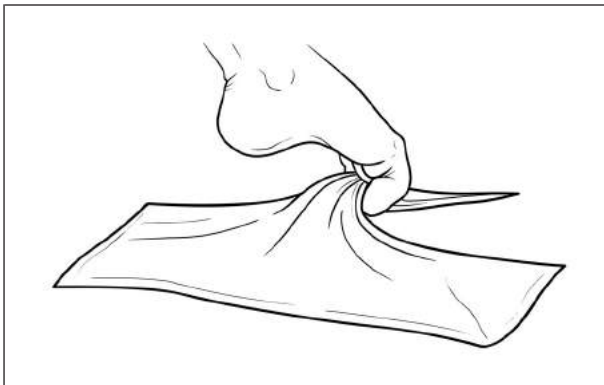
## GOLF BALL ROLL

Roll a golf ball under the ball of your foot for 2 minutes to massage the bottom of the foot.



## MARBLE PICK-UP

Place 20 marbles on the floor. Pick up one marble at a time and put it in a small bowl. Repeat until you have picked up all 20 marbles.



## TOWEL CURLS

Place a small towel on the floor and curl it toward you, using only your toes. You can increase the resistance by putting weight on the end of the towel. Relax and repeat 5 times.

Figures adapted from Brochure: *Bunion Surgery*. Rosemont, IL, American Academy of Orthopaedic Surgeons, 1995.

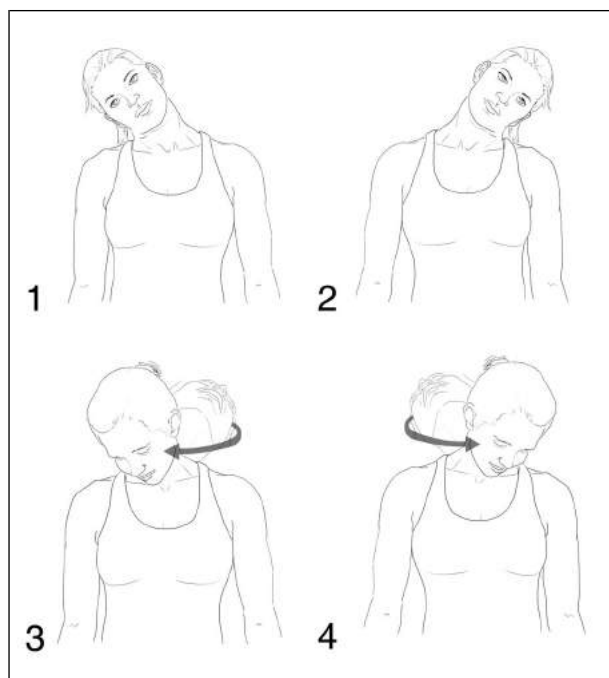
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR CERVICAL STRAIN

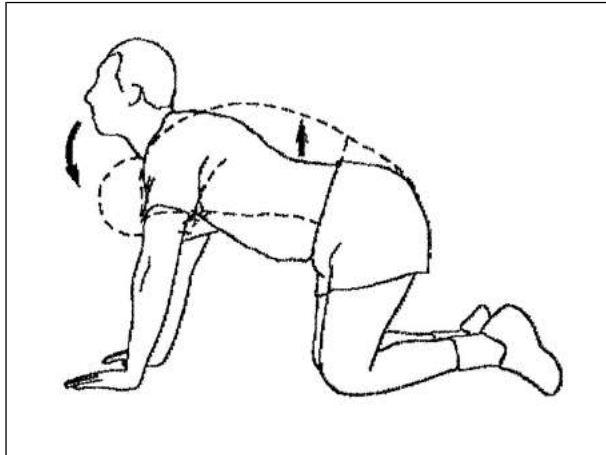
Perform the exercises in the order listed. Apply heat to the painful area for 20 minutes before performing the exercises. If the pain worsens or does not improve, call your doctor.

Exercise Type	Area Targeted	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Head rolls	Cervical spine	3 repetitions (all directions)/ 3 sets	Daily	3 to 4
Cat back stretch	Upper back	10 repetitions	Daily	3 to 4



### HEAD ROLLS

Sit in a chair or stand with your weight evenly distributed on both feet. Begin by gently bowing your head toward your chest, then stretching your right ear toward your right shoulder (1), then your left ear toward your left shoulder (2). (3) Next, gently roll your head in a clockwise circle three times. (4) Switch directions and gently roll your head in a counterclockwise circle three times.



## CAT BACK STRETCH

Kneel on your hands and knees in a relaxed position. Raise your back up like a cat and hold for 5 seconds. Repeat 10 times.

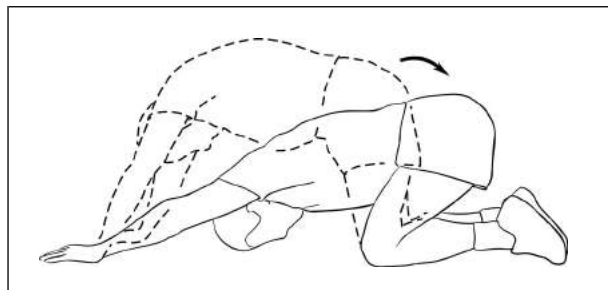
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR ACUTE LOW BACK PAIN

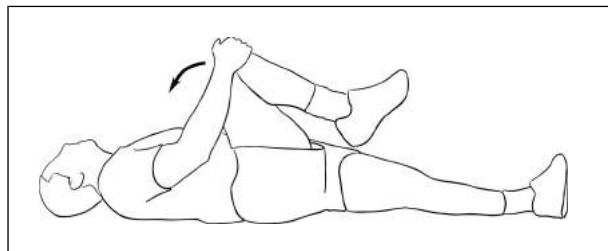
Perform the exercises in the order listed. Apply heat to the low back for 20 minutes before performing the exercises. If the pain worsens or if it does not improve after performing the exercises for 3 to 4 weeks, call your doctor.

Exercise Type	Muscle Group/ Area Targeted	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Cobra stretch	Low back	10 repetitions	Daily	3 to 4
Knee to chest	Low back	10 repetitions/3 sets	Daily	3 to 4
Side bridges	Quadratus lumborum	5 repetitions	Daily	3 to 4
Hip bridges	Hip extensors Low back extensors	5 repetitions	Daily	3 to 4



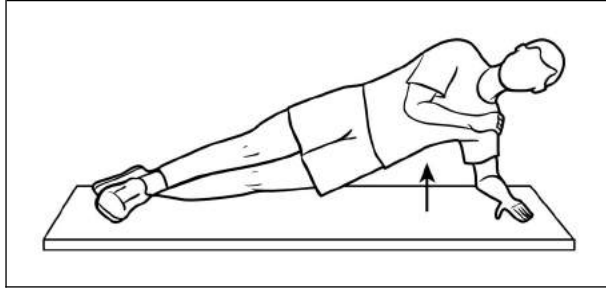
### COBRA STRETCH

Crouch on your hands and knees. First rock forward onto your extended arms, allowing your back to sag. Hold for 5 seconds. Then rock back and sit on your bent knees with your arms extended and your head tucked in. Hold for 5 seconds. Repeat 10 times.



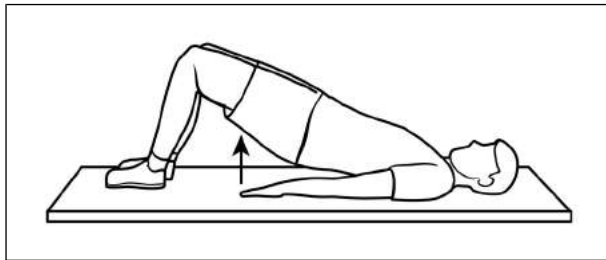
### KNEE TO CHEST

Lie on your back on the floor with your knees bent and your feet flat on the floor. Grasp one knee and bring it up to your chest as far as it will go. Then lower the leg back to the floor. Repeat with the other leg. Then do both legs together. Repeat this sequence 10 times.



## SIDE BRIDGES

Lie on your side on the floor. With your elbow bent at 90°, lift your body off the floor as shown, keeping your body straight. Hold the position for 15 seconds and then repeat on the other side. Perform 5 repetitions daily.



## HIP BRIDGES

Lie on your back on the floor with your arms at your sides, your knees bent, and your feet flat on the floor. Lift your pelvis so that your body is in a straight line from your shoulders to your knees. Hold this position for 15 seconds. Perform 5 repetitions daily.

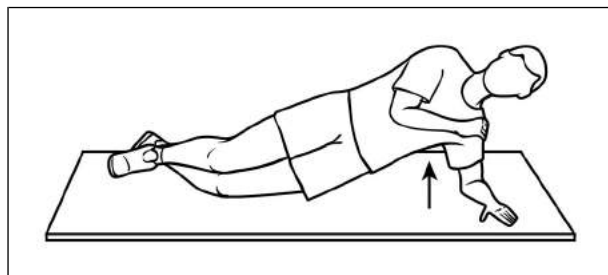
Exercise Program for:

Prepared by:

## HOME EXERCISE PROGRAM FOR CHRONIC LOW BACK PAIN

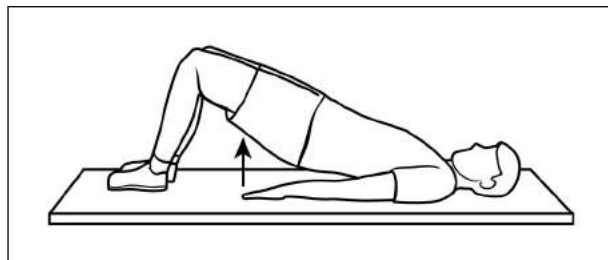
Perform the exercises in the order listed. Apply heat to the low back for 20 minutes before performing the exercises. You should not experience pain with the exercises. If the pain worsens or if it does not improve after performing the exercises for 3 to 4 weeks, call your doctor.

Exercise Type	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
Modified side bridges	Quadratus lumborum	5 repetitions	Daily	3 to 4
Hip bridges	Back and hip extensors	5 repetitions	Daily	3 to 4
Bird dog	Back extensors	5 repetitions	Daily	3 to 4
Abdominal bracing	Abdominals	5 repetitions	Daily	3 to 4



### MODIFIED SIDE BRIDGES

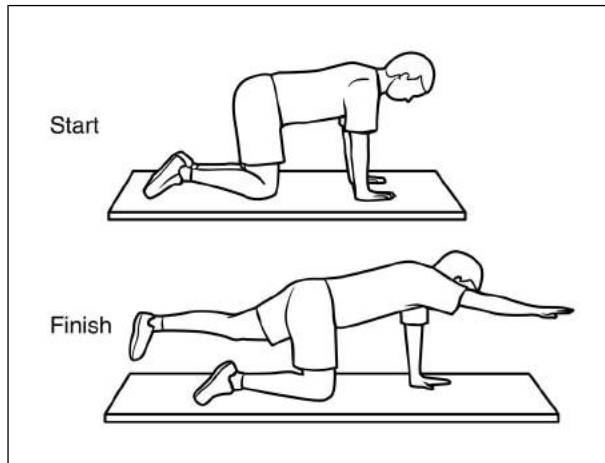
Lie on your side on the floor with your knees bent. With your elbow bent at 90°, lift your body off the floor as shown, keeping your body straight. Hold the position for 15 seconds and then repeat on the other side. Perform 5 repetitions daily.



### HIP BRIDGES

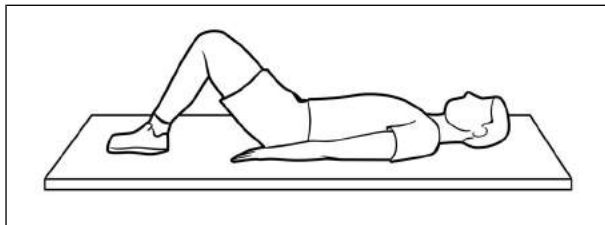
Lie on your back on the floor with your arms at your sides, your knees bent, and your feet flat on the floor. Lift your pelvis so that your body is in a straight line from your shoulders to your knees. Hold this position for 15 seconds. Perform 5 repetitions daily.





## BIRD DOG

Kneel on the floor on your hands and knees. Lift your right arm straight out from the shoulder, level with your body, at the same time you lift your left leg straight out from the hip. Hold this position for 15 seconds. Repeat with the opposite arm and leg. Perform 5 repetitions daily.



## ABDOMINAL BRACING

Lie on your back on the floor with your arms at your sides, your knees bent, and your feet flat on the floor. Contract your abdominal muscles so that your stomach is pulled away from your waistband. Hold this position for 15 seconds. Perform 5 repetitions daily.

Exercise Program for:

Prepared by:

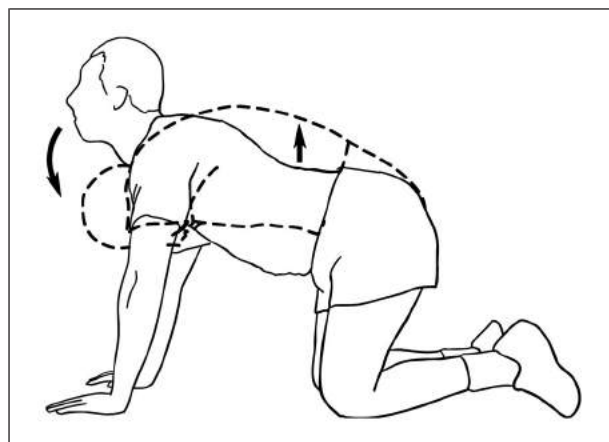
## HOME EXERCISE PROGRAM FOR LUMBAR SPINE CONDITIONING

Perform the exercises in the order listed. If any of the exercises causes pain, call your doctor.

Stretching and Endurance Exercises for the Lumbar Spine

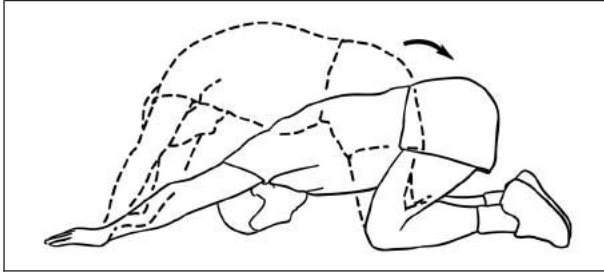
Exercise Type	Muscle Group/ Area Targeted	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
<b>Stretching</b>				
Cat back stretch	Middle and low back	10 repetitions	Daily	3 to 4
Cobra stretch	Low back	10 repetitions	Daily	3 to 4
Seat side straddle	Adductor muscles Medial hamstrings Semitendinosus Semimembranosus	10 repetitions	Daily	3 to 4
Modified seat side straddle	Adductor muscles Hamstrings	10 repetitions	Daily	3 to 4
Sitting rotation stretch	Piriformis External rotators Internal rotators	10 repetitions	Daily	3 to 4
Leg cross-over	Hamstrings	10 repetitions	Daily	3 to 4
<b>Endurance</b>				
Bird dog	Back extensors	5 repetitions	Daily	3 to 4
Side bridges	Quadratus lumborum	5 repetitions	Daily	3 to 4
Abdominal bracing	Abdominals	5 repetitions	Daily	3 to 4

### STRETCHING EXERCISES



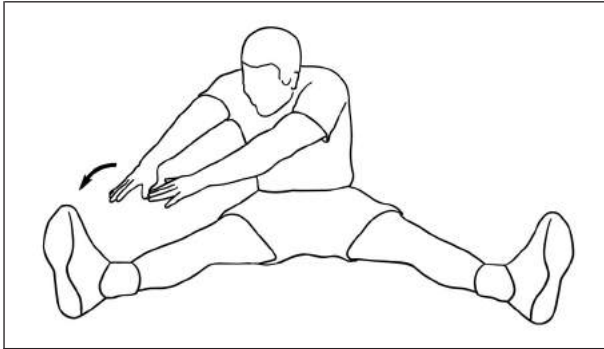
### CAT BACK STRETCH

Kneel on your hands and knees in a relaxed position. Raise your back up like a cat and hold for 30 seconds. Relax for 30 seconds. Repeat 10 times.



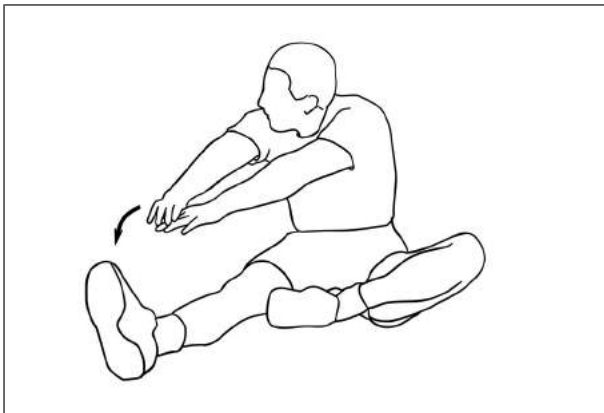
## COBRA STRETCH

Crouch on your hands and knees. First rock forward onto your extended arms, allowing your back to sag. Hold for 5 seconds. Then rock back and sit on your bent knees with your arms extended and your head tucked in. Hold for 5 seconds. Repeat 10 times.



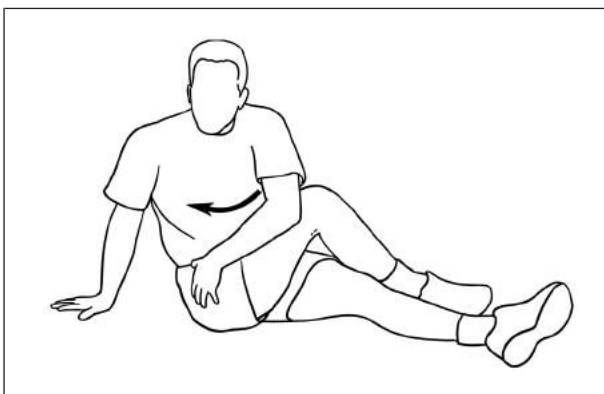
## SEAT SIDE STRADDLE

Sit on the floor with your legs spread apart. Place both hands on the same ankle and bring your chin as close to your knee as possible. Hold the maximum stretch for 30 seconds and then relax for 30 seconds. Repeat on the other side. Repeat the sequence 10 times.



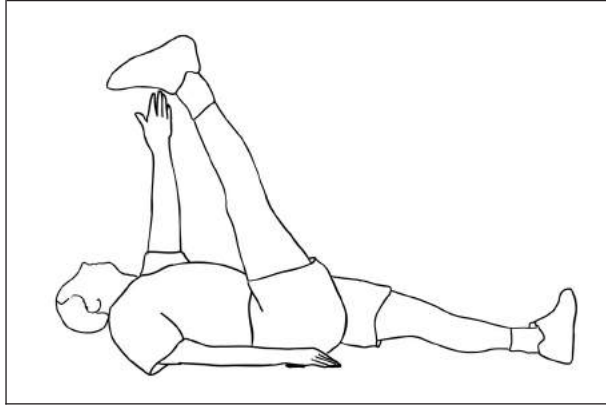
## MODIFIED SEAT SIDE STRADDLE

Sit on the floor with one leg extended to the side and the other leg bent as shown. Place both hands on the ankle of the extended leg and bring your chin as close to your knee as possible. Hold the maximum stretch for 30 seconds and then relax for 30 seconds. Reverse leg positions and repeat on the other side. Repeat the sequence 10 times.



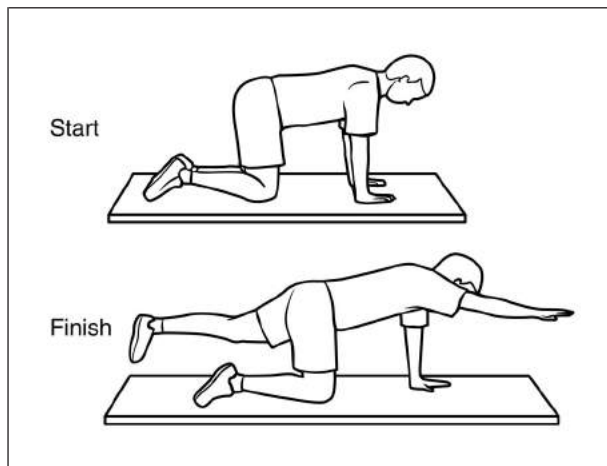
## SITTING ROTATION STRETCH

Sit on the floor with both legs straight out in front of you. Cross one leg over the other, place the elbow of the opposite arm on the outside of the thigh, and support yourself with your other arm behind you. Rotate your head and body in the direction of the supporting arm. Hold the maximum stretch for 30 seconds and then relax for 30 seconds. Reverse positions and repeat the stretch on the other side. Repeat the sequence 10 times.



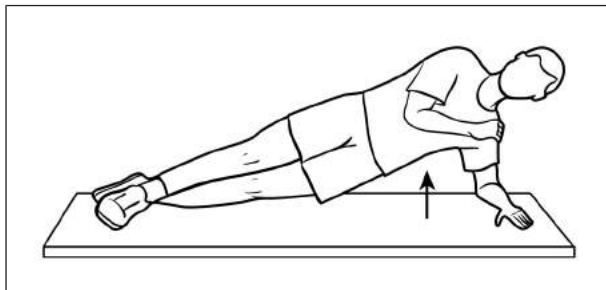
## LEG CROSS-OVER

Lie on the floor with your legs spread and your arms at your sides. Keeping the leg straight, bring your right toe to your left hand. Try to keep the other leg flat on the floor, but you may bend it slightly if needed for comfort. Hold the maximum stretch for 30 seconds and then relax for 30 seconds. Repeat with the left leg and the right hand. Repeat the sequence 10 times.



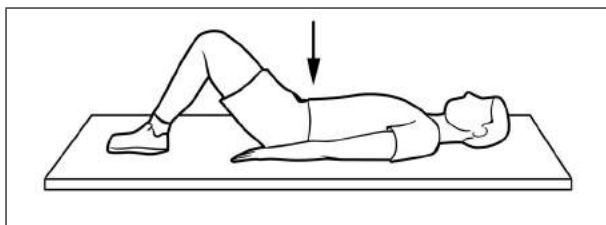
## BIRD DOG

Kneel on the floor on your hands and knees. Lift your right arm straight out from the shoulder, level with your body, at the same time you lift your left leg straight out from the hip. Start by holding the position for 15 seconds. Repeat with the opposite arm and leg. Perform 5 repetitions daily. The goal is to hold this position for 150 seconds (30 years of age or older) or 170 seconds (younger than 30 years).



## SIDE BRIDGES

Lie on your side on the floor. With your elbow bent at 90°, lift your body off the floor as shown, keeping your body straight. Hold the position for 15 seconds and then repeat on the other side. Perform 5 repetitions daily. The goal is to hold the position for 150 seconds on each side. Note: For beginners, the knees may be bent 90°.



## ABDOMINAL BRACING

Lie on your back on the floor with your arms at your sides, your knees bent, and your feet flat on the floor. Contract your abdominal muscles so that your stomach is pulled away from your waistband. Hold this position for 15 seconds. Perform 5 repetitions daily.

Exercise Program for:

Prepared by:

# CARE OF DIABETIC FEET

## CARE OF THE FEET

1. Never walk barefoot; always wear shoes or slippers.
2. Wash feet daily with mild soap and water.
  - Always test the water temperature with your hands or elbows before putting your feet in the water.
  - After washing, pat your feet dry; do not rub vigorously.
  - Use only one thickness of towel to dry your feet, especially between the toes.
  - Use a skin moisturizing lotion to prevent skin from getting dry and cracked; however, do not use these lotions between the toes.
3. Inspect your feet daily for puncture wounds, bruises, pressure areas and redness, and blisters.
  - Puncture wounds—Have you stepped on any nails, glass, or tacks?
  - Bruises—Feel for swelling.
  - Pressure areas and redness—Check the six major locations for pressure on the bottom of the foot:
    - a. Tip of the big toe
    - b. Base of the little toe
    - c. Base of the middle toes
    - d. Heel
    - e. Outside edge of the foot
    - f. Across the ball of the foot (metatarsal heads)
  - Blisters—Check the six major locations on the bottom of the foot for blisters, plus the tops of the toes and the back of the heel. *Never* pop a blister!
4. Seek treatment by a physician for any foot injuries or open wounds.
5. Do not use Lysol disinfectant, iodine, cresol, carbolic acid, kerosene, or other irritating antiseptic solutions to treat cuts or abrasions on your feet. These products will damage soft tissue.

## CARE OF DIABETIC FEET

6. Do not use sharp instruments, drugstore medications, or corn plasters on your feet. Always seek the advice of your physician for any condition that needs such care.
7. Protect your feet.
  - Wear loose bed socks while sleeping.
  - Avoid frostbite by wearing warm socks and shoes during cold weather.
  - Do not use a heating pad on your feet.
  - Do not place your feet on radiators, furnaces, furnace grills, or hot water pipes.
  - Do not hold your feet in front of the fireplace, circulators, or heaters.
  - Do not use a hair dryer on your feet.
8. Place thin pieces of cotton or lamb's wool between your toes if there is maceration of the skin between your toes or if your toes overlap.
9. Do not sit cross-legged; it can decrease circulation to your feet.
10. Take care of your toenails in the following manner:
  - Soak or bathe feet before trimming nails.
  - Make sure that you trim your nails under good lighting.
  - Trim toenails straight across.
  - Never trim toenails into the corner.
  - If toenails are thick, see your physician and use a nail file or emery board for trimming.
  - Consult your physician when there are any signs of an ingrown toenail. Do not treat an ingrown toenail with drug- store medications; however, you can place a thin piece of cotton or waxed dental floss under the toenail.

## SOCKS AND STOCKINGS

1. Wear clean, dry socks daily. Make certain that there are no holes or wrinkles in your socks or stockings.
2. Wear thin, white, cotton socks in the summer; they are more absorbent and porous. Change them if your feet sweat excessively.
3. Wear square-toe socks; they will not squeeze your toes.
4. Wear pantyhose or stockings with a garter belt. It is important that you do not wear or use the following:
  - Elastic-top socks or stockings, or knee-high stockings
  - Circular elastic garters
  - String tied around the tops of stockings
  - Stockings that are rolled or knotted at the top

## SHOE WEAR

1. Always wear proper shoes. Check the following components daily to ensure that your shoes fit properly and will not damage your feet:
  - Shoe width—Make sure that the shoes are wide and deep enough to give the joints of your toes breathing room. Shoes that are too narrow will cause pressure bruises and blisters on the inside and outside edges of your foot at the base of the toes.
  - Shoe length—Shoes that are too short will cause pressure and blisters on the tops of your toes.
  - Back of shoe—Looseness at the heel will cause blisters at your heels.
  - Bottom of heel—Make sure there are no nails. The presence of holes indicates that there are nails in the heels.
  - Sole—Make sure that the sole is not broken. A break in the sole will allow nails or other sharp objects to puncture the skin.
2. Be careful about the type of new shoes you purchase. Use the following guidelines when you look for new shoes:
  - Buy new shoes in the evening to allow for swelling in your feet.
  - Inspect your feet once an hour for the first few days. Look for red areas, bruises, and blisters.
  - Do not wear your new shoes for more than a half day for the first few days.
  - The following components in shoes are desirable:
    - a. Laces or adjustable closure
    - b. Soft leather tops (to allow feet to breathe; they mold to the feet)
    - c. Crepe soles (to provide a good cushion for walking)
  - Avoid the following components in shoes:
    - a. Elastic across the tops of the shoes
    - b. Pointed-toe styles (they constrict the toes)
    - c. High heels
    - d. Shoes made of plastic (retain moisture and do not allow the feet “to breathe”)
3. Put your shoes on properly.
  - Inspect the inside of each shoe before putting it on. Make sure to remove any small stones or debris. Be certain that the inside of the shoe is smooth.
  - Loosen the laces before putting on or taking off your shoes. Make sure that the tongue is flat, with no wrinkles.
  - Be certain that you do not tie your laces either too tightly or too loosely.