

A Home Based Exercise Program for

**Sponsor and Coordinating Centre:**

RADICAL PC
Population Health Research Institute
Hamilton General Hospital Campus, DBCVSRI
237 Barton Street East, Hamilton, Ontario, Canada, L8L 2X2
Tel: 905-527-4322
Fax: 905-297-3779
radicalpc@phri.ca

Principal Investigators:

Dr. Jehonathan Pinthus
Associate Professor
Department of Urology and Surgical Oncology
Hamilton Health Sciences / McMaster University

Dr. Darryl Leong
Assistant Professor
Division of Cardiology, Department of Medicine
Hamilton Health Sciences / McMaster University

Exercise Program Authors:

Schuyler Schmidt and Dr. Marina Mourtzakis, University of Waterloo

Table of Contents

Things to Know Before Exercising	3
Cardiovascular/Aerobic Exercise	5
Resistance Exercise/Strength Training	6
Lower Body Exercises	7
Upper Body Exercises	18
Core and Posture Exercises	32
Cool-down and Stretching	42
Physical Activity Tracking Sheet	48

DISCLAIMER: There are risks associated with beginning an exercise program. Be sure to check with your doctor that it is okay to begin a home exercise program. Muscle soreness lasting a few days and slight fatigue are normal after beginning a new exercise program, however, exhaustion, sore joints, and painful muscle pulls are not normal. If this happens, please refrain from lifting until you are cleared by a medical professional before you begin again.

Introduction

Exercise is an important part of a healthy lifestyle. This home program is designed to help you become more active. This packet will help you become familiar with home-based exercise and will provide you with some tips and guidelines to follow to design your own exercise program.

Things Important to Exercise

Before beginning any exercise program it is important to have 3 things—proper footwear, breathable clothing and water. Proper footwear includes walking or running sneakers or trainers. Examples of breathable clothing include gym shorts or track pants and moisture wicking t-shirts that can be found in most department stores. Wearing clothing such as jeans or slacks while exercising can restrict movement, putting you at a higher risk of injury. During your workout, it is important to stay hydrated. Keep a water bottle with you throughout, and take a few sips after every exercise.

Purpose

This take-home package will assist you in reaching the Canadian Physical Activity Guidelines for achieving health benefits. Being active for at least 150 minutes per week can help reduce the risk of chronic disease (such as high blood pressure, heart disease, and diabetes).

Warm Up

Before beginning any workout or activity, it is important to warm-up to stimulate blood flow to working muscles, reducing your risk of injury. **Your warm-up should increase your heart rate, increase your breathing, and last about 10 minutes.** Your warm-up may simply include a brisk walk, bike ride or swim, depending on the activity that you enjoy.

In order to determine how hard you are working, we ask that you use a Rating of Perceived Exertion (RPE). We have provided a copy of the Borg scale on the next page. The Borg scale is used to gauge intensity/ determine a RPE on a scale of 6-20. A rating of 6 is no effort at all, whereas a 20 is the hardest you have ever worked. For this program, your activities will be in the 9-14 range (very light to somewhat hard). It is important to keep track of your RPE during your workouts so you know how hard you are working and know when to appropriately progress.

During the warm-up, you should be working up to a rating of approximately 9-11 on the Borg scale (see next page).

Borg Scale (Rating of Perceived Exertion Scale)

This is the scale you will use to rate how hard you are working during your cardiovascular exercise. We want your warm-up to be 9-11, and your cardiovascular exercise to be 11-14.

Rating	Perceived Exertion
6	No exertion
7	Extremely light
8	
9	Very light
10	
11	Light
12	
13	Somewhat hard
14	
15	Hard
16	
17	Very hard
18	
19	Extremely hard
20	Maximal exertion

Cardiovascular Exercise

Cardiovascular fitness is very important when improving your overall health. Increased cardiovascular fitness allows more blood to be pumped to your muscles, allowing more oxygen and nutrients to be delivered. Cardiovascular exercise can lower blood pressure, help control blood sugar, and decrease fatigue. It can decrease body fat and improve your mood, in addition to other benefits.

During the study, we would like you to aim to work at about 11-14 (light to somewhat hard effort) on the Borg Scale. Another good way to assess intensity during exercise is the “talk test.” While exercising, it should be difficult to hold a conversation but not impossible. You should also pick a cardiovascular exercise that is fun to you. As long as your heart rate is elevated, and you are slightly out of breath, the activity counts as cardiovascular exercise!

At the beginning of the study, if you are not used to exercising at this level, it is important that you work up to the recommended levels. A good place to start is 10 minutes of exercise 3 times a day for 3 days of the week. This could include something as simple as walking around the block at a brisk pace in the morning, lunchtime and after dinner on Monday, Wednesday, and Friday. Work up to 30 minutes of walking 5 times per week. Once this has become easy, try alternating bouts of higher intensity exercise (Borg Scale: 12-15) with lower intensity exercise (Borg Scale: 10-12). For example, alternate between walking and jogging for 30 minutes or work your way up to 30 minutes of jogging.

Do not increase the length of your workouts and the frequency at the same time. This may lead to injury.

If you decide to increase the length of your exercise, add three minutes onto your workout each week (without changing how hard or how often you exercise). This gradual increase will allow your body to safely adjust to the new level of exercise. An example of this is increasing your exercise time from 30 minutes to 33 minutes one week, to 36 minutes the next week, and so on.

If you decide to increase the number of days per week you exercise, add one day each week and see how your body adapts. For example, if you exercise Monday, Wednesday, and Friday, the next week you could try exercising Monday, Wednesday, Friday, and Saturday.

EXAMPLES OF CARDIOVASCULAR ACTIVITIES

- **Walking, jogging, or running outside or on a treadmill**
- **Biking outdoors or on an exercise bike at the gym**
- **Using the elliptical trainer or stair climber at the gym**
- **Rowing, swimming, or water aerobics**
- **Dancing**
- **Playing recreational sports (basketball, badminton, pickle ball, etc)**
- **Skating**
- **Cross country or downhill skiing**

Version 1.0, 2015-10-26

Strength Training

Strength training is important to reverse or prevent any muscle loss that may occur because of treatments or simply due to aging. The strength training in this program will use resistance bands, or your own weight to stress specific muscles or muscle groups. ***The Canadian Society for Exercise Physiology (CSEP) recommends muscle strengthening activities using the major muscle groups 2-3 times per week on alternate days.***

Benefits of Resistance Training

- Increased total body strength
- Increased muscular strength and endurance
- Increased bone mass (lower risk of osteoporosis)
- Reduces the risk of fall by improving stability
- Helps with controlling blood sugar
- Improves body composition

For each exercise you choose to perform, we recommend that you start by repeating the exercise 10-15 times (this is referred to as 1 set of 10-15 repetitions; 1x10-15). Over time, we recommend that you increase this to 3 sets of 10 repetitions (3x10). To perform 3 sets of 10 repetitions, perform the exercise 10 times (repetitions/reps) in a row, and then rest for about 1 minute. This is considered 1 set. Repeat this process twice more, for a total of 3 sets. Allow for approximately one minute of rest between sets to catch your breath and prevent overexertion.

We recommend that you do strength training for 10 minutes, 3 times per week. In each session, we encourage you to pick 1-2 exercises from each of the groups we have outlined below. One group will be upper body exercises (arms, back, and chest), one group will focus on lower body (legs and buttocks), and one group will focus on improving abdominal strength and posture. The exercise choices for each group are found in the following pages.

You can record the exercise you choose in the chart provided at the end of the pamphlet. It also provides a space to record how many repetitions you completed. This will allow you to keep track of what exercises you are doing and to see your progress.

When performing strength exercises, it is very important to ensure you use **proper form**. This will prevent too much stress on your muscles and joints, which will reduce your risk for injury. It is helpful to do your exercises in front of a mirror or have someone watch you perform a set to check for things such as symmetry and correct posture. If you are having difficulty performing an exercise properly, reduce the weight being used or use an alternative, less challenging exercise. Always remember that correct form is the most important thing when strength training

LOWER BODY EXERCISES

Standing Calf Raises

1. Stand behind a chair with your feet shoulder width apart and hold on for extra support. Keep your chest up and look straight ahead.
2. Push your toes into the ground and raise your heels off the ground. Raise up as high as you are comfortable. Do not let your ankle roll out to the sides.
3. Hold the top position for 2-3 seconds and slowly lower your heels back to the ground.

Progressions: Try doing this with your heels hanging off a step and holding onto a railing for extra support. You can also try holding the top position for a longer amount of time.



The picture on the left is an example of how **not** to do the standing calf raise. Notice that his ankles are rolling out to the side. To avoid this from happening, concentrate on pushing your big toe firmly into the ground at all times.

Sit to Stand

1. Stand in front of a chair with your feet about shoulder width apart and toes pointing straight ahead or slightly turned outwards. Look straight ahead with your chest up.
2. Sit into the chair by pushing your hips back as you bend at your knees. Only bend your knees as far as you are comfortable. Keep your back in a neutral position (i.e. don't let it round).
3. Gently come back up to a standing position by pushing your heels into the ground, extending your knees and squeezing your bum. Try not to use your arms to push yourself up. This is one repetition.

Progressions: Try to perform a bodyweight squat by holding onto the back of the chair for support.



The picture on the left is an example of how **not** to do a sit to stand. Notice that his knees are caving inwards, and his knees are falling in past his big toe. This position puts a lot of stress on the inside of your knee. To avoid this from happening, think about pushing the outside of your heels into the ground and press firmly into the ground while standing up. Think about keeping your knees in line with your big toe.

Leg Lift

1. Rest your hands on the back of a chair for stability and stand with your feet shoulder width apart.
2. Lift one leg behind you. Stop before your low back starts to extend. While doing this, you should think about using your buttocks to do the movement, and not your low back.
3. Hold your leg behind you for 2-3 seconds.
4. Slowly lower the raised leg back to the floor. This is one repetition.

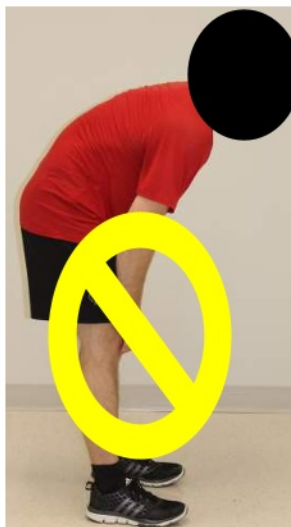
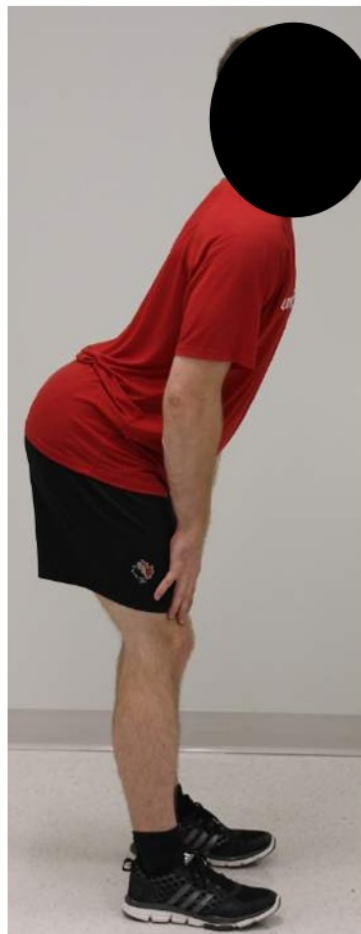
Progression: Try tying the resistance band in a loop and putting it around your ankles. When you lift your leg, the resistance band will add extra resistance to the movement. Be sure to keep the movement slow and controlled.



The picture on the left is an example of how **not** to do a leg lift. Notice that he is kicking back his leg so far that his low back is extending and his bum is sticking out. To avoid this, only kick your leg back as far as it can go before your back starts to extend. Remember this is an exercise for your buttocks and not so much your low back.

The Hinge

1. Stand up straight, with your hands on the thighs.
2. Slide your hands down your thighs, towards your knees, while pushing your bum back to the wall behind you. Make sure to not round your back.
3. Slide your hands back up your thighs and stand up straight, squeezing your bum as you pull your hips through. This is one repetition.



The picture on the left is an example of how **not** to do the hinge exercise. Notice that his back is rounded and his chin is poking forward. To avoid this from happening, really concentrate on pushing your bum back towards the wall and shifting your weight towards the back of your feet. Your eyes should be looking at the spot where the wall meets the floor.

Glute Bridge

1. Lie flat on the floor on your back with your hands by your side, your feet shoulder width apart, and your knees bent at 90°.
2. Begin by breathing out, pushing your heels into the ground, and using your buttocks muscles to lift your hips off the floor while keeping your back in its natural position; don't overextend your back.
3. Keep your hips in the air for 2-3 seconds.
4. Slowly lower your hips back to the starting position as you breathe in. This is one repetition.

Progression: You can do this exercise only using one leg at a time. You can also try placing the resistance band over your hips and holding it on the floor with your hands. When you raise your hips up, the band will provide extra resistance.



Body Weight Split Squat

1. Stand behind a chair with feet shoulder width apart. Hold on for extra stability.
2. Stand tall and keep your chest up.
3. Take a step back with your right leg
4. Drop your right knee towards the ground, while bending your left knee. Lower yourself as far as you are comfortable.
5. Pause for 1-2 seconds.
6. Stand back up by pushing your left heel into the ground and extending your hips and knees. This is one repetition for your left leg. Be sure to repeat, stepping back with your left leg.

Progression: Try this exercise only holding on with one hand or not using the chair at all.

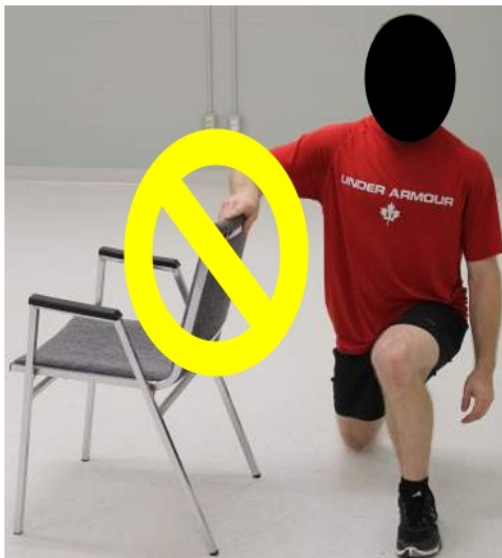
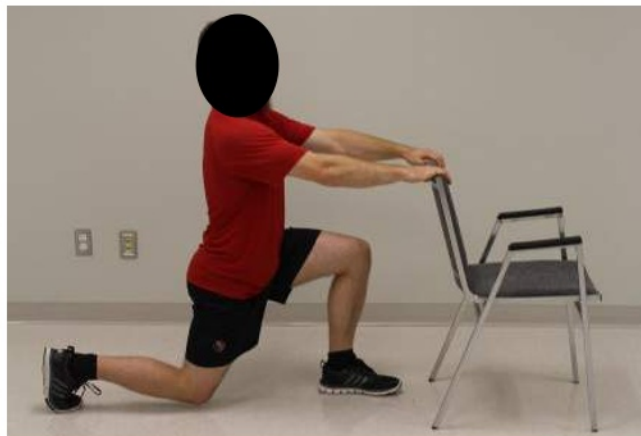


The picture on the left is how **not** to do a bodyweight split squat. Notice that his upper body is twisted and his knee is falling inwards. To avoid this from happening, think about pushing the outside of your heel into the ground and pushing your knee outside your big toe as you come back up to the starting position.

Body Weight Reverse Lunge

1. Stand behind a chair with your feet shoulder width apart. Hold on for added stability.
2. Look directly forward and keep your chest up.
3. Take your right leg and step backwards with it. Slowly drop your right knee towards the ground in a slow and controlled manner. Your knee should stay in line with your foot.
4. Lower your knee as far as you can comfortably go with proper form and pause for 1-2 seconds in this position.
5. Stand back up by pushing your left heel into the ground and extending the hips and knees. Bring your feet back together. This is one repetition for your right leg. This exercise can be done completely on your right leg before switching to your left, or you can alternate legs each time.

Progression: Try doing this exercise only holding on with one hand or not using the chair.



The picture on the left is how **not** to do a reverse lunge. Notice that his knee is falling inside of his big toe. To avoid this from happening, think about pushing the outside of your heel into the ground and pushing your knee outside your big toe as you come back up to the starting position.

Sideways Squat

1. Stand with your feet wider than hip width apart. Keep your chest up and look straight ahead.
2. Shift your bodyweight to your left heel by pushing your hips backwards as if you were sitting in a chair. It should feel like you are lunging towards your left side.
3. Pause for 1-2 seconds.
4. Return to the starting position by pushing through your left heel and extending your knees. This is one repetition on your left side. Be sure to do your right side, as well.



The picture on the left is **how to** do a sideways squat. Notice that his hips are pushed backwards, and his shins are nearly vertical. Be sure to do the squat this way.

Clamshell

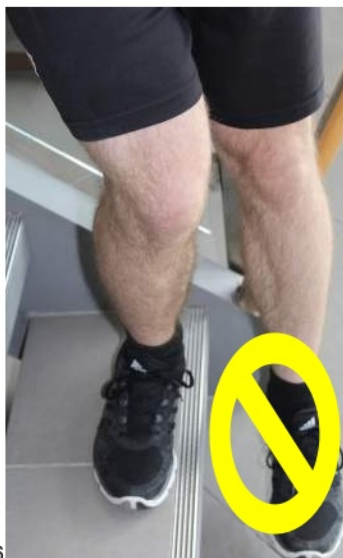
1. Lie on your side with your hips and knees bent at 45-90° stacked on top of each other. Support your head by laying it on your bottom arm. Place the thumb of your top hand on the front of your hip bone with your fingers spread over your buttocks.
2. Keeping your feet in contact with each other, raise your top knee up as high as you can without letting yourself roll backwards.
3. Hold this top position for 3-5 seconds.
4. Lower your leg back down slowly. This is one repetition. Repeat 15-20 times, and then switch to your other side.

Progressions: Tie your resistance band in a loop and place the loop just above your knees. Perform the exercise as described above. The resistance band will make it harder to open up your leg and hold it there.



Step-Downs

1. Stand on a step holding onto the railing. Position yourself so that one foot is on the step and the other is slightly off the step.
2. Looking straight ahead, slowly lower the foot that is not on the step towards the ground. When doing this, it is important to make this a controlled movement and to not let you pelvis shift or your knee to fall inwards.
3. Lightly tap your foot on the ground before pressing firmly into the ground with the foot that is on the step and returning to the starting position. This is one repetition. Be sure to do this on both legs.



The picture on the left is how **not** to do a step down. Notice that his knee is falling inside of his big toe. To avoid this from happening, think about pushing the outside of your heel into the ground and pushing your knee outside your big toe as you come back up to the starting position.

UPPER BODY EXERCISES

Finger Marching

1. Stand or sit in a chair with your feet on the floor shoulder width apart.
2. Imagine there is a wall directly in front of you. Slowly walk your fingers up the wall until your arms are above your head.
3. Hold your arms overhead while wiggling your fingers for about 5 seconds.
4. Slowly bring your arms back down to the starting position.

Progression: Instead of using your fingers, hold soup cans or small dumbbells. Raise your arms overhead and hold them there before slowly bringing them back down to the starting position.



Bicep Curls with Band

1. Stand on the middle of the band or sit in a chair with the band beneath your feet.
2. Keep your back straight and your chest proud, with your arms at your side.
3. Curl your arms by bending at the elbows and bringing your hands to your shoulders. Make sure that you do not allow your elbows to flare out from your sides. Your elbows should stay locked on your sides throughout the entire movement. Don't let yourself lean back; stand up straight the whole time.
4. Slowly lower your hands back to the starting position (2-3 seconds).

Progression: Shorten the length of the band to increase the resistance or lower your arms slower (4-5 seconds of lowering).



The picture above is how **not** to do a bicep curl. Notice that he is leaning back. To avoid this, stand straight up and keep your chest proud.

Bicep Curl with Lunge

1. Place the center of the resistance band under the middle of your left foot.
2. Take a step back with your right foot, so it is approximately 2 feet behind you.
3. Grip the band in each hand and bend your elbows bringing your hands to your shoulders, while you bend your knees to perform a lunge. As you return to your standing position, lower your hands back down by extending your elbows. This is one repetition. Be sure to repeat with your left foot behind you.



Overhead Triceps Extension

1. Sit on a chair or bench and place the center of the resistance band beneath your buttocks.
2. Hold each end of the resistance band in either hand and stretch your arms upwards so that your elbows are pointed towards the ceiling and your hands are positioned behind your neck.
3. Extend your elbows and bring your hands towards the ceiling until your arms are fully extended. Keep your elbows close to your ears the entire time.
4. Slowly lower your hands back to the starting position by bending your elbows. This is one repetition.



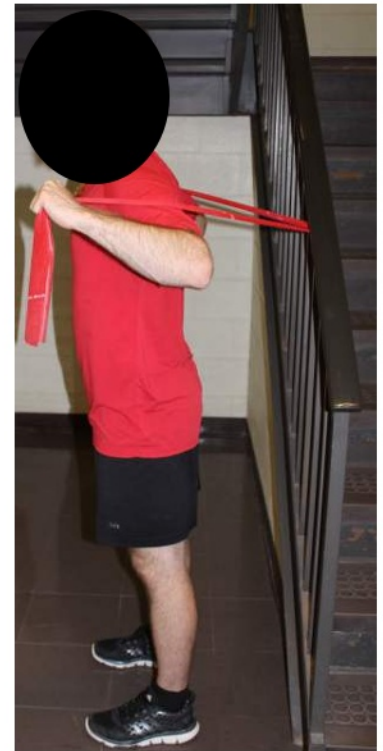
The picture on the left is how to set up for this exercise. Simply place the band under your bum and sit down on a chair with the band held in place by your bum on the chair.



Standing Chest Press

1. Anchor the resistance band around a sturdy support such as a railing.
2. Hold the resistance band in each hand and step forward so there is some tension in the band.
3. Position your hands at chest height.
4. With your elbows and palms facing the floor, press the band straight in front of you until your arms are fully extended. Think about using the muscles in your chest.
5. Slowly bring your hands back to your starting position by bending your elbows. This is one repetition.

Progressions: To make this exercise harder increase the resistance by stepping out further from where the resistance band is anchored. You can also try doing this exercise with one arm at a time to work on any muscle imbalances you may have.



Incline Standing Chest Press

1. Anchor the resistance band around a sturdy support such as a railing towards the bottom.
2. Hold the resistance band in each hand and step forward so there is some resistance in the band.
3. Drop your elbows so that your arms are 45° to your face.
4. Press your hands up towards the ceiling by fully extending your elbows.
5. Slowly lower your arms back to the starting position by bending your elbows.

Progressions: To make this exercise harder increase the resistance by holding the band closer to where it is anchored or stepping out further from where it is anchored. You can also try this exercise with one arm at a time to work on any muscle imbalances you may have.



The picture on the left is an example of how to wrap the band around a railing to secure it in place during the exercise. Doing this will help prevent the band from sliding upwards during the exercise.



Standing Chest Fly

1. Anchor the resistance band around a sturdy support such as a railing.
2. Hold the resistance band in each hand and step forward so there is some tension in the band.
3. Stand with your feet shoulder width apart.
4. Start with your arms wide open and a slight bend in your elbows. Be sure to keep your hands in line with your shoulders; don't let your hands go behind your shoulders.
5. Bring your arms inward towards your chest like you were giving yourself a hug and maintain the slight bend in your arms. Think about using your chest muscles.
6. Slowly open your arms back up to the starting position. This is one repetition.

Progressions: To make this exercise harder, increase the resistance by gripping the band closer to where it is anchored.



Wall Push-ups

1. Stand facing the wall, about an arm's length away from it.
2. Place your hands on the wall about shoulder width apart and at about shoulder level with your fingers pointing up.
3. Keep your abs tight and your back in its normal/neutral position and bend your elbows, bringing your torso towards the wall. Your whole body should move forward (don't let your butt stick out or sag). Your feet should not move.
4. Pause for a second at the bottom, before pushing up and extending your elbows to return to the starting position. This is one repetition.

Progressions: To make this harder, try doing push-ups on a lower surface, such as your counter top or end table (just make sure it is sturdy). Be sure to maintain good form—don't let your low back sag or stick your bum out, and bring your chest down as far as you are comfortable.



The picture on the left is how **not** to do a wall push-up. Notice that his bum is sticking way out. To avoid this from happening, engage your abdominal muscles and squeeze your bum muscles. Think about being a moving plank; there should be a straight line from your ears to your ankles.

Forward Raise

1. Stand on the middle of the resistance band with your feet shoulder width apart with your arms by your side, palms facing towards you.
2. Bring your arms straight out in front of you without locking your elbows to shoulder height.
3. Hold this position for 2-3 seconds.
4. Slowly lower your arms back to your side. This is one repetition.

Progressions: To make this exercise more difficult, hold your arm in the top position for 3-5 seconds.



Lateral Raise

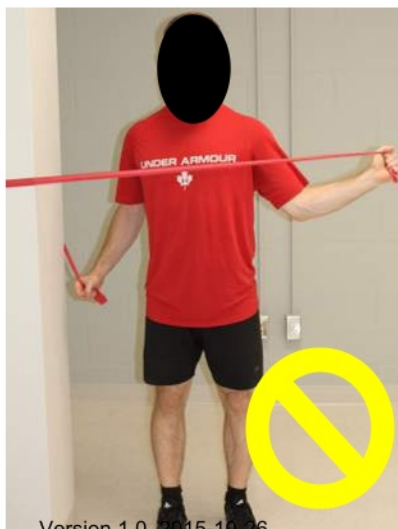
1. Stand on the resistance band with your feet shoulder width apart.
2. With a slight bend in your elbows, raise your arms out to the side until they are at shoulder-level.
3. Hold this position for 2-3 seconds.
4. Slowly lower your arms back down to the starting position. This is one repetition.

Progressions: To make this exercise harder, hold your arms at the top position for 3-5 seconds.



External Rotation with Band

1. Wrap the band around a sturdy post such as a railing so that the band is at approximately the same height as your elbow.
2. Stand with your left side towards the band and step out a couple of feet so there is some tension in the band. Hold the band in each hand.
3. Position your right arm so that your elbow is flexed to 90° and your hand is reaching across the front of your torso. Keep your elbow firmly pressed to your side.
4. Rotate your right arm in a backhand motion, keeping your elbow firmly pressed to your side.
5. Continue to rotate your arm in a backhand motion as far as you are comfortable going. Hold this position for 1-2 seconds.
6. Slowly return your arm to the starting position. This is one repetition on your right arm. Be sure to repeat the exercise on your left arm.



The pictures on the left are how **not** to do an external rotation with band. Notice how he lets his whole upper body twist and his elbow isn't on his side. To avoid this, keep your elbow firmly pressed to your side and keep your chest pointed straight ahead. Only open your arm as far as you are comfortable.

Internal Rotation with Band

1. Wrap the resistance band around a sturdy post such as a railing so the band is at the same height as your elbow.
2. Stand with your right side towards the band and step out so there is some tension in the band. Hold the band in each hand.
3. Position your right arm so that your elbow is at 90° with your arm reaching away from your torso. Keep your elbow firmly pressed to your side.
4. Rotate your arm in a forehand motion as far as you are comfortable going. Keep your elbow firmly pressed to your side.
5. Hold this position for 1-2 seconds.
6. Slowly return to the starting position. This is one repetition on your right side. Be sure to repeat the exercise on your right arm.



Rows (seated or standing)

1. Wrap the resistance band around a banister and sit in a chair **NOTE:** This exercise can be done standing. All of the same instructions apply to both variations.
2. Sit up straight with a proud chest and hold the resistance band in each hand.
3. Pull the band towards your chest and squeeze your shoulder blades together.
4. Pause for 2-3 seconds and bring your hands back to the beginning position.
5. Repeat this for a total of 12 repetitions.

Progression: Move your hands closer to the banister to shorten the length of the resistance band. This will make it more difficult to row back.



POSTURE and CORE EXERCISES

Crocodile Breathing

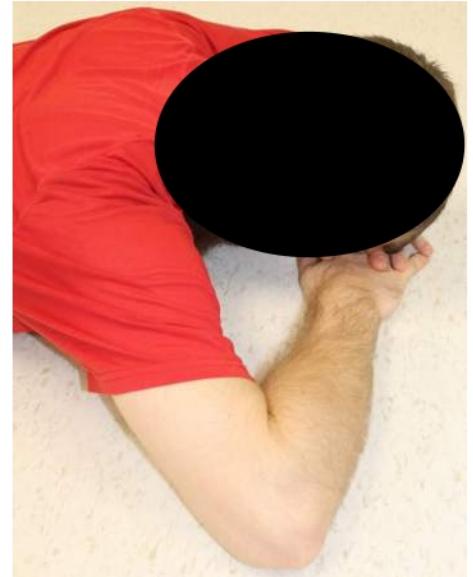
1. Lie face down on the floor with your forehead on the back of your hands.
2. Take a deep breath through your nose and allow your stomach to push into the ground and expand out to the sides.
3. Once you have a comfortable inhale, slowly exhale, and begin again.
4. Do not be in a rush. Let your breathing come at a natural pace and be sure to feel your stomach expand out like a balloon and push into the floor.
5. Breathe like this for 2-5 minutes.



The picture above is the starting position for the crocodile breathing exercise. When you breathe be sure to feel your whole abdominal area expanding outward and into the floor. You can also look this exercise up on the internet if you would like a video of how to do it.

Head Lift (exercise adapted from BoneFit ©)

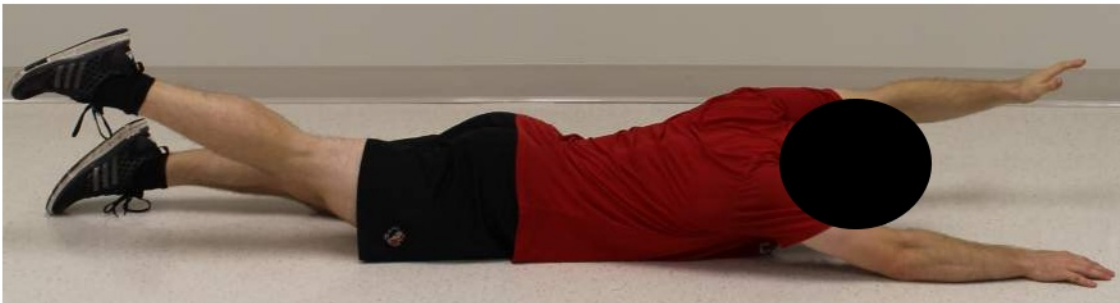
1. Lie face down on the floor with your forehead resting on your hands or a folded towel, palms facing down.
2. Slightly tuck your chin in and keep it tucked.
3. Raise your forehead straight up off your hands or the towel. Do not tilt your chin as you lift your forehead off your hands. Do not raise your shoulders or push with your arms.



The picture on the left is how **not** to do a head lift. Notice that his chin is poking forward, and he is using his neck muscles to extend his head backwards. To avoid this, remember to look straight down the whole time and actively use your back extensor muscles to lift your head up.

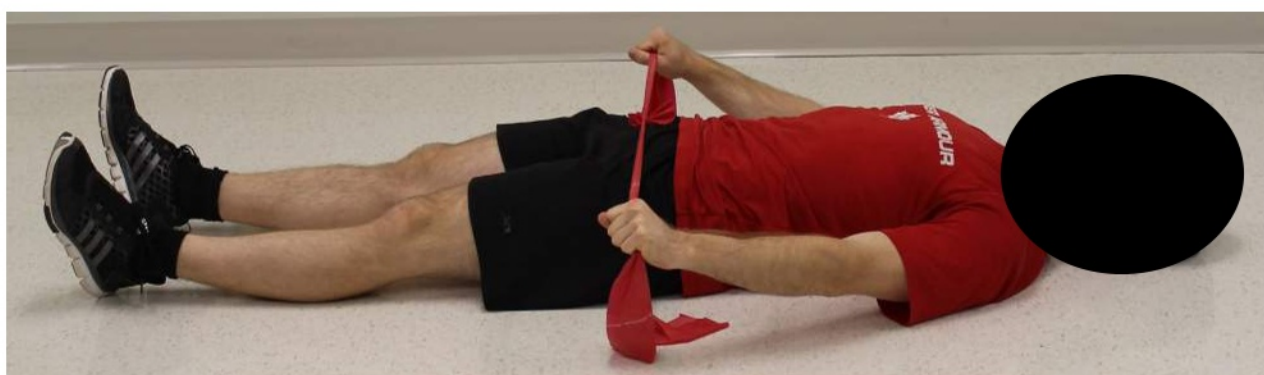
Leg-Arm Lifts (exercise adapted from BoneFit ©)

1. Lie face down on the floor, arms alongside your head with your palms facing down. You can place a small pillow or rolled towel on the ground to rest your forehead on.
2. Press your pelvis straight into the floor and use your abdominal and low back muscles to hold this position.
3. While keeping your pelvis pressed into the floor, lift your right arm and left leg. Hold this position for 1-2 seconds. Slowly lower back to the starting position.
4. Raise your left arm and right leg. Hold this position for 1-2 seconds. Slowly lower back to the starting position. Repeat this movement on both sides, alternating right arm/left leg with left arm/right leg.
5. Remember to keep your head down as you lift and do not let your body twist as you lift.



Back Fly (exercise adapted from BoneFit ©)

1. Lie on your back with your legs straight out in front of you. Grasp the resistance band with both hands.
2. Pull the resistance band across your hips so there is some tension in the band.
3. Keeping your elbows straight, raise your hands above your head.
4. Hold this position for 2-3 seconds.
5. Slowly move your arms back to the starting position. This is one repetition.



Floor Slides

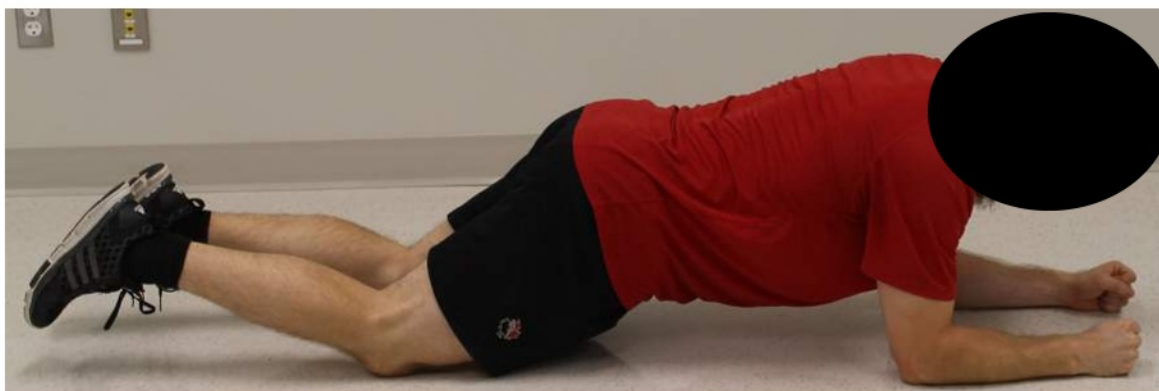
1. Lie on your back with your legs straight out in front of you.
2. Bend your arms out to the sides, so that your elbows and your head look like a “W.”
3. Tighten your abdominal muscles and slide your hands along the floor until your arms are extended overhead and are making a “V.”
4. Slowly slide your arms back down to the starting position. This is one repetition.



Front Plank

1. Lie face down on the floor. Align your arms so that your elbows are directly below your shoulders and your forearms are pointing straight ahead.
2. With your knees on the ground, squeeze your abdominal muscles and bridge your hips and chest off the ground, so that your back remains in its natural posture.
3. Hold this position for 15 seconds by squeezing your abdominal muscles and buttocks. Don't let your low back sag and don't let your buttocks stick up towards the ceiling. This is one repetition. Repeat 3-5 times.

Progressions: Make this exercise harder by performing it from your toes instead of your knees.



The pictures on the left are how **not** to do the front plank. In the first picture his low back is sagging, and in the second picture his hips are raised too high in the air. To avoid this from happening, use your abdominal muscles to keep your low back in the same position it is in when you are standing upright.

Side Plank

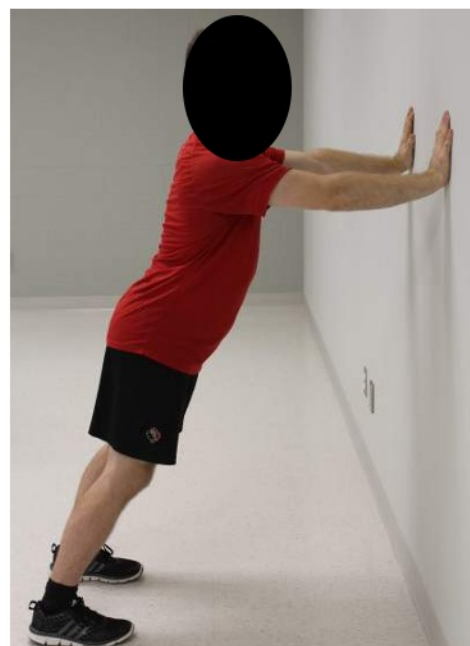
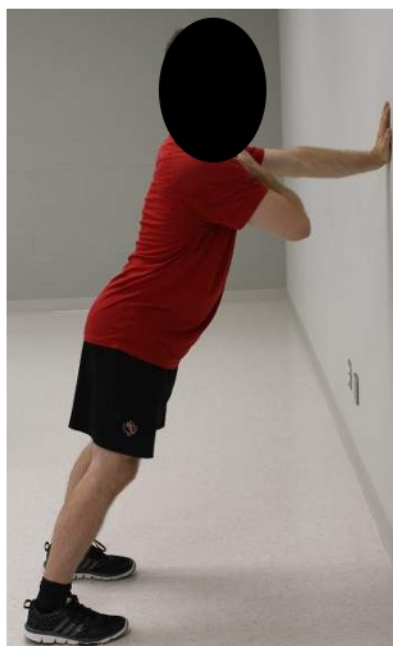
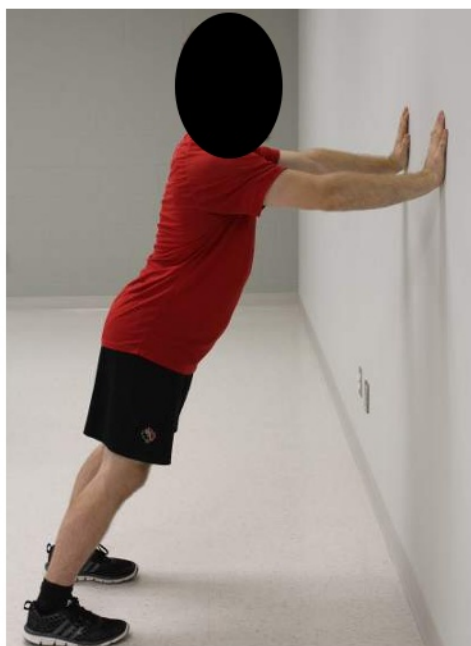
1. Lie on your side with your knees bent and legs stacked on top of each other. Your elbow should be directly below your shoulder.
2. Engage your abdominal muscles and push your hips forward, so that your hips are raised off the floor.
3. Your head should be aligned with your spine. Your body should look like a straight line.
4. Hold this position for 15 seconds.
5. Slowly lower your hips back to their starting position. This is one repetition. Repeat 3-5 times. Be sure to repeat the exercise on the other side.



Shoulder Taps

1. Place your hands on the wall and walk your feet out so your body is on an angle to the wall.
2. Move your left hand to tap your right shoulder and return it to the wall. Make sure you keep your abs tight and don't let your bum stick out or your low back sag.
3. Move your right hand to tap your left shoulder and return it to the wall.
4. Repeat for a total of 6 taps per shoulder.

Progression: Move your hands to a lower surface, such as a countertop or back of a sofa. To make it even more challenging, perform with your toes on the ground



The picture on the left is an example of how **not** to do shoulder taps. Notice that his pelvis is rotating inwards. To avoid this from happening, really think about using your abdominal muscles to brace your hips so that they don't rotate when you take your hand off the walls.

Rotating Plank on Wall

1. Place your elbows on the wall and walk your feet out so your body is on an angle to the wall.
2. Tighten your abs and squeeze your bum.
3. Slowly rotate on the balls of your feet, bringing your left elbow off the wall. Make sure that your shoulders and hips move at the same time...you don't want your upper body to twist—head, shoulder, hips, and feet all rotate at once!
4. Slowly bring your left elbow back to the wall.
5. Slowly rotate on the balls of your feet, bringing your right elbow off the wall. Make sure that your shoulders and hips move at the same time.
6. Repeat this for a total of 5 repetitions per side.



The picture on the left is how **not** to do a rotating plank. Notice that his upper body is rotated backwards, but his hips haven't moved. You want your hips and upper body to rotate together. Be sure to engage your abdominals so that your ribs and hips rotate together.

Cool Down

Now that you have finished your workout, it is time to cool down. A cool down will prevent injuries and muscle soreness. Never abruptly stop moving after a workout.

The purpose of a cool down is to allow your heart rate to return to normal values and let your working muscles begin to relax. This allows your body to return to its resting state, preventing injury and stress on your body. A proper cool down usually lasts 5-10 minutes and consists of light jogging, walking, cycling, or use of an elliptical trainer.

Choose an exercise, similar to warm-up exercises, and do for 5-10 minutes at an easy pace (approximately 7-8 on the Borg Scale).

Stretching

Another important part of a cool down is stretching. During exercise, your muscles are continually contracting and relaxing, which can lead to muscle stiffness and soreness following exercise. Stretching lengthens muscles, reducing muscle tightness in the days following exercise.

The following stretches are grouped according to the main muscles they stretch.

Your stretching routine should include a stretch for muscle groups that you exercised.

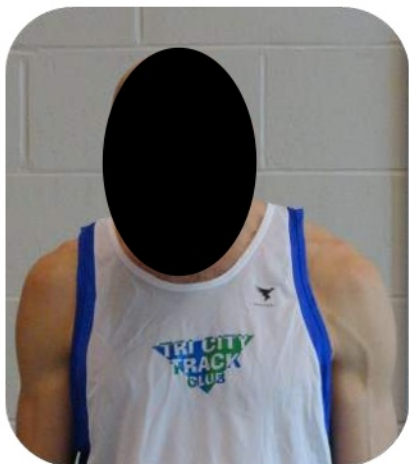
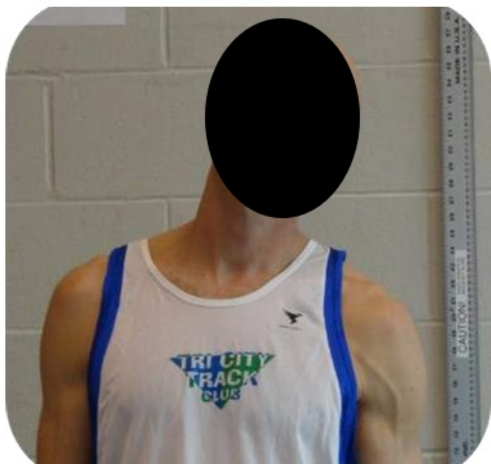
You should perform each stretch for 2-3 repetitions of 30-60 seconds each.

When stretching, you should slowly stretch the muscle to a position of slight tension but you should NEVER feel pain. You should feel like the muscle is getting longer, but not tearing or ripping.

During the stretch, keep breathing slowly and rhythmically. You should be breathing like you practiced in the crocodile exercise found in the posture and core exercises section.

Neck Rotation and Lateral Flexion

Perform on the left and right sides. Do not drop the head all the way back. Do not rapidly move neck between positions!



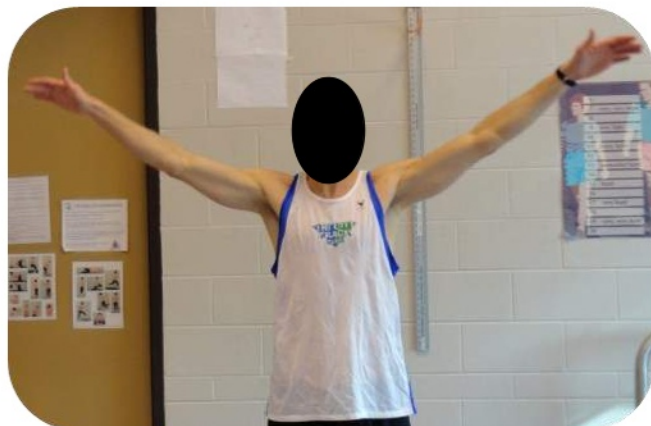
Anterior Shoulder & Biceps Stretch

Clasp hands together behind back and raise arms up to ceiling. Hold in the position where you feel a stretch.



Shoulder Circles

Make a T with your arms. Start making small circles. Slowly make the circles bigger. Do the same thing with backwards circles.



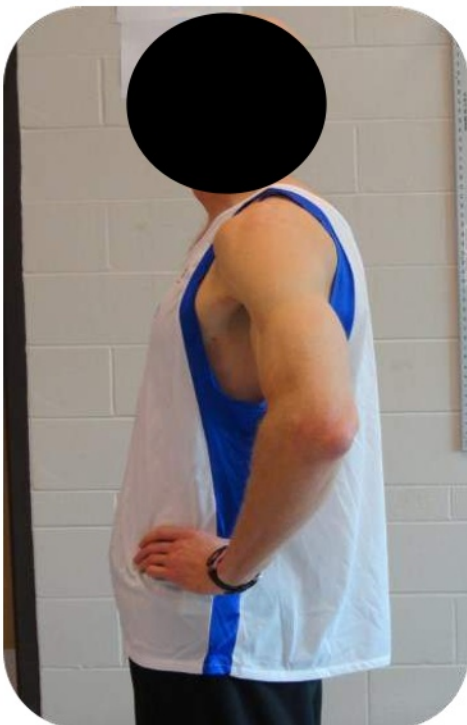
Tricep Stretch

Bend arm behind your head and act like you are trying to scratch your back. Push down lightly on your elbow with your other hand. Perform on both arms.



Standing McKenzie Extension

Assume a standing position with feet shoulder width apart and with hands placed on hips. Extend the trunk and hold this position momentarily (5 secs). If you have problems with balance, perform this exercise with one hand on a chair or railing to offer extra support. Perform 10 repetitions.



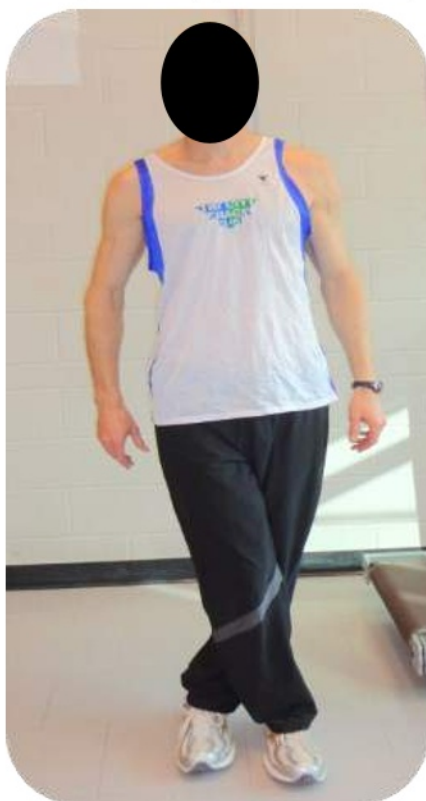
Side Bends

From standing position, with your arms overhead, clasp hands together and laterally bend sideways. Hold the position where you feel the most stretch. Be careful not to arch your lower back too much.



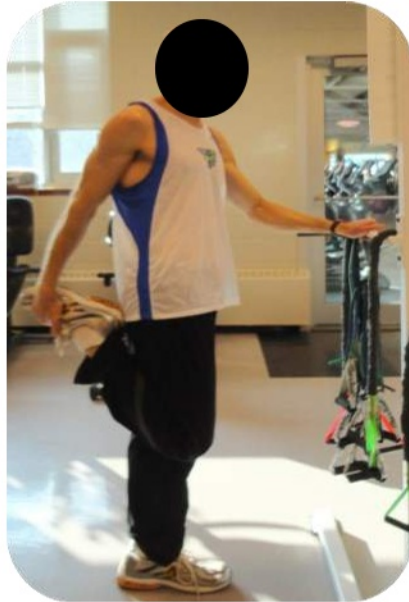
IT Band Stretch

While standing, cross your left leg in front of your right leg. Bend to the left at the waist and hold. Repeat on the opposite leg. Use support if necessary!



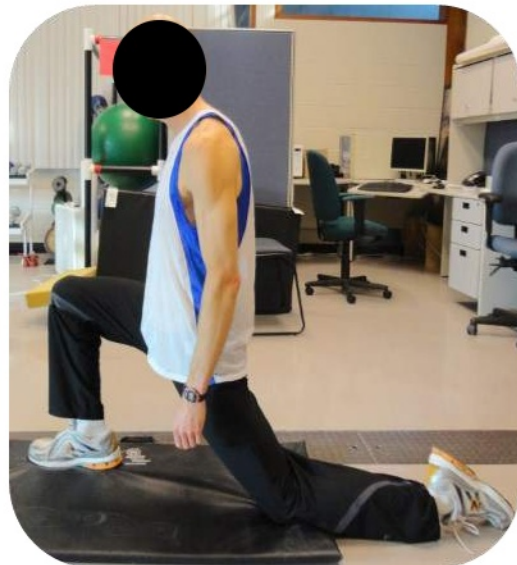
Standing Quadriceps Stretch

Stand with feet together. Bend one knee and hold the ankle with the same-side hand. Pull your heel towards your gluteal region. Perform one leg at a time. Use support if necessary!



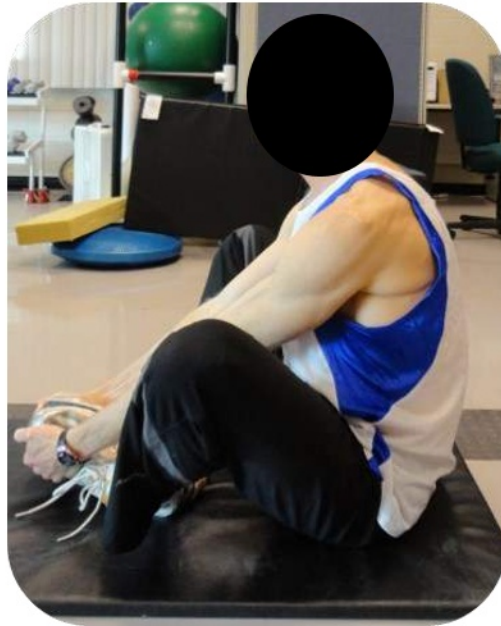
Kneeling Hip Flexor Stretch

Make sure you are pushing your hips forward to increase the stretch, not arching your lower back. You can also do this stretch with one foot on a step or bench.



Butterfly Stretch

Make sure you do not round your shoulders during the stretch. **Try to obtain an upright posture (minimal round in your back).** To increase the stretch, try to push your knees to the ground.



Calf Wall Stretch

Assume front-leaning position against wall or chair with one foot ahead of the other. Flex hip, knee and ankle to lower your body closer to the ground, keeping your feet flat on floor.



Tracking your Physical Activity

On the following pages we have provided an example of an activity log to record your daily physical activity with. It is important to write down the physical activity that you are doing, so that you can see your progression. Tracking your physical activity will also help you to choose a variety of exercises, which is also important in order to see progression. We have provided an example of someone's weekly activity log and have provided a blank copy of an activity log template. You can chose to use the one provided or track your physical activity in your own way. You may also want to write down which resistance exercises you did and many repetitions you did of that exercise.

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
WARM-UP	10 min. walk outside w/ dog; RPE 9	No	No	No	Walked around the house for 5 mins	Walked on treadmill at YMCA for 10 minutes at 2.5 mph	No
AEROBIC EXERCISE	15 minute bike ride outside; RPE 11	No	25 min. walk outside with partner; RPE 11	No	Walked outside with partner for 45 minutes in total	Elliptical at YMCA for 15 mins; RPE 12-13	No
RESISTANCE EXERCISE	Bicep curls, chest flys, front plank, sideways squat, sit to stand x 15 reps	Tricep extensions, reverse lunge, back flys, step-downs, side plank x 12 reps	No	No	Glute bridge, incline chest press, front raises, split squat, shoulder taps x 10 reps	Attended a weight lifting class for seniors	No
STRETCHING COOL-DOWN	Walked around house slowly for 5 mins; did all the stretches	Did a few stretches	No	No	Walked slowly around house, practiced crocodile breathing for 5 mins, stretched a bit	Walked on treadmill for 5 minutes while waiting for partner 2.5 mph	No
OTHER PHYSICAL ACTIVITY	Raked leaves for 1 hour with son	Raked leaves 1 hour with partner and son	Played catch with grandkids for about 30 minutes	Ballroom dancing with partner for 90 minutes	No	No	Went ice skating at the arena with grandkids for 45 minutes

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
WARM-UP							
AEROBIC EXERCISE							
RESISTANCE EXERCISE							
STRETCHING COOL-DOWN							
OTHER PHYSICAL ACTIVITY							

Listed below is the amount of exercise you should aim for each week in order to meet the Canadian Society of Exercise Physiology Physical Activity Guidelines for Adults and Seniors.

- 150 minutes/week of moderate-vigorous aerobic activity (RPE 11-14)
 - Aim to do some type of aerobic activity every day for at least 10 minutes at once
- Muscle strengthening activities at least 2 days per week
 - Try to do 4-5 strength training exercises 2x per week
- Core and posture exercises and stretching to help with mobility and reduce the risk of falls
 - Try to do 1-2 core and posture exercises every time you do your resistance training
- More physical activity provides greater health benefits
- For more information you can visit the following website for tips on staying active:

http://www.csep.ca/CMFiles/Guidelines/CSEP_Guidelines_Handbook.pdf

Version 1.0, 2015-10-26