

Resistance Training with Thera-Bands®

Medical Fitness Consulting

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General Reminders

- Ensure you have slow controlled movements. Try to count for 3 seconds on the way down and 3 seconds on the way up
 - o Remember to BREATHE! Exhale on exertion, inhale on relaxation
- Remember not to lock your limbs at the end of the movement pattern
 - o Ensure there is a slight bend in your joints (elbows and knees) at all times
- ALL motions should be pain free – if you feel any pain, stop the movement immediately
- During exercises where the band is tied/wrapped around your lower legs, ensure you have a piece of clothing covering your leg to avoid contact with your skin
- Remember to always use caution!

Progression

- Increasing band resistance through moving along the Thera-Band® color continuum (from least to most resistance: Yellow, Red, Green, Blue, Black, Silver, Gold)
- Resistance is also modified through manipulating the distance of the hands from the anchor point
- Additional Thera-Bands® can be purchased at Medical Supply stores

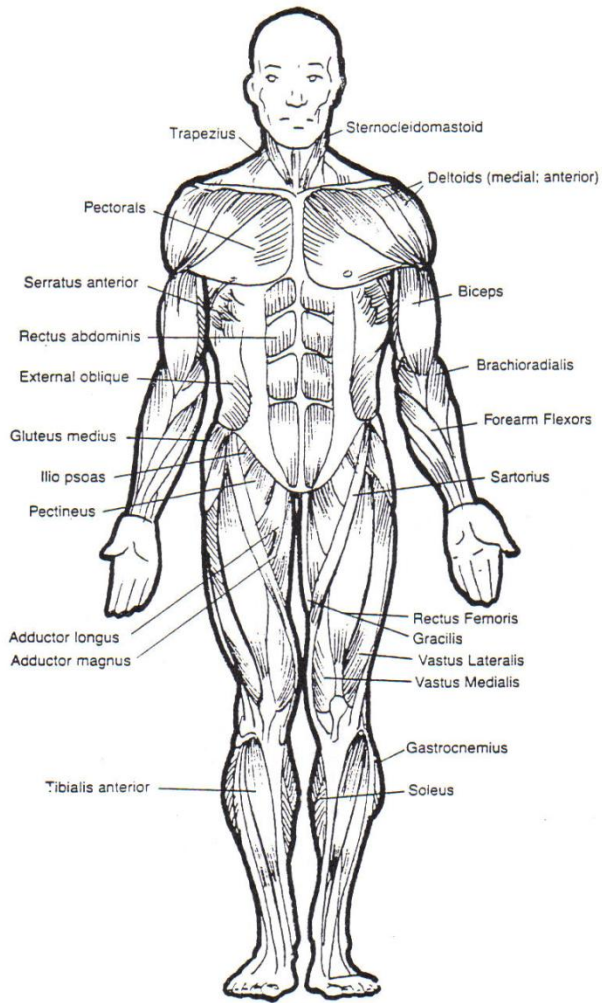
Exercise Prescription

- Perform exercises **2-3 times per week on non-consecutive days**
- To start:
 - o For example, using BLUE band for all exercises
 - o Perform each exercise **12 repetitions x 2 sets**
 - o Progress to performing **12 repetitions x 3 sets**
- Next progression:
 - o Use BLACK band
 - o Perform each exercise 8 repetitions x 2 sets
 - o Progress to 10 repetitions x 2 sets
 - o Further to 12 repetitions x 2 sets
 - o Even more! 8 OR 10 repetitions x 3 sets
 - o Then to 12 repetitions x 3 sets
- Further progressions will be to add the next band (SILVER) and follow the same progression as outlined for the BLACK band
- NOTE: Some exercises may require quicker progressions than others. Feel free to use different bands, number of repetitions, and sets for the various exercises. Use your judgment.
 - o Example:
 - Triceps Extension: BLUE, 12 reps, 2 sets
 - Leg Press: BLACK, 8 reps, 2 sets

REST between sets:
~1 minute

THE MUSCULAR SYSTEM

FRONT VIEW



THE MUSCULAR SYSTEM

BACK VIEW

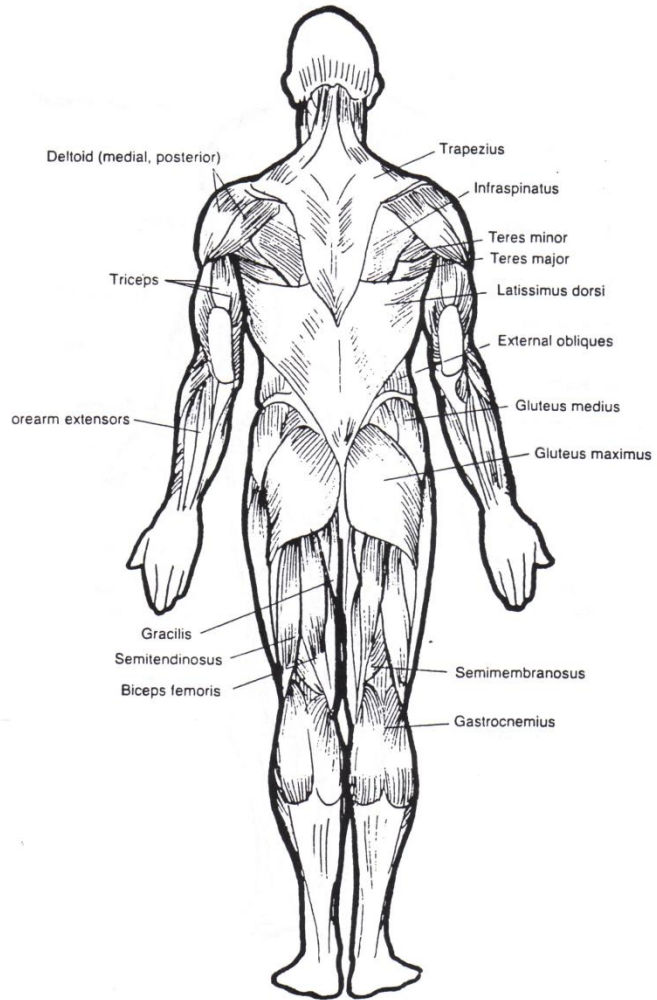


Figure 1: Musculoskeletal System.
Throughout the program, the muscle groups are indicated.

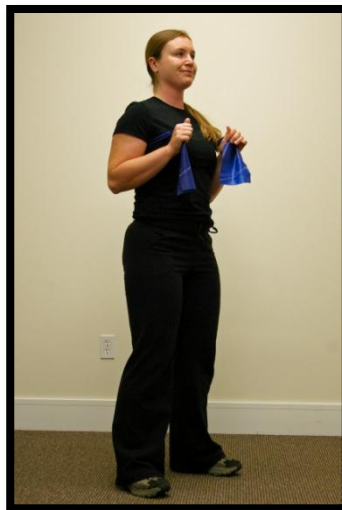
CHEST PRESS ♦ Pectorals

- Standing
- Keep your feet shoulder width apart with your knees slightly bent
- Wrap the band around your upper torso (underneath your armpits) – have the band placed across the shoulder blades
- Hold the ends of the band in your hand using your index finger and thumb
- Start with your hands on either side of your shoulders, palms facing forwards - INHALE
- EXHALE - Begin to move your hands in a forwards direction, extending your arms in front of your body
- Throughout the movement, try to maintain hands at chest height
- Hold, and slowly return to the starting position
- Remember NOT to lock your elbows at the end of the movement pattern
- Repeat

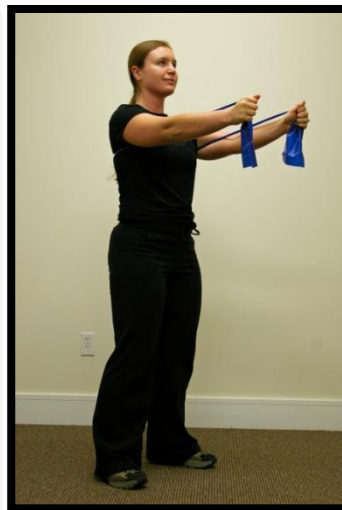


Alternative:

- To decrease intensity, complete exercise in seated position



INHALE



EXHALE

LEG PRESS ♦ Quadriceps (rectus femoris, vastus lateralis, vastus medialis), Hamstrings (semitendinosus, semimembranosus, biceps femoris), Glutes (gluteus medius, gluteus maximus)

- This is a single leg exercise (doing exercise one leg at a time)
- Assume a seated position on the floor with one leg bent. Keep the other leg straight for stability and support
- Try to sit as **upright** as possible
- Wrap the band around the ball of the bent leg foot and hold the ends of the band with each hand. Take up slack in the band - INHALE
- EXHALE - Lift the leg off the ground and press the leg forward (horizontal plane)
- DO NOT forget to squeeze your buttocks during the movement
- Remember to not lock the knees at the end of the movement
- Hold, and slowly return to the starting position
- Repeat
- Perform exercise on opposite leg



INHALE



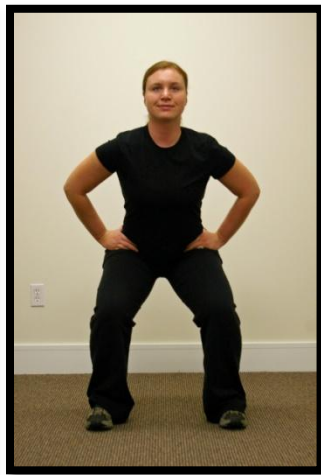
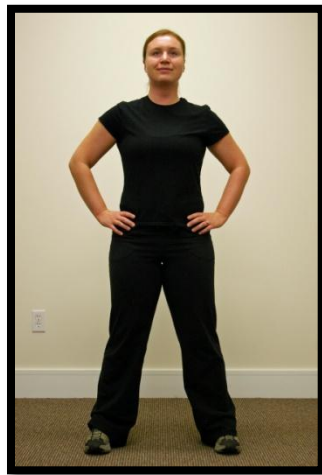
EXHALE

Alternative:

- You can also assume a supine position (laying on your back) with the press leg extending towards the ceiling (vertical plane) OR press the leg forward (horizontal plane)

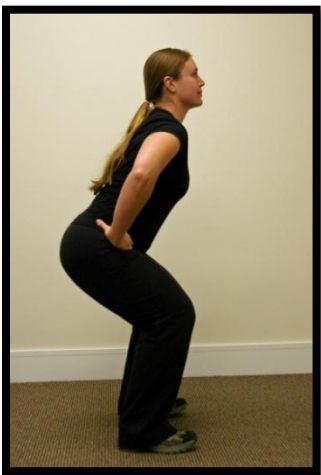
SQUAT ♦ Quadriceps (rectus femoris, vastus lateralis, vastus medialis), Hamstrings (semitendinosis, semimembranosis, biceps femoris), Glutes (gluteus medius, gluteus maximus)

- As you begin to feel comfortable with the above exercise, you can progress to performing it in a standing position – The Squat
- Assume a standing position with the feet shoulder width apart, knees slightly bent
- Distribute your body weight evenly over your feet (between the heel and forefoot)
- Hands are placed on your hips
- Slowly lower your hips until your upper thighs are almost parallel to the floor
- Try not to let your knees move past your toes as you come down
- Make sure you are looking forwards at all times
- Hold, and slowly return to the starting position by straightening your knees and hips at the same time
- Keep your back flat throughout the exercise



INHALE

EXHALE



SQUAT continued...

Progression:

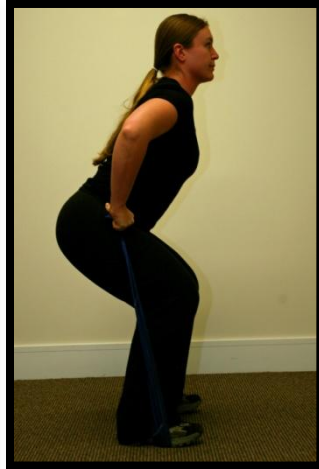
- Place the band underneath both feet (balls of the feet), and hold one end of the band with each hand
- Perform squatting action as described above
- Ensure that your hands are still placed on your hips



INHALE

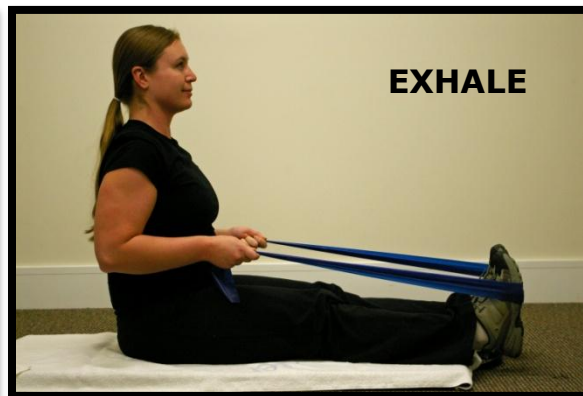


EXHALE



SEATED ROW ♦ Trapezius, Latissimus Dorsi

- Sit on the floor with your legs straight out in front of you (legs are stationary in this exercise) for stability and support
- Try to sit as **upright** as possible
- Anchor the band around both feet, while gripping the band with each hand - INHALE
- EXHALE - Pull both ends of the band towards the torso with your hands
- Lead with the elbows keeping the elbows close to the torso
- Try to squeeze the shoulder blades together
- Hold, and slowly return to the starting position
- Throughout the movement, try to keep the torso motionless as the movement is JUST in the arms
- Try to keep your arms at chest height for the full duration of the exercise
- Repeat



NOTE: For back support,
sit up against the wall

Alternative:

- Standing
- Wrap the band around a post, door knob, railing, etc.
- Keep feet shoulder width apart and your knees slightly bent
- Grip each end of the band
- Perform rowing action as described above

LEG EXTENSION ♦ Quadriceps (rectus femoris, vastus lateralis, vastus medialis)

- This is a single leg exercise (one leg at a time)
- Sit in a chair
- Tie the band around one leg of the chair and one ankle, forming a loop – you may have to try the movement a couple of times to determine the appropriate size of the loop
- Starting with your leg at 90 degrees (angle between upper and lower leg) - INHALE
- EXHALE - Slowly lift your foot off the ground and straighten the leg
- Hold, and slowly return to the starting position
- Try to maintain good posture throughout the movement and use your hands as support
- Repeat
- Perform the action on the other leg



INHALE



EXHALE

OUTER THIGH ♦ Gluteus Medius

- Tie the band around both thighs
- Have your legs at 90 degrees (angle between upper and lower leg)
- INHALE, EXHALE - Pull outwards with both legs simultaneously while keeping feet together on the floor
- Hold, and slowly return to the starting position
- Repeat



INHALE



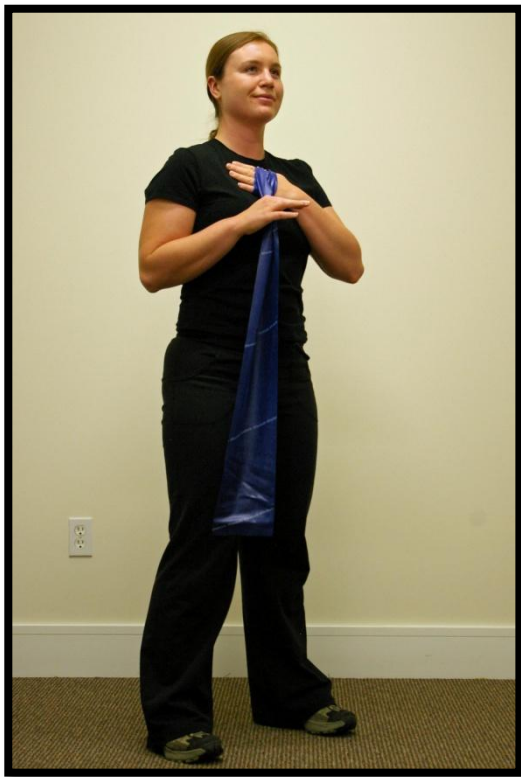
EXHALE

Alternative:

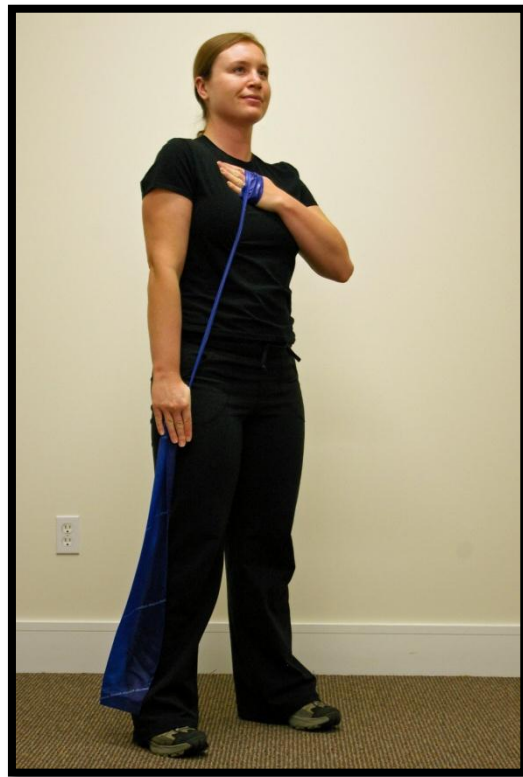
- To increase intensity, complete exercise as above but when moving legs away from the mid-line of the body step both feet out to the side

TRICEPS EXTENSION ♦ Triceps

- This is a single arm exercise (one arm at a time)
- Standing
- Wrap the band around your right hand
- Place your right hand on your heart, and your left hand gripping the band (between thumb and index finger) a few inches below your top hand - INHALE
- EXHALE - Palm facing down, extend your left arm down (straightening your arm)
- Hold, and slowly return to the starting position
- Repeat
- Perform the exercise on the other arm



INHALE



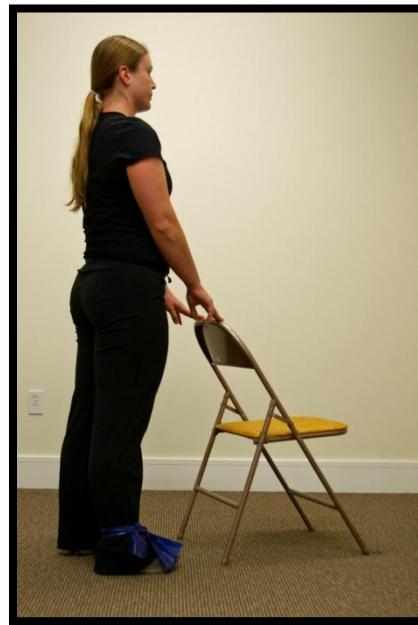
EXHALE

Alternative:

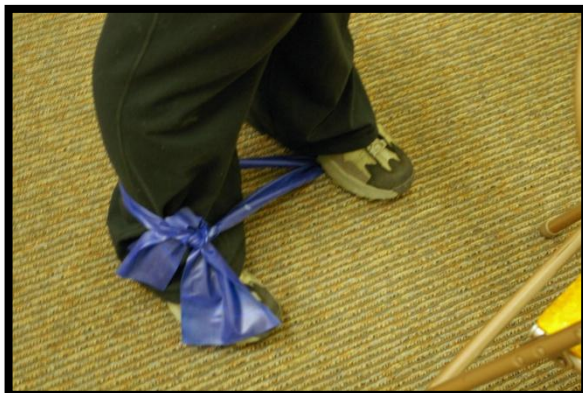
- To increase intensity, stand with your feet slightly closer together to make your base of support smaller

LEG CURLS ♦ Hamstrings (semitendinosus, semimembranosus, biceps femoris)

- While standing (feet parallel and shoulder width apart), tie the band around one ankle, forming a loop around your foot – you may have to try the movement a couple of times to determine the appropriate size of the loop. Anchor the other end of the loop under your other foot.
- Be sure to hold onto something (chair, railing, etc.) with your hands!
- INHALE
- EXHALE - Curl one leg up towards your buttocks
- Hold, and slowly return to the starting position
- Repeat
- Perform the exercise on the opposite leg



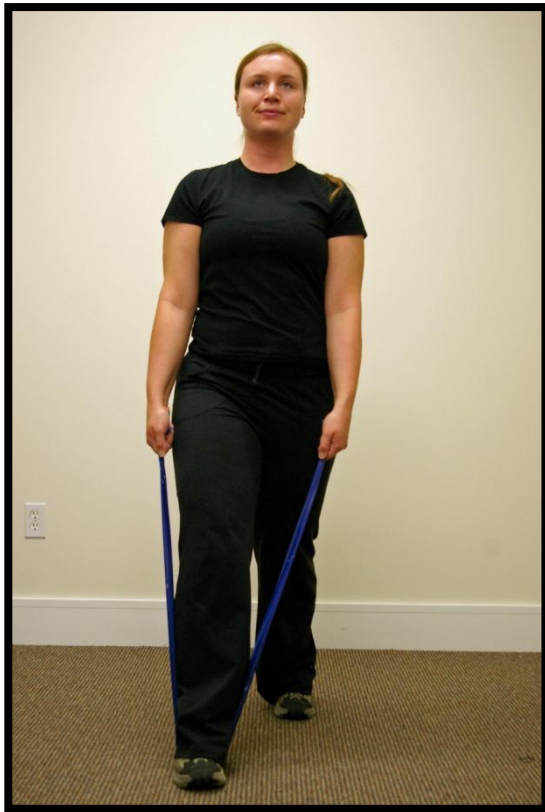
INHALE



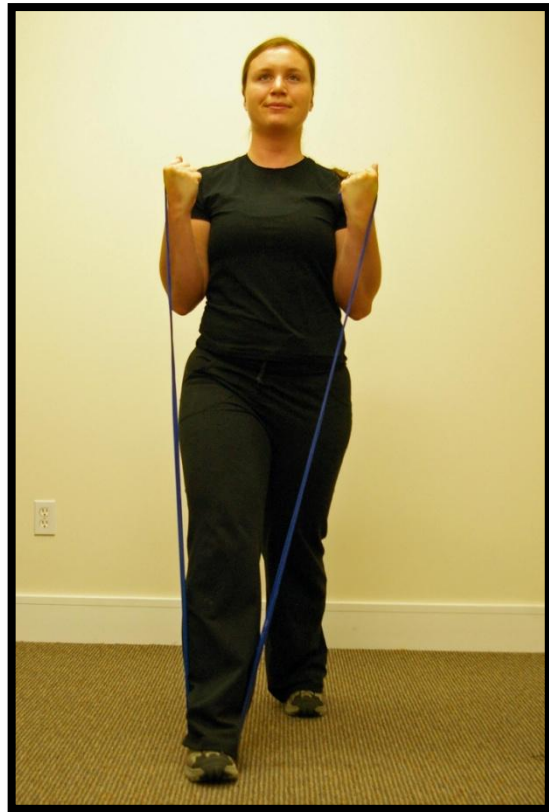
EXHALE

BICEPS CURLS ♦ Biceps

- Standing with feet parallel and shoulder width apart
- Stand in a lunge position, place the band underneath one foot (balls of the feet), such that there is equal amount of band on each side
- Hold the band between the thumb and index finger
- Arms are straight and down at your side, palms facing forward - INHALE
- EXHALE - Curl the arm up to shoulder height
- Try not to bend at the wrist during the movement
- Hold, and slowly return to the starting position
- Repeat



INHALE



EXHALE

CALF RAISES ♦ Gastrocnemius, Soleus

- NO BAND
- Position the balls of your feet on the edge of a stair – OR you can also do the movement on the floor
- INHALE – EXHALE, Point your toes (go up on your toes) as if reaching for an object off of a shelf
- Hold, and slowly return to the starting position
- Repeat



INHALE



EXHALE

Alternative:

- To increase intensity:
 - try only one foot at a time!
 - challenge your balance and not hold onto a stable object

CALF RAISES continued . . .

Alternative WITH BAND:

- This is a single leg exercise (one leg at a time)
- Assume a seated position on the floor with one leg bent for stability and support. Keep the other leg straight
- Anchor the band around the ball of the straight leg foot, while gripping the band with each hand
- *Try to sit as **upright** as possible*
- Have your straight leg slightly elevated off the floor
- INHALE – EXHALE, Point your toe
- Hold, and slowly return to the starting position
- Repeat
- Perform the exercise on the opposite leg



INHALE



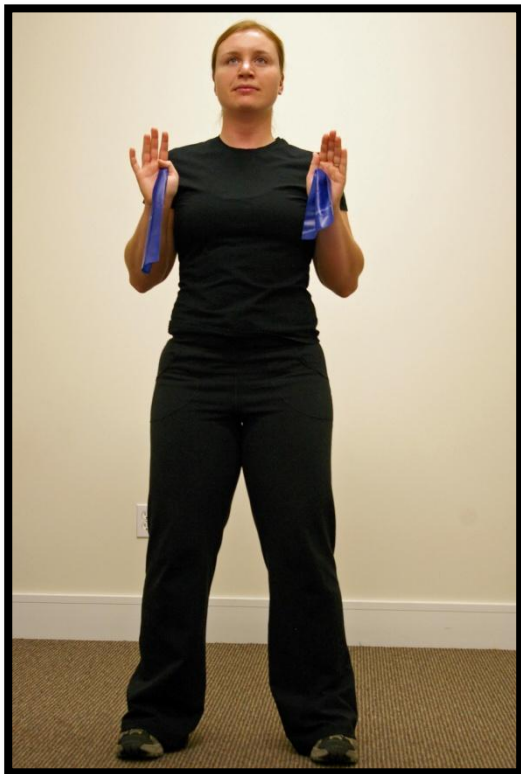
EXHALE

Alternative:

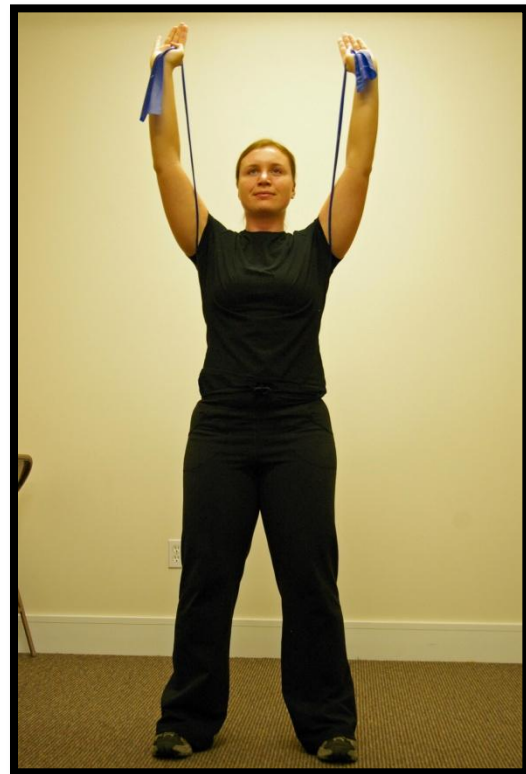
- Perform the exercise while sitting in a chair and working leg is extended out from chair

SHOULDER PRESS ♦ Deltoids

- (Same initial position as Chest Press)
- Feet are shoulder width apart with your knees slightly bent
- Wrap the band around your upper torso (underneath your armpits) - have the band placed across the shoulder blades
- Hold the ends of the band in your hand - holding the band in between your index finger and thumb
- Palms facing forward, move your arms straight up with your fingertips leading towards the ceiling
- Try not to bend at the wrist!
- Remember NOT to lock your elbows at the end of the movement pattern
- Hold, and slowly return to the starting position
- Repeat



INHALE



EXHALE

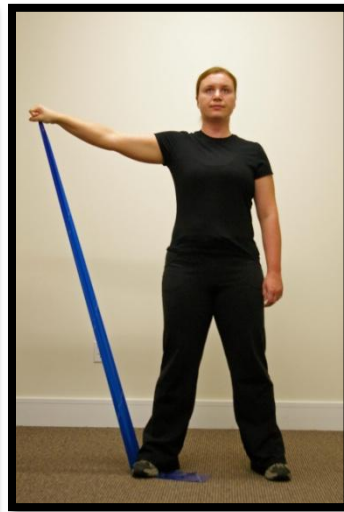
SHOULDER RAISE ♦ Deltoids

- Standing with feet parallel and shoulder width apart
- Place the band underneath the right foot (ball of the foot)
- Hold the band between the thumb and index finger of the right hand
- Arms are straight and down at your side - INHALE
- EXHALE – Keeping the arm straight, raise the right arm out to the side to shoulder height, palms facing down
- Try not to bend at the wrist during the movement
- Hold, and slowly return to the starting position
- Repeat
- Perform the exercise on the left arm

INHALE



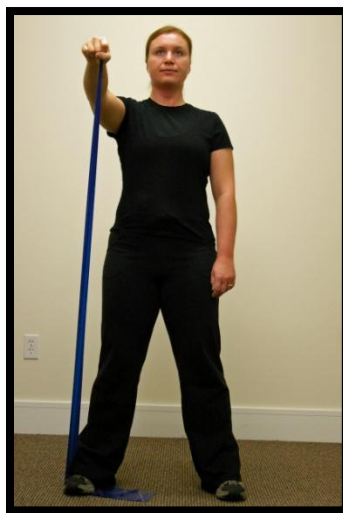
EXHALE



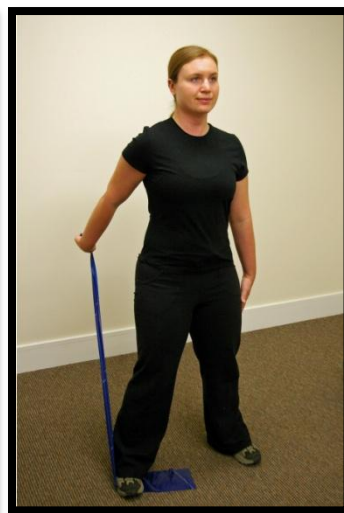
In addition:

- Perform this same exercise but raise your arm to the front as well to the back – this will put your shoulder through the full range of motion

Front Raise

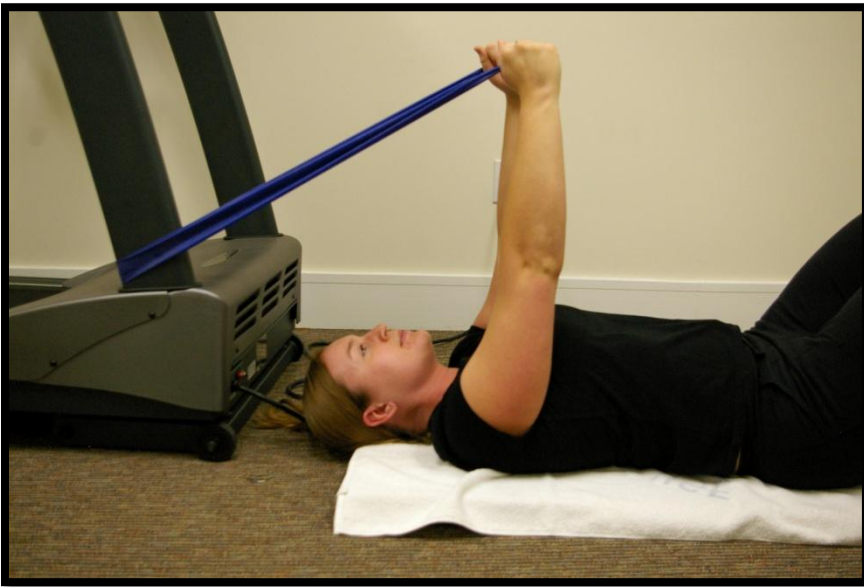


Back Raise



CURL UP ♦ Rectus Abdominis

- Securely attach the middle of the band to a stationary object near the floor (e.g., a closed door)
- Lie on your back with knees bent and arms extended in front at approximately 45 degree angle
- Hold both ends of the band with your hands and keep your hands close together
- Slowly lift your shoulder blades off the floor.
- Slowly return to the starting position.



INHALE



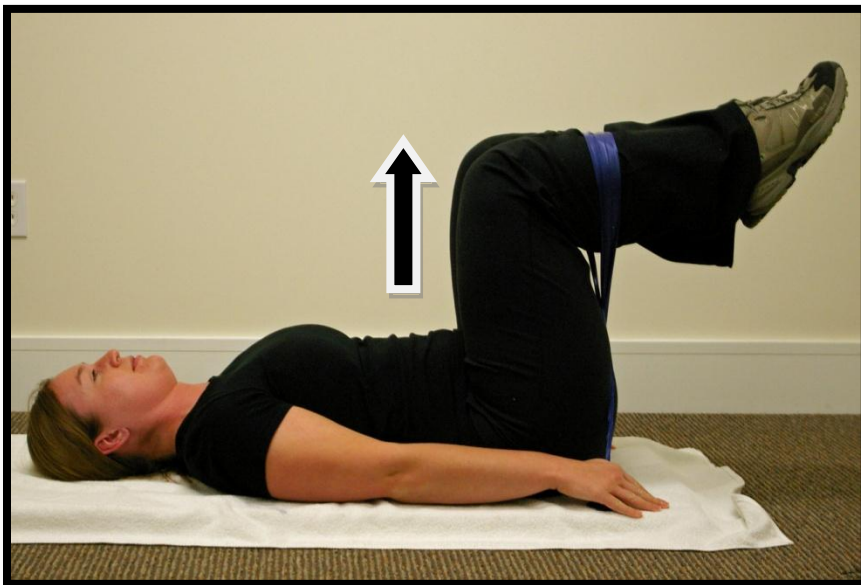
EXHALE

LOWER ABDOMINAL CURL ♦ Lower Rectus Abdominis

- Lie on your back with hips and knees in a flexed position
- Stretch band over knees and cross underneath
- Grasp each end of the band on the floor at the hips and the arms are straight by your side
- Slowly lift your knees upwards, lifting the hips off the floor against resistance of the band
- Slowly return to the starting position



INHALE



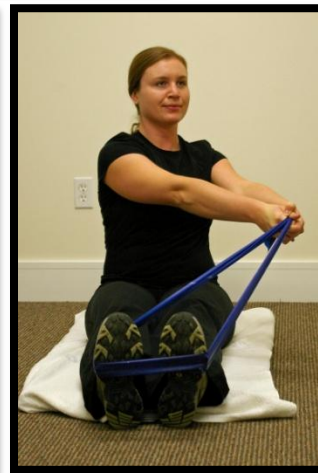
EXHALE

TRUNK TWIST ♦ Internal and External Obliques

- Sit erect with legs out in front and at least shoulder width apart
- Place the middle of the band around both feet (the band will be in a stretched state)
- Hold both ends of the band with your hands and have your arms straight out in front of you
- Slowly rotate the trunk to one side and hold
- Slowly return to the starting position
- Repeat movement on the other side



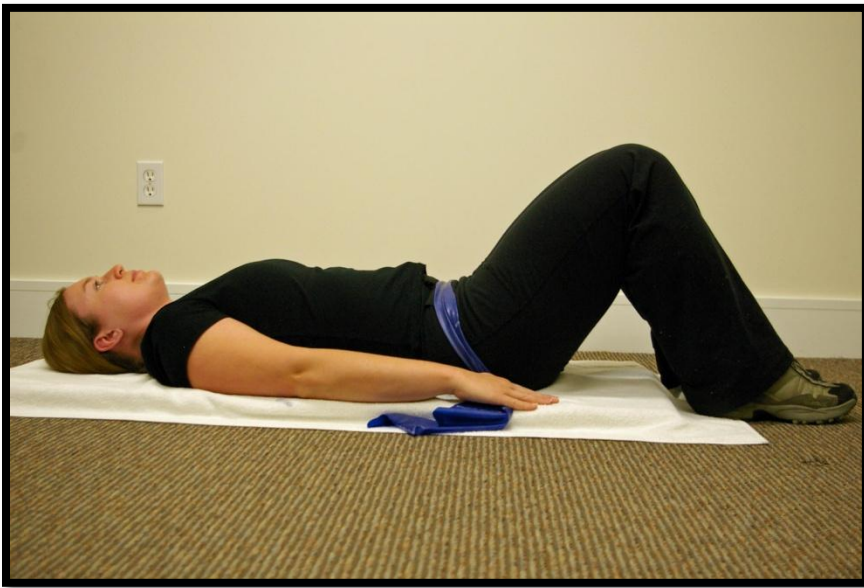
INHALE



EXHALE

BRIDGE ♦ Gluteus Maximus and Deep Back Extensors

- Lie on your back with your knees and hips bent
- Place the middle of the band across the waist (the band will be in a stretched state)
- Hold each end of the band with hands
- Keep arms straight with hands parallel to your hips
- Slowly lift the buttocks off the floor with knees staying together
- Hold for 10-30 counts
- Slowly return to the starting position



INHALE



EXHALE

REFERENCES AND ADDITIONAL RESOURCES

Jespersen, M, & Potvin, A.N. (2000). The great stretching tubing handbook. Blaine, WA: Productive Fitness Products.

Page, P. & Ellenbecker, T. (2003). The scientific and clinical application of elastic resistance. Champaign, IL: Human Kinetics Publishing Inc.

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<http://www.thera-band.com/>

<http://www.thera-bandacademy.com/>

About the Author

Lisa has been active in the exercise profession for 10 years in many roles such as a certified exercise physiologist, fitness centre manager, writer and group exercise instructor.

Lisa's primary passion is physical activity and exercise promotion in health care. For preventive medicine or chronic disease management, she believes physical activity is a main pillar of health. Her experience in medical fitness spans many medical conditions such as individuals who have cancer, diabetes, COPD, cardiovascular disease, multiple sclerosis, and other health ailments.

In addition to being certified as an Exercise Physiologist (CSEP-CEP), Lisa is an Alberta Fitness Leadership Certification Association (AFLCA) Group Exercise Leader and AFLCA Trainer of Leaders, a Can-Fit-Pro Pre & Post Natal Fitness Specialist, and an Excel Nordic Walking Instructor. She enjoys instructing group exercise classes such as cycle and 'paying it forward' through training new fitness leaders.

Lisa is a member of the Canadian Society of Exercise Physiology, American College of Sports Medicine, IDEA Health and Fitness Association, Can-Fit-Pro, and the Edmonton branch of the Emerging Health Leaders. She also sits on the editorial advisory board for the Alberta Centre for Active Living Wellsprings publication.



