Resistance Bands for Muscle Strength

UA Life & Work Connections, the American College of Sports Medicine and the U.S. Department of Health and Human Services recommend that Americans engage in resistance training exercises two to three days each week. Resistance training can increase muscle strength, maintain joint flexibility and physical function and reduce joint pain. There are several options to accomplish resistance training including lifting free weights, using strength training machines, using elastic resistance bands or tubing and doing exercises such as push-ups and sit-ups.

Strength training with resistance bands has unique benefits because the bands are inexpensive, portable, and simple to use. Resistance band training can work multiple muscles and joints at one time and in more than one plane which can improve function for the activities of daily life. A comprehensive database of resistance training research is available at www.Thera-BandAcademy.com/research.

Resistance Bands Exercise Guidelines

- Be sure to have clearance from your health care provider, especially if you have had injuries in the past.
- Posture and body alignment are important: keep the shoulders back and relaxed over the hips; tighten or "engage" the stomach muscles; keep the knees slightly bent; hold the wrists straight keeping the hand in line with the forearm.
- Do strength exercises for all the major muscle groups at least twice a week. Don’t do the exercises for the same muscle group on any two days in a row.
- Perform all exercises with a slow, controlled pace (about 3 seconds to extend and 3 seconds to return).
- Breathe evenly while performing the exercises. Do not hold your breath – breathe out while your muscle is working and in when it relaxes.
- The color of a band indicates resistance level. The progression from least resistance to greatest for a Thera-Band® is: red, green, blue, black, silver, gold.
- Beginners should start with one set of 8 to 10 repetitions of each exercise. The muscle group should feel fatigued at the end of each set. Gradually increase the number of repetitions to 12 to 16.
- If time allows; 2 to 3 sets of an exercise can be performed. Rest 30 seconds between sets.
- Progress to the next level of resistance (next color of band) when you are able to easily complete a set of repetitions.
- Muscle soreness may be experienced for 1 to 2 days after an exercise session. If pain persists for more than 3 or 4 days, do not exercise; contact your health care provider.
UA Life & Work Connections’ 40 Minute Resistance Bands Strength Routine

Upper Body
Shoulders and Rotator Cuff

Front Raise
Stand with both feet on the band, shoulder width apart. Grasp the ends of the band with the palms facing each other. Raise the arms forward to about shoulder height, lower and repeat.

Lateral Raise
Stand with both feet on the band, shoulder width apart. Grasp the ends of the band with the palms facing down. Raise the arms out to your sides to shoulder height, lower and repeat.
**Rotator Cuff**
Stand with both feet on the band, shoulder width apart. Grasp the ends of the band with the palms facing down. Cross the band at the knees, extend the arms slightly forward. Raise the arms up no farther than shoulder height and slightly wider than shoulder width; lower and repeat.

**Arms**

**Bicep Curl**
Stand with both feet on the band, shoulder width apart. Grasp the ends of the band with the palms facing forward and the arms held in close to the side of the body. Bending at the elbow, bring the hands up to shoulder height; lower and repeat.
**Triceps**

Stand with one foot extended forward placed on one end of the band with the length of the band on the inside of the leg. Lean forward with the hand on the same side of the extended leg resting on that knee to provide support for the lower back. Be sure your stomach muscles are engaged. Grasp the band about mid-thigh height with the opposite hand and keeping your arm close to your side extend the shoulder rearward until the upper arm is parallel with the floor, the elbow is flexed, and the palm is facing the body. Keep the upper arm stationary and extend from the elbow backward. Flex the elbow and repeat.

**Wrist**

With elbows bent, extend lower arms in front of you, hands about shoulder width apart. Wrap the resistance band around the palm. Start in the “thumbs up” position and turn at the wrist so that palms are facing up. Repeat the movement.
Upper Back and Chest

Upper Back
With arms outstretched and a slight bend in the elbow grasp the band with the palms facing down at shoulder height and a little more than shoulder width apart. Extend arms out and bring the band towards the body above the chest. Return and repeat.

Chest Press
Place the band across the upper part of your back with a short distance between the hands. Grasp the band with the palms facing down at chest height. Keeping the arms in close to your sides, extend the arms in front. Return and repeat.
Lateral Pull Down
Stretch arms upward and forward with a slight bend in the elbow, grasping the band a little more than shoulder width apart with the palms facing down. Extend the arms out and bring the band down towards the body to below chest height. Return and repeat.

Side Bend
Stand on one end of the band. Grasping the other end of the band extend your arm up on the side of the body. Bend to the side away from the band. Return and repeat. Repeat on the other side of the body.
Lower Body

Hips, Bottom, Thighs and Knees

Squats
This exercise can be done with or without the band. Stand on the band with feet shoulder width apart. Bend knees and sit back making sure knees are behind toes. Extend the arms forward for balance. Squeeze with the muscles in the bottom as you return to standing.

Thigh Abduction and Adduction
Sit in a chair and tie an 8 to 12 inch loop in one end of the band. Place this loop around both ankles while seated (to protect the lower back). Stand and use the chair for balance. Do a set of kicks to the front, side, back and across the front leading with the heel. Repeat with the other leg.
Thigh Abduction and Adduction (continued)
Parallel Leg Lifts
Sit on the front edge of a chair with one leg bent at a 90° angle and the other leg extended parallel to the floor. Flex the ankle and lift the extended leg while maintaining good form. Lower leg and repeat. Repeat exercise with the other leg. Return to the first leg and lift with the leg turned out, leading with the heel to strengthen the inner thigh. Repeat with the other leg.
Hip Flexion
Sit on the front edge of a chair. Place the band on the floor in front and place one foot on the band while holding both ends. Place the other foot in front of the band. Take the end that is next to the foot on the band and bring it in front of that leg and cross it over the opposite leg. Pull on both ends of the band so that it is tightly crossed over the leg. Lift and lower the leg with the band crossed over it. Repeat on the other side.

Calves, Ankles and Feet

Calf Raise
This exercise is done without the band. Use a chair for balance. Standing on one leg at a time, shift your weight to the ball of the foot while maintaining good posture. Return heel to the floor and repeat. Repeat this exercise with the other leg.
Light stretching is recommended before and throughout the routine as needed. Varying the sequence between upper and lower body exercises is fine especially for beginners. An example of a sequence is:

1. Chest Press
2. Biceps Curl
3. Triceps
4. Parallel Leg Lift
5. Front Raise
6. Upper Back
7. Thigh Abduction and Adduction
8. Calf Raise
9. Rotator Cuff
10. Wrist
11. Lateral Pull Down
12. Hip Flexion
13. Lateral Raise
14. Squat
15. Side Bend

For a video of a similar resistance band routine, visit [http://lifework.arizona.edu/wsw/video_presentations](http://lifework.arizona.edu/wsw/video_presentations).

**Resistance Bands Strength Training Information and References**

- Elastic Resistance Training (ERT) has been in use for almost a century. The original use was by rehab professionals to help clients regain strength after an injury.
- As the resistance band is stretched, the resistance increases. With 100% elongation the various color bands have the following resistance in pounds:
  - Red = 3.9 lb.
  - Green = 5 lb.
  - Blue = 7.1 lb.
  - Black = 9.7 lb.
  - Silver = 13.2 lb.
  - Gold = 21.6 lb.
  - Data from the Thera-Band® Resistance Band & Tubing Instruction Manual
- Performing a total body exercise program with resistance bands for as few as six weeks can increase strength by 10 to 30 percent.
- A resistance bands strength routine done in the standing position with proper form facilitates an increase in "core strength" of the muscles of the abdomen and lower back.
- Maintenance of your Thera-Band®: Store your Thera-Band® at room temperature in a box or hang in a dark area. Do not store in direct sunlight. **This product contains natural rubber latex which may cause an allergic reaction. Thera-Band® has a latex-free band that can be ordered online at [www.Thera-BandAcademy.com](http://www.Thera-BandAcademy.com).**

**References:**

- **Strength Band Training**, Phil Page, MS, PT, ATC, CSCS; Todd Ellenbecker, MS, PT, SCS, OCS, CSCS; Human Kinetics, Champaign, 2005
- American Council on Exercise: [http://www.acefitness.org](http://www.acefitness.org)
- American College of Sports Medicine: [http://www.acsm.org](http://www.acsm.org)