

# Resistance Training Exercises

## General Guidelines

1. Warm up before and cool down after this session.
2. Maintain normal breathing - avoid holding breath.
3. Maintain the natural curves of the spine throughout.
4. Use full, deliberate, controlled range of motion (1-2 seconds in both directions).
5. Perform 10-15 repetitions of each exercise and 1-3 sets. One set is enough for **initial** basic fitness.
6. Resistance train 2-3x/wk on nonconsecutive days.
7. **If a pulmonary condition is present, coordinate exercise movements with pursed lips breathing**

## Progression

1. Use light resistance for 1<sup>st</sup> 6-8 weeks (3-4 weeks for younger individuals) to allow time for connective tissues to adapt to stress.
2. Increase repetitions before increasing resistance.
3. If 10 repetitions cannot be performed *in good form*, resistance is too heavy.
4. If 15 repetitions can be performed somewhat easily (ie, RPE 11 “fairly light”), add more resistance.
5. When adding resistance or if adding an additional set, reduce repetitions to 10, and gradually progress to 15 based on exertion.
6. Rate your perceived exertion (RPE) at 12-13 “somewhat hard”. If you have been consistent, have established a good foundation (6-12 weeks), and are experiencing no symptoms, you may increase your effort level (RPE) up to 15 “hard”

## Using Elastic Resistive Bands

1. Progression of resistance for Thera-Band® from light to heavy: **tan, yellow, red, green, blue, black**
2. Keep band open and flat when using.
3. To modify resistance, try adjusting grip position, alternating sides or perform one side at a time.

## Precautions

1. Maintain neutral low back curve to protect back!
2. Do not push through pain. Perform the exercise with no resistance, or, if using an elastic band, give yourself more slack. Seek assistance if in doubt.
3. **STOP** resistance training and notify someone immediately if you have any of the following symptoms: dizziness, abnormal heart rhythm, unusual shortness of breath, and/or chest pain. Seek assistance from a health professional.

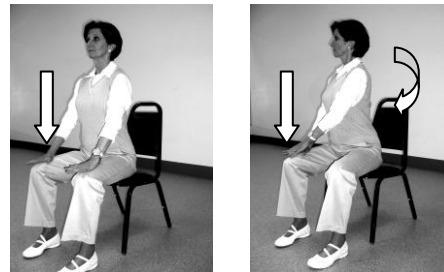
## 1. Stand-ups (10-15 repetitions) for leg strength

- **Instructions:** Sit toward middle of chair with feet under knees and shoulder width apart. With *arms straight out to side*, stand to full extension. Move *arms straight forward*, and “squat back” to sitting position. *If knee pain, thigh weakness, or instability is experienced, try sitting on something that elevates you a 2-4 inches, such as a phone book.*



## 2. Seated Abdominal Squeeze (5 reps forward, 5 reps on each side – 15 reps total) for back stability

- **Instructions:** Sit in chair. Place one hand on each thigh. Push down firmly on thighs at the same time you tighten, or “brace” the abdominal muscles. Maintain a neutral spine. **Hold 3-5 seconds.** *Variation:* Repeat above directions, but place both hands on one thigh near knee, while turning opposite shoulder gently toward midline of body. **Hold 3-5 seconds.** Repeat on other side.



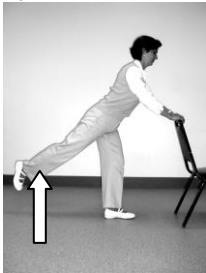
## 3. Lunge (10-15 repetitions) for leg strength

- **Instructions:** Stand with legs in a wide stride. Both feet should face directly forward. Lower the back knee toward floor (about 45° angle). Keep weight of front foot over the heel – not the toes. Maintain an upright neutral spine. To progress, may hold a pair of hand weights or use a band for more resistance.

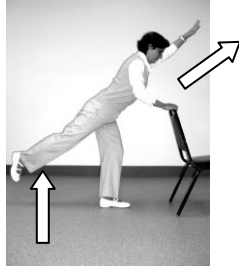


**4. Bird Dog** (10-15 repetitions) for back stability

- **Instructions:** Stand behind chair. Bend torso from the hips to 45° angle. Straighten one leg behind you with toes resting on floor. **Hold 3-5 seconds**  
**Beginner:** lift leg behind you, keeping knee straight and hips facing floor. **Intermediate:** As you lift leg, reach with opposite arm in front of you. Do not overly arch. *Can do on floor on hands and knees.*



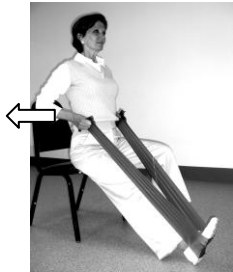
Beginner



Intermediate

**5. Seated Row** (10-15 repetitions) for upper back

- **Instructions:** Sit toward front of chair with one leg extended. Position band across ball of extended foot. Grasp end of band in each hand 12-18 inches from foot on each side. Pull elbows straight back in full flexion (hands will end up at waistline). Return to start position. **Must be performed with a band.**

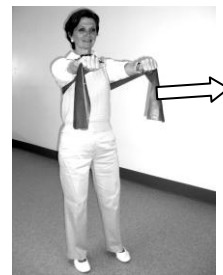


- **Bent-over Row: alternative to Seated Row.** May perform with hand weight: Bend torso forward from the hips with legs in wide stride. Support weight on chair back or front knee. Hold weight in free hand with arm straight toward floor. Pull elbow toward ceiling.



**6. Chest Press** (10-15 repetitions) for chest/shoulders

- **Instructions:** Position band across shoulder blades. Grasp band at each underarm with palms facing each other. Extend arms fully, keeping parallel to floor and to each other, rotating palms toward floor.



- With hand weights: sit with hips toward front of seat. Extend arms fully at a 45° angle to torso, keeping parallel to each other. Return to start. Keep spine in neutral position: do not overly arch or round back



**7. Backward Shoulder Shrugs** (10-15 repetitions) for neck and upper back

- **Instructions:** Hold band or weights in each hand. Keeping elbows straight, lift both shoulders toward ears, circle backward and down in a full, slow range of motion.



**8. Shoulder Press** (10-15 repetitions) for shoulders

- **Instructions:** Using band: Grasp end of band in each hand. Step on middle of band. Bring hands to shoulder level, palms facing forward. Fully extend arms toward ceiling. Return to start position. *May perform with hand weight following same instructions.*

