



Warming Up

Basic Warm Up

Directions: Perform the following light, rhythmic physical activities to help safely prepare you for more vigorous physical activity, such as resistance training and/or aerobic exercise. These exercises can also just be done for a quick, energizing “pick-me-up.” This is especially valuable when combined with stretching exercises (see section on Stretching, pages 111-134).

- ✦ **Duration:** 5-10 minutes (extend to 10-15 if you are older, have a chronic disease/disability, or are significantly deconditioned). You can extend the time by adding the set of exercises that follow (**Basic Warming Up for the Older Adult**).
- ✦ **Pulmonary patients:** Accompany movements with pursed lips and diaphragmatic breathing (see page 145 for guidance on breathing techniques).
- ✦ **Older adults and/or those unsteady on their feet:** Exercises can be done seated. You may combine with the set exercises that follow (**Basic Warming Up for the Older Adult**).

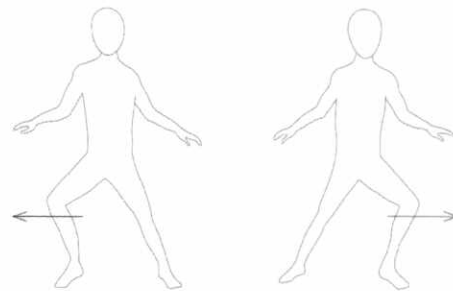
1. Walking in Place: 2-3 minutes

Instructions: Walk in place to increase inner core temperature and warm muscles. Start at a low intensity and increase gradually, using arms in a natural stride.



2. Wide Side-to-Side Knee Bend: 1 minute

Instructions: Place feet wider than shoulder width, with feet pointing out at 45° angle. Bend first one knee and then the other, moving back and forth rhythmically. Do not bend knee more than a 90° angle, and less if you experience knee discomfort. Use support if necessary (such as the back of a chair) to help with balance. (If seated, just reach side to side with arms, “pulling from ribs.”)



3. Rope Climb: 1 minute

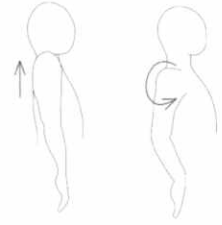
Instructions: Place feet shoulder width apart and reach toward ceiling in a “rope climbing” fashion, first with one arm and then the other. Lift rib cage and shoulder blade to feel throughout torso. Can do sitting down if necessary.



Basic Warm Up (Continued)

4. Shoulder Rolls: 10 rolls, both directions

Instructions: Lift shoulders toward ears and slowly roll in full circle. Keep arms hanging at sides - avoid allowing elbows and/or hands from "taking over".



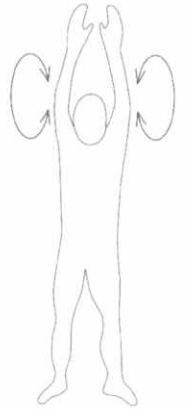
5. Arm Circles: 5 each arm; 5 together, both directions

Instructions: Slowly rotate arm(s) backward using full pain-free range of motion. If necessary, make circles smaller or minimize how far back you circle to stay within pain tolerance.

Variation: Modify if necessary by placing hands on shoulders. Rotate elbows.



Variation

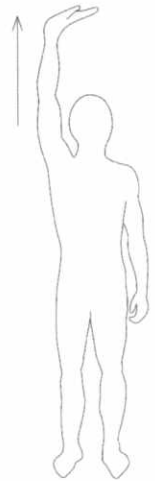


Basic Stretching Program: On Your Feet

This is a streamlined program that includes 9 stretches using all major muscle groups. There is no need for any props, support or changes in position: all exercises are done on your feet. Please review ***Basic Stretching Guidelines***, page 112.

1. Side Stretch

Instructions: Gently stretch one arm toward ceiling, "pushing ceiling higher" with palm. Lift rib cage and shoulder blade. Maintain neutral low back curve, but avoid overarching back.



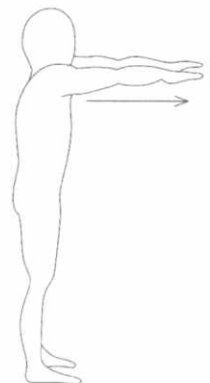
2. Chest stretch

Instructions: Clasp hands behind back while pushing both shoulders back, "squeezing shoulder blades together".



3. Superman Stretch

Instructions: Stand with feet shoulder width apart. Reach forward with both arms, focusing on "spreading the shoulder blades apart." Do not lock knees, keep arms parallel to ground, and do not lean torso forward.



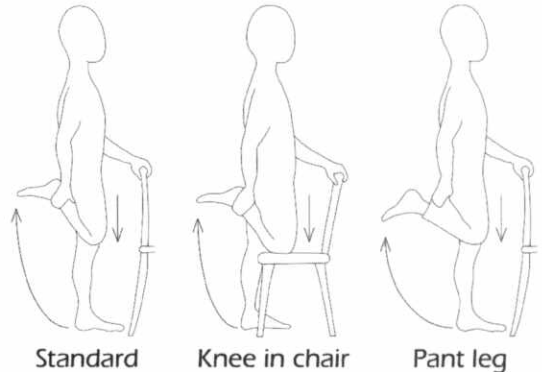


Basic Stretching Program: On Your Feet (Continued)

4. Quadriceps (Front of Thigh) Stretch

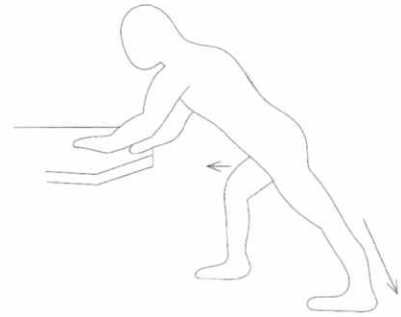
Instructions: Stand by chair, wall or table for support. Gently lift one heel behind you and grasp ankle or pant leg using either hand. Stand upright & point knee toward floor. Repeat on other leg. If this position is difficult, support knee on chair seat, as pictured.

Note: can hold foot, ankle, or pant leg with either hand: same side or opposite.



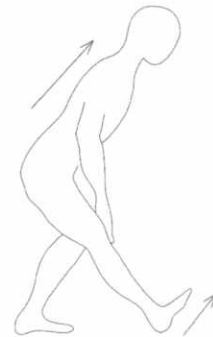
5. Calf Stretch

Instructions: Stand by chair, wall or table, using for support. Point toes of *both* feet directly forward, bending & relaxing front leg. Gently lean hips forward and “push” against back heel. Repeat on other leg (or can stretch both legs together).



6. Hamstring (Back of Thigh) Stretch

Instructions: Stand with one heel on the floor in front of you. Maintaining neutral low back curves, bend from the hips and lean chest over thigh. Keep head in alignment with spine.



7. Back Scratcher

Instructions: Reach behind head with one hand, placing it on back of neck with elbow pointing toward ceiling. Reach behind back with other hand so that palm of hand is facing out. Position middle finger of each hand as close together as possible. Switch sides.





Basic Resistance Training Program: Just Starting

Frequency: 2-3 times per week on nonconsecutive days (unless otherwise advised).

Intensity: Low to moderate initially (RPE 11 “Fairly light” to 13 “Somewhat hard”); gradually progress to moderate to hard (RPE 13-15) as tolerated (unless otherwise advised). See RPE scale on page 144.

Repetitions: 10-15 (unless otherwise advised).

Sets: 1 set minimum; increasing gradually to 2-3 if tolerated (unless otherwise advised).

Rest Periods: 1-2 minutes between sets (unless otherwise advised). See page 22.

Progression: every 2-4 weeks, or longer based on tolerance; as this is intended for beginners, progress at no more than 2-5% at a time. See page 54 for more information.

This program is especially designed for:

- * Those just starting resistance training (initial 3 month program)
- * Deconditioned adults
- * Older adults
- * Those with arthritis, fibromyalgia, chronic fatigue syndrome
- * Other conditions that call for a slow, easy initial program

Please review specific guidelines for each condition in Part One!

If arthritis or fibromyalgia is present (page 28),

- * Reduce the number of repetitions to start (also do this if you are older and very deconditioned).
- * Begin with Very light resistance (RPE 8-11). See RPE scale page 144.
- * Resistance train only 2 times per week on nonconsecutive days.
- * Use light resistance for 1st 6-8 weeks to allow time for connective tissues to adapt to stress and to evaluate tolerance to resistance training.
- * Increase repetitions before increasing resistance.
- * Progress very slowly – no more than 2-5% at a time or 10% per week.
- * If all repetitions cannot be performed in good form, resistance is too heavy.
- * Be conservative when involving painful joints.
- * Do not exacerbate pain. Do not use added resistance during periods of flare-up.

If chronic fatigue syndrome or severe deconditioning is present (page 30),

- * Begin with Very light resistance (RPE 8-11). See RPE scale page 144.
- * Try doing aerobic exercise on alternate days rather than on same day of resistance training.
- * Use no resistance to begin with, using only weight of own body. Consider not adding resistance (i.e., bands) until you can do 3 sets of 15 repetitions, performed throughout the day if necessary.

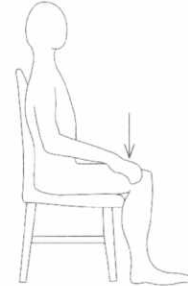
Basic Resistance Training Program: Just Starting (Continued)

1. Abdominal Squeeze

Purpose: Improves strength of abdominal muscles to help stabilize spine.

Instructions: Sit in chair with good posture. Place hands on thighs near knees. Push down firmly on thighs while tightening abdominal muscles. At the same time, pull "belly button toward spine." Maintain neutral low back curve. **Hold 3-5 seconds.** Repeat.

Note: can also be done lying on floor or bed with knees bent. See illustration.



Lying down

Variation of above: Repeat above directions, but place both hands on one thigh near knee, while turning opposite shoulder toward hands. **Hold 3-5 seconds.** Repeat. **Note:** can also be done lying on floor or bed with knees bent.

Caution: Avoid over-twisting.



Variation

2. Thigh Squeeze

Purpose: Improves strength of quadriceps muscles and helps stabilize knee.

Instructions: Sit with hips toward front of chair. Extend one leg straight in front of you, toes pointing up, heel resting on floor. Tighten thigh muscle of extended leg. **Hold 3-5 seconds.** Repeat. **Note:** can also be done sitting on floor or in bed.



Can be done seated on floor or in bed

3. Straight Leg Raise (holding)

Purpose: Improves strength of quadriceps muscles and helps stabilize knee.

Instructions: Sit with hips toward front of chair. Extend one leg straight in front of you, toes pointing up, and heel resting on floor. Keeping knee straight, raise extended leg to parallel to floor. **Hold 3-5 seconds.** Return to start position and repeat. **Note:** can also be done sitting on floor or in bed.



Can be done seated on floor or in bed



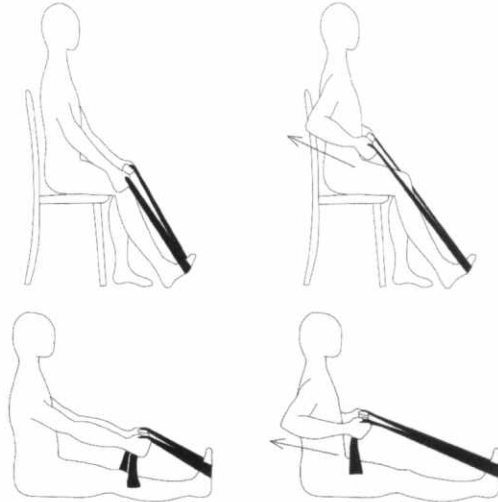
Basic Resistance Training Program: Just Starting (Continued)

4. Seated Row

Purpose: Strengthens biceps (front of upper arm) and upper back.

Instructions: Sit in chair with one leg extended. Loop band across sole of extended foot. Grasp band in each hand about 12 inches from foot on each side, taking up excess slack. Maintain neutral low back curve. Pull both elbows straight back to full flexion. Return to start position and repeat.

Note: *can also be done sitting on floor or in bed.*



Can be done seated on floor or in bed

5. Chest Press

Purpose: Strengthens triceps (back of upper arm), pectorals (chest), and deltoids (shoulders).

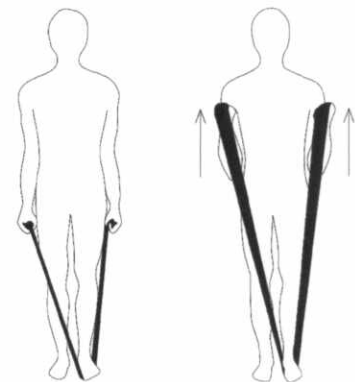
Instructions: Position band across shoulder blades. Keep band open and flat. With band taut, grasp at each underarm. Extend arms fully, keeping parallel to each other and to the floor. Return to start position and repeat.



6. Bicep Curls

Purpose: Improves strength of biceps (front of upper arm).

Instructions: Hold end of band in each hand. Step on middle of band. Hang arms straight at sides, thumb-side of hand facing forward. "Glue" elbows to ribs. Fully flex one or both arms. Return to start position and repeat.





Review of Stretching Programs (Continued)

Choose a program listed on the previous page that best suits you and your situation, i.e., you may be unsteady and find the most security doing the seated stretches. Or you may be convalescing and need to find stretches you can do while lying in bed. Conversely, you may be very active and want the most time-efficient program ("On Your Feet", pages 113-115).

Consider alternating programs and/or specific stretches. For example, as your balance improves, you may consider moving from the seated to the standing exercises ("On Your Feet", pages 113-115). Or, you may primarily perform the "On Your Feet" program, but prefer to add a couple stretches from the other programs when you have more time. Your body, and your mind, will welcome the variety. Mix it up!

Basic Stretching Guidelines

- ✦ Stretches may be used for cool-downs or as a part of general stretching routine done at any time.
- ✦ Hold stretch 15-30 seconds. May do 1-4 repetitions of each stretch. If you are just beginning and your muscles feel tight, hold just 10 seconds and do more than one repetition. Again, vary how you do your stretches: some days perform more reps with a shorter holding period, Other days hold stretch longer and perform fewer reps.
- ✦ Stretch slowly to point of mild discomfort, not pain. Do not bounce.
- ✦ Do not force painful stretching. Consult health professional for modification or substitute exercises. Forcing stretching can aggravate an injured area.
- ✦ Muscles should be warm before stretching (therefore ideal as cool-downs after exercise). If not used as cool downs, perform 3-5 minutes of light physical activity before stretching.
- ✦ Breathe normally during stretches. Do not hold breath.
- ✦ ***Pulmonary patients:*** Coordinate stretches with pursed lips and diaphragmatic breathing. Inhale before moving into stretch, exhale as you move into stretch. See page 145 in Part Three for instruction.
- ✦ ***If you have a specific medical condition***, please review Specific Resistance Training Guidelines for Disabilities & Chronic Diseases "A to Z" (pages 27-40). Though these recommendations focus primarily on strengthening, there are many comments regarding stretching.