**The Strength After Breast Cancer Program**

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This program should be undertaken on your own only after completing supervised sessions with a physical therapist, occupational therapist, or nationally-certified fitness professional with specific training in the Strength After Breast Cancer Program to learn how to do the exercises properly. This information is not a substitute for physician guidance.

**Overview**

There are five parts to the workout:

1. Warm up
2. Stretching
3. Core training exercises
4. Weight training exercises
5. Stretch again

THE WORKOUT

# Do the workout twice weekly with 48 hours between sessions.

**Specifics**

1. **Warm up.**  Do at least ten minutes at a low to moderate intensity on a bike, treadmill, rower, cross-country skier, stepper, or elliptical machine (or by walking outside) prior to any stretching or weight-training exercises. You can certainly do more than ten minutes, but no less than ten. Warming up is important for avoiding injury from weight training. Low to moderate intensity means that you would rate the intensity about a five on a scale of one to ten (with one being sitting down resting, and ten being the highest intensity you can do).
2. **Stretching.** Several minutes of stretching (see: Stretching section of this handout). The stretches should be performed for 15 seconds on each side. Range of motion stretching prior to weight training is important for avoiding injury.
3. **Core training exercises.** Our abdominal and lower back muscles support us like a natural corset of muscle and form our ‛core’ of strength. There are exercises included in this packet to improve core strength and endurance. The purpose of these exercises is to avoid injury and assure that all exercises are done with proper attention to core strength, including the strength training exercises. One stabilization, one flexion, and one extension core exercise should be done at least 1 set of 10 repetitions at each session.
4. **Weight-training exercises**. The weight-training section of this handout is organized in the order that you should do the exercises. Do the exercises in the order noted. For the first month, do two sets of each exercise. After the first month, add a third set to each exercise. At least one picture of each exercise is included in this packet along with basic instructions on how to do each exercise safely. Instructions on how to progress the weights are on Page 3.
5. **Stretch again.** *Always* finish your workouts by repeating the stretches conducted during the prior to the core training exercises. Hold each position for at least 30 seconds on each side (twice as long as you held each stretch *before* starting the core training exercises).

If you find that you are getting sore or have an injury as a result of doing this program, ask yourself these questions: *Did I really warm up and stretch adequately*? *Have I been doing my core exercises regularly?*

**Increasing the Weight**

Start with light weights (for free weights, use less than 3 lbs; on machines, use the least weight possible). Every 2-4 sessions, increase the weight you lift in each exercise by the smallest available increment. Before adding weight, you should be able to complete ten repetitions on all three sets for consecutive sessions. Be alert for symptoms that you have pushed too hard. These three sets should be completed with proper form as instructed in the following packet and by the exercise professional or physical therapist. If you can't do all sets at your current weight with good form, you may put yourself at increased risk for injury trying to complete them at an even higher weight.

After 6 months of gradually increasing weights, you may want to maintain the weights lifted for a while.

If you have any concerns about an injury, or have any reason warranting not doing an exercise or decreasing the weight, please contact the person who taught you the exercises to discuss this issue right away so she/he can make any needed adjustments.

**Breathing**

Although it seems as if it would be automatic to breathe while exercising, many of us tend to hold our breath while doing strengthening exercises. Breath-holding while weight training may result in adverse effects including unsafe temporary increases in blood pressure. As a rule of thumb, you should breathe *out* during the pushing, pulling, or lifting-up portion of the exercise. This tends to be the more difficult portion of the exercise. You should breathe *in* as you return the weight to the starting position. Remember to control the weight on its return to the starting position of each exercise.

**Exercise Holidays**

If you have to take a break from doing your weightlifting exercises for a week or more, back off on the heaviness of the weight used when you return. For each week off, back off by two weeks-worth of resistance progression. For example, if you were doing your bicep curls with 7 lbs when you left for a week-long vacation, but you were lifting 5 lbs two weeks *before* you went on your one week vacation, use 5 lbs when you return. If you stop exercising for a month or more, start at the lightest possible weight again and gradually increase as you did when first learning.

**Compression Garments**

Women with lymphedema should wear a well-fitting compression garment while weightlifting.

**Listen to Your Body**

If you have a change in arm or shoulder symptoms that lasts a week or more, contact the CLT who provided your evaluation prior to entering the Strength After Breast Cancer Program.

**Fill Out Your Logs**

In the course list of attachments is included a blank Weight Training Workout Log that lists the exercises in the order you should do them. You will have learned how to fill this out during your group physical therapy sessions. Use the exercise log to chart your progress. Be sure to write down your lift weight at the time you do your exercise because it is easy to forget which weight you used.

STRETCHING

1. Chest Stretch

*Insert photo/s here.*

Things to remember while doing the **chest stretch**:

* + Start by facing the wall and extending your arm straight out to side - not too high, not too low.
	+ Place hand on wall to anchor.
	+ Turn your chest away from your arm.
	+ Step forward with the foot nearest the wall.
	+ Lean into the stretch.
	+ Be sure your shoulder is not rolled forward. You should feel the stretch in the chest.
	+ *Breathe*!
1. Shoulder Stretch

*Insert photo/s here.*

Things to remember while doing the **shoulder stretch**:

* + After you finish the chest stretch (previous page), swing your arm from the 3 o’clock position to the 6 o’clock position, and then to the 9 o’clock position.
	+ Face the wall with your arm extended across your chest.
	+ Lean toward the wall.
	+ Keep your shoulder down.
	+ *Breathe!*
1. Triceps Stretch

*Insert photo/s here.*

Things to remember while doing the **triceps stretch**:

* + Walk your fingers up the wall. Stop when you feel a stretch in the back of your upper arm.
	+ If possible, reach overhead all the way and put your opposite hand on your elbow. Stop here when you feel the stretch in the back of your upper arm.
	+ If possible, reach your arm back behind your head, patting or scratching your upper back. Grasp your elbow of the 'patting' arm with the opposite arm over or slightly behind your head and pull gently on your elbow so the hand of the 'patting' arm slides just a bit down the spine.
	+ Keep shoulders down.
	+ *Breathe*!
1. Calf Stretch (back of the lower leg)

*Insert photo/s here.*

Things to remember while doing the **calf stretch**:

* + Place both hands against a wall.
	+ Extend one leg behind you in a lunging position.
	+ Press your heel down and press your hips forward. Point your toes on the back foot directly toward the wall.
	+ Keep your heel down.
	+ *Breathe*!

(The calf can also be stretched by propping your foot against the wall with your heel on the floor and your toes pointed up and touching the wall and then leaning toward the wall.)

5a. Quadriceps Stretch (front of thigh)

*Insert photo/s here.*

Things to remember while doing the **quadriceps stretch**:

* + Place your hand on a wall for balance.
	+ Bend your knee, bringing your foot with the heel up toward your buttocks.
	+ Grasp your foot on the laces’ side.
	+ Bring your knees together and stand up straight.
	+ Keep your knees together.
	+ Don't lean forward.
	+ You can slightly 'tuck' your pelvis to increase the stretch in the front of your hip.
	+ Keep your tummy toward your spine.
	+ *Breathe*!

5b. Alternate Version Quadriceps Stretch (front of the thigh)

*Insert photo/s here.*

Things to remember while doing the **quadriceps stretch** (alternative version):

* + Place your hand on a wall for balance.
	+ Bend the knee of your leg away from the wall, bringing your foot onto a chair or bench behind you.
	+ Bend at the knee on your standing leg.
	+ Press hips forward. Work toward holding your foot by the heel or your pants so you can do the other version eventually.
	+ Don't lean forward.
	+ You can slightly 'tuck' your pelvis to increase the stretch in the front of your hip.
	+ Keep your tummy pulled back toward your spine.
	+ *Breathe*!
1. Butterfly (inner thigh stretch)

*Insert photo/s here.*

Things to remember while doing the **butterfly**:

* + Sit on the floor (sit up straight) with the soles of your feet together and knees bent out to the sides.
	+ Let your knees fall out to the sides. You can enhance the stretch by pressing on your knees slightly with your elbows.
	+ Sit up tall.
	+ Keep your tummy pulled toward your spine.
	+ *Breathe*!
1. Hamstring Stretch (back of thigh)

*Insert photo/s here.*

Things to remember while doing the **hamstring stretch**:

* + Sit at the very front edge of a stable chair.
	+ Extend one leg out straight and point your toes up to the ceiling.
	+ Bend the knee of your other leg as shown.
	+ Keeping your toes pointed toward the ceiling, lean over the extended leg, reaching the chest toward your toes.
	+ Keep your toes pointing toward the ceiling.
	+ If you feel the stretch in the lower leg, point your toes toward the ground.
	+ If you feel the stretch behind the knee, bend the extended knee slightly.
	+ *Breathe*!
1. Back Stretch

*Insert photo/s here.*

Things to remember while doing the **back stretch**:

* + Lie on a mat on the floor.
	+ Bend both knees.
	+ Tilt your pelvis to press your lower back into the floor.
	+ Let your knees drop slowly to one side but keep pelvis tilted.
	+ Place your hands in the positions shown above.
	+ Keep your tummy toward your spine.
	+ Be sure to switch sides.
	+ *Breathe!*

# CORE EXERCISES

1. Core Stabilization – Superwoman

*Insert photo/s here.*

Start position (#1)

* + Support your weight on your knees and hands.
	+ Pull your abdominal muscles in and slide your shoulder blades down and away from your ears.

To perform this exercise:

* + Extend opposite arm and leg (#2). Feel your hand and foot pulling away from each other. Keep hips level to the floor and the knee of the extending leg facing the floor.
	+ Return to starting position (#1).
	+ Repeat with other arm and leg (#3).
	+ Complete a set of 10 on each side, continuing to alternate arm and leg pairs.
	+ Keep your abdominal muscles tight and your spine neutral (like a table top) throughout the exercise.
	+ *Breathe!*

2a. Core Flexion, Version 1 – Ab Curls on a Ball

*Insert photo/s here.*

2b. Core Flexion, Version 2 – Ab Curls on a Mat/Towel

*Insert photo/s here.*

Things to remember while doing **core flexion**:

* + Keep your tummy pulled in toward your spine.
	+ Keep your neck relaxed and your eyes focused.
	+ Curl up using your abdominals only (don’t bend at the hips!).
	+ Lift and lower your upper body slowly.
	+ *Breathe!*

3. Core Extension, Version 1 – Bridging

*Insert photo/s here.*

Things to remember while **bridging**:

* + Pull your tummy in toward your spine.
	+ Keep your spine neutral as you lift your hips up.
	+ Shoulders, hips, and knees should be directly in one line at the top of the movement.
	+ Lift and lower your body slowly.
	+ *Breathe!*

# WEIGHT-TRAINING EXERCISES

1a. Chest Exercise, Version 1 – Dumbbell Press with Bench

*Insert photo/s here.*

Things to remember while doing the **dumbbell press with bench**:

* + Keep your tummy pulled in toward your spine.
	+ Use a step to make your feet higher if this helps you to keep your back flat on the bench. Alternatively, put one foot on the bench, as pictured.
	+ Start seated and then roll back onto your back.
	+ Weights should come up over your chest at the bra line.
	+ Ask for a spotter if you need one.
	+ Lift and lower the weights smoothly and *breathe*.
	+ Don't lock your elbows.
	+ Lift the dumbbells straight to the ceiling, not back to your eyes.
	+ *Breathe!*

1b. Chest Exercise, Version 2 – Home Version of Chest Press on Mat or Towel

 Shown using PowerBlock adjustable dumbbells.

*Insert photo/s here.*

1c. Chest Exercise, Version 3 – Home Version of Chest Press with a Step

*Insert photo/s here.*

Things to remember when doing the **chest press**:

* + Keep your tummy pulled in toward your spine.
	+ Keep your knees bent to keep your back flat on the mat.
	+ Start seated and then roll back onto your back.
	+ Weights should come up over your chest at the bra line.
	+ Lift and lower the weight smoothly and *breathe*.
	+ Don't lock your elbows.
	+ Lift the dumbbells straight to the ceiling, not back to your eyes.

2a. Squats to Chair – *Without* Weights. DO THIS FIRST, UNTIL IT IS EASY

*Insert photo/s here.*

2b. Squats to Chair – *With* Weights

*Insert photo/s here.*

Instructions on next page….

Things to remember when doing **squats to chair** at home:

* + - * Start with your weight mainly on your toes rather than on your heels.
			* Avoid locking your knees when you come back to standing but do extend your legs fully.
			* Keep your knees in line with your toes and don’t let your knees go beyond your toes.
			* Place your feet parallel to each other and far enough in front of the chair that your buttocks just graze the chair behind you when you get to the end of the movement.
			* When the exercise starts to get easier, only use the chair to know when to come back up; don’t drop into the chair.
			* Push through your whole foot, including your heels, not just your toes, as you extend your legs.
			* Keep your chest and chin raised by looking at the place where the wall and the ceiling come together on the other side of the room.
			* *Breathe!*

3. Back Exercise – One-Arm Row

*Insert photo/s here.*

Things to remember when doing the **one-arm row**:

* + Your back should be in a straight line, without ‘rounding.’
	+ Maintain the same spine/back position throughout the exercise and pull the weight back with your back muscles, not your arm muscles.
	+ Think about squeezing your shoulder blades together. (Do not lift your shoulders up; maintain the distance between your shoulders and ears.)
	+ Pull the weight back and up until your elbow is past your back. The movement is similar to starting a lawnmower but slower.
	+ Note that your supporting hand is holding a dumbbell too, in order to protect that hand from flexing at the wrist.
	+ Actively control the weight while returning to the starting position. Don't let the weight pull your body forward.
	+ Keep your tummy tight throughout the range of motion.
	+ *Keep breathing!*

4. Buttocks and Back of Thighs – Romanian Dead Lift

*Insert photo/s here.*

Things to remember when doing the **Romanian dead lift**:

* + Start with your hands (or the weights) in front of your thighs, legs straight.
	+ Hinge forward from your hips only. Do not arch or round your back as you go. (Pretend your back has no ability to round or arch.)
	+ The weights will come forward toward your toes.
	+ Keep your eyes looking straight ahead of you.
	+ Slowly return to standing.
	+ Breathe out on the way UP.

IF THIS EXERCISE HURTS YOUR BACK, DON’T DO IT.

5. Shoulders – Scaption (Side Raises)

*Insert photo/s here.*

Things to remember when doing **side raises** with dumbbells:

* + Find a wall and put your back against it with your feet 12 to 18 inches away from the wall.
	+ Pull your tummy tight and keep your back flat to the wall.
	+ Keep your shoulders back and down throughout the exercise.
	+ Hold the weights with your palms facing in toward your thighs.
	+ Raise your arms out to the sides at a 45-degree angle between front and side, with thumbs toward the ceiling.
	+ Lower the weights carefully to the starting position.
	+ Do not allow momentum to swing your arms up or down.
	+ Breathe out on the way up and breathe in on the way down.

6. Front of Thighs – Step-Ups

*Insert photo/s here.*

Things to remember when doing **step-ups**:

* + This exercise is shown using the BOTTOM step, but if you find that to be too easy, try using the 2nd step.
	+ If you have any difficulty balancing while doing this exercise, put one of the dumbbells down and hold onto the wall or banister.
	+ Keep your knee from extending beyond your toes as you push off.
	+ Raise the leg that starts behind to a 90-degree angle in front of you so that the top of your shoe touches the next step, as shown.
	+ Keep your tummy pressed against your spine.
	+ Breathe out as you push off the back foot.
	+ When you are done with the left foot on the step, switch feet.

7. Triceps – Kickbacks

*Insert photo/s here.*

Things to remember when doing **kickbacks**:

* + Keep your back straight from your buttocks to the back of your head, not rounded.
	+ Support your hand on a chair.
	+ Start the exercise in the ‘finish’ position from the one-arm row exercise on Page 20.
	+ Keep your elbow in place. This exercise does NOT require you to move from your shoulder. You should do this exercise entirely from the elbow.
	+ Extend your elbow to straighten the arm behind you. Keep your thumb pointed toward the floor.
	+ Keep your wrist straight throughout the exercise and make sure your thumb ends up pointing toward the floor when your elbow is straight.
	+ *Breathe!*

8. Calf Raises

*Insert photo/s here.*

Things to remember:

* + Stand tall with your feet 6 inches apart and your tummy pulled to your spine.
	+ You may hold weights OR the wall, depending on your level of fitness and balance.
	+ Rise to your toes slowly and with control. Try to keep your weight on all five toes as you rise. (Most people tend to roll the weight out toward their little toes).
	+ Lower slowly.
	+ *Breathe!*

9. Front of Upper Arms - Dumbbell Curls

*Insert photo/s here.*

While doing **dumbbell curls**, remember to:

* + Find a flat wall and put your back to it.
	+ Place your feet about 12 to 18 inches away from the wall.
	+ Keep your tummy tight and pull it back flat to the wall.
	+ Hold the dumbbells with your palms facing front.
	+ Keep your elbows hanging at the sides, in line with your shoulders. (Elbows do not need to be tight to your side.)
	+ Keep your shoulders back and down; do not squeeze up.
	+ Maintain your wrists in a neutral position; do not bend your wrists forward or back during the exercise.
	+ Breathe out on the way up and breathe in on the way down.