

# Breast Reconstruction

## TRAM Flap Pre and Post-Operative Exercises

### Pre-operative Exercises:

It is as important to prepare physically as it is to prepare mentally for your surgery. The time you invest before surgery, will shorten your recovery time. The stronger, more flexible and more active you are before surgery, the more reserve you will have to draw upon when you are inactive during surgical recovery. All laying down exercises can be done on the floor or the bed. Use a chair without arms for sitting exercises. Walking should be done with comfortable shoes and clothing.

Learn and practice diaphragmatic breathing and relaxation. Start doing a little extra walking before your surgery. Try all the exercises indicated for your particular surgery. It is important to see what you can do pre-surgery, since returning to that same level is your post-surgery goal. You might find some of the exercises are not as easy as they look. It is not unusual to lose some motion in your shoulders as you age, but remember you can improve with practice.

#### **Walking:**

Speed is not important. In the hospital, start with walking to the bathroom, then out into the hall and gradually one lap of the floor. The goal is to walk one floor lap 5 times a day before being discharged. At home, start with a 10-minute walk a day outside, and then increase by 1 minute until doing 30 minutes. If you can, start walking on flat ground and then progress to hills.

#### **Relaxation:**

A number of techniques can help you learn to relax. Listed in the appendix are suggestions that can help with body awareness, pain and stress. The techniques in which a muscle is tightened before being relaxed don't work well after surgery. Find a tape that directs your breathing, imagery and body awareness and does it with pleasant music and vocal directions.

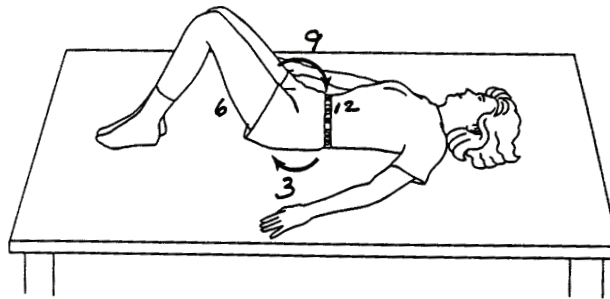
Start by just listening to a tape to get familiar with it, then put yourself in the most comfortable position. Tell your family not to disturb you. Use the tape as a road map to learn to take care of your body. This will not be easy at first, but that is normal. Initially, it may be hard to quiet yourself, but practice will make it easier. Practice at least once a day.

#### **Diaphragmatic Breathing:**

Begin by lying down on your bed or the floor and progress to sitting in a chair. Place one hand on your diaphragm and the other on your upper chest. Breathe in and feel your lower hand rise and your upper hand stay still. Exhale and feel your lower hand go down. Breathe in through your nose to the count of 4 and out through your mouth to the count of 4. Do not hold your breath. Repeat for 1 song on the radio or a relaxation tape.

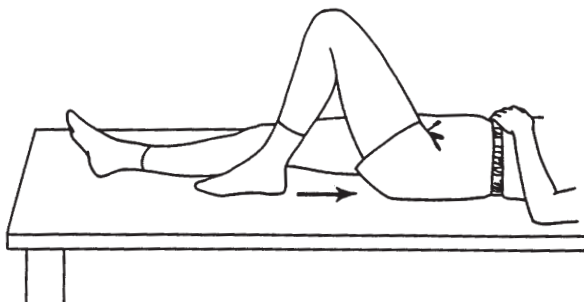
### **Pelvic Clock:**

Lie on your back with your knees bent and your feet flat. Picture your lower back and buttocks on a face of a clock. Twelve o'clock is up toward the belly button, 6 o'clock is toward the tailbone, 3 o'clock is under the left buttock muscle, and 9 o'clock is under the right buttock. Start by rocking slowly and continually across the clock from 12 to 6. Then, try rocking from 3 to 9. Try doing a full circle. Play with the movements, but do not repeat any that create pain. Do not hold any position. Feel all the ways you can move your pelvis. Practice for 1 song on the radio or relaxation tape.



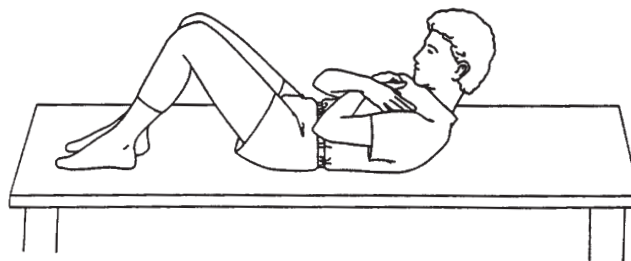
### **Foot Slide - Lower Abdominal:**

Start with the posterior pelvic tilt but with your legs straight. Alternate sliding one foot to bend leg. Return to start position. Repeat with your other leg. Your back needs to remain flat. Progress to 2-foot slide. Repeat 5-10 times.



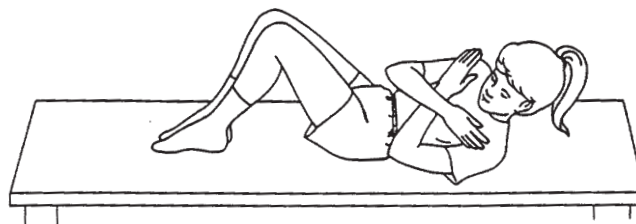
### **Stomach Crunches:**

Lie on your back, with your knees bent and your feet on the floor. Cross your hands behind your head. Slowly raise your trunk, leading with your chest, until your shoulder blades clear the floor. Do not pull on your head or neck. Hold for 5 counts and repeat 5-10 times.



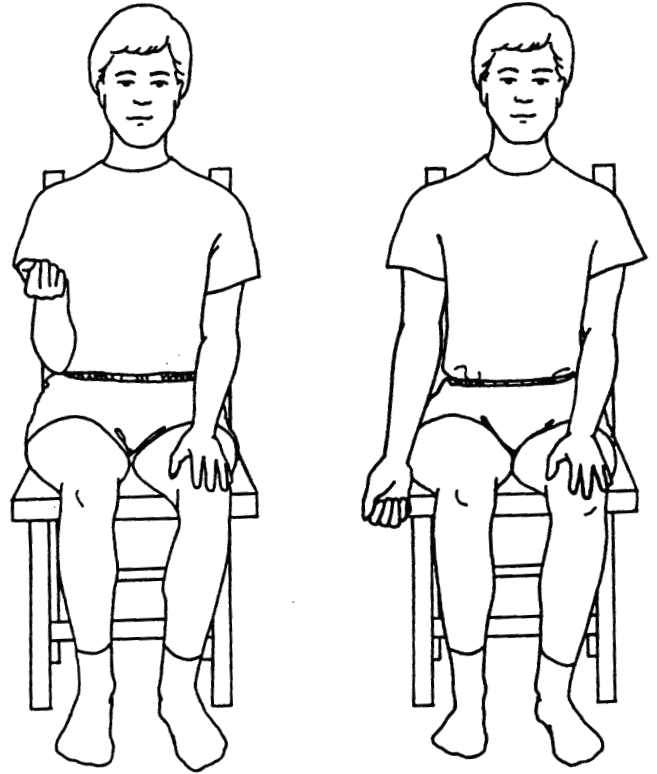
### **Diagonal Crunches:**

Lie on your back, with your knees bent and your feet on the floor. Cross your arms over your chest. Slowly raise your trunk with your right shoulder aimed towards your left knee. Hold 5 count and repeat on opposite side. Repeat 5 times on both sides.



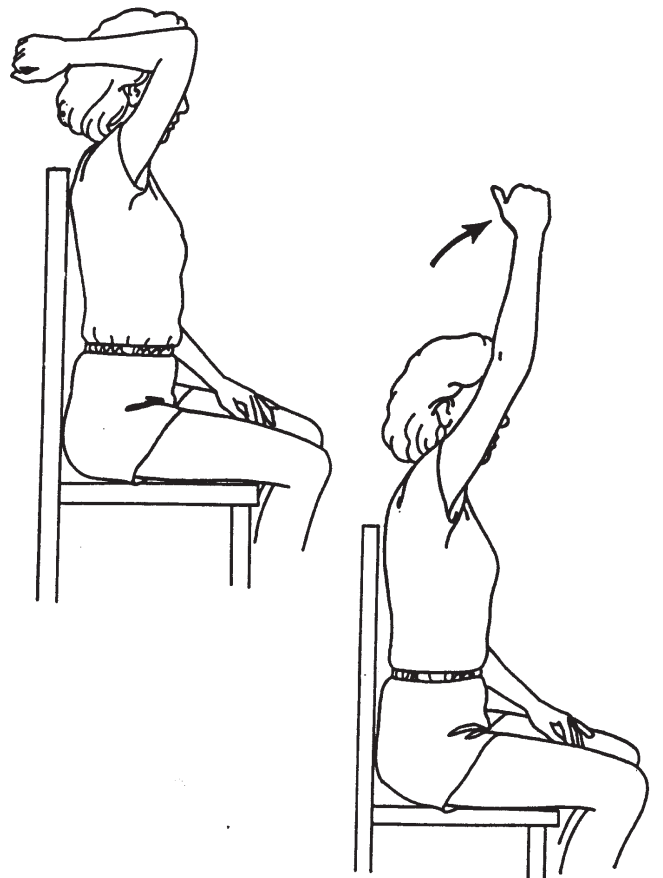
**Bicep Arm Curls:**

Sit in a kitchen chair with your arm hanging down. Slowly bend your elbow until your hand is close to touching your shoulder. Return your hand to your side. Repeat 10 times each side.



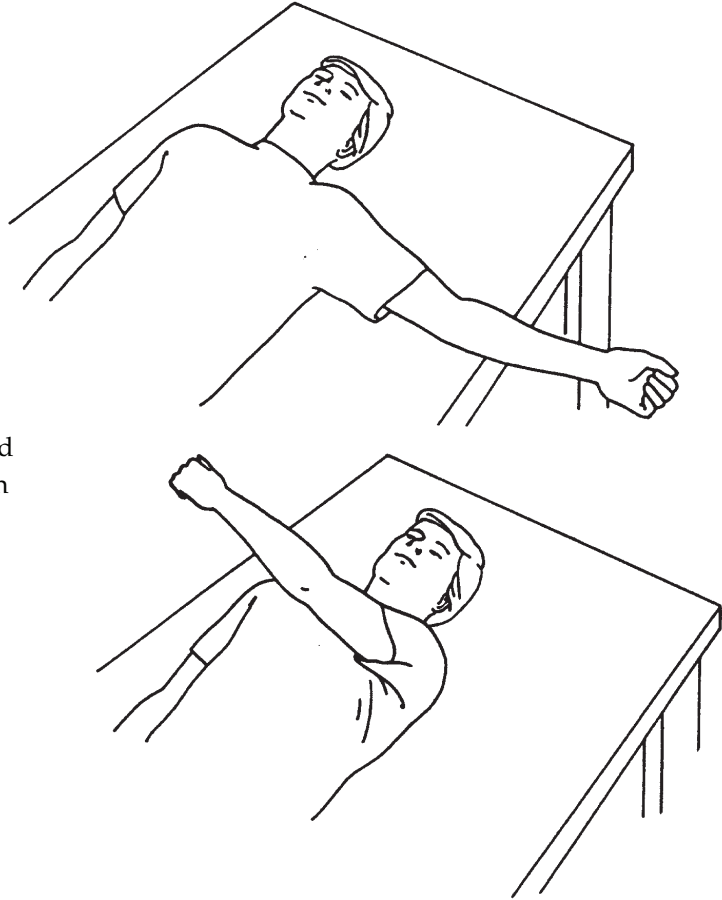
**Tricep Elbow Straightening:**

Hold your arm near your side and lean over the side of the table with your non-surgical side lightly supporting your trunk. Slowly bend and straighten and bend your elbow, but do not allow your shoulder to move. Repeat 10 times.

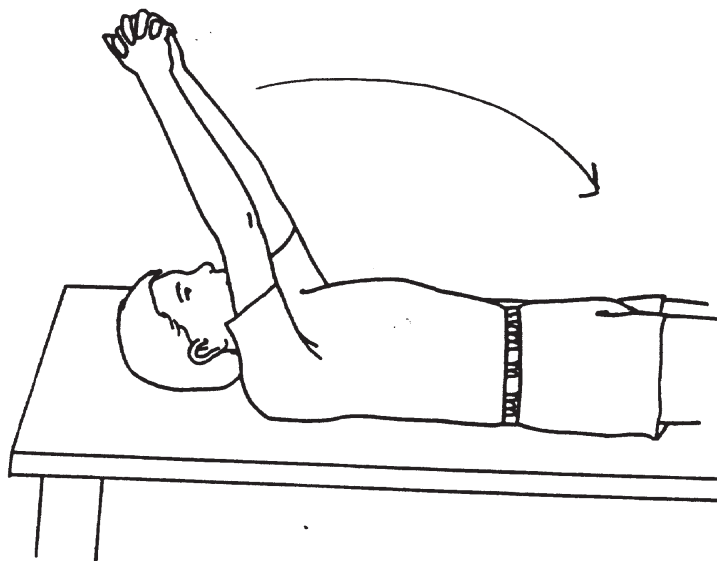


**Flies:**

Lie with your arms at 90-degree angles from your side. Bring your hand up above your chest and then across towards your other shoulder. Start with no weight. You can do both arms at once. Repeat 10 times.

**Overhead Pulldowns:**

Lie on your back with your knees bent. Bring your arms up over your head, keeping your arms close to your ears. Bring your arms down towards your stomach and then return them to above your head. Start with no weight. Repeat 10 times.



# Post-Operative Exercises:

**Pacing** is key to recovery after any surgery. Fatigue is normal at first. Surgery will slow you down and frustrate you because the body is using its energy to heal. Remember the tortoise and the hare story; “slow and steady wins the race” back to full functional recovery. Take the things you need to do for yourself and your family and break them down into small parts. Do part of a chore and take a “mini time out” between each part. A “time out” can be as simple as a 2-5 minute rest on the bed or a cup of tea in the kitchen. Do not try to do everything all at once. This may only lead to you having to rest in bed all day.

**Goal setting**, to get back to your pre-surgical functioning, is important. Once you have the idea of pacing, it is natural to set small goals as you work toward larger more functional goals. Assess what you can't do at this point, and then build a strategy to reach your goal. Make sure you have a way of knowing when you have reached the goal. For example, you like to wear over the head tops and you can't lift your surgical arm that high because of tightness and pain. Now set the goal of being able to dress over the head without assistance. Practice the exercises that look most like the activity. Try each morning and night to dress using your arm. When you reach your goal, try to expand it, by, for example, getting a towel off the top shelf in the linen closet. You can be working on a number of small goals at the same time. The final goal is to have no limitations because of tightness, pain or weakness.

**Pain** can be scary and debilitating, especially if you do not understand it. It is normal to have post-surgical discomfort or pain requiring treatment. This should start to resolve by the time you are discharged to go home. Most of the time you will have medication to assist with pain control. Don't be afraid to take it as prescribed, as it can help to increase your activities with less discomfort. Increasing activity will help with general pain control. Pain can make the muscles tighten and immobilize the painful area— this is a normal protection to allow healing. However, muscle tightness can lead to slower blood flow to the muscles and tissues that need to heal. This can lead to a secondary kind of pain that can last longer than the surgical pain. Try relaxation techniques, small arm movements without creating more pain, and using the arm within its pain-free range of motion. Follow all precautions your surgeon has given you. It is OK to allow yourself to feel a little discomfort, but do not do any activity or exercise that causes pain. You should discuss pain, numbness, or tingling in the lower arm or hand with your health care provider.

## **Stretching Exercises**

Muscles and other soft tissues that have been operated on or have not been moved through their normal range of motion will get tight or shorten. This is normal and it can be reversed with a little time and effort spent slowly stretching the tissue to its normal length.

Stretches may be done to discomfort, but not to pain. The longer the position is held the better. Gravity, as a stretching force, is most effective and is best combined with diaphragmatic breathing. Tell the tissues to relax and let go with every exhale.

## **Exercises to do while in the hospital**

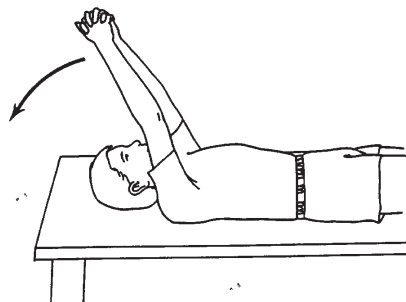
### **Begin with:**

- Walking
- Relaxation
- Diaphragmatic Breathing  
(See above for descriptions)

**Add these additional exercises:**

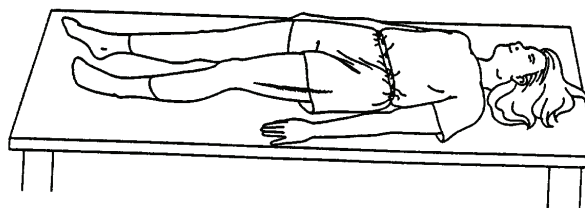
**Self-shoulder Flexion:**

Clasp your hands in front of you or hold onto a cane. Lift your arms over your head keeping your elbows straight. Try to reach the floor behind your head. Hold for 10 counts. Repeat 5 - 10 times.



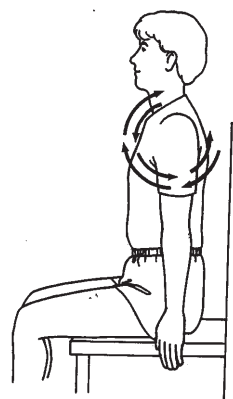
**Lying Flat Chest and Stomach Stretch:**

Lie flat on your bed or the floor, and keep your legs straight. Use pillows under your head and knees for comfort to start. Remove the pillows as tolerated with a gentle stretch. Discomfort is OK at this point. The goal is to not have any pillows under your head or knees. Practice for 1 song on the radio or the relaxation tape.



**Shoulder Circles:**

Roll your shoulder forward and backward slowly. Try and make the circles as round as you can without forcing any movement. The lower and backward parts of the circle are the hardest. Repeat 5 times each direction.



**1 Week Post-Surgery**

**Continue with:**

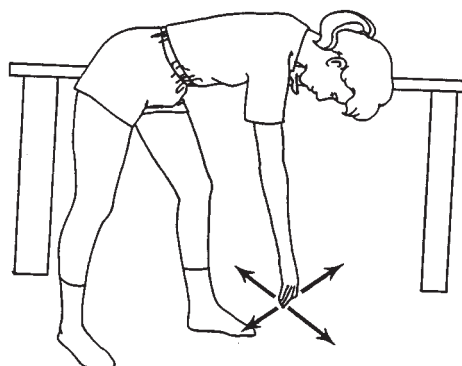
- Walking
- Relaxation
- Diaphragmatic Breathing
- Self-Shoulder Flexion
- Lying Flat Chest and Stomach Stretch
- Shoulder Circles

(See above for explanations)

**Add these additional exercises:**

**Shoulder Pendulum:**

Bend at your waist with your surgical side hand hanging down and your other arm supporting your upper body on table. Relax your arm completely until it feels "heavy." Swing your arm forward and backward, back and forth across the body, and in circles. Repeat 5 -10 times each direction.



## 2 Weeks Post-Surgery

### Continue with:

- Walking
  - Relaxation
  - Diaphragmatic Breathing
  - Self-Shoulder Flexion
  - Lying Flat Chest and Stomach Stretch
  - Shoulder Circles
  - Shoulder Pendulum
- (See above for explanations)

### Add these additional exercises:

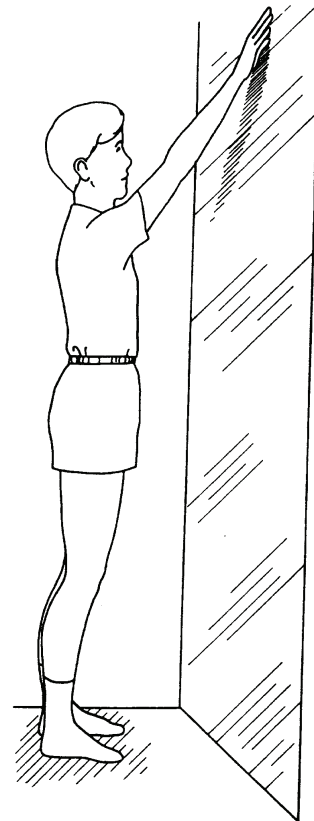
#### Self-Massage:

All tissue that has been injured goes through stages of healing. As the healing process continues, it is not unusual for the tissues to get tight and inflexible. Surgical scars, no matter where they are, can be a problem. They tend to bind to the layers of soft tissue under them. However, you can decrease this binding and mobilize the scar(s) by simply moving the tissue and massaging the area.

You can begin self-massage when your dressing is off and your incisions are without scabs. If one area is healing slowly, you can still massage other parts of the scar or the rest of the breast. Be very gentle over the scar since it is more fragile than other skin. Begin by lying on your back and picturing your breast area as a face of a clock. Use a hand cream so that your fingers slide over the skin. Touch your breast and see how the tissues move. When you find an area that feels not as mobile, make a mental note of the clock number. Start the massage with gentle stroking and circles. Go deeper into the tissue as tolerated. **DO NOT CAUSE PAIN.** The other surgical scars also need massage. Start slowly and then go deeper. Stroke in the direction of the scar and then across. Eventually you will be able to lift and roll the scar between your fingers. Keep adding more lotion as needed. Massage for 1 song, 3 times a day. You can spend the whole song on one area, but make sure all problem areas are massaged at least once a day.

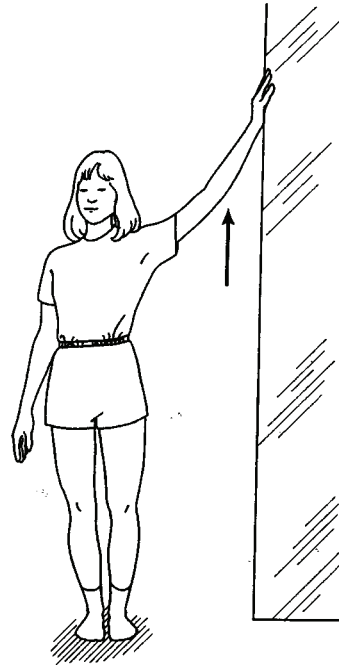
#### Shoulder Flexion - Finger Wall Walk:

Stand facing the wall. Walk the fingers of your surgical hand up the wall. Step closer to the wall as needed. Mark your progress with a pencil on the wall and challenge yourself to go a little higher each day. Slowly lower your arm using your other hand until you can use your shoulder muscles as a break against gravity. Repeat 5 times.



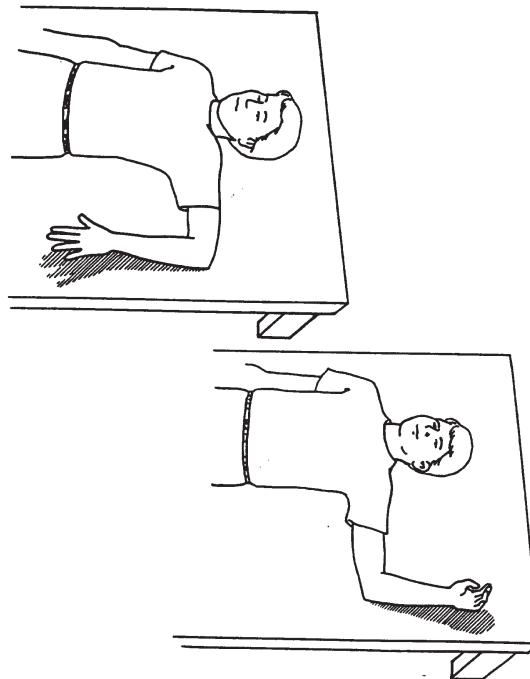
### **Shoulder Abduction - Finger Wall Walk:**

Stand with your surgical side to the wall. Walk your fingers up the wall. Step into the wall as needed. Mark your progress with a pencil on the wall and challenge yourself to go a little higher each day. Slowly lower your arm using the other hand until you can use your shoulder muscles as a break against gravity. Repeat 5 times.



### **Internal and External Shoulder Rotation:**

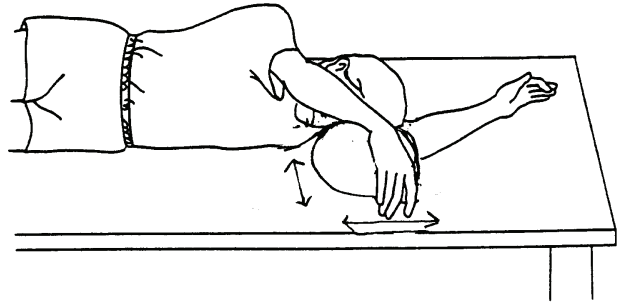
Lie on your back with your knees bent for comfort. Move your arm out away from body as far as tolerated. Ninety degrees is the goal. Let the palm of your hand fall towards the bed or floor until it touches (90 degrees). Hold for 10 counts. Return to start. Repeat 5 times. Now let the back of your hand fall towards the bed or floor without lifting your back or shoulder. It will not touch the bed or floor (70 degrees). Hold for 10 count. Return to start. Repeat 5 times.



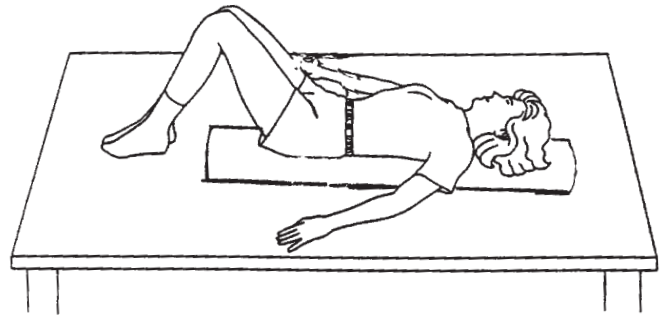


**Ball Rolling - Combined Shoulder Movement:**

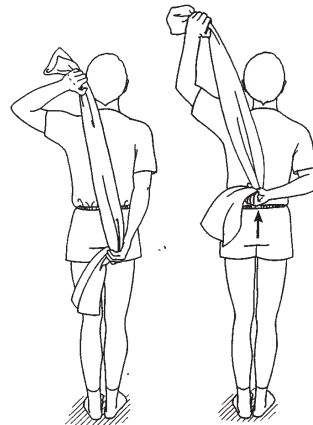
Lie on your non-surgical side. Use pillows to support your head and between your knees for comfort. Place your hand or wrist on a softball and relax your arm completely. The ball can be placed even with your waist, bust line and above your head. Roll the ball slowly out away from body and back, up and down, and in circles. Feel your shoulder blade working, along with your shoulder, and a small amount of elbow movement. Explore these movements for 1 song on the radio.

**Roller Chest Stretch:**

Roll up blankets or large towels to make a roller 36" long and greater than 6" in diameter. Lie down on the length of the roller with your knees bent. Keep your head on the roller. Move your arms away from your side, but still in contact with the floor. Feel a stretch in your upper chest and shoulder region. The goal is to stretch 90 degrees from the side. Hold for 1 song on the radio or relaxation tape.

**Hand Behind Back Towel Stretch:**

Grasp a towel behind your back with your surgical side being the lower hand. Gently pull your lower hand up your back. Hold for 10 count. Repeat 5 times.

**3 Weeks Post-Surgery****Continue with:**

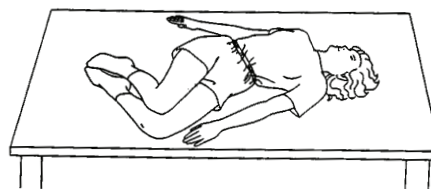
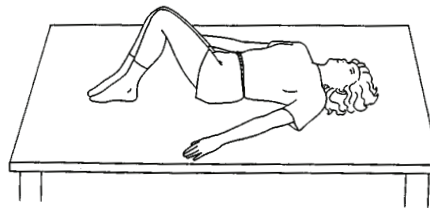
- Walking
- Relaxation
- Diaphragmatic Breathing
- Self-Shoulder Flexion
- Lying Flat Chest and Stomach Stretch
- Shoulder Circles
- Shoulder Pendulum
- Self-Massage
- Shoulder Flexion- Finger Wall Walk (actively, now without assistance, reach up to your mark)
- Shoulder Abduction- Finger Wall Walk (actively, now without assistance, reach up to your mark)
- Internal and External Shoulder Rotation
- Ball Rolling Combined Shoulder Movement
- Roller Chest Stretch
- Hand Behind Back Towel Stretch

(See above for explanations)

## Add these additional exercises:

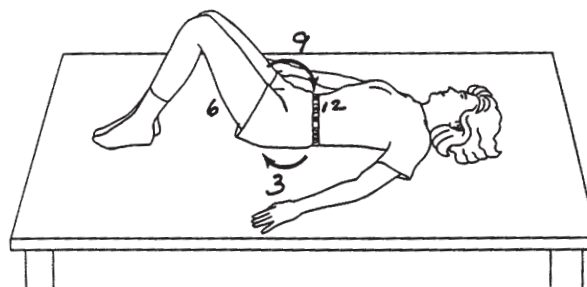
### Trunk Rotation:

Lie on your back with your knees bent and your feet flat. Let your knees fall to one side. Use your hand to control the fall of your knees and return them to the middle if needed. Hold for 10 counts. Return to the starting position. Repeat on the other side. Repeat 5 times.



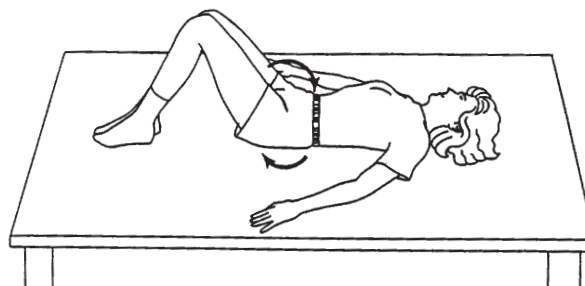
### Pelvic Clock:

Lie on your back with your knees bent and your feet flat. Picture your lower back and buttocks on a face of a clock. Twelve o'clock is up toward the belly button, 6 o'clock is toward the tailbone, 3 o'clock is under the left buttock muscle, and 9 o'clock is under the right buttock. Start by rocking slowly and continually across the clock from 12 to 6. Then, try rocking from 3 to 9. Try doing a full circle. Play with the movements, but do not repeat any that create pain. Do not hold any position. Feel all the ways you can move your pelvis. Practice for 1 song on the radio or relaxation tape.



### Posterior Pelvic Tilt:

Lie on your back with your knees bent and your feet on the floor. Tighten your lower abdominal muscles by pulling your belly button up and towards your ribs. Your stomach and lower back will flatten. DO NOT hold your breath. Hold this position for 10 counts. Repeat 5 - 10 times.



## 6 Weeks Post-Surgery

### Continue with:

- Walking
- Relaxation
- Diaphragmatic Breathing
- Self Shoulder Flexion
- Lying Flat Chest and Stomach Stretch
- Shoulder Circles
- Shoulder Pendulum
- Self-Massage
- Shoulder Flexion- Finger Wall Walk; Actively, now without assistance, reach up to your mark.
- Shoulder Abduction- Finger Wall Walk; Actively, now without assistance, reach up to your mark.
- Internal and External Shoulder Rotation
- Ball Rolling Combined Shoulder Movement
- Roller Chest Stretch
- Hand Behind Back Towel Stretch
- Trunk Rotation
- Pelvic Clock
- Posterior Pelvic Tilt

(See above for explanations)

### Add these additional exercises:

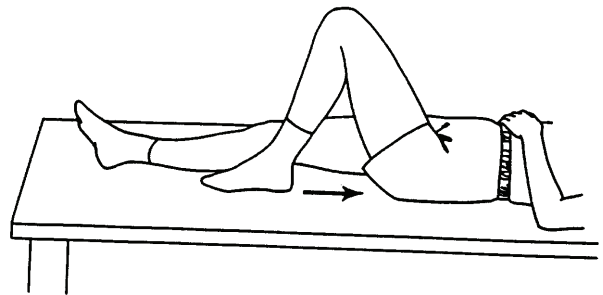
#### Strength Exercises:

It is normal for muscles to become weak while they are inactive. It is also normal for them to get stronger as you slowly work towards your goal each day. You can load muscles by isolating specific muscles and contracting them against a resistance. The body itself can be resistance when you move against gravity. Otherwise, you can use a lightweight or a rubber band called a theraband. Even a strip of a bicycle inner tube can be used. A bicycle repair shop will give you a free one. Start with a 1 pound weight or a full soup can. Beach sand in ziplock bags works well if you need more weight. The number of repetitions can be increased to 15-20 as tolerated; this helps with muscle endurance.

Do the exercises as shown. If there is pain, stop and try it with little or no resistance. Pain and exercise are not synonymous. Slowly increase the resistance or the number of times you repeat the movement. Doing the exercises 2-3 times a day is sufficient. The muscle strength is built during the rest periods between exercise sessions. Working a muscle to total fatigue does not make it stronger and, actually can hurt the muscles.

#### Foot Slide - Lower Abdominal:

Start with the posterior pelvic tilt but with your legs straight. Alternate sliding one foot to bend the leg. Return to the starting position. Repeat with your other leg. Your back needs to remain flat. Progress to the 2-foot slide. Repeat 5-10 times.

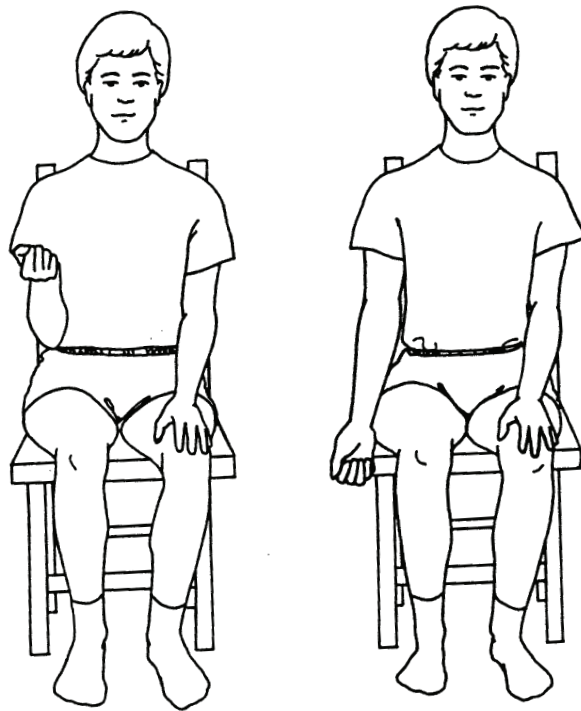


#### Shoulder Strengthening:

You should have a good return of your shoulder motion before starting to add resistance to the limb. Go slowly and try to make the muscles work smoothly. They may have to re-learn how to work again, but with patience and practice they will. If you cannot do the exercise through the available range of motion, then you have too much weight or resistance. Do the exercise without weight and try the stretching exercises against. Lighten it up! Pacing is important in regaining strength.

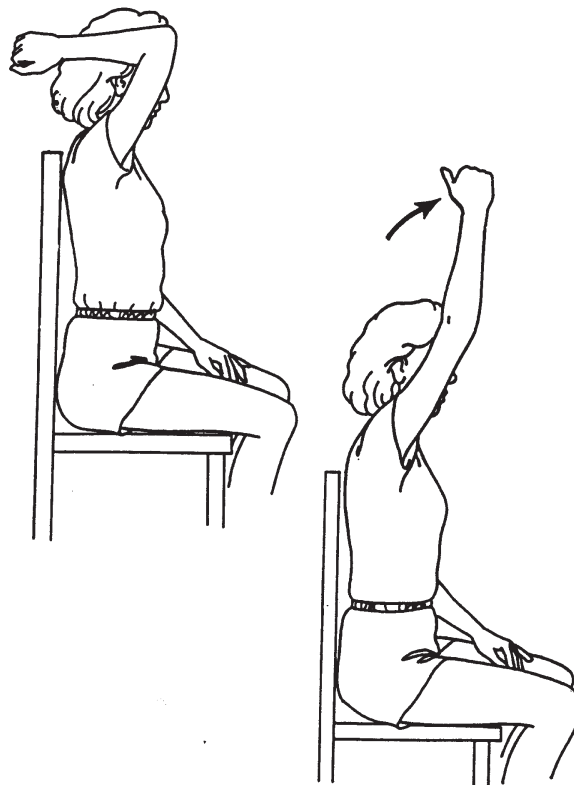
**Bicep Arm Curls:**

Sit in a kitchen chair with your arm hanging down. Slowly bend your elbow until your hand is close to touching your shoulder. Return your hand to your side. Repeat 10 times for each side.



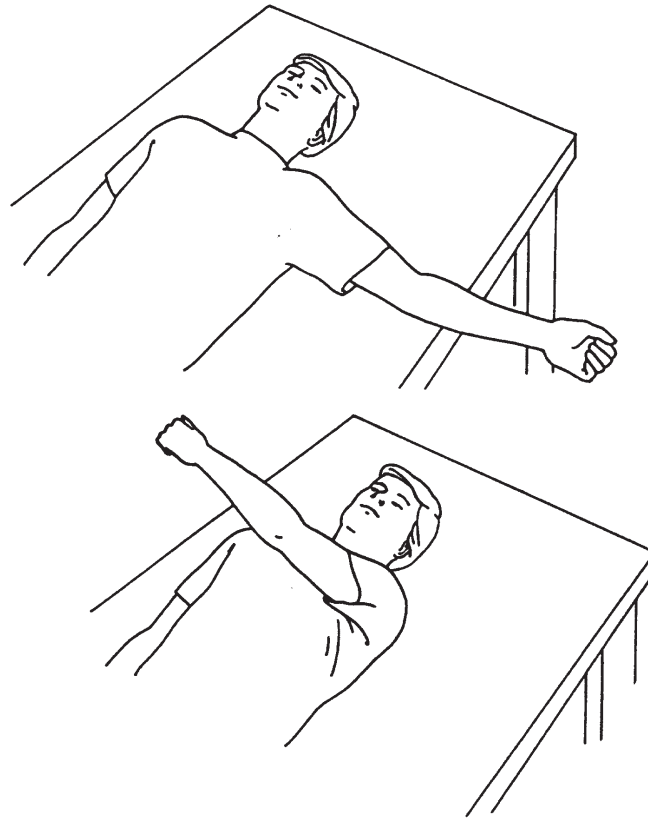
**Tricep Elbow Straightening:**

Hold your arm near your side and lean over the side of the table with your non-surgical side lightly supporting your trunk. Slowly bend and straighten and bend your elbow, but do not allow your shoulder to move. Repeat 10 times.



**Flies:**

Lie with your arms at 90 degrees from your side. Bring your hand up above your chest and then across towards your other shoulder. Start with no weight. You can do both arms at once. Repeat 10 times.



**Overhead Pull Downs:**

Lie on your back with your knees bent. Bring your arms up over your head, keeping your arms close to your ears. Bring your arms down towards your stomach and then return them to above your head. Start with no weight. Repeat 10 times.

