

Surgical Weight Loss Educational Manual

Exercise/Rehab



WEIGHT LOSS SURGERY EXERCISE GUIDELINES



Weight Loss Surgery Activity Guidelines How to be successful after your surgery

Exercise is one of the most important factors in achieving and maintaining weight loss. Exercise should begin before your surgery to help you to establish a routine. Our goal is to increase your level of physical activity to aid in a smooth transition to a healthier you. The exercise will also help you heal faster and limit your loss of lean body mass after surgery. Please try the exercises listed on the included sheet, "Therapeutic Exercises" which you will receive at the Physical Therapy visit before surgery.

How hard should I be working?

Exercise should not be uncomfortable. This may surprise some people, but you can actually exercise too hard. The best indicator of your exercise intensity is how you are feeling. Your intensity should be scored from 0-10. This range is called the Range of Perceived Exertion (RPE) or The Borg Scale. This asks, "how hard are you working?" and relates it to the RPE scale of 0-10. The goal is to be working between a 3-4. This range allows you to burn fat as your fuel source. If you work higher than a 4, then you don't use fat as your main fuel source and you are working too hard. For example, if you begin walking, after 5 minutes ask yourself how hard are you working. Give yourself a number from 0-10. If that number is higher than 4 please slow down and if the number is lower than 3, please increase your intensity until you reach the desired level. The biggest key is to find activity that you enjoy and stay in the 3-4 range. Continue to monitor your RPE every so often to assure that you stay in the proper range for the correct amount of time.

Rate of Perceived Exertion or BORG Scale

0	Nothing at all
0.5	Very, very slight (just noticeable)
1	Very slight
2	Slight
3	Moderate
4	Somewhat severe
5	Severe
6	
7	Very severe
8	
9	Very, very severe (almost maximal)
10	Maximal

How long should I be working?

It is important to remember to listen to your body and the best way to do that is the RPE scale. Your ultimate goal is to be at an RPE of 3-4 for 20 minutes. Walking is one of the best exercises. It allows you to get air in all parts of your lungs and increase blood circulating to your legs. Other recommended types of exercise include swimming, aqua aerobics, bicycling and dancing. Remember that 20 minutes is your ultimate goal so you need to work up to that total. Yoga and strengthening exercises help to tone your muscles, which aid your stability, stamina, and metabolism. Once you begin to lose weight and start an exercise routine, you will notice you have more energy than before your surgery and these new activities may be more enjoyable to you.

Activity after Weight Loss Surgery

Following is a guideline for you to use in the hospital and after your return home from the hospital. These activities are a very important part of your therapy. Please remember that the following therapeutic exercises will make a difference and help bring out the new you. Gradually increase your daily activity.

Day of Surgery:

- Continue ankle pump exercises every hour while you are awake to prevent blood clots
- Have someone help you change position in bed every 2 hours.
- Have someone help you sit up in a chair the evening of your surgery. The sooner you get moving, the quicker you will recover!

Days 1-4 after Surgery:

- Sit up in a chair 3-4 times per day. It is a good idea to sit up for your meals.
- Begin walking to the restroom with help from someone.
- Walk in the hallway at least 3 times per day. This can help prevent blood clots.
- Resume the therapeutic exercises, doing only what you can. Remember that most of these exercises can be done in bed. Perform each activity up to 10 times once a day.
- Walk as often as you feel able.
- If you are having a hard time increasing your activity, a doctor may consult a physical therapist to see you in your room.

Home Care Guidelines for Activity:

- Walk daily. Gradually increase the time and distance while keeping your RPE at 3-4.
- Do not drive until approved by your doctor. You may ride in a car, but for a long trip, stop every hour and walk around. Stretch your legs as well as this will increase circulation to your legs.
- No heavy housework or yard work for 4-6 weeks until approved by your surgeon.
- No lifting more than 10-20# or until your surgeon gives their approval.
- Return to work when approved by your surgeon.

Week 1-after your surgery

- Continue the therapeutic exercises, performing each exercise 10 times, twice a day. Do only what you can, our goal is to reach toward the 10 repetitions. As long as it is pain free, perform these twice a day regardless of the morning's number of repetitions. You need to "attempt" the exercises and stop at the number of repetitions where you feel the next one will be uncomfortable. This will make a big difference in your recovery time.
- Walk several times per day at home, working at your RPE of 3-4.
- Avoid staying in any one position for more than 1-2 hours, except when sleeping.

Week 2

- Increase your exercises to 15 repetitions, twice a day
- Begin walking for a long period of time.

Week 3 through Week 6

- Increase your exercises to 3 times a day, 15 repetitions.
- Increase your walking time, looking forward to your 20-minute goal. If you can already walk that long, increase each week by about 2 minutes per session, if you wish to walk longer. Do only what you can.

Week 6

- If approved by your surgeon, you may lift more than 10# now. This will allow you to begin your strengthening and toning workouts.
- You should have a visit with the physical therapist once again to perform your functional tests and advise you on your exercise and strengthening routine for long-term success.
- Consider involvement in a group exercise setting. This will increase your motivation, enjoyment and success!



Benefits of Cardiovascular Exercise

- Strengthens heart and lungs
- Improves circulation
- Burns excess body fat
- Elevates Mood
- Increased energy level
- Lowers risk of heart disease, stroke, certain types of cancer, diabetes and high blood pressure

Benefits of Toning/Muscle Strengthening

- Increases muscle mass which improves metabolism assisting with weight loss
- Increases bone density
- Osteoporosis prevention
- Decrease risk of muscle injuries

More about Cardio...

Ideally cardio should be performed 4-6 times per week, 30 minutes at a time. It should be performed at a moderate (not "very hard") intensity. You should aim to be able to carry on a conversation while you are engaging in the exercise. If you can only answer yes or no questions and are winded, then you are working out at too high of an intensity.

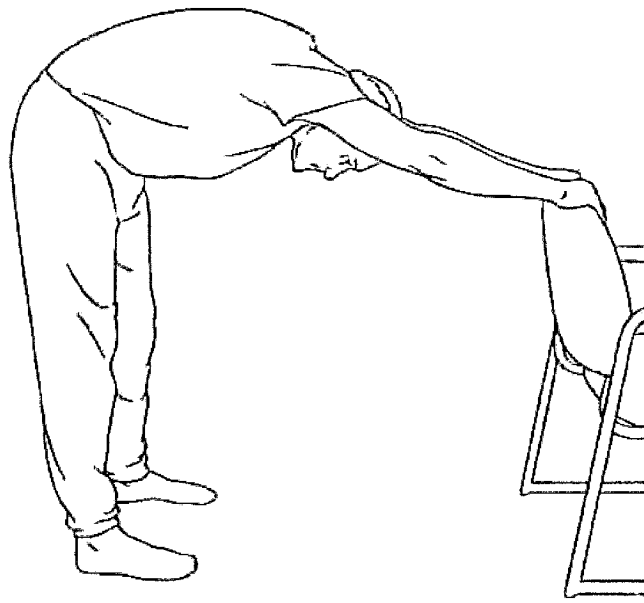
Rate of Perceived Exertion (Borg Scale)

- | | |
|----|----------------|
| 0 | Nothing at all |
| 1 | Very slight |
| 2 | Slight |
| 3 | Moderate |
| 4 | Somewhat hard |
| 5 | Hard |
| 6 | Hard |
| 7 | Very Hard |
| 8 | Very Hard |
| 9 | Very Very Hard |
| 10 | Maximal |

Your goal should be to stay at 5 or less during cardio workouts. Examples include walking, swimming, biking, pedal exerciser, exercise tapes, hiking, snowshoeing, dancing, etc.

More about toning...

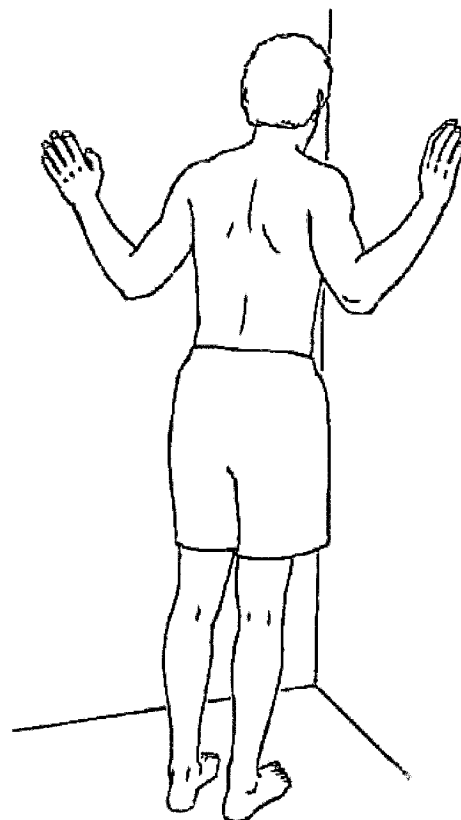
- Use all major muscle groups
- Tone 2 days a week to maintain or 3 per week to gain
- Keep repetitions higher and weight lower (recommend 2 sets of 8-12 reps with slight burn)



Using support, step back, place feet shoulder width apart and tuck head between arms. Hold 20 seconds.

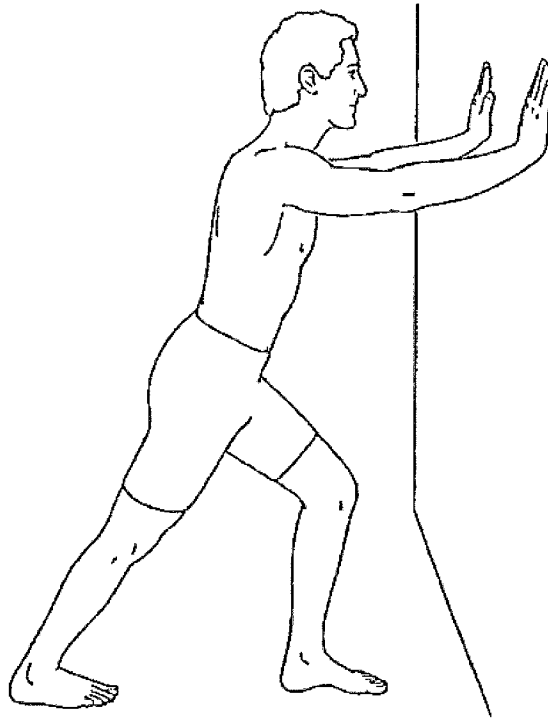
Repeat 2-3 times.

This works better in an open doorway. Place each hand on each side of the doorframe at shoulder level. Put one foot slightly in front of the other. Gently lean forward until stretch is felt in chest or front of shoulders. Hold 20 seconds.

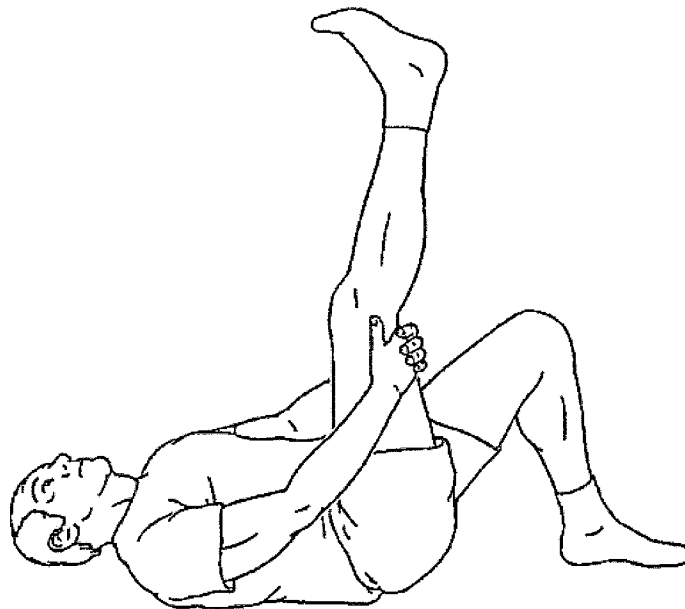


Do 2-3 times.

Stand with right foot back,
leg straight, forward leg
bent. Keeping heel on
floor, lean
into wall until stretch
is felt in calf.
Hold 20 seconds.



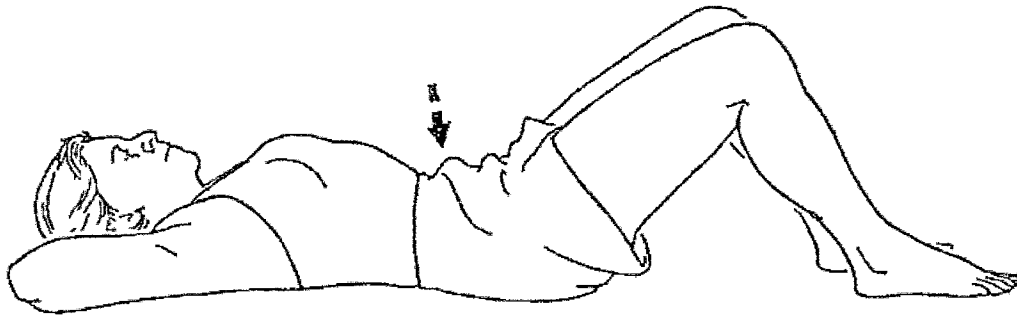
Do 2-3 times each leg.



With other leg bent, foot flat, grasp right leg and slowly try
to straighten knee. Hold 20 seconds.

Do 2-3 times each leg.

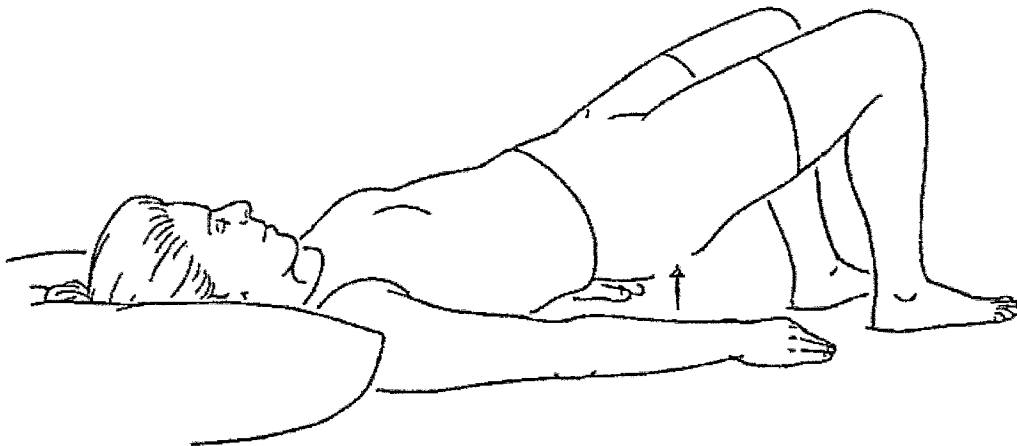
Pelvic Tilt



Flatten back by tightening stomach muscles and buttocks.

Hold 3 - 5 seconds. Do 10 - 20 repetitions.

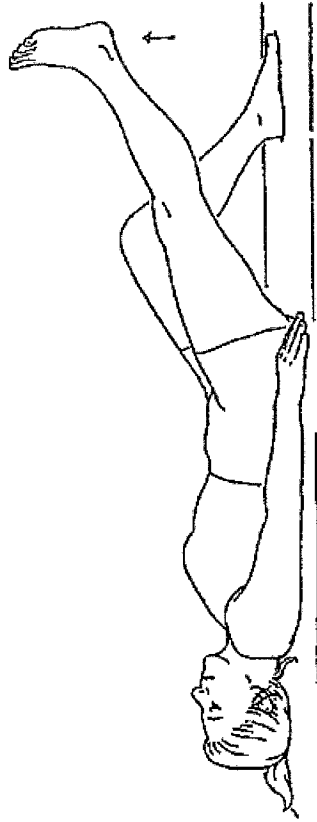
Bridging



Slowly raise buttocks from floor, keeping stomach tight.

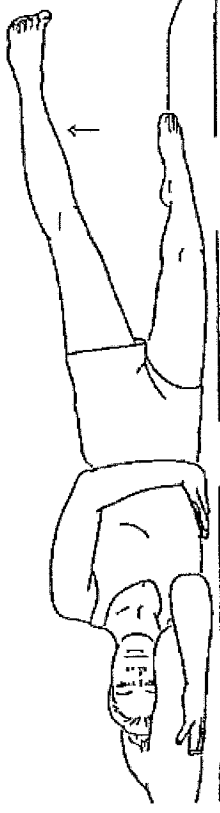
Hold 3 - 5 seconds. Do 10 - 20 repetitions.

Straight Leg Raise



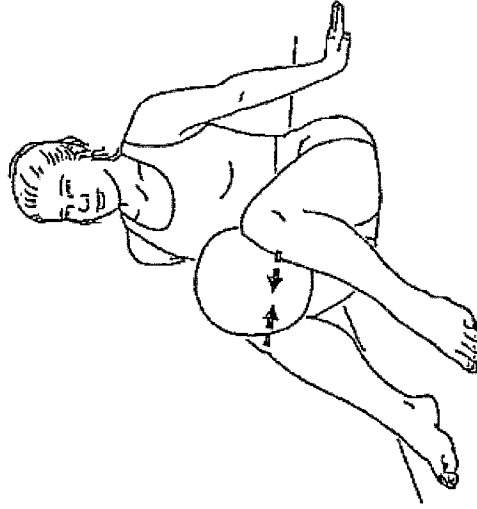
Tighten muscles on front of thigh, then lift leg. Keep the knee locked. Lift it to the height of the other bent knee. Lift and lower slowly, no need to hold. Repeat 10 to 20 times or until fatigued. Repeat with other leg.

Hip Abduction



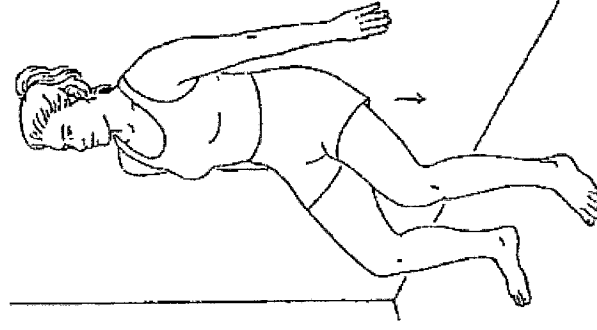
Tighten muscles on front of thigh, then lift leg, keeping knee locked. Lift and lower leg slowly, no need to hold. Repeat 10 - 20 times or until fatigued. Then repeat with other leg.

Hip Adduction



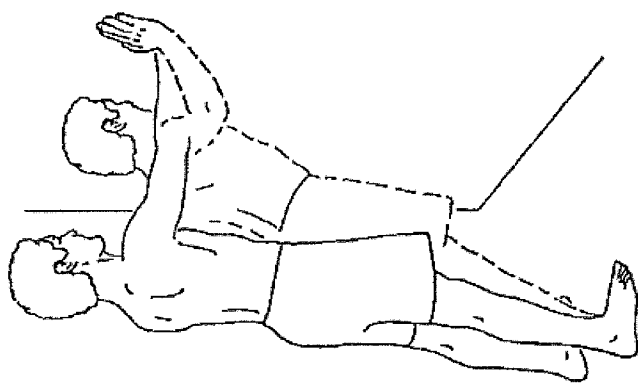
With ball or folded pillow between knees, squeeze knees together. Hold 5 seconds. Repeat 10 - 20 times or until fatigued.

Wall Slide



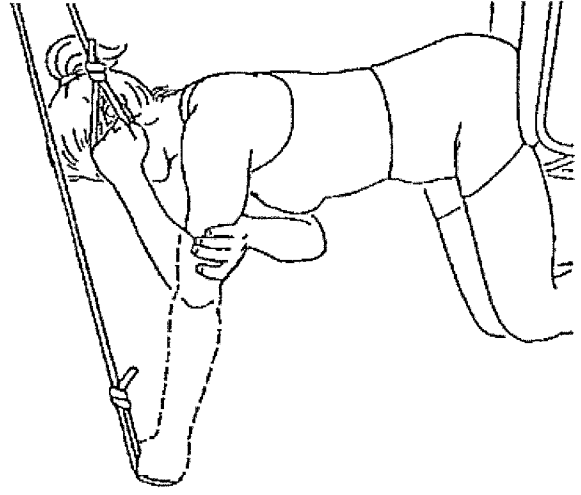
Lean back onto wall. Walk feet out at least 6 - 8 inches. Slowly lower buttocks, but keep buttocks higher than knees (not too low). Hold 3 seconds, then slide back up.

Repeat slowly 10 - 20 times or until fatigued.



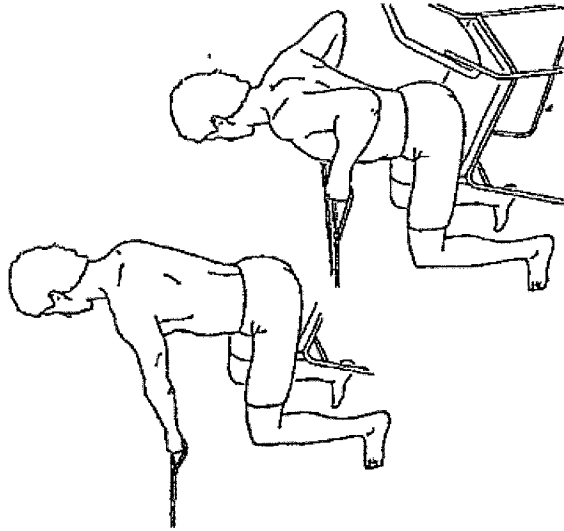
With arms slightly wider apart than shoulder width, and feet away from wall, gently lean body toward wall.

Do 10 - 20 times or until fatigued.



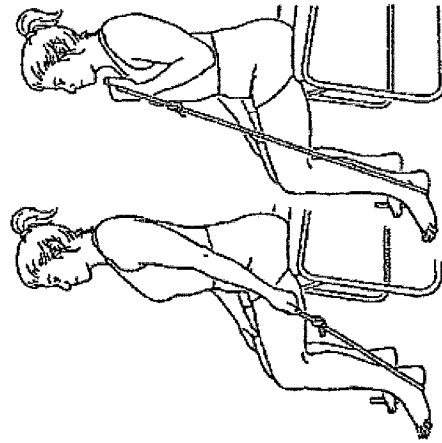
With tubing wrapped around hand and other end anchored behind you, straighten elbow.

Repeat slowly 10 - 20 times or until fatigued.



Facing anchor, pull arms back, bringing shoulder blades together. Sit up or stand up tall (no slouching). This can be done sitting or standing.

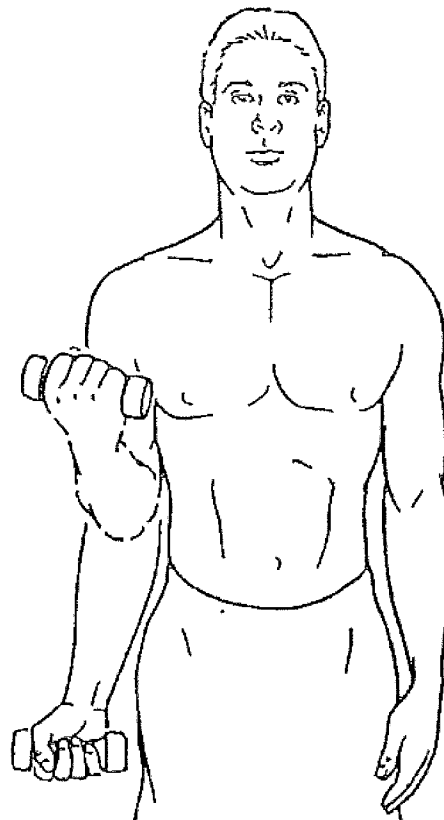
Do 10 - 20 times or until fatigued.



With tubing wrapped around hand and other end secured under foot, curl arm up as far as possible. This would be more effective standing. Then repeat with other arm.

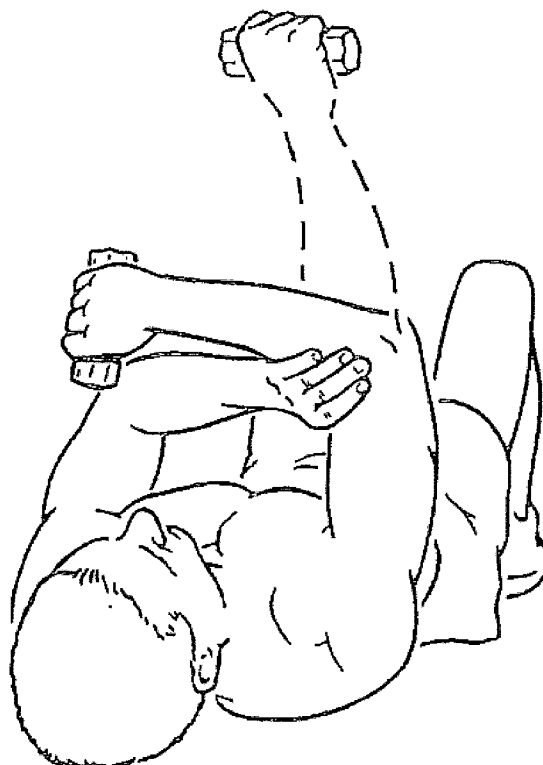
Do 10 - 20 times slowly or until fatigued.

With arms straight, palms forward, holding weight, bend elbow. Return slowly.



Repeat slowly 10 - 20 times or until fatigued. Adjust weight accordingly.

Lie on back, weight in hand, arm up, elbow bent and supported. Straighten elbow. Return slowly.



Repeat slowly 10 - 20 times or until fatigued. Adjust weight accordingly.

A Good Reason to Move

What are the benefits of exercise, based on current scientific evidence. For many, the first answer to “Why is exercise good for you?” is: “It burns calories, so it burns fat!” If this is the only benefit you have in mind, you are missing a lot; and it may also cause big discouragement when that digital screen on your exercise machine or the pedometer shows only a double digit number for calories burnt, after you are so out of breath! The good news is that there is so much more to exercise than the numbers on the screen! Pick your own reason to go for that morning jog or that evening walk, drag that kayak out of the garage into the river, or move that elliptical right into your living room! There are so many reasons to choose from.

Exercise improves mood: Chances are you have had to take a stroll after a heated conversation to “clear your head”. You probably remember how you instantly felt better. Research shows that the exercise does more than temporarily improve your mood. The mood/exercise connection has been explored through many experimental studies. Some studies have found exercise to be generally comparable to antidepressants in treatment of patients with major depression! Other studies showed that continued exercise seems to prevent relapses of depression. Now, as good as the news is, do not stop your antidepressants; just add the exercise as a big bonus and double the effects.

Exercise reduces pain: Exercise can increase endorphins. Endorphins are chemicals produced in our brains, spinal cord and many other parts of our bodies. They act like morphine. Just like morphine, they can reduce pain and make us feel euphoric. With exercise, you can produce your own medicine without paying a cent, or becoming addicted!

Exercise improves and regulates sleep: This is good news for the insomniacs among us! It is a “no-brainer”. Of course you will sleep better when you are physically tired (not over-tired!). If depression is the reason for your insomnia, exercise can be a big help. If chronic pain makes you toss and turn and not find the comfortable position to rest, exercise may be helpful. Don’t exercise too close to the bedtime; you may be too energized to go to sleep!

Exercise improves bone health: Like muscle, bone is a living tissue that responds to exercise by becoming stronger. Young women and men who exercise regularly generally achieve greater bone density and strength than those who do not. Women and men over the age of 20 can help prevent bone loss, osteoporosis, and fractures with regular exercise.

Exercise improves balance and flexibility: With improved bone density and increased muscle strength around the joints, exercise improves joint function. It prevents tendons and ligaments from contracting due to immobility and keeps them flexible. Healthy joints and strong muscles are essential for balance. This is particularly important as we age. We all want to remain independent and be able to take care of ourselves and others, as long as we live. Aging does not need to mean a lack of balance and rigid joints. We all know seniors who are even more agile than their younger generation--those are people who never stop moving.

Exercise can improve muscle mass: It has been suggested that decreased muscle mass could be the main reason for decreased metabolic rate as we age. It could be one of the reasons that women generally have a lower metabolism than men. We cannot stop time nor can we fight aging, but women can increase their metabolic rate by adding muscle. Exercise, particularly resistance exercise, can

increase the rate of muscle synthesis, similarly in the old and the young, and in male and female. There is hope for everyone!

Exercise can increase “beige fat”: You have to admit this one sounds new! Historically, fat is not only our energy storage, but also our insulation. Our ability not to waste energy, by storing it and keeping our bodies well-insulated, used to be a survival benefit to humans. In infancy we have both white fat (the insulation) and brown fat, which can lose the heat and therefore regulate our body’s temperature during infancy. As we grow up the brown fat diminishes. Lean people have more brown fat than those who are overweight. Exercise can create a third kind of fat called beige fat, which acts very similarly to brown fat, but can actually burn calories! Obviously, the more calories burned, the fewer calories stored. So, although you may see only a double digit number on the exercise machine or pedometer, by adding muscle and beige fat, you will be burning more calories even at rest! Exercise half an hour a day and continue to burn more calories all day long! Is this a win, or what?

At this point, do I even need to say **exercise helps with weight loss and maintenance**? If you have weight problem because of your depression, pain, insomnia, genetically low metabolic rate, age, or gender, exercise can help much more than just burn the calories instantly.

Exercise improves our general health: Since excess weight is so clearly related to diabetes, high cholesterol, high triglycerides, high blood pressure, cancer and much more, it is redundant to say exercise is helpful in treating all these diseases. Diabetics see improvement in their A1C with regular exercise and people with high cholesterol see improvement in their cholesterol and triglycerides. Exercise is good for your heart. In addition, by decreasing your weight, you can help your heart work better for your size by reducing the unnecessary burden on it. Did you know that American Heart Association reports that for every hour that you walk, you may increase your life expectancy by two hours? Now, that’s what I call a double bonus!

Exercise can improve brain function: Here is something exciting! There is evidence that exercise can slow the mental decline and decrease the occurrence of dementia. Some studies have shown that exercise may increase the length and complexity of brain cell extensions, therefore improving brain function.

Now, here is a valid question: If exercise is so good for you, why is it sometimes so hard to convince our bodies to move? A simple answer is inertia. The law of physics, a body in motion tends to remain in motion, applies to all objects --even our bodies. For instance, have you ever tried to push a truck that is not moving? How about trying to stop it when it is already in motion?

Why can it be so hard to get ourselves off the couch? We have habits which are even harder to break than inertia. If you have developed a habit of a sedentary lifestyle, it will take work to break both the habit and the physical inertia.

Exercise is for everyone. There is some type of exercise for everyone. There are few health conditions that may preclude you from any exercise. If you have a limiting cardiac or respiratory condition, a cardiac or pulmonary rehab program may offer something for you. If you suffer from fibromyalgia, there are whole-body physical therapies that can help you start being physical active. If you have knee pain, back pain, or hip pain, there are upper body exercises that do not bother those painful parts. In addition, targeted physical therapy can improve those joints. If the excess weight is so much that keeps you from even standing independently, you may start with low impact movements, such as raising your arms or legs as you are sitting comfortably in your favorite chair. Swimming and water exercises work well for most conditions.

Not everyone has the same exercise tolerance. You may need to speak with your doctors about the type and intensity of exercise that is safe for you. Start slow and in short sessions; start with even 5 minutes a day. Add five minutes to your daily exercise, every week and aim for at least 30 minutes of exercise daily. Over time, you will develop a habit, just like brushing your teeth. You will develop more endurance and strength that you could imagine possible.

With so many good reasons to get moving and stay moving, give it a try.

Occupational Therapy and Weight Loss Surgery

How can Occupational Therapy (OT) help you after weight loss surgery?

We help you to perform the daily self-care tasks which may have been affected by surgery such as:

- Dressing
- Toilet needs
- Bathing

What can you do before your surgery?

Please review the following list of self-care items and purchase any that you feel will be useful to you for your current use and/or for after your surgery.

The most common and useful tools for self-care are:

- Reacher—to assist with lower body dressing
- Sock aide—to assist with management of socks
- Toilet aide—to assist with toilet hygiene
- Long handed sponge—to assist with bathing legs and feet

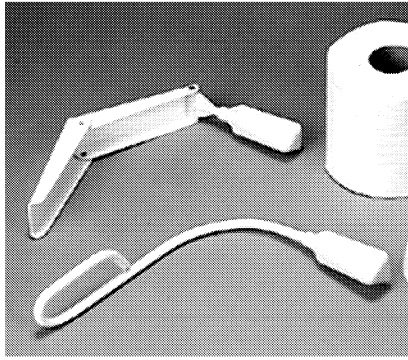
Please refer to attached page for pictures of these items.

These items can be found in medical supply stores (Please see attached list though prices may be subject to change).

These items are not always necessary. Needs vary from individual to individual. If you are not sure what your needs are, or what they will be after surgery, your occupational therapist will help you to figure it out.

Please bring your equipment to the hospital for your use and to make your recovery easier. Occupational Therapy services are available during your stay if deemed necessary by your surgeon or if you have specific concerns.

If you have any questions about this information please contact the Northern Light Occupational Therapy Department at 973-8086.



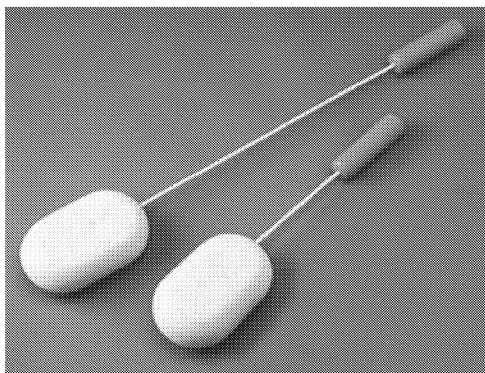
**Toilet Aid to extend your reach when cleaning up
after toileting**



**Sock Aid for when feet are too far away to
reach to put on socks**



**Reacher: also used to get pants over feet or in any
situation when you can't reach with your hands**



Long Handled Sponge for backs or feet

Pedal Exercisers

Features:

- Can work lower and upper body
- Improves circulation, muscle strength, joint range of motion and coordination
- Easy to use devices
- Nonskid foot pads; wrap around foot straps
- Light weight (does depend on model with range of 5-18#)
- Local merchants selling pedal exercisers: Black Bear Medical 992-2337 and Adco 942-5273
- Prices can range from \$20-80 dollars depending upon Standard, Deluxe or Magneciser model
- Advanced models with adjustable resistance, quieter and with electronic monitors

