
**PHYSICAL ACTIVITY & EXERCISE
STRATEGIES FOR
BARIATRIC SURGERY PATIENTS**



**The University of Chicago Hospitals
Center for the Surgical Treatment of Obesity**

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BENEFITS OF PHYSICAL ACTIVITY

In order to lose your maximum amount of weight and to maintain that weight loss, it is extremely important to incorporate exercise into your daily routine.

Remember that exercise doesn't just include going to the gym. There are many ways to get a great workout that can be enjoyable at the same time.

Bariatric surgery is a wonderful tool that helps patients with clinical obesity lose weight and gain their lives back. Physical activity plays an important role in helping patients find success. Many patients find it extremely difficult to exercise prior to surgery due to health conditions such as difficulty breathing/shortness of breath upon exertion, knee or back pain, and heart conditions. You will work with the team of surgeons, nurses and dietitians to start an exercise regimen that is appropriate for you.

Why is exercise important?

- Burns calories
- Reduces fat while building muscle
- Increases energy
- Helps lower blood pressure
- Improves mood and self-esteem
- Enhances the immune system and strengthens bones
- Relieves stress

What exercise routine should I follow after surgery?

- Hospital Stay
 - You will need to get up and walk. This will help you feel better and get you on the right track for going home.
- Initiation Stage: Home After Surgery (Week 1-4)
 - Start slow. You may feel tired or fatigued. It is important to still get up and move around. Walk around the house or use the stairs as tolerated. You are just beginning to heal after surgery so light activity is recommended.
- Advancement Stage: Week 5-6
 - Check with your surgeon for approval to increase activity/exercise.
 - Patients with specific complications or special needs may need to stay at the Initiation Stage until medically cleared with the surgeon.
 - If you are able to increase your regimen, start slowly with low impact exercise. This may include: stationary bike riding, treadmill, and/or housework.
- Maintenance / Lifestyle Modification Stage
 - At this stage, you should be increasing activity/exercise on a regular basis as tolerated. A long-term goal should include 30-minutes of moderate activity daily. This does not have to be all at one time. Moderate activity includes: stair walking, gardening, cycling, and tennis, dancing and walking one mile in 15 minutes.

PHYSICAL ACTIVITY TO STAY FIT

- Start your activity with a warm-up. This will build a better work out and help prevent injuries to your muscles.
- Use stairs instead of taking elevators or escalators.
- Park your car farther from your intended destination.
- Go on a nature tour at a local park or forest preserve.
- Go sledding, ice skating or skiing.
- Water aerobics and swimming provide great exercise with low impact on the body.
- Housework or outdoor activities such as gardening and yardwork are great opportunities to be active. Don't forget moving the lawn or shoveling.
- Find a hobby. Turn off the television or computer.
- Sports are fun and help you stay fit.
- Exercise with friends or family. Make a date to go for a daily walk, play sports or other activities.
- Yoga has many positive benefits including building muscles and reducing stress.
- Be creative in finding ways to be active. What activities do you enjoy?

Physical Activity Pyramid



From: Rauramaa, R. & Leon, A.S. (1996) Physical Activity and risk of cardiovascular disease in middle aged individuals. Sports Medicine; 22(2):65-69.

SUCCESS WITH PHYSICAL ACTIVITY & EXERCISE

1. Begin slowly
 - It is important to begin your activity regimen at a slow pace. Start with light activity and work your way up.
 - Begin your exercise with walking or water aerobics. Low impact activity is still beneficial. When your body is ready, increase the amount of time spent exercising or advance to a higher impact activity.
2. Set realistic goals
 - Start an exercise journal. Set small, weekly goals that are realistic and attainable. Document the type of activity and time spent on a daily basis. At the end of the week, check to see if you have met your desired goals.
 - Set a new goal each week. As time goes on, you will see how many successes you have accomplished.
 - If you do not meet a desired goal, determine why you didn't and create a new goal.
3. Reward yourself
 - If you have met the goals that you have set, reward yourself. It's important to find ways to let ourselves know that we are doing a good job and that we have accomplished something that we have worked hard for.
 - Be sure to choose healthy rewards. It is important to continue to make healthy lifestyle choices.
4. Stay healthy
 - Always check with your doctor before starting a vigorous exercise program.
 - Be aware of how your body feels. If something doesn't feel right, slow down or stop.
 - Choose well-respected facilities. When working with personal trainers or other staff, check to make sure they have the proper credentials.
 - Always use the proper exercise equipment and gear to help prevent injury.
5. Keep yourself hydrated
 - It is important to stay hydrated before, during and after exercise. You will need to hydrate yourself to replenish the fluids you have lost through sweat.
 - Stay hydrated, don't wait until you are thirsty. By the time you are thirsty, you're most likely already dehydrated.
 - Avoid carbonated beverages and fruit drinks. These take longer to absorb and can cause cramping, nausea and/or diarrhea.
 - Cool or chilled fluids may work best. Cooler liquids help to lower and normalize the body's elevated core temperature.
6. Protein, protein, protein
 - Make sure you are consistently maintaining your recommended protein requirements. The protein will help you build muscle as well as keep your energy at a high level. If you do not get your protein, you will feel tired and sluggish.
 - Roux-en-Y Gastric Bypass & Lap Band: 60-75g protein/day
 - Duodenal Switch: 75-90g protein/day

EXERCISE FOR WEIGHT LOSS AND MAINTENANCE

Energy intake and energy output play a role in weight gain, weight loss and weight maintenance. It takes 3,500 calories to create 1 pound of fat.

1. Weight loss = Energy Intake (food) < Energy Output (physical activity)
2. Weight gain = Energy Intake (food) > Energy Output (physical activity)
3. Maintenance = Energy Intake (food) = Energy Output (physical activity)

This is why it is important to balance both diet and exercise. You will gain weight if you take in more calories than you burn off. An exercise regimen that includes aerobics and conditioning promotes the best overall benefits.

AEROBIC EXERCISE

Aerobic exercise helps to condition your lungs and heart by utilizing oxygen more efficiently. This helps your body reach and maintain its Target Heart Range (THR). Your THR is the safest and most beneficial range of heartbeats per minute during exercise. Activities such as walking, jogging, running and swimming are all aerobic.

$$\text{THR} = (220 - \text{age}) \times 60\% - 80\%$$

The lower number suggests a safe rate for beginners, while the higher number should be a long-term goal. Remember, consult your physician before starting any vigorous exercise programs.

CONDITIONING EXERCISE

Conditioning exercise helps improve muscle strength and flexibility. In order to build muscle and strengthen bones, exercises that incorporate weight resistance and flexibility should be included in your overall fitness plan. Resistance exercises include weights, rowing machine and push-ups. Flexibility includes warm-up routine, stretching and yoga.

CALORIES USED IN 20 MINUTES OF DIFFERENT ACTIVITIES

Activity	Calories	Activity	Calories
Walking – 2 mph	83	Basketball (moderate)	124
Walking – 4.5 mph	100	Dancing	105
Golf	85	Housework	63
Skipping rope	245	Swimming – 800 yards	152
Yardwork	54	Ice Skating	100
Mowing lawn	150	Washing car	65
Cycling	135	Running	190