

EXERCISE 101

SMG Bariatric Surgery

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GETTING STARTED WITH EXERCISE

Before Surgery:

- ▶ Try to accumulate 30 minutes of moderate intensity aerobic activities 3-5 days per week. Aerobic activities could include walking, biking, water exercises or swimming, chair exercises, or using an elliptical.
- ▶ Aim to include 2-3 days per week of strength training. This can be done using your resistance bands, weight machines, or even your own body weight. Perform 2-3 sets of 10-15 repetitions for 8-10 different exercises that include the body's major muscle groups.
- ▶ Try to include stretching at the end each exercise session. Aim to hold each stretch for 15-30 seconds, including all of your major muscle groups.

GETTING STARTED WITH EXERCISE

After Surgery:

- ▶ Take it slow! Remember that not everyone heals at the same pace. Pay close attention to your body and how movement feels so that you don't over do it. Stop any exercise that causes pain- give yourself time to heal.
- ▶ Walk and move around at a leisurely pace. Try to avoid sitting for long periods of time. Try getting up every hour or two to walk around for 5-10 minutes, as you feel able.
- ▶ Typically you'll be able to return to water exercises when your incisions have healed completely. While it varies from person to person, usually this is about 2 weeks after surgery.
- ▶ At approximately 2 weeks following surgery you'll be able to slowly start using the resistance bands again. Again, listen to how your body feels. You may just want to start with 1 set of each exercise.

KEY ROLES OF EXERCISE

1. Exercise helps you lose weight, but more importantly, it helps you keep it off.

- ▶ One of the benefits of bariatric surgery is that the weight loss is almost guaranteed as part of the immediate post-op experience. Because of this, it is easy to feel as though exercise is not really important for weight loss success. Eventually your body becomes accustomed to a lower caloric intake, and your weight loss will slow or start to plateau. Not only does exercise help you to break through plateaus, it is the biggest predictor of long-term weight loss maintenance.
- ▶ To maintain weight loss it is recommended to do 300-400 minutes per week of moderate cardiovascular exercise. This would be 60 minutes 5 days per week or 40 minutes 7 days per week.

KEY ROLES OF EXERCISE

2. Exercise helps you feel better.

- ▶ One of the most overlooked benefits of exercise is the mood-boosting effects that it has on your body. Exercise has been shown to help treat and reduce feelings of depression. It has also been shown to help lower anxiety. One of the reasons that bariatric surgery is so popular is because people want to feel healthier. Exercise is one of the best tools to help accomplish this goal. It will help improve your endurance and energy throughout the day, while making it easier to complete daily tasks.

KEY ROLES OF EXERCISE

3. It helps improve your body composition and overall health.

- ▶ Even though weight loss is the expected outcome following bariatric surgery, patients who don't regularly engage in strength or resistance exercises are more likely to lose a greater percentage of muscle mass. This can result in feelings of weakness and may lead to a lower resting metabolism.

BENEFITS OF EXERCISE

- ▶ Exercise is an essential component of a successful weight management program. Studies show that **Bariatric patients who engage in regular exercise are more likely to maintain their weight loss long-term.** By focusing on the benefits of exercise most important to you, we hope you'll find the motivation to incorporate exercise into your lifestyle. Here are just a few of the ways that regular exercise can help you:

BENEFITS OF EXERCISE

Cardiovascular Exercise Benefits:

- ▶ Improves quality of life
- ▶ Decreases risk of cardiovascular disease
- ▶ Lowers blood pressure
- ▶ Increases HDL cholesterol
- ▶ Lowers total cholesterol
- ▶ Increases insulin sensitivity
- ▶ Enhances glucose uptake
- ▶ Helps lower HbA₁C
- ▶ Improves mood and feelings of well-being
- ▶ Improves sleep quality
- ▶ Improves self-esteem
- ▶ Decreases risk of cancer
- ▶ Combats depression
- ▶ Releases stress
- ▶ Improves energy levels
- ▶ Assists in weight loss

BENEFITS OF EXERCISE

Resistance Training Benefits:

- ▶ Helps prevent osteoporosis
- ▶ Increases muscle mass
- ▶ Improves resting metabolic rate
- ▶ Improves appearance
- ▶ Increases self-confidence
- ▶ Improves the ease of performing activities of daily living

BENEFITS OF EXERCISE

Flexibility Training Benefits:

- ▶ Decreases risk of falls
- ▶ Decreases risk of low back pain
- ▶ Improves posture
- ▶ Increases feelings of wellbeing
- ▶ Decreases joint pain
- ▶ Decreases likelihood of injury

BARRIERS TO EXERCISE

Lack of Time

- ▶ Give yourself multiple opportunities throughout the day to exercise.
- ▶ Make your home a fitter place.
- ▶ Exercise at your desk.
- ▶ Put it in ink.

BARRIERS TO EXERCISE

Lack of Motivation/Energy:

- ▶ Do your own thing.
- ▶ Think active and you'll become active.
- ▶ Set goals and chart your progress.
- ▶ Combat excuses before you make them.

BARRIERS TO EXERCISE

Fear of Injury or Pain

- ▶ Start slow and take things at your own pace.
- ▶ Listen to how your body feels.
- ▶ Consult a personal trainer or exercise specialist.
- ▶ If you lapse, don't collapse.

INJURY PREVENTION

- ▶ **Warm Up:** Always warm up before exercise by including 5-10 minutes of slow walking, easy cycling, or range of motion exercises. Warming up helps increase blood flow to the major muscle groups, warm-up joints, and slowly increase your heart, respiratory, and metabolic rate to prepare your body for a higher intensity activity.
- ▶ **Cool Down:** After exercising, cool down by decreasing the intensity of your exercise and continue to move for 5-10 additional minutes. Cooling down helps your body adjust by allowing a more gradual decrease proper in heart rate and blood pressure. This helps to decrease risk of any cardiovascular abnormalities, prevents blood from pooling in your legs, and promotes removal of lactic acid to aid in decreasing muscular soreness.
- ▶ **Stretch - Slowly and Gently:** Never bounce while stretching and always stop short of pain. Ideally slow sustained stretching should be done at the end of the workout following the cool down period. Try to hold each stretch 15-30 seconds and include all major muscle groups. Remember to breathe while stretching.

INJURY PREVENTION

- ▶ **Wear Proper Attire:** Try to wear loose fitting, comfortable clothing. Layer up during the fall and winter as these layers help trap heat, but can easily be removed if needed. During the summer, try to wear lightweight, breathable clothing and don't forget the sunscreen.
- ▶ **Pay Attention to Hydration:** Stay well-hydrated by consuming at least 64 oz. of water daily. Drink plenty of water before, during, and after exercise. Don't wait until you are thirsty.
- ▶ **Listen to Your Body:** If you are tired, sick, or have had insufficient sleep, consider cutting down on the duration or intensity of your exercise. Listen to how your body feels and be aware that excessive fatigue can increase the risk of injury during exercise.

INJURY PREVENTION

Injuries: Do not ignore pain. Pain is the body's response to injury or overuse. As you get accustomed to exercise, you will better be able to distinguish between soreness and pain. Soreness may develop one to two days after a workout and dissipate 24 to 48 hours later. Pain can occur immediately and persist with everything you do.

For treatment of minor injuries not involving the eye, follow the RICE procedure:

- ▶ Rest the injured area by reducing activity and immobilizing it.
- ▶ Ice the affected area for 20 minute periods on, 40 minutes off, to help decrease inflammation and pain.
- ▶ Compress the area by wrapping for at least 30 minutes to help prevent swelling.
- ▶ Elevate the injured area above heart level. If pain or swelling worsens after 24 hours, see a physician.

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Seek Medical Help For:

- ▶ Any eye injury
- ▶ Severe pain, disability, or numbness
- ▶ An injured joint or broken bone
- ▶ Minor injury which does not improve or heal within 3 weeks
- ▶ Infection, pus, red streaks, swollen nodes, or fever

THE F.I.T.T PRINCIPLE FOR EXERCISE

F.I.T.T. stands for:

- ▶ Frequency- how often you exercise. This is the number of days per week or number of times per day.
- ▶ Intensity- how hard or how tough the exercise is for you and your body.
- ▶ Time- the amount of seconds, minutes or different strength exercises you do for your workout.
- ▶ Type – the kind of exercise, movement, or piece of equipment you use.

By using the F.I.T.T. principle you have the ability to build and customize an exercise program to fit your current abilities and future goals.



F.I.T FOR CARDIO EXERCISE

Cardiovascular or aerobic exercise refers to any activity that keeps you continually moving and elevates your heart rate.

Frequency: 3-5 days a week for fitness maintenance; 5-7 days per week to maintain weight loss

Intensity: Three way to determine

- ▶ Target Heart Rate Zone
- ▶ RPE scale (Rate of Perceived Exertion)
- ▶ Talk test
 - ▶ Ways to change intensity: increase the percent grade, the MPH, the resistance and the distance

Time

- ▶ 20-30 minutes per day minimally; 45-60 minutes ideally
- ▶ This can be broken up into 2 or 3 smaller bouts of exercise

Type:

- ▶ Walking, swimming, jogging, biking, using an elliptical, and dancing just to name a few
- ▶ Find an activity that you enjoy doing
- ▶ Activities should be both weight bearing (standing) and non-weight bearing (seated or in water) depending on your physical abilities.

TARGET HEART RATE ZONE

Find your maximal heart rate: $220 - \text{your age} = \text{maximal heart rate}$
(this is just an estimate)

- ▶ For low to moderate intensity (40%-60% heart rate) take your max heart rate multiply it by 40% or 0.40 to get your low end of the range then multiply your max heart rate by 60% or 0.60 to get your high end of the range.
- ▶ For moderate to vigorous intensity (60%-90% heart rate) use the same equation.

F.I.T.T. FOR STRENGTH TRAINING

Strength training is a specific exercise movement that requires as much or greater force by the body against an outside force. This causes your muscles to improve size, strength, power, flexibility, stability and function. These movements are shorter in duration (10-45 seconds) but are more intense than cardiovascular exercises.

Frequency:

- ▶ 2-3 non-consecutive days per week if you are doing a full body workout (working all muscle groups on the same day.)
- ▶ 3-4 days per week if you are doing a split workout (working different muscles on different days.)

Intensity:

- ▶ 8-12 repetitions performed for 1-2 set with emphasis on proper posture and breathing
- ▶ When breathing you should:
 - ▶ Inhale while relaxing/ lowering the weight
 - ▶ Exhale while exerting/lifting the weight

Remember the basic idea of strength training is to overload your muscles so they adapt and grow. Your muscles should feel fatigued by the time you get to 12 repetitions.

F.I.T.T. FOR STRENGTH TRAINING

Time:

- The time it takes you to finish your strength workout will depend on how many different exercises you choose to do as well as how many sets and repetitions you choose to do.
- It is recommended you perform 8-10 exercises that train major muscle groups.
- In the beginning start with 1 set of 8-12 repetitions for each exercise when you feel ready you can add the 2nd set.

Type:

- Weight machines, free weights, resistance bands, exercise balls and body weight exercises are some of the different strength training equipment you could use but are not limited to.
- When putting together a strength training routine remember to work all muscle groups in opposition.
- Example: if you work your biceps you should also work your triceps (front/back) or if you are doing a chest press you should also do a row (push/pull).
- Pick exercises that are safe and that you can do with proper form. These exercises should challenge you to move in all directions.

F.I.T.T. FOR FLEXIBILITY

- ▶ Flexibility is the ability to move a joint smoothly through its complete range of motion.
- ▶ Flexibility is an important part of a healthy life. It will allow you to move and do daily activities without feeling that your movements are restricted in any way.
- ▶ As we age we tend to be less flexible and we need to spend more time maintaining our flexibility.



F.I.T.T. FOR FLEXIBILITY

Frequency: Minimally 2-3 days per week; 5-7 days per week would be more ideal.

Intensity:

- ▶ Stretch to a point of tightness at the end of the range of motion, without inducing discomfort
- ▶ Do not bounce while holding your stretch

Time:

- ▶ Hold each stretch for 15-30 seconds; complete 2-4 repetitions of each stretch

Type:

- ▶ All stretching should be done following a light warm-up. The stretches you choose to perform should focus on joints with reduced range of motion. There are two different types of stretching that you may choose to perform.
- ▶ Static stretching: the ability to move slowly into a stretched position and hold. This is the most common form of stretching.
 - ▶ Example: touching your toes to stretch your hamstrings
- ▶ Dynamic stretching: the ability to move quickly or at normal speed into a stretched position.
 - ▶ Example: performing high knees or butt kicks

RESISTANCE BAND WORKOUT ROUTINE

What you will need: 1 resistance band with handles

See the attached PDF with band options and information

Warm Up:

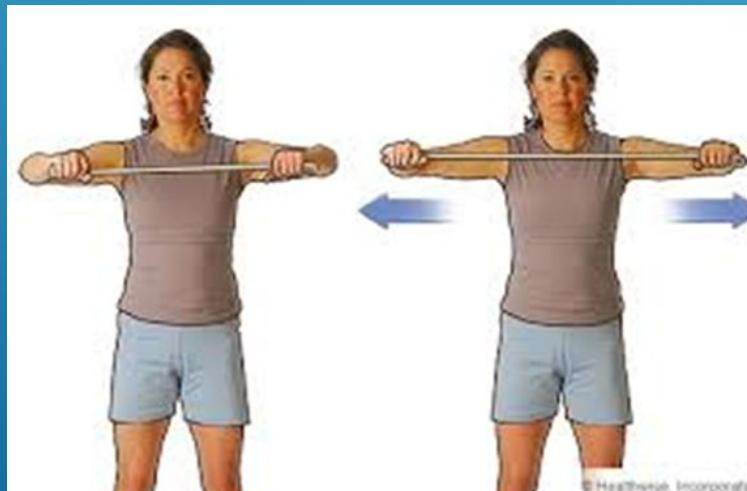
- ▶ Start by getting your body warm. Stepping side to side. Twisting your torso side to side. Lifting your knees up into your chest.
- ▶ *Chair Modification: Marching- moving your arms and legs up and down. Twist your torso side to side. Opposite elbow to opposite knee.

Chair Squats (legs):

- ▶ Feet should be placed hip width apart- legs should be in line with your shoulders. Arms should be extended straight out. Weight in your heels. Keeping your back straight, lower down towards the chair without your knees going over your toes. Once you sit in the chair, stand back up. This is one repetition.
- ▶ *Chair Modification: Sitting tall, engage your core and squeeze your glutes (butt muscles). Hold this for 5 seconds, release and repeat.

Resistance Band Chest Pull (shoulders):

- ▶ Standing tall, fold your band in half. Holding onto the band, extend your arms straight in front of you. Keeping your arms straight, with a slight bend in the elbow, open your arms out (in a "v" shape). Squeeze your shoulder blades and keep your arms level with your shoulders.
- ▶ *Chair Modification: Follow the above instructions, seated tall.



Resistance Band Triceps Extension

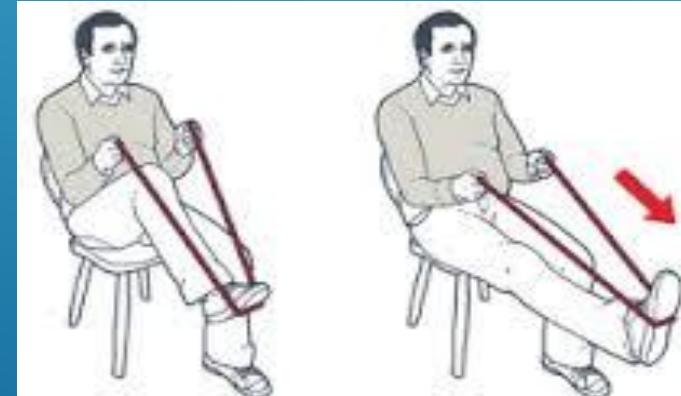
Option 1: Standing tall, step one or two feet onto the band. The handles will be on both sides of your body. Bend forward at the waist. Grab the “tubing” part of the band. Tuck your elbows tight into your sides and extend your arms back. You should feel this on the backside (or triceps) part of your arm.

Option 2: Triceps extension using your door attachment

- ▶ *Chair modification: Follow the above- seated tall.

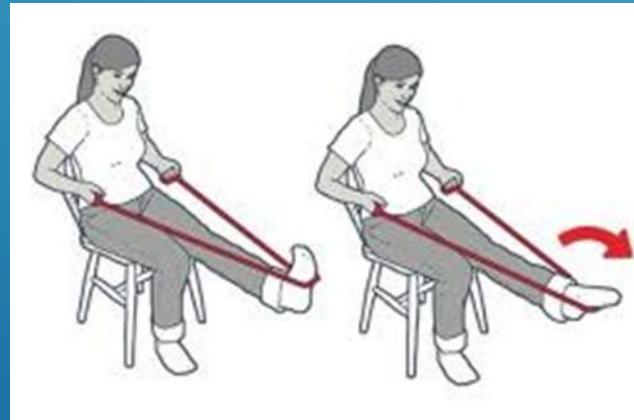
Resistance Band Leg Press

- ▶ Seated tall, wrap the resistance band around one foot. Holding onto both handles with an appropriate level of tension, bring your knee towards your chest and then press back out.



Resistance Band Calf Extension

- ▶ Seated tall, wrap the resistance band around one foot. Holding onto both handles with an appropriate level of tension, extend your leg straight out with a slight bend in your knee. Flex your foot forward and then back.



Get moving! You've got this!

Send any questions to SMGBariatrics@sparrow.org.

