



BARIATRIC SURGERY EXERCISE PRESCRIPTION

	FREQUENCY	INTENSITY	TIME	TYPE
AEROBIC	5 days/week	Moderate	30-60 minutes	Use large muscle groups
STRENGTH	2-3 days/week	2-3 sets of 8-12 reps	8-10 exercises major muscle groups	Emphasis on proper technique

**Per ACSM guidelines.*

AEROBIC EXERCISE

Aerobic exercise should be the focus of a post-bariatric surgery program, as it burns the most calories and is the best way for a previously sedentary individual to ease into physical activity. Low-impact activities such as walking are useful and usually well tolerated, even if only for brief periods.

STRENGTH TRAINING

Strength training increases fat-free mass (muscle) and speeds loss of fat mass in post-bariatric surgery patients. It is a crucial partner to aerobic exercise, but limitations may be prudent during the early weeks after surgery, particularly concerning the abdominal region.

FLEXIBILITY EXERCISE

Flexibility exercise improves range of motion for obese post-surgery patients. Following precautions is important to prevent injury.

HYDRATION

Patient needs more fluid during activity because of body size and sweat rate, but now have limited capacity to consume these fluids. Frequent small sips of water and exercising in cool temperatures is recommended to reduce fluid loss.

For additional information please contact RAC/BAC Retention Manager Jenna Bartlett at the RAC, 989-5758 or BAC, 992-2993. Visit us online at CarilionFitness.com.





Arthritis EXERCISE PRESCRIPTION

	FREQUENCY	INTENSITY	TIME	TYPE
AEROBIC	5 days/week	Moderate	30 minutes	Low impact
	3 days/week	Vigorous	20 minutes	
STRENGTH	2 nonconsecutive days/week	2-3 sets of 8-12 reps	8-10 exercises of each muscle group	Emphasis on proper technique
FLEXIBILITY	7 days/week	Low	15 minutes	Full range of motion

**Per ACSM guidelines.*

The general exercise recommendations follow those for apparently healthy adults. Modifications listed below:

AEROBIC EXERCISE

Low stress exercises across the lower extremity joints include bicycling, swimming, or walking in the water. Exercise in warm water helps with pain reduction and relaxation of the muscles. As one progresses, emphasis should be placed on increasing the time rather than the intensity of the activity.

STRENGTH TRAINING

Resistance exercise will strengthen the muscle around the affected joint and therefore reduce stress across the joint. For example, strengthening the quadriceps and hamstrings will provide support to arthritic knees. Begin with isometric contractions that do not involve moving the knee. As client becomes stronger and more comfortable, you may then advise them to

progress to isotonic training of the affected joints.

FLEXIBILITY EXERCISE

Stretching helps reduce pain, stress, and improves balance by relaxing stiff muscles due to arthritis. Gentle movement through the full available range of motion may safely be advised even when the individual experiences inflammation and pain.

**The impact of arthritic conditions on an individual's function is critical. Exercises may appropriately focus on maintaining common activities such as transferring from sit-to-stand or step-ups to maintain independence in daily living.*

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TYPE 2 DIABETES EXERCISE PRESCRIPTION

	FREQUENCY	INTENSITY	TIME	TYPE
AEROBIC	5 days/week	Low to Moderate	20-60 minutes	Exercises using large muscle groups
STRENGTH	2 nonconsecutive days/week	2-3 sets of 8-12 reps	8-10 exercises of each muscle group	Emphasis on proper technique

**Per ACSM guidelines.*

AEROBIC EXERCISE

Frequency: At least 5 days per week – Avoid two consecutive days of inactivity to help sustain the glucose lowering effects and improved insulin sensitivity from exercise. Even minimal amounts of activity (a single bout of 10 minutes of low to moderate intensity physical activity) has beneficial effects compared to no activity.

Intensity: Low-intensity physical activity is an appropriate starting place for previously sedentary patients with the goal of advancing to moderate intensity physical activity.

Time: The goal is 40 to 60 minutes of daily moderate-intensity physical activity accumulated in bouts of at least 10 minutes of activity.

Type: Emphasis will be placed on activities that use large muscle groups in a rhythmic and continuous fashion. Personal interest and desired goals will be considered.

Examples: walking, cycling, swimming, etc.

STRENGTH TRAINING

Frequency: At least twice per week on non-consecutive days.

Intensity: 2 to 3 sets of 8 to 12 repetitions to the point of fatigue on the last repetition.

Time: 8 to 10 exercises of all major muscle groups in the same session (whole body) or session may be split into selected muscle groups (i.e. arms, chest, legs, and back)

Type: Emphasis will be placed on proper technique, including minimizing sustained gripping, static work, and the holding breath to prevent a blood pressure response.

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WEIGHT LOSS EXERCISE PRESCRIPTION

	FREQUENCY	INTENSITY	TIME	TYPE
AEROBIC	≥5 days/week	Moderate	60-90 minutes	Exercises using large muscle groups
STRENGTH	2 days/week	2-3 sets of 8-12 reps	8-10 exercises of each muscle group	Emphasis on proper technique

**Per ACSM guidelines.*

AEROBIC EXERCISE

Frequency: Increased from general recommendations to maximize caloric expenditure.

Intensity: Start at moderate intensity with the goal to increase to vigorous to obtain higher levels of physical fitness.

Time: Time is increased from 30 minutes to 60 minutes daily (or longer), again to burn more calories.

Type: Exercises that incorporate large muscle groups; such as walking, cycling, swimming, etc.

STRENGTH TRAINING

Frequency: At least twice per week on non-consecutive days.

Intensity: 2 to 3 sets of 8 to 12 repetitions to the point of fatigue on the last repetition.

Time: 8 to 10 exercises of all major muscle groups in the same session (whole body) or session may be split into selected muscle groups (i.e. arms, chest, legs, and back).

Type: Emphasis placed on proper technique.

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OSTEOPOROSIS EXERCISE PRESCRIPTION

	FREQUENCY	INTENSITY	TIME	TYPE
AEROBIC	3-5 days/week	Moderate	30-60 minutes	Exercises that are weight-bearing
STRENGTH	2-3 days/week	2-3 sets of 8-12 reps	8-10 exercises of each muscle group	Emphasis on proper technique

**Per ACSM guidelines.*

AEROBIC EXERCISE

Frequency: Depending on activity level, aim to begin exercising aerobically four times per week then increase when you feel comfortable to do so.

Intensity: Moderate intensity activity (40-60% of HRR)

Time: 30-60 minutes per day (all at once or in 10 minute bouts)

Type: For those at risk for osteoporosis, weight-bearing activities such as walking, stair climbing, etc. that help to stimulate strengthening of the bones are recommended. Depending on the severity of osteoporosis, modifications may be made by incorporating non-weight bearing exercises, such as swimming, water aerobics, and bicycling.

STRENGTH TRAINING

Frequency: Two to three non consecutive days per week

Intensity: 2 to 3 sets of 8 to 12 repetitions to the point of fatigue on the last repetition.

Time: 8 to 10 exercises of all major muscle groups.

Type: Emphasis placed on proper technique.

**** Best results generally seen from using relatively higher weight loads with fewer repetitions.**

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ORTHOPEDIC CONDITIONS EXERCISE PRESCRIPTION

	FREQUENCY	INTENSITY	TIME	TYPE
AEROBIC	2-3 days/week	Low	30 minutes	Progression with ADLs and strengthening of muscles around affected joint(s)
STRENGTH	2 nonconsecutive days/week	lower weight with higher repetitions	8-10 exercises of each muscle group	

**Per ACSM guidelines.*

AEROBIC EXERCISE

Frequency: Begin exercising aerobically two to three days per week and slowly progress as necessary.

Intensity: Low-intensity physical activity is an appropriate starting place with the goal of advancing to moderate-intensity physical activity.

Time: Aim for 30 minutes of daily moderate-intensity physical activity. This may be accumulated in bouts of 5-10 minutes of activity at a time.

Type: Focus is on functional training with the goal of resuming a productive lifestyle through progression of safely performing Activities of Daily Living (ADLs). Start with basic exercises and gradually introduce new exercises one at a time, so if one aggravates current condition, it can be identified and modified. Depending on condition, aerobic activity may be as limited as walking a short distance.

STRENGTH TRAINING

Frequency: Begin strength training two to three days per week and slowly progress as necessary.

Intensity: Relatively lower weight loads with higher repetitions.

Time: 8 to 10 exercises for each major muscle groups.

Type: Focus should be placed on strengthening the muscles surrounding the affected joint(s). Start with basic exercises and progress as necessary. For example, a knee replacement patient should focus on strengthening of quadriceps and hamstring muscles. Exercises may include seated leg extensions, knee bends and short arc quads.

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HYPERTENSION EXERCISE PRESCRIPTION

	FREQUENCY	INTENSITY	TIME	TYPE
AEROBIC	5 days/week	Moderate	30 minutes	Exercises using large muscle groups
STRENGTH	2-3 days/week	Lower Weight	Increased number of repetitions	Emphasis on proper technique

**Per ACSM guidelines.*

AEROBIC EXERCISE

Frequency: Aim for at least 30 minutes of aerobic activity at least 5 days of the week.

Intensity: Depending on activity level, start at low-intensity and work towards moderate-intensity exercises.

Time: Aim for at least 30 minutes of aerobic activity most days of the week. If you can't set aside that much time at once, remember that shorter bursts of activity count, too. You can break up your workout into three 10-minute sessions of aerobic exercise and get the same benefit as one 30-minute session.

Type: Moderate-intensity exercises include walking, jogging, climbing stairs, swimming, cycling, etc.

STRENGTH TRAINING

Frequency: At least twice per week on non-consecutive days.

Intensity: Since heavier weights require more strain, which can cause a greater increase in blood pressure, use lighter weight loads when strength training.

Time: You can challenge your muscles with lighter weights by increasing the number of repetitions you do.

Type: Emphasis should be placed on proper technique, including minimizing sustained gripping, static work, and the holding of breath to prevent a blood pressure response.

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