Preventive Cardiology

Exercise Evaluation Program

St. John Hospital
& Medical Center

Did You Know?

- A sedentary lifestyle is now considered a **PRIMARY** risk factor for heart disease, along with smoking, high blood pressure, high blood cholesterol and obesity.
- Of all the risk factors for chronic disease, lack of physical activity is the most prevalent in Michigan.
- National statistics put the prevalence of excess body weight at 60%; over 30% of Michigan adults and 25% of our children are significantly overweight.
- Regular physical activity could reduce premature deaths by 25%.
- Much of the physical deterioration commonly attributed to aging can be halted or reversed through proper eating habits and regular exercise.
- Other conditions associated with physical inactivity include stroke, depression, diabetes, osteoporosis, cancer and obesity.

What Are The Benefits of Exercise?

- Improves blood cholesterol levels
- Promotes psychological well being
- Builds/maintains healthy bones, muscles, and joints
- Improves blood sugar levels
- Reduces blood pressure and obesity
- Increases endurance, stamina and agility
- Reduces stress and improves sleep patterns.

What Is The Exercise Evaluation Program?

The exercise evaluation program is designed for someone at risk for heart disease who wants to begin an exercise program. It includes a complete assessment of your current fitness level and development of a custom exercise program.

You will meet with a certified exercise specialist in the Cardiac Preventive & Rehabilitation Department. These professionals have an extensive background in exercise evaluation and prescription and can develop an exercise program that best suits your needs and goals.

At your first visit, a professional staff member will conduct a series of tests that will assess:

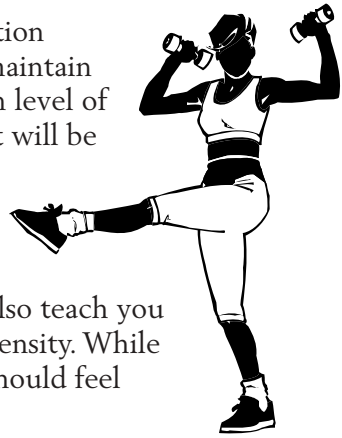
- **Aerobic Fitness:** The participant will be asked to complete a 1-mile walk on a treadmill as fast as he/she is able.
- **Muscular Fitness:** The participant will be asked to perform as many push-ups as he/she is able.
- **Flexibility:** The participant's flexibility will be assessed by sitting on the floor with hands placed on top of each other and gently leaning forward along a yardstick.
- **Body Composition:** Staff will measure your body mass index (BMI) and the ratio of the circumference of your waist and hips.

When tests are completed, the staff member will discuss the results with you. A home program will be developed for you based on your individual needs and goals. The exercise specialist will calculate a target heart range for you and teach you how to take your pulse. A book of aerobic and weight training exercises will be provided, along with instructions and demonstration. A second visit will be scheduled in three months to conduct a second series of tests and compare the results.

What Factors Make Up An Exercise Program?

A comprehensive exercise program combines stretching, aerobic conditioning, and weight training.

Inactive adults can improve their health by becoming moderately active. Exercise intensity, frequency, and duration are terms used in describing an exercise plan.



- **Intensity:** This is the level of exertion during exercise. To develop and maintain cardio respiratory fitness, a certain level of intensity should be determined. It will be based on the results of your stress test or by other means if a stress test has not been done. A target heart range will be developed for you and staff will also teach you other methods of determining intensity. While exercising, the level of intensity should feel "somewhat hard" to you.

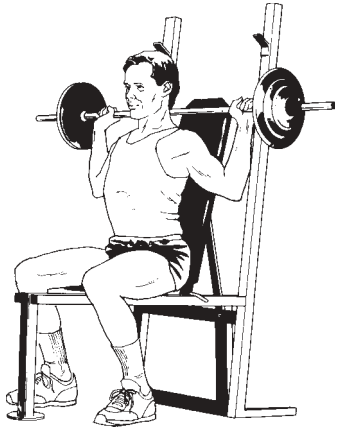
- **Duration:** This is the length of time you exercise. At least 30 – 60 minutes should be devoted to aerobic activity and maintaining your heart rate within your target range. This time does not include warm-up or cool-down activities. **REMEMBER!** Always check your pulse before, during, and after exercise!

- **Frequency:** This is how often you exercise in a week. To improve cardio respiratory endurance and keep body fat at an optimal level, it is recommended to exercise at least 3 – 5 days a week and to be "moderately active" most days of the week.

Weight Training is a very important component of an exercise routine. It is the most common form of resistance training. Resistance training is defined as a training method that uses exercises which impart a physical force to a muscle. Resistance training includes working with free weights, machines or bands. Why is strength training an important component of an exercise routine? People begin to lose lean muscle after their mid-twenties and up to a pound of muscle each year past the age of 50 therefore it is important to maintain and increase what you have. If you do not, the result is a lowered resting metabolism and a decrease in functional capacity. Muscle, the most active tissue in the body, burns calories 24 hours per day, resulting in a higher resting metabolic rate and greater fat loss. **It is a fact that strong, toned muscles boost your metabolism far more than aerobic exercise can.**

Strength is the base of all balance, coordination and physical activity. When you strengthen your muscles, you are also strengthening your ligaments and tendons. This helps to prevent bodily injury resulting from playing a sport or just everyday life. Weight lifting also plays a crucial role in the fight against osteoporosis. Bones, like muscle, are living tissue and need to be exercised. If this is not done, bones may become weak and brittle with age. Eventually, a fracture can occur. An effective way to exercise your bones is by performing weight-bearing exercise.

Weight Training Guidelines



- Weight train 2 – 3 days per week.
- Don't strain. Intensity should not exceed "fairly light" to "somewhat hard" during lifting.
- Avoid breath holding. Exhale (blow out) on the most strenuous part of the exercise.
- Raise a weight to count of two and lower the weight gradually to the count of four.
- Avoid sustained hand gripping when possible, since this may evoke an excessive blood pressure response to lifting.
- Stop exercising in the event of warning signs or symptoms, especially dizziness, abnormal heart rhythm, unusual shortness of breath, and/or chest pain.

Our staff will develop a weight-training plan appropriate for you. As you work out for several weeks or months, your muscles will get noticeably stronger. When the 12th repetition becomes easy on a given exercise, we generally recommend increasing the weight. Always allow at least 48 hours of recovery time between strength workouts to give your muscle tissue time to rebuild.

Stretching is also an important component of an exercise program. Within your exercise routine you should stretch before and after you exercise. The purpose of stretching before you exercise is to increase the blood flow to the muscles and prepare the body. Stretching improves the flexibility and elasticity of the muscle fibers and gradually increases the heart rate and blood pressure before exercise and gradually slows the heart rate and blood pressure after exercise. After exercise, stretching helps increase the amount of blood returning to the heart, helping to prevent dizziness or hypotension (low blood pressure) immediately after exercise.

For those beginning an exercise program, low-intensity exercise for a longer duration can yield similar benefits to high-intensity exercise for a shorter duration.

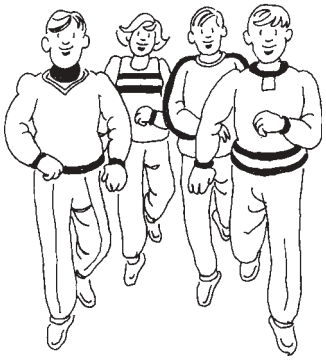
Example of exercise intensity:

- **Low intensity:** Walking 2-1/2 miles/hour (24 minutes a mile) 5 or more days/week.
- **Moderate intensity:** Walking 4 miles/hour (15 minutes a mile) 3 or more days/week.
- **High intensity:** Running 6 miles/hour (10 minutes a mile) 3 days/week.

Exercise Safety

- Stop exercising if you experience chest pain, dizziness, shortness of breath, or heart palpitations. Contact your physician if you experience these symptoms or call 911 if the symptoms persist.
- Avoid exercising following heavy meals.
- Do not exercise if you have a fever or are ill.
- During exercise, it is important to keep your body hydrated. Drinking a glass of water for each hour of exercise is the minimal recommendation.

- Exercising outside during inclement weather (hot/humid, cold) puts a greater demand on your heart.
  Inhaling cold air causes blood vessels to constrict, forcing the heart to work more.
  Not only will the heart pump faster with exercise, but it will also pump more because the body is trying to maintain its core temperature. Protect your upper respiratory system with a scarf or mask. Heat is easily lost through the head, hands and feet so be sure to war a hat, gloves, and warm socks. By layering your clothes, you can remove layers to accommodate your body temperature.
- If you have diabetes you should carry a quick source of carbohydrate replacement and wear your medical identification. It is also important to check your blood sugar levels before and after your workout. Exercising with a partner is recommended.

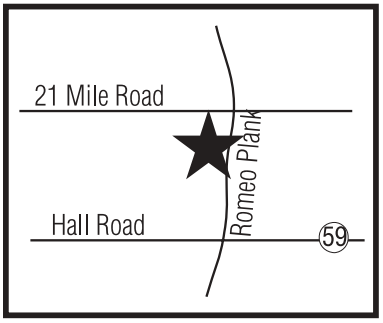


How Do I Get Started?

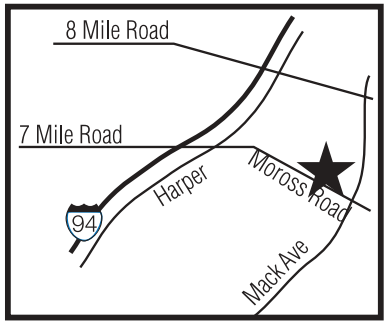
If you are interested in this program call the St. John Hospital Preventive Cardiology Program at 313-343-3490. A signed physician referral is required. Referrals can be faxed to the St. John Hospital Preventive Cardiology Program at 313-417-0527.

Where Are You Located?

The Exercise Evaluation Program is offered through the St. John Hospital Preventive Cardiology Department and administered through the Cardiac Rehabilitation Department. For your convenience, exercise evaluation appointments can be made at St. John Hospital and Medical Center, 313-343-3157, located on the second floor of the hospital or at Romeo Plank located in Macomb Township.



St. John Medical Center – Romeo Plank



St. John Hospital and Medical Center

Financial Considerations

There is a reasonable charge for this program, which includes the initial evaluation, development of a home exercise program and a follow-up visit.

Additional Programs Offered By The Preventive Cardiology Program Include:

- Lipid management (Lipid Clinic)
- Nutritional/dietary counseling
- Stress management
- Smoking cessation