

# Cardiac Rehabilitation Phase II Program

*Patient Education Manual*



 **McLaren**

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## McLaren Cardiac Rehabilitation Phase II Program

McLaren Regional Medical Center's Phase II Cardiac Rehabilitation program is a program of exercise and education to improve, strengthen, educate and rehabilitate the cardiac patient. Patients exercise 3-days per week, Mondays, Wednesdays and Fridays. All sessions are located in the Cardiac Rehabilitation Gym on the first floor of McLaren Regional Medical Center.

It is important for the patient to attend regularly to achieve the greatest benefit from the program. Our goal is to help you to return to your normal routines as soon as possible and give you the tools and knowledge to promote a healthier lifestyle to prevent further cardiac incidences. If you cannot attend a class please let us know. The phone number to the Cardiac Rehabilitation gym is 810-342-2085. If the patient misses more than 2 weeks without notification of the Cardiac Rehabilitation staff, the patient may be discharged from the program.

The patient's exercise program will be closely monitored. The patient will wear a portable telemetry monitor that monitors the patient's cardiac rhythm (EKG). The patient's blood pressure will be monitored before, during and after exercise. In addition, other vital signs will be monitored if needed. There will always be two cardiac rehabilitation specialists in the gym at all times during an exercise session.

Prior to starting cardiac rehabilitation, patients will be evaluated by a cardiac rehabilitation staff member. The evaluation will consist of a medical history, a small physical exam (vital signs, listening to the heart and lungs), a tour of the cardiac rehabilitation gym and a six minute walking test is done at the beginning and end of phase II to evaluate the conditioning/fitness of the patient.

Every patient who enters cardiac rehabilitation is of varying strength, health and stamina. There is not a set standard or protocol that the patient has to follow or achieve. **The cardiac rehabilitation staff expects each patient to work hard and to try to increase their intensity of their workout each time they attend.** The cardiac rehabilitation staff will follow each patient's workout routine. The cardiac

rehabilitation staff will counsel and update any changes that need to be made in a patient's routine to promote improvement and increase overall health. However, the patient is in charge of their own workout, meaning that they can slow down and/or stop their exercise session if needed.

The cardiac rehabilitation exercise session will last for up to one hour. The session will consist of a five minute walking warm-up, followed by 20-40 minutes of cardiovascular exercise, then followed by a five minute walking cool-down. The warm-up and cool-down must always be done during an exercise session. Patient routines can vary in time lengths and number of exercises.

The exercise portion of cardiac rehabilitation has different sessions throughout the day to choose from. Availability is dependent upon the number of patients in each class. **Phase II** has only 12 telemetry monitors available, so only 12 patients are allowed into a class at any one time. Patients are asked to choose a time slot that is convenient for them and for the patient to stay at that available time. Patients are allowed to change time slots on availability and with the O.K. from the cardiac rehabilitation staff only. Please do not attend a time slot that you are not scheduled for without the knowledge of the cardiac rehabilitation staff. You will not be allowed to exercise without the prior consent of cardiac rehabilitation.

The cardiac rehabilitation education series classes are held once per week and typically last an hour to an hour and a half. Attendance is recommended for all cardiac rehabilitation patients. The education programs consist of the following topics:

- ❖ **Medications** - Learn how cardiovascular and other medications should be taken and learn how these medications interact with others. A pharmacist will be instructing the program.
- ❖ **Stress management** - Learn how to relax, deal with stress and how it will affect you and your health. A behaviorist/psychologist will instruct this program.
- ❖ **Diet and nutrition** - Learn how to control cholesterol levels (HDL's , LDL's, Triglycerides), fat and sodium levels, how to

read food labels. A dietician will instruct this program.

- ✧ **Exercise and risk factors** - learn about risk factors, heart disease, how to monitor and exercise safely on your own. An exercise physiologist/cardiac rehabilitation specialist will instruct this program.

Friends and family are encouraged and welcome to attend these educational programs. The education programs are free of charge for everyone, even if you are not in cardiac rehabilitation.

Education is a vital component to the cardiac rehabilitation program and our patients. Cardiac rehabilitation provides education literature free of charge to all patients and families. McLaren cardiac rehabilitation receives monthly newsletters from the Cleveland Clinic, Harvard Medical School, Nutrition Action Newsletter, Communicating Food for Health (Nutrition Update) and other publications. This literature is located throughout the gym. This information pertains to cardiovascular risk factors, other McLaren programs that are available, recipes and other related information pertaining to heart disease. This information is updated frequently to include new information. Please feel free to read any of the information available to you. Please ask the cardiac rehabilitation staff for copies or more information if needed.

### Cardiac Rehabilitation Exercise Guidelines

## Why Exercise?

A sedentary lifestyle is associated with an increased risk for heart problems. Regular aerobic exercise (continuous rhythmic exercise involving large muscle groups, such as walking and cycling) can potentially decrease the risk of cardiovascular disease and/or complications. It may also:

- ✧ Improve skeletal muscle strength and flexibility
- ✧ Control body weight
- ✧ Reduce blood pressure (particularly in hypertensive individuals)
- ✧ Decrease stress levels
- ✧ Lower total blood cholesterol and triglyceride levels
- ✧ Increase H.D.L.- cholesterol values ( the "good" cholesterol)
- ✧ Regulate blood sugar levels in diabetic individuals

### Recommended Exercise

Both stationary bicycling and walking are good forms of aerobic exercise. If you have a stationary bicycle available to you, adjust the seat so that your leg has

a slight bend at the knee when it is fully extended with the foot resting on the pedal. This will facilitate more efficient movement and reduce the potential for excessive leg fatigue. Start your exercise program with no tension (or very little tension). This will allow you to regulate the intensity (how hard it feels) simply by the speed.

If you do not have access to a stationary bicycle, walking is of equal benefit. Walk on a flat surface. Many shopping malls open early for walkers.

### **Intensity**

You can regulate your exercise intensity by perceived exertion (how hard the exercise feels) and/or by your heart rate (pulse) response.

#### **1. Perceived Exertion**

Consider your breathing, general fatigue and leg fatigue during exercise. Overall, the physical activity should feel fairly light to hard corresponding to the ratings of four to seven on the exertion scale illustrated below.

1. Resting, no exertion at all
2. Easy activity, very little exertion involved
3. Light, little exertion involved
4. Fairly light, exertion involved
5. Medium / moderate
6. Somewhat hard, more exertion involved
7. Hard, a lot of exertion involved
8. Strenuous, a whole lot of exertion involved
9. Very hard / difficult, you cannot continue without stopping
10. Hardest activity you have ever performed, extreme exertion involved, you could only last a few minutes without stopping

# How Hard are you Working?

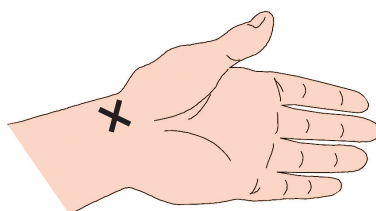
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# To Count Your Heart Rate

1. Place two fingers gently on the opposite wrist (on the thumb side).
2. Count the number of beats you feel in ten seconds.
3. Multiply this number/by six or use the heart rate conversion chart shown below.

Heart Rate Conversion Chart

Beats in 10 seconds	Beats per minute
9	54
10	60
11	66
12	72
13	78
14	84
15	90
16	96
17	102
18	108
19	114
20	120
21	126
22	132
23	138
24	144
25	150



If your heart rate is less than **40 beats per minute** or higher than **120 beats per minute at REST**, contact your physician.



# Goals for the Cardiac Patient

To achieve cardiorespiratory fitness try to follow these goals:

	Minimal Goals	Optimal Goals	McLaren Cardiac Rehab Goals
Frequency of Exercise	3-4 days/week	5-6 days/week	5-6 days/week
Intensity of Exercise	* Talk test * 4-5 exertion scale * 60% Max HR	* 70% Max HR * 6-8 exertion scale	* 70% Max HR * 6-8 exertion scale
Time of Exercise	30 minutes/day	40 minutes/day	40 minutes/day
Type of Exercise	Continuous and Rhythmic movement Examples: Walking, biking, running, aerobics, swimming, etc.		

- \* Intensity of exercise can be monitored many ways:
- \* Talk test-if you can exercise and talk without becoming short of breath.
- \* %Maximum heart rate-usually  $220 - \text{age} = \text{Estimated Max. Heart Rate}$  Take recommended % from estimated Max HR, this equals was heart rate per minute when exercising.  
 Example: 30 year old person  
 $220 - 30 = 190$  beats per minute (Estimated Max HR)  
 70% of 190 is 133 beats per minute  
 133 bpm is where your heart rate would be when you exercise.
- \* Perceived exertion scale (please see "How hard are you working?" scale)

## Exercise Guidelines

1. Warm-up (slow walking) before you begin your “fairly light” exercise.
2. Cool-down (walk slowly) before you completely stop your exercise.
3. Pace yourself. It is normal to experience fatigue with your daily activities during and shortly after your hospitalization. Allow for rest periods, as necessary.
4. Avoid recreational sports or activities, heavy lifting and pushing and pulling movements until approved by your physician.
5. Wait one hour after a large meal before exercising.
6. Do NOT exercise when:
  - You feel ill or tired
  - You experience shortness-of-breath, chest pain, dizziness, nausea or any other symptom
  - You have an infection or temperature
7. Take luke-warm showers. Avoid extremely hot or cold showers or saunas.
8. Cigarette smoking should be avoided at all times; however, it may be particularly hazardous before or after exercise.
9. Exercise indoors when the temperature is below freezing (32° F), or above 80° F with humidity exceeding 75%. Try mall-walking.
10. Know the names and dosages of your medications. Carry a list in your wallet. Do not arbitrarily discontinue a medication or change the dosage without your physician’s approval.

# Other recommended goals by McLaren Cardiac Rehabilitation

These are some other cardiac risk factors goals that McLaren Cardiac Rehab recommends. Some of these goals may seem to hard to achieve, however they have been proven (Stransky) to help lower and maybe even prevent further Coronary Artery Disease development. So if at all possible, McLaren Cardiac Rehab suggests that you try to attain some of these goals.

## **Exercise goal**

Try to burn 2000 calories per week from exercise. The average person burns around 100 calories per mile. Yes, we realize that may mean 20 miles per week of walking. Most people can walk 2-3 miles or more within 1 hour.

## **Diet goals**

Try to limit your total Fat intake to no more than 25 grams per day. This will mean that you have to read food labels and may need to make healthier and lower fat choices. Also try to add 25 grams of fiber to your daily diet intake. This may mean increases in fruits/vegetables, beans/lentils, and whole grain breads/cereals. These two changes may also mean a cutback on meats, especially beef and pork. Most fish, lean chicken/turkey breast would be better options to reduce fat intake.

## **Quit smoking**

Even just a couple of cigarettes per day can dramatically increase your risk for coronary artery disease.

## **Reduce your stress level**

Stress can cause increases in your blood pressure, persuade your food choices, and cause constriction in your blood vessels, which can lead to heart attack or stroke.

## **Keep you blood pressure under 120/80 without medication if possible**

Exercise and diet can go a long way to controlling blood pressure without the use of medications. However, sometimes medications are needed to control blood pressure.

## **Keep you cholesterol level below 150**

Cholesterol levels below 200 are the standard recommendation by most doctors. Cholesterol levels below 150 have been proven to lower risk significantly. Exercise and diet help control this as well as medications if necessary. Know your cholesterol numbers if you do not already.



# Cardiac Risk Factors

Cardiac risk factors are variables that have been linked to the development of heart disease. The first seven risk factors listed below, may be controlled or modified.

## **Risk factor:**

### **High Blood Pressure (Hypertension)**

*People with a consistently elevated blood pressure (resting values above 140/90 mmHg) have an increased risk for developing heart problems.*

#### **To modify this risk factor:**

- Exercise
- Take prescribed medications
- Limit salt intake
- Lose weight

## **Risk factor:**

### **High Blood Cholesterol (Hypercholesterolemia)**

*An elevated blood cholesterol level (above 200 mg/dl) is associated with an increased risk of heart disease.*

#### **To modify this risk factor:**

- Exercise
- Avoid cigarettes
- Limit the amount of fat and cholesterol in your diet (decrease your intake of eggs, dairy products, red meat)
- Lose weight
- Take prescribed medications

## **Risk factor:**

### **Cigarette Smoking**

*Cigarette smoking contributes significantly to the development of hypertension and coronary artery disease.*

#### **To modify this risk factor:**

- Stop smoking (once you stop, your risk gradually decreases to a nonsmoker's level)

## **Risk factor:**

### **Lack of Physical Activity**

*A sedentary lifestyle is associated with an increased risk for heart-related problems.*

#### **To modify this risk factor:**

- Exercise regularly

# Cardiac Risk Factors CONTINUED

## **Risk factor:**

### **Diabetes**

*A high blood sugar (glucose above 110 mg/dl, after a 12-hour fast) is related to elevated levels of total cholesterol and triglycerides, increased body weight and the development of coronary artery disease.*

## **To modify this risk factor:**

- Control body weight
- Exercise regularly
- Take prescribed medications

## **Risk factor:**

### **Psychological Stress**

*High levels of stress and one's reaction to stress (anger, hostility) may be associated with an increased risk for coronary artery disease.*

## **To modify this risk factor:**

- Exercise
- Relaxation techniques
- Attend stress reduction classes

## **Risk factor:**

### **Overweight (Obesity)**

*Excessive body fatness, termed obesity, also leads to the development of coronary artery disease.*

## **To modify this risk factor:**

- Exercise
- Modify diet (decrease calories, saturated fat and cholesterol)

## **Risk factor:**

### **Family History**

*Cardiac disease may run in your family, putting you at a higher risk for the development of heart problems.*

## **Risk factor:**

### **Gender/Age**

*In general, men tend to be a higher risk for cardiac problems than women (until women reach menopause).*





# “Hearts in Motion” Maintenance Program

## Phase IV (Off-site or Hospital based program)

Upon completion of Phase II Cardiac Rehabilitation. Patients can continue into our Phase IV Cardiac Rehabilitation programs.

Phase IV Cardiac Rehabilitation is a maintenance exercise program. Phase IV is offered at McLaren’s off-site location in **Flushing** or at **McLaren Flint**. Phase IV continues for an indefinite time period as long as the patient wants to attend. It is offered 3-days per week in Flushing, 5-days a week at McLaren Regional Medical Center. Patients will record their own workout, recording vital information such as heart rates, times of exercise and exercise values. Cardiac Rehabilitation will provide a resting blood pressure before exercise. If other vital signs are needed/warranted, Cardiac Rehabilitation will provide those as well. This is a private pay program. The cost is charged per month only, regardless of the number of visits/exercise sessions per month. Insurance does not cover Phase IV Cardiac Rehabilitation.



# McLaren Cardiac Rehabilitation Do's and Don'ts

## Do's

- 1) DO plan to have fun!!!
- 2) DO please call if you cannot attend a session. Our number is (810) 342-2085. A patient may be discharged from the program after 2 weeks if notification has not been made to Cardiac Rehabilitation.
- 3) DO inform the Cardiac Rehabilitation staff of any problems at any time during your exercise session. Cardiac Rehabilitation will deem whether or not the problem is serious in nature or not. Even if the patient believes that the problem is minor, Cardiac Rehabilitation wants to know about it. Cardiac Rehabilitation has protocols in place to follow when situations arise.
- 4) DO inform Cardiac Rehabilitation if you experience an increase in frequency, duration or severity of Chest Pain, Lightheadedness, Shortness of Breath, Fatigue, etc.
- 5) DO inform Cardiac Rehabilitation of any changes made to your medications. Any changes in dosage, stoppage of, addition of medications needs to be noted by Cardiac Rehabilitation.
- 6) DO use locker rooms for coats/purses/clothes, etc.
- 7) DO get here early, at least 10-15 minutes before your scheduled session. You need time to hook-up to the monitor and may need some rest before starting your exercise. Please get here early. You only have your 1-hour time slot to exercise. If your class is scheduled for 10 a.m., you have from 10 a.m. to 11 a.m. to exercise. If you arrive at 10:15 a.m., you only have until 11 a.m. to exercise, not 11:15 a.m.
- 8) DO eat at least 1-hour before exercise class if possible. It doesn't have to be a meal, but something small like toast, bagels, cereal, etc.



## Don'ts

- 1) DON'T exercise when you are not feeling well.
- 2) DON'T smoke at least 3-hours before your exercise session. Hopefully you have quit already as smoking will only increase your risk of more cardiovascular problems. If you have not quit, START NOW!
- 3) DON'T drink caffeine before exercise. Caffeine is a stimulant, which can elevate heart rate, constrict your blood vessels and cause irregular heart arrhythmias. You'll increase your heart rate naturally with exercise, you do not need extra help.
- 4) DON'T omit or stop any of your medications unless directed by your doctor.
- 5) DON'T start your exercise session unless directed by the Cardiac Rehabilitation staff. The Cardiac Rehabilitation staff is concerned and concentrating on the on-going class at that time, not the next class session. It can get confusing/complicated with many patients at one time. Please allow the Cardiac Rehabilitation staff time to get things in order.
- 6) DON'T remove your telemetry monitor until told to do so by the Cardiac Rehabilitation staff. The Cardiac Rehabilitation staff is receiving information the entire time a patient is on the monitor. Cardiac Rehabilitation will tell the patient when to take the monitor off upon.







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