



# Cardiac Rehabilitation

Exercise and Education Program





# Cardiac Rehabilitation

Dear Patient:

Cardiac rehabilitation is an important part of your recovery. Our progressive cardiac rehabilitation program begins while you are at Northwestern Medicine Central DuPage Hospital or Northwestern Medicine Delnor Hospital. This program will help you gain a sense of control. You will learn how to make healthy lifestyle changes. The goal is to reduce your risk of developing further artery blockages.

Cardiac rehabilitation is an exercise and education program. You will learn about your risk factors and ways to change those risk factors. You also will develop an exercise program that will help you get better.

The phases of cardiac rehabilitation include:

## PHASE I

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Takes place while you are in the hospital

You and your family will learn about heart disease, risk factors and medications

You also will learn about the importance of diet and exercise

## PHASE II

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Monitored exercise program that begins two to four weeks after discharge

### Phase II is offered at either of these locations:

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#### Northwestern Medicine Medical Building

7 Blanchard Circle, Lower Level, Wheaton  
630.681.5530

#### Northwestern Medicine Delnor Hospital Campus

351 Delnor Drive, Suite 104, Geneva  
630.208.4084

TTY: 630.933.4833

The goal of cardiac rehabilitation is to assist you in your recovery. It is important to begin the program as soon as possible. You will continue to learn about heart disease, your risk factors and how you may modify them. You also will learn a safe way to exercise that will improve your heart and cardiovascular health.

We look forward to working with you toward a speedy recovery!

*The Staff of Cardiac and Pulmonary Rehabilitation Services*

# What does cardiac rehabilitation involve?

Whether you are at Northwestern Medicine Central DuPage Hospital (CDH) or Northwestern Medicine Delnor Hospital (Delnor), **Phase I cardiac rehabilitation** begins while you are in the hospital. The education program will teach you how to recover from heart disease. The goal of the exercise program is to increase the distance you walk each day. Your pulse (heart rate), blood pressure and heart rhythm will be measured before and after walking. Tell the nurse if you feel any pain, dizziness, shortness of breath, sudden weakness or excessive sweating during your exercise.

The Phase I cardiac rehabilitation nurses will give you a home walking program. The walking program should be continued until you start Phase II at one of our cardiac rehabilitation centers.

**Phase II cardiac rehabilitation** takes place in the **outpatient** setting after you go home.

## Exercise

Your exercise program will be tailored to meet your needs and abilities. Your heart rate and rhythm will be monitored during exercise. Exercise needs to be a permanent part of your heart-healthy lifestyle. You should continue your home program on days you do not attend an exercise class. Your exercise program will be updated as you progress.

## Education

Heart disease is a **progressive** disease. The blockages will continue to develop unless you take steps to slow or stop that progression. You will learn how to adopt a heart-healthy lifestyle and slow the progression of heart disease.

In Phase II cardiac rehabilitation, case managers will lecture during some exercise sessions on topics such as:

Lipid (cholesterol) management

Label reading

Stress management

Sodium restriction

Dietary fat and more

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Your spouse or significant other is welcome to attend the exercise sessions as an observer.

## Questions are encouraged.

Together with your case manager, you will set goals that will help you achieve wellness through a heart-healthy lifestyle.

# What do I need to do before I can start?

Consult your insurance provider before you attend an orientation session. Most insurance providers will cover your rehabilitation services.

We realize that our Wheaton or Geneva locations may not be convenient for everyone. A list of other cardiac rehabilitation programs is available. It is your responsibility to enroll in any program outside of CDH or Delnor.

## Why do I need to exercise?

There are health benefits associated with doing regular exercise. This can include a reduced risk of:

- Anxiety and stress
  - Cardiovascular disease
  - Colon cancer
  - Depression
  - Hypertension
  - Hyperlipidemia
  - Obesity
  - Osteoarthritis
  - Type II diabetes
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## FITT

A safe and effective exercise plan generally follows the FITT principle.

### F stands for FREQUENCY

You will need to exercise at least three days a week.

### I stands for INTENSITY

You need to exercise within a specific heart rate range. The heart rate range can be 20-30 beats above your resting heart rate or it can be a specific heart rate. You will need to attain and sustain this target rate to maximize the benefits of exercise.

### T stands for TIME

Your exercise sessions should last 30 minutes and involve a continuous activity.

### T stands for TYPE

Choose the type(s) of activities you like or will want to do.

# Home exercise program

A home exercise walking program has been designed to help you safely increase your strength during your recovery period.

Begin your walking program the day after your discharge from the hospital

Make sure you are well rested; plan to walk at least one hour after a meal

Walk at a comfortable pace; you should be able to carry on a conversation without feeling short of breath; the walk should feel easy to somewhat hard at the most

Walk for a specific amount of time; start with three to five minutes, four times per day; increase the amount of time walked as tolerated

Continue your walking program until you start Phase II cardiac rehabilitation



## General instructions for exercise

Wear loose, comfortable clothing

Wait one hour after eating to exercise

Do not exercise if you are experiencing symptoms of a cold, fever, flu or an increase in your heart-related symptoms; your body needs energy to overcome an illness

Breathe in a slow, deep and rhythmic manner while exercising; NEVER HOLD YOUR BREATH

Shoes should fit properly, offer good support and be comfortable; rubber-soled shoes are recommended

Be certain to take all your medications as prescribed

Get in the habit of practicing relaxation techniques; these are helpful in reducing blood pressure and heart rate

There is no best time to exercise

- Review your daily routine and decide what time will be best for you
- Do not pick a time that will be difficult for you to exercise

Avoid exercise when the weather is extreme

- High heat and humidity can interfere with your body's ability to cool off
- An excessive rise in your body temperature can increase your heart rate, blood pressure and oxygen usage; the same principle applies to excessively cold and windy days



# Exercise precautions

- 1 Walk indoors during the first few days at home; when walking outdoors, pay attention to the temperature, humidity and wind-chill factors
  - <20 degrees Fahrenheit - exercise indoors
  - 30-70 degrees Fahrenheit - ideal
  - 70-80 degrees Fahrenheit with <60% humidity - exercise with caution; drink plenty of water
  - 80 degrees Fahrenheit with >60% humidity - exercise in air conditioned area
- 2 Avoid home exercise equipment
- 3 Avoid hills and rugged terrain
- 4 Consider walking with a partner in the first few weeks or carry a cell phone for safety purposes
- 5 Stop and rest if you experience:
  - Shortness of breath
  - Unusual pain or discomfort
  - Angina or chest pain
  - Nausea or vomiting
  - Light-headedness or dizziness
  - Palpitations or fast heartbeat
  - Extreme fatigue

**Call your cardiologist\* if these symptoms persist.**

\*In the spirit of keeping you well-informed, some of the physician(s) and/or individual(s) identified, are neither agents nor employees of Northwestern Memorial HealthCare or any of its affiliates. They have selected our facilities as places where they want to treat and care for their private patients.



# Walk every day\*

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Start 4 walks 3 minutes per walk	4 walks 3 minutes per walk	4 walks 3 minutes per walk	INCREASE TIME 4 walks 5 minutes per walk	4 walks 5 minutes per walk	4 walks 5 minutes per walk	4 walks 5 minutes per walk
Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
4 walks 5 minutes per walk	INCREASE TIME 4 walks 7 minutes per walk	4 walks 7 minutes per walk	4 walks 7 minutes per walk	4 walks 7 minutes per walk	4 walks 7 minutes per walk	INCREASE TIME 3 walks 10 minutes per walk
Day 15	Day 16	Day 17	Day 18	Day 19	Day 20	Day 21
3 walks 10 minutes per walk	3 walks 10 minutes per walk	3 walks 10 minutes per walk	3 walks 10 minutes per walk	INCREASE TIME 2 walks 15 minutes per walk	2 walks 15 minutes per walk	2 walks 15 minutes per walk
Day 22	Day 23	Day 24	Day 25	Day 26	Day 27	Day 28
2 walks 15 minutes per walk	2 walks 15 minutes per walk	INCREASE TIME 2 walks 20 minutes 10 minutes	2 walks 20 minutes 10 minutes	2 walks 20 minutes 10 minutes	2 walks 20 minutes 10 minutes	2 walks 20 minutes 10 minutes
Day 29	Day 30					
GOAL 1 walk 30 minutes per day	CONTINUE 1 walk 30 minutes per day					

\* This is a guideline for exercise; you may increase or decrease your walking minutes based upon your tolerance level.

# Listen to your body— what is it saying to you?

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## Warning signs and slow down precautions

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### Chest pain

Always err on the side of caution with chest pain. Seek emergency help by calling 911 if:

- You suspect the pain is related to your heart
- The pain does not go away with rest
- The pain is associated with other symptoms

No one will think you are foolish if you call 911 and your heart turns out to be fine. It is foolish NOT to have it checked out.

Skip exercise and call your doctor within 24 hours if you notice:

Increasing chest discomfort or angina, chest discomfort or pain at rest or before beginning exercise

A new onset of palpitation or irregular pulse that does not go away with rest

A new onset of shortness of breath or an increase in shortness of breath that is not related to exercise

If you are awakened at night by shortness of breath that requires sitting upright to have it go away

An unexplained episode of severe dizziness or light-headedness

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## Reduce the amount or intensity of exercise if you are:

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### Experiencing chest discomfort

It may be similar to what you felt in the past or you may have an increase in palpitations that you usually have during exercise

If your symptoms do not decrease, stop exercise and be sure to cool down by walking for several minutes

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### Experiencing an increase in shortness of breath

If your breathing does not become easier with slowing down, stop exercise and cool down

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### Recovering from a common illness such as a cold, flu or mild stomach upset

Experiencing any orthopaedic problems such as sore muscles or joint pain

Experiencing any kind of an alcohol-related hangover

In any environmental factors that are out of the ordinary, such as wind, high heat and humidity, cold temperature, smog or pollution alerts

Feeling excessive fatigue; exercise on top of excessive fatigue can stress an already run-down system



# Risk factors for coronary heart disease

The American Heart Association has identified several risk factors for coronary heart disease. Some of them can be modified, treated or controlled, and some can't. The more risk factors you have, the greater your chance of developing coronary heart disease.

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## **The major risk factor that can't be changed: heredity**

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Children of parents with heart disease are more likely to develop it themselves

African Americans have more severe high blood pressure than Caucasians and a higher risk of heart disease

Heart disease also is higher among Mexican Americans, American Indians, native Hawaiians and some Asian Americans; this is partly due to higher rates of obesity and diabetes

Most people with a strong family history of heart disease also have one or more other risk factors; just as you can't control your age, sex and race, you can't control your family history; therefore, it is even more important to treat and control any other risk factors you have

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## What are the major risk factors you can modify, treat or control by changing your lifestyle or taking medicine?

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### Tobacco smoke

Smokers' risk of heart attack is more than twice that of nonsmokers

Cigarette smoking is the biggest risk factor for sudden cardiac death

Smokers have two to four times the risk of nonsmokers

Smokers who have a heart attack also are more likely to die and die suddenly (within an hour)

People who smoke cigars or pipes also have a higher risk of death from coronary heart disease (and possibly stroke)

Exposure to other people's smoke increases the risk of heart disease

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### High blood cholesterol

As blood cholesterol rises, so does risk of coronary heart disease

A person's cholesterol level is affected by age, heredity, exercise and diet

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### High blood pressure

High blood pressure increases the heart's workload; the heart becomes thicker and stiffer

High blood pressure also increases your risk of stroke, heart attack, kidney failure and congestive heart failure

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**Physical inactivity** – an inactive lifestyle is a risk factor for coronary heart disease

### Diabetes mellitus

Diabetes increases your risk for developing coronary heart disease

It's extremely important for you to work with your healthcare provider to manage your diabetes

You also should control any other risk factors you can

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### Obesity and overweight

People who have excess body fat—especially if a lot of it is at the waist—are more likely to develop heart disease and stroke

Excess weight makes your heart work harder

By losing as few as 10 to 20 pounds, you can lower your risk of heart disease

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**Multiple risk factors** – the risk for coronary heart disease is highest when a person has more than one of these risk factors

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### Other risk factors that contribute to heart disease

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#### Stress

Individual response to stress may be a contributing factor

Scientists have suggested that people under stress may overeat, start smoking or smoke more than they otherwise would

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#### Alcohol

Drinking too much alcohol can raise blood pressure, which can lead to heart failure and stroke

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[cadencehealth.org](http://cadencehealth.org)

