

Exercise and Your Heart

Why Exercise?

Exercise can improve the way we look and feel. It also has other benefits.

- Exercise helps lower blood pressure and resting heart rate. It can also improve blood flow to the heart.
- Regular exercise allows the heart to do work with less energy.
- Exercise can help increase HDL, the “good” cholesterol level in the blood.
- Exercise improves flexibility of the muscles and joints, building muscle strength and tone.
- Exercise and a proper diet aid in weight loss.
- Exercise relieves stress and tension – it helps relax the body and improves sleep.

Physical inactivity is a recognized risk factor for coronary artery disease.

What Kind of Exercise is Best for Your Heart?

Exercise must be tailored to each person’s needs. The type of exercise your doctor will suggest is called aerobic exercise. Examples of aerobic exercise include walking, jogging, cycling and swimming. These exercises increase the flow of blood to your heart muscle and body tissues.

Patients with heart disease should initially avoid isometric exercise.* Isometric activities include weight lifting, pushing against an immovable wall, or straining to open a window.

* After about 1 month of regular aerobic exercise and with doctor approval: Light resistive weight training may be safely started with close supervision and strict guidelines. Light resistive weight training should always be used with (not in place of) aerobic exercise.

The pressure or tension created by this activity:

- Decreases blood flow to your body.
- Causes a sudden increase in your heart rate and blood pressure.
- Can deprive your body tissue of oxygen.

Avoid straining and heavy lifting. Instead, look for ways to perform aerobic exercises.

Activity and Exercise After a Cardiac Event

Remember, activity and exercise after a cardiac event must be done in a safe manner. Activity and exercise for the cardiac patient begins at a low level and gradually increases to a higher level.

While you are in the hospital, the cardiac rehabilitation staff may work with your doctors to develop an exercise program to meet your needs. They also will help you safely increase your level of activity.

When you are ready to go home, your doctor and/or the cardiac rehabilitation staff may give you a home walking program tailored to your needs. You will also be given a target pulse rate to follow. Your pulse will be your guide to activity. If your pulse exceeds the target rate, you know that you are doing too much exercise and that you need to slow down. If your pulse never reaches the target range and you feel as if you are not working, you may need to increase your pace.

It is important to remember that exercise must be done on a regular basis to gain the full benefits of an exercise program.

General Activity Guidelines

- Avoid crossing your legs while you are in bed or sitting in a chair. Pressure on the area behind your knee may decrease blood flow in the legs.
- Relax for at least 30 to 60 minutes after eating before starting any vigorous activity.
- Avoid unusual tensing and straining of the body.
- Avoid lifting, pulling or pushing anything heavy.
- *Do not* open stuck windows.
- *Do not* lift more than:
 - 10 to 15 lbs. the first 6 weeks after heart surgery (e.g., groceries, wet laundry);
 - 15 to 20 lbs. 6 to 12 weeks after heart surgery;
 - 10 lbs. after a heart attack.
- Check with your doctor for lifting guidelines if you have had only angioplasty or stenting placement.

- *Do not* unscrew jar lids or push open heavy doors.
- *Do not* move furniture, change sheets or vacuum rugs.
- Avoid straining when having a bowel movement. Ask your doctor about a laxative or stool softener if you become constipated.
- You may do light housework, such as dusting or washing.

If you've had heart surgery:

- *Do not* walk your dog on a leash due to possible pulling and jerking (for about 3 months).
- *Do not* drive for at least 4 weeks.
- Put your feet up and relax! Take naps or rest periods as needed.
- No sauna, whirlpool or steam room.
- You may take a warm shower.
 - Avoid hot water and use lukewarm water. A shower that is too warm may cause you to feel dizzy or unusually weak. Consider buying a shower seat as a safety measure.
 - Have someone nearby to help you if needed.
 - You should not shower if you are tired, having chest pain, or are short of breath.

Sexual activity

If you are able to walk a flight of stairs without becoming short of breath, you can resume intercourse. Avoid positions that put pressure on your upper arms or chest area for 6 to 8 weeks until your breastbone heals. Do not have sex right after eating. You should allow 2 to 3 hours to digest your food. Be sure you are well rested.

Points to Remember About Exercise

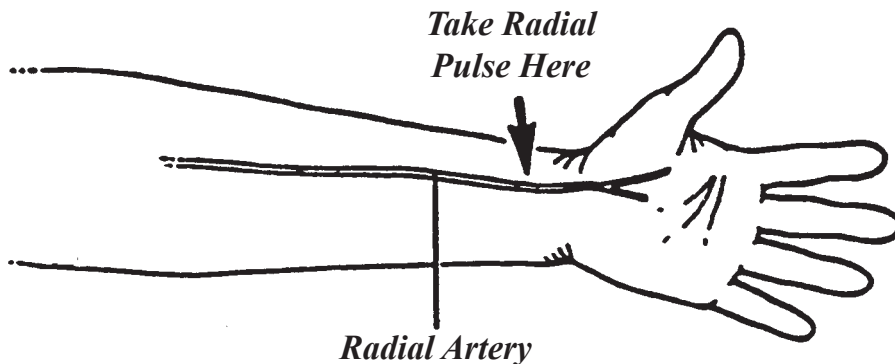
- Warm up first for 3 to 5 minutes by starting the activity slowly, then gradually increase the speed and intensity.
- Take your pulse before, during and after exercise.
- Do not exceed your target heart rate – if you do, slow down.
- Cool down for 3 to 5 minutes by slowing your pace before stopping the exercise.
- Stop exercising if chest pain or discomfort, shortness of breath, leg cramps, dizziness, nausea or palpitations occur – you may need to call your doctor.
- Do not hold your breath while exercising.
- Wear loose fitting clothes that do not restrict body movements.
- Wear proper fitting, comfortable exercise shoes.

Take Your Pulse

Since your pulse is one guide to exercising at the right pace, it is important that you learn how to take it yourself. Your pulse is simple to take; it can be felt with every beat (or pulsation) of the heart in various arteries throughout your body.

To take your pulse, keep a watch or clock with a second hand or a stopwatch in sight. Be sure to wear a watch with a second hand if you are walking outdoors.

Locate an area to feel the pulse beats. The radial artery in the wrist area is one of the safest sites for taking the pulse.



1. Find the radial pulse by putting 2 or 3 fingers on the palm side of the wrist, nearest the thumb. Press lightly, moving your fingers just a little until you find the beating. If you press too hard, you may stop the flow of blood; then there will be no pulse. Never use your thumb, as your thumb has its own pulse beat.
2. When you have found the pulse, notice the rhythm. Try to notice if it seems steady or if it is irregular.

A ten second count is recommended with exercise.

3. Count the number of beats you feel in 10 seconds and multiply by 6 to determine your heart rate for one minute. See the Quick Reference Table below. If you have a very irregular heart rate, take your pulse for 30 seconds and multiply by 2.

QUICK REFERENCE TABLE:

Heart Rate = Beats in 10 seconds x 6

8 x 6 = 48	13 x 6 = 78	18 x 6 = 108
9 x 6 = 54	14 x 6 = 84	19 x 6 = 114
10 x 6 = 60	15 x 6 = 90	20 x 6 = 120
11 x 6 = 66	16 x 6 = 96	
12 x 6 = 72	17 x 6 = 102	

Your pulse should feel regular and rhythmic, like the beat of a drum. If your pulse is irregular, call your doctor.

Home Walking Program

Your home walking program should begin the day after you leave the hospital. Walking may be done indoors or outdoors. Indoor walking can be done in your home, in building hallways, or in a shopping mall. Refer to the Comparison Chart below.

If you will be walking outdoors, follow these guidelines:

In winter: Do not exercise outdoors if the temperature is less than 20 degrees or if the wind chill factor is less than 10 degrees.

In summer: Do not exercise outdoors if the humidity is greater than 75 percent or if the temperature is greater than 80 degrees. The best times for exercising are early morning or early evening.

1. Start by walking the same distance or amount of time that you did on your last day in the hospital, which was _____.

Keep your speed slow. Once you've worked up to your recommended distance or time, gradually increase your pace. It's better to walk for a longer period of time than to walk too fast and tolerate less.

2. When walking a shorter distance or time, plan 4 to 6 walks a day. Increase your distance/time by _____ at least every other day as tolerated. As your long distance/time increases, decrease your number of walks to 2 to 3 times a day.
3. Gradually increase your distance/time until you are walking _____ twice a day. Hold at that level. Remember to warm up for 3 to 5 minutes before exercising and 3 to 5 minutes after your exercise routine.

COMPARISON CHART

FEET		BLOCKS		MILES
660 Feet	=	1 City Block	=	1/8 Mile
1,320 Feet	=	2 City Blocks	=	1/4 Mile
2,640 Feet	=	4 City Blocks	=	1/2 Mile
5,280 Feet	=	8 City Blocks	=	1 Mile

4. Take your pulse before walking, halfway through your walk, and when you are finished with your walk.
5. Your heart rate should be no greater than:
 - 10 to 12 beats from resting if you've had a heart attack or are being treated for angina.
 - 12 to 18 beats from resting if you have had heart surgery.

If you have had angioplasty or stenting only – no heart attack; ask your doctor for guidelines.

6. If your doctor has prescribed nitroglycerin tablets for you, always carry them with you on your walk. If you have signs of angina (chest, arm, neck, or jaw pain or discomfort, or the pain that you know as your “heart pain”), STOP WALKING AND SIT DOWN. If the angina is not relieved after a couple of minutes of rest, take a nitroglycerin tablet under your tongue. **If the discomfort is not relieved after 5 minutes, call 9-1-1 or the Emergency Number in your area or go to the nearest Emergency Room.** Do not drive yourself! If the symptoms are relieved, you should still call your doctor.

If any of the following persist, contact your doctor:

- Shortness of breath.
- Feeling faint or dizzy.
- A very slow or very rapid or irregular heartbeat.
- Excessive fatigue.
- Nausea or vomiting.
- A cold sweat.
- Other symptoms that are similar to or remind you of any prior angina attack.

Health Information Resources

For more information, visit one of Northwestern Memorial Hospital’s Health Learning Centers. These state-of-the-art health libraries are located on the third floor of the Galter Pavilion and on the first floor of the Prentice Women’s Hospital. Health information professionals are available to help you find the information you need and provide you with personalized support at no charge. You may contact the Health Learning Centers by calling 312-926-LINK (5465) or by sending an e-mail to hlc@nmh.org.

For additional information about Northwestern Memorial Hospital, please visit our Web site at www.nmh.org.

Para asistencia en español, por favor llamar a el departamento de representantes para pacientes al 312-926-3112.

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Home Exercise Log

Please record walks every day. This may be used as a guide. Bring this log to your follow-up doctor appointments.

Date	Time	Exercise Mode	# Minutes Exercised	Pre-exercise Heart Rate	Peak Exercise Heart Rate

Comments/symptoms: