

Starting your exercise program

Exercise while in the hospital

The cardiac rehab staff will begin walking with you within a couple days after your transplant. You must be off the ventilator (breathing machine) and considered stable by your doctors before the nurses will begin your exercise. The walk will last about five minutes and the distance is determined by how you handle it. When you leave your hospital room you will wear a surgical mask. You will wear a heart monitor and will have your blood pressure checked before and after exercise.

One of the ways we determine how you are handling the exercise is your breathing. You should be able to walk and talk at the same time. If you are too short of breath to do this, we will have you slow down and rest. A member of the Cardiac Rehab team will help you walk twice a day. Once you are out of the Intensive Care Unit (ICU), you will be expected to walk one to five times a day with help from the nursing staff or on your own. The Cardiac Rehab nurse will let you know your goals for each day.

While in the hospital, exercise will help you:

- *Develop more energy*
- *Keep your muscles and bones strong and healthy*
- *Deal with the stress and anxiety associated with this hospitalization.*

Ask your family to bring in some comfortable shoes for walking. Focus on increasing your distance or time, not speed. If you feel exhausted after your walk, you will want to decrease your distance and speed until you can exercise without feeling tired. Don't forget to wear your mask when you walk outside your hospital room.

I NOW WALK ONE MILE AND BIKE TWO MILES EVERY DAY. CARDIAC REHAB WAS A GREAT EXPERIENCE.

— Nebraska Medicine patient

You will receive a handout called “**PHASE I CARDIAC REHAB DISCHARGE INSTRUCTIONS FROM HEART SURGERY**” that includes other instructions about activity and exercise restrictions due to the fact that you have a chest incision. Please review these instructions carefully also.

A referral to outpatient or Phase II Cardiac Rehab may have been made for you. The purpose of outpatient rehab will be to gradually increase your strength and endurance and to help prevent the progression of heart disease. This will be achieved through a combination of monitored exercise sessions and education. While exercise is important, reducing your heart disease risk factors is equally important. Your heart disease risk factors have been identified on the discharge sheet given to you by the Cardiac Rehab nurse.

Exercise, continued

Home exercise guidelines after heart transplantation

In addition to outpatient cardiac rehab, it is important to follow up with all scheduled physician appointments, blood testing and all other testing. If you show signs of rejection, talk with your doctor about exercising during that time.

After a transplant, it is normal to worry, but you're less fragile than you think. Physical activity is usually safe for anyone who receives a transplant. It is key to staying healthy. You will notice you feel better when you're exercising regularly.

Continuing to exercise after discharge from the hospital plays an important role in recovery after heart transplantation. The transplanted heart is not quite as efficient as a normal heart and regular exercise will be important if you want to feel the best you can.

There are many benefits of exercise, including but not limited to:

- *Less feelings of shortness of breath and fatigue*
- *Lower resting and exercise blood pressure*
- *Increased lean body mass and less weight gain*
- *Decreased blood cholesterol*
- *Improved quality of life*

Exercise prescription goals

FREQUENCY:

Three to six days each week.

DURATION:

Total exercise time 30 to 60 minutes per day.

INTENSITY:

Use the following scale and exercise at a range of 11 to 13.

Exercise, continued

Borg rating of perceived exertion scale

Measures the overall effort or distress of your body during exercise (how your body feels during exercise).

6	No exertion at all
7	Very, very light
8	
9	Very light
10	
11	Fairly light
12	
13	Somewhat hard
14	
15	Hard
16	
17	Very hard
18	
19	Very, very hard
20	Most exertion you have ever experienced

WARM UP AND COOL DOWN:

5 - 10 minutes at a slow pace.

This is very important because of the denervation of your heart. Your body needs this time to allow the heart rate to increase before exercise and to decrease after exercise. Do not skip either of

these if you are short on time. You are better to cut out some of your exercise time, not the warm up or cool down.

Starting your home exercise program

EXERCISE SCHEDULE:

Week	Sessions Per Day	Total Minutes Per Day
1	3-4	10-15
2	3	12-20
3	3	15-25
4	2	20-30
5	2	25-45

Based on American College of Sport Medicine's Guidelines for Exercise Testing and Prescription, Sixth Edition, 2000

After Week 5, continue with exercise twice daily or progress to a single session.

GOAL:

Exercise 30 to 60 minutes three to six days a week for the rest of your life. This is the equivalent of a minimum of 150 minutes per week.

- *Warm-up by walking slowly*
- *Begin aerobic exercise*
- *Cool-down by slowing pace*
- *Stretch*

Always increase the amount of time before increasing the difficulty of the exercise. Slowly increase your exercise by adding one minute every other day as long as you are without "Warning Symptoms."

Exercise, continued

Warning symptoms

Stop and rest if the any of the following occur:

- *Fast heart rate (palpitations)*
- *Chest discomfort or pain (angina)*
- *Irregular heart rate*
- *Slow heart rate*
- *Faintness, dizziness, light headed*
- *Unusual leg pain or cramping*
- *Nausea*
- *Cold sweat*
- *Unusual shortness of breath*
- *Fluttering in the chest*
- *Weakness*

Call your physician if you do not feel relief at rest.

POST TRANSPLANT EXERCISE IS AN ABSOLUTE NECESSITY TO SUCCESSFUL HEART TRANSPLANTATION.

– Nebraska Medicine patient

Follow these guidelines

- *Don't push yourself too hard. Listen to your body. If you're in pain or really worn out after exercise, you've done too much. Next time, don't drive yourself so hard.*
- *Jeffrey D. Punch, MD, chief of the Division of Transplantation at the University of Michigan Health System, recommends activities that you can do with other people. Try walking or biking with a friend. Try a fitness class. Doing something with other people can make it more fun. It may also make you more committed to exercise if someone else is relying on you.*
- *Set realistic exercise goals. Start slow and work up gradually. Just getting yourself to walk a little extra whenever you can helps. Find an activity you really enjoy and stick with it.*

BEING IN GOOD SHAPE BEFORE HEART TRANSPLANTATION HAS HELPED ME RECOVER FASTER. I WAS ABLE TO COMPLETE 20 MINUTES OF EXERCISE EIGHT DAYS AFTER TRANSPLANTATION.

– Nebraska Medicine patient
