

PATIENT EDUCATION HANDBOOK

Post Angioplasty/Stent Cardiac Rehab Phase 1



RIVERSIDE

HEART & VASCULAR INSTITUTE



POST ANGIOPLASTY/STENT

Thank you for choosing Riverside Medical Center for your heart procedure. We are here to assist you in your recovery and address any questions you may have before going home.

Dear _____,

We want to give you the best care possible to improve your heart health. Like most people with heart disease, you probably have many questions. It is important for us to know what you are most interested in learning while you are in the hospital. To help us address what information you need, please check all the topics that interest you.

- Treatments and related equipment
- Heart and arteries, structure and function
- Activity progression during hospital stay
- What to do for chest pain
- Emergency planning for home
- Heart attack and healing
- Your risk factors
- How to take your pulse
- High blood pressure
- High blood cholesterol
- Your medications
- Fitness and health



CARDIAC REHAB PHASE 1

- Eating for a healthy heart
- Sexual activity and your heart
- Emotional changes after heart problems
- Development of heart disease
- Stress and your heart
- Smoking and your heart
- Alcohol and your heart
- Guidelines for activity/exercise at home
- Activity/exercise precautions
- Heart catheter procedure
- Bypass graft surgery
- Heart balloon procedure
- Stent placement procedure
- Valve repair/replacement procedure
- Heart failure
- Internal cardiac defibrillator
- Cardiac Rehab Phase II program
- Effects of heart problems on families
- Return-to-work questions
- Heart rhythms
- Development of heart disease

During Angioplasty and Stenting

Angioplasty and stenting is used to open the artery that has a buildup of plaque. Plaque is a mixture of fat, cholesterol and other blood particles. The buildup of plaque in the artery is called atherosclerosis. The plaque narrows the path that blood has to flow, blocking oxygen from getting to the muscle of your heart. Buildup of plaque also makes it difficult for the artery wall to expand when the heart needs more oxygen. This leads to the symptom of angina. In some cases this blockage can close the artery off enough to cause a heart attack.

Balloon Angioplasty is a procedure that is performed during cardiac catheterization in order to open the narrowing of the artery from plaque. A catheter is put into an artery in your groin or wrist. The catheter will be guided through this artery to your heart and into the narrowed or blocked artery. A balloon catheter is placed into the artery using a guidewire. The inflated balloon pushes the plaque against the artery walls. This opens them and allows more blood flow to your heart. The balloon is then collapsed and the catheter is then removed from the artery.

Stenting – A stent is a tiny wire mesh tube that supports the artery wall. It is placed in order to keep the now open artery patent. It is inserted on a catheter using the guide wire and placed at the site of the plaque. One or more stents may be inserted depending on the size and location of the plaque. Once in place a balloon is used to open the stent. The balloon is collapsed and removed leaving the stent behind.

Angina – pain, pressure or tightness usually felt in your chest. Chest pain can come on when you are stressed or do physical activities. This may also cause pain in the neck, jaw, shoulders, arms and back. You may also experience shortness of breath, sweating, nausea or lightheadedness. This is a warning sign that you may be at risk for a heart attack.

Heart Attack – Unlike angina, the chest discomfort and other symptoms do not go away with rest. This is because the muscle is not getting enough oxygen and there is actual damage to the muscle tissue.

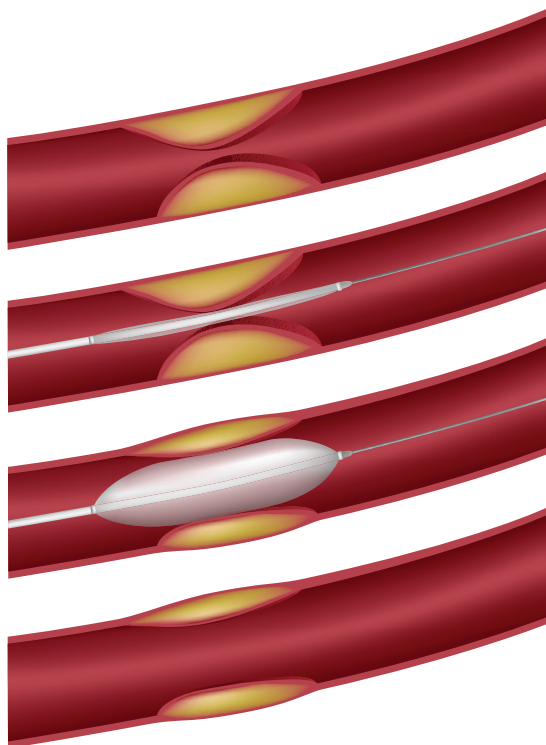
Balloon Angioplasty

Artery with plaque

Catheter with uninflated balloon inserted

Balloon inflated, plaque compressed

Widened artery



Stent Angioplasty

Artery

Catheter

Balloon

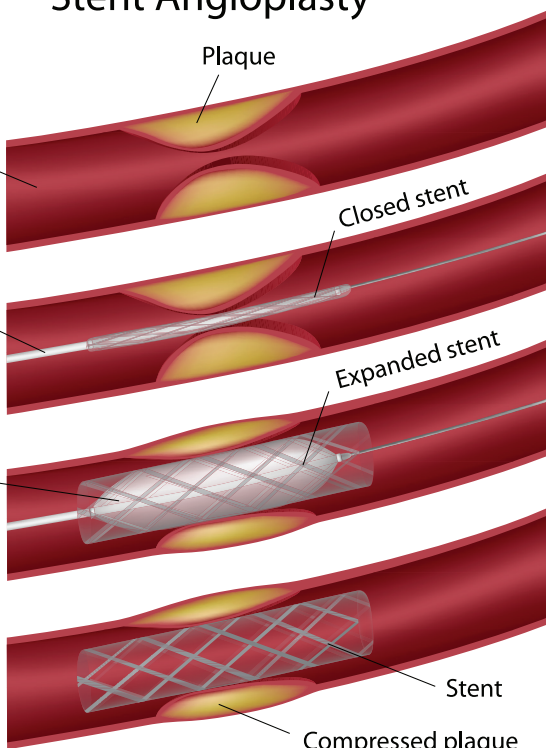
Plaque

Closed stent

Expanded stent

Stent

Compressed plaque



POST ANGIOPLASTY/STENT

Post-Operative Exercises

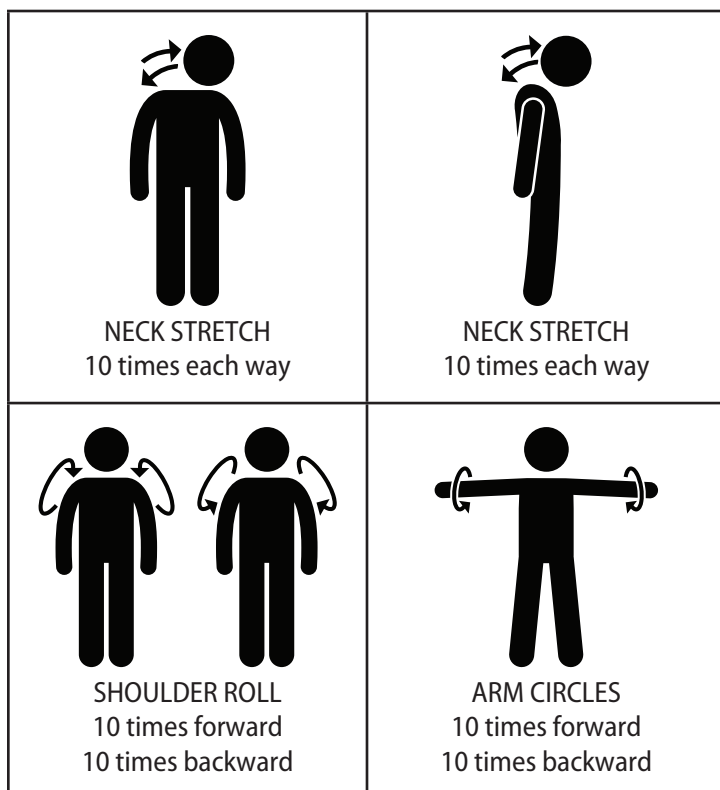
When you are ready, these exercises promote good circulation and help to decrease complications after the procedure. You can complete all exercises at least one-two times per day.

It is also beneficial to walk during this immediate post procedure time. Start slowly and for a short period of time; 5–10 minutes.

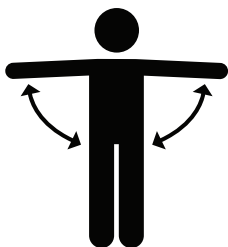
Avoid long periods of sitting as you heal from this procedure, especially if the groin site was accessed.

For groin site: Do not lift more than 10 pounds for 1 week.

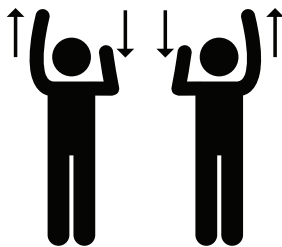
For wrist site: Do not lift more than 2 pounds. Do not push or pull items. Avoid activities that use your wrist such as tennis, bowling, golf, etc.



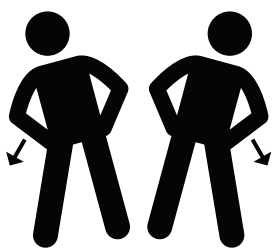
CARDIAC REHAB PHASE 1



SIDE ARM RAISE
10 times



REACHING
10 times each way



SIDE BENDS
Hold 10 seconds
each side



FOOT CIRCLES
10 times each foot



ANKLE STRETCH
10 times each foot



KNEE BEND
10 times each leg



MARCHING
10 times each leg



CALF STRETCH
Hold 20 seconds each leg

Coronary Artery Disease Risk Factors

Risk factors for coronary artery disease are divided into two categories.

Unchangeable:

1. Age
2. Gender
3. Heredity

Changeable:

1. Tobacco/Nicotine. Nicotine increases your heart rate and increases your hearts need for oxygen. It stiffens the artery wall, allowing less blood to flow. It increases your risk of abnormal heart beats. It decreases HDL cholesterol (*good*) and helps LDL cholesterol (*bad*) thrive. Inhaled byproducts of smoking damage the blood vessel wall and reduces the amount of oxygen your blood cells can carry. Within 2 years of stopping tobacco/nicotine use, the risk of having a heart attack decreases by 50%. Cardiac Rehab staff will work with you to create a quit plan.

2. Abnormal Lipids. Cholesterol is a fat like substance (lipid) produced by your body. It travels in the blood and aids in digestion of food. Your cholesterol levels are affected by your genetics, the food you eat (proteins, fats), and the level of your physical activity. The doctor monitors your cholesterol levels and looks at the different lipids in your blood. When your cholesterol is “high” it means you have too many lipids in your blood that help form plaque. To protect your heart, you want your lipids to be controlled: LDL <70mg/dL, HDL>40mg/dL and total cholesterol (TC) <200mg/dL. Talk to your provider on how you can improve your numbers. Triglycerides are a lipid with fatty acids and are found in fried and starchy foods. Some things you can do now are to take your cholesterol medication as prescribed, increase your physical activity levels, and start making heart healthy eating choices.

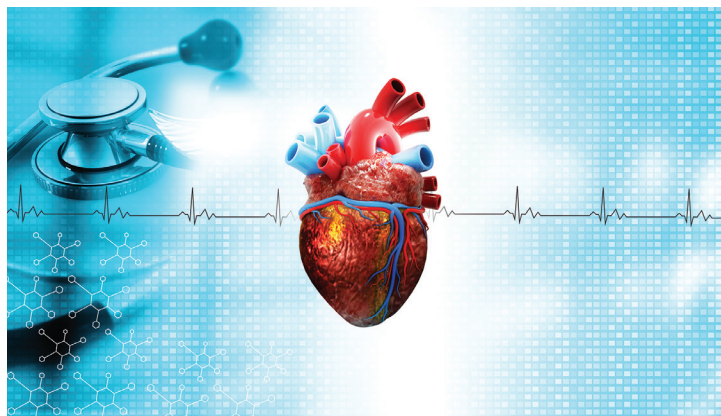
3. High blood pressure. High blood pressure, also called hypertension, is considered anything greater than 130/80. High blood pressure or hypertension is more common in men, African Americans, and people with history of heart attack, stroke, or heart failure. Ways to control high blood pressure include weight loss, eating a lower sodium diet such as the DASH diet, limiting added salt to foods to less than 2,300mg or 1tsp a day, increasing physical activity, and moderation of alcohol consumption. Men should limit consumption to no more than two drinks per day and women no more than one.

CARDIAC REHAB PHASE 1

4. Lack of Physical Activity. Set a goal for your daily physical activity. Lack of physical activity increases your risk for hypertension, obesity, high cholesterol and diabetes. It puts you at increased risk for musculoskeletal injury and surgery related complications. A recommended exercise regimen for every adult is at least 30 minutes of aerobic exercise most days of the week. Aim for 3-5 days a week. It is important to also remain flexible and strengthen your muscles. Use the exercises provided in this booklet every day. Aerobic exercise can be as basic as going for a walk. If you are limited in walking, your goal is to move more and sit less.

5. Obesity. For adults, being overweight is defined as body mass index (BMI) of 25 to 29.9. Obesity is a BMI of 30 or greater. The higher your BMI the greater risk you have for heart disease. Patients with heart disease should follow a low fat diet with a goal of reduction in calorie intake balanced with increased physical activity. Duration of exercise with the goal of weight loss should gradually increase to 45-60 minutes 5-7 days a week. The Cardiac Rehab phase II program will help you establish a safe, independent exercise routine.

6. Stress, Anxiety, Depression. Stress increases the risk of heart disease due to the effect it has on your personal habits. Patients who are under a lot of stress tend to cope with poor eating habits and substance use (i.e. tobacco, alcohol). Stress and anxiety elevate the heart rate and blood pressure. Depression is not uncommon in patients after being diagnosed with heart disease due to the increased doctor appointments and potential tests or procedures, financial burden, and required changes in lifestyle for a healthier heart. Some ways to reduce stress and anxiety are: breathing exercises, meditation, prayer, getting enough rest, and spending time with others. Exercise may help boost your mood and alleviate some



CARDIAC REHAB PHASE 1

Heart Healthy Eating Tips

Choose fat calories wisely. Limit total fat grams by serving a bare minimum of saturated fats and trans-fatty acids, the fats found in butter and salad dressings and sweets. When you do use fat use fats high in monounsaturated or polyunsaturated fat.

Serve a variety of protein foods. Commonly eaten protein foods (meat & dairy products) are among the foods highest in cholesterol. Reduce the nutritional risk by balancing animal, fish, and vegetable sources of protein.



Remember: All things in moderation, so limit your salt intake unless instructed otherwise by your doctor. Eat regular meals and exercise to strengthen the heart muscle and help burn off unwanted calories. See below for serving sizes.

1 cup cooked rice or pasta	2 starch	Tennis ball
1 slice bread	1 starch	Compact disc case
1 cup raw vegetables/fruit	1 fruit or vegetable	Baseball
½ cup cooked vegetables/fruit	1 fruit or vegetable	Cupcake wrapper full or size of ice cream scoop
1 ounce cheese	1 high fat protein	Pair of dice
1 teaspoon olive oil	1 fat	Half dollar
3 ounces cooked meat	1 protein	Deck of cards or cassette tape
3 ounces tofu	1 protein	Deck of cards or cassette tape

Common Medications After a Heart Procedure

You may be prescribed some or all of these types of medications. These medications will help strengthen your heart and arteries as well as improve blood flow after surgery.

Beta-blocker – helps keep arteries of heart open, reduces angina, improves chances of survival, improves heart function, and lowers blood pressure

Calcium Channel Blocker – lowers blood pressure, reduces workload of the heart, and keeps arteries open

Anticoagulant – helps reduce the risk of forming a clot, reduces the risk of stroke with irregular heart rhythm

Antiplatelet – helps keep the arteries of the heart open, improves chances of survival, reduces risk of heart attack

ACE-Inhibitors/Angiotensin receptor blockers (ARBs) – helps keep the arteries of the heart open, lowers blood pressure, improves heart function

Nitrates – Reduces angina symptoms, relaxes the artery walls

Statin -- lowers and helps correct cholesterol levels, keeps the arteries of the heart open

It is very important to take all your medications as prescribed. Even if you do not have any symptoms. If there is some reason you are unable to take your medications, call your doctor.

Cardiac Rehabilitation – Phase II

WHO?

Riverside Medical Center's Outpatient Cardiac Rehabilitation program is a comprehensive program that specializes in the rehabilitation of adults recovering from coronary artery bypass, valve surgery, heart attack, angioplasty or stent placement, combined heart-lung transplant and those individuals who have stable angina. Patients with a reduced ejection fraction from congestive heart failure may also be eligible for cardiac rehab.

The program is designed to not only increase the heart's efficiency and aerobic (oxygen) capacity but to also provide positive lifestyle changes through education and promotion of heart healthy habits that reduce the risk of future problems.

WHAT?

Individuals who attend cardiac rehabilitation receive an initial evaluation prior to starting the exercise program. The program consists of exercise sessions on Mondays, Wednesdays and Fridays for approximately 1 hour, along with additional time allotted for education about healthy lifestyle behaviors.

WHERE?

The facilities are located on the 4th floor of the 500 N. Wall Street building, attached to Riverside Medical Center. Treadmills, stationary, recumbent bicycles, arm ergometers, nu-steps rowers, hand weights and an elliptical machine are used for the exercise portion of the program.

STAFF:

The Cardiac Rehabilitation Department is staffed by specially trained cardiac nurses and technicians who are ACLS (Advanced Cardiac Life Support) certified. The professional team works with your cardiologist to keep them informed of your progress during the program.

HOW?

The program must be ordered by your cardiologist and is covered by Medicare and most insurance companies. Please contact your physician if you are interested in attending, or contact our department at **(815) 935-3271**. We look forward to serving you.

Appointment Date _____

Time _____

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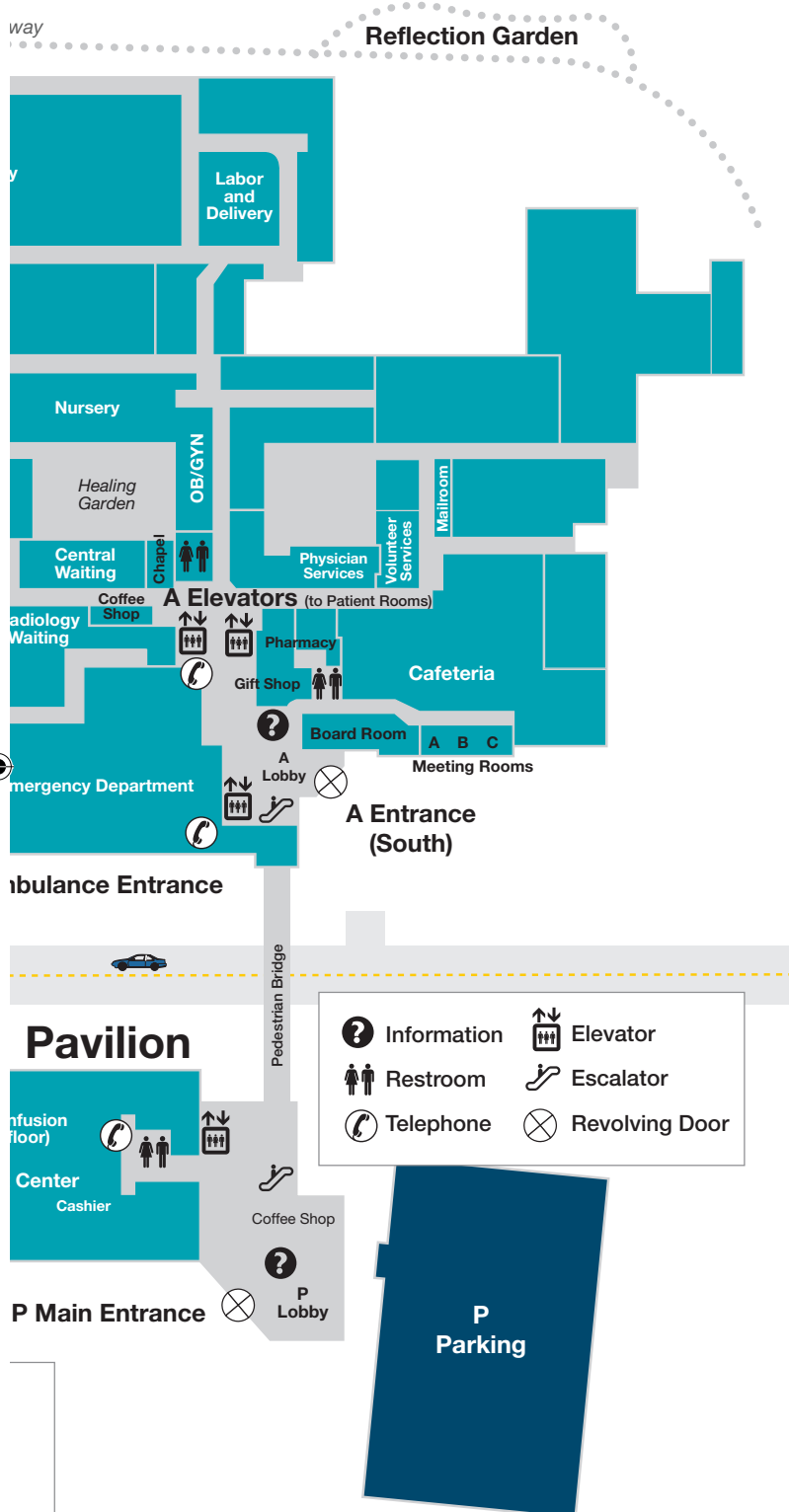
RIVERSIDE MEDICAL CENTER



Map updated March 2020

CARDIAC REHAB PHASE 1

GROUND FLOOR



*Your Heart's
in the Right Place*



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