



# **Going Home After Cardiac Surgery**



**Saint Francis Hospital**  
Trinity Health

The Hoffman Heart and  
Vascular Institute of Connecticut

# **The Hoffman Heart and Vascular Institute of Connecticut**

## **Cardiovascular Service Line**

Hoffman Heart and Vascular Institute ..... 860-714-4097  
Cardiac Wellness and Rehabilitation Services ..... 860-714-4538  
Women's Heart Health Program ..... 860-714-6389

**Saint Francis Hospital**

**114 Woodland Street • Hartford, CT 06105 • 860-714-4000**

## WELCOME

The staff of the Hoffman Heart and Vascular Institute of Connecticut are pleased that you are in the recovery phase of your hospitalization. This informational booklet was written to assist you and your family with questions that may arise when you return home. We hope this information will aid you in practicing a heart-healthy lifestyle. If you have any questions, please contact your health care team.

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PROOF

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# OUR CARDIAC SURGEONS' OFFICES

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1000 Asylum Avenue

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Hartford, CT 06105

860-714-1094

## **Entering From Floor 2 of the Collins Garage:**

- If you can walk a good distance:
  - Go through the 1st set of double glass doors and take an immediate left. This is the connector to the Gengras Medical Office Building (1000 Asylum Avenue). Follow the hallway to the lobby and take the Gray elevator to the 3rd floor.
- If you have difficulty walking:
  - Proceed directly to the security guard desk and request a mini cab (golf cart). The driver will escort you to the Gengras Medical Office Building lobby. Take the Gray elevator to the 3rd floor.
- Take a left off the elevator, then another left. We are past the Dental Center on the right; Suite 3201A.

## **Entering From the Saint Francis Lobby:**

- Take the Blue elevator to the 2nd floor and proceed directly to the information desk for assistance. There, you can request specific walking directions or a mini cab.

# GOING HOME AFTER CARDIAC SURGERY

## Care of Your Incisions:

- Shower every day but no tub baths until incisions are healed
- Use warm water and soap
- Wash, rinse, and pat dry all incisions
- Keep incisions clean and dry
- No lotions, powders, creams, or deodorant on incisions until healed
- Chair may be placed next to or in shower on a non skid surface as needed for sitting

## Check Your Incisions Daily and Notify Your Surgeon for Any of These Symptoms:

- Redness, swelling, or increased tenderness or warmth to the incision
- Temperature greater than 100 - 101° F orally
- New drainage from incision or change in color or consistency in drainage

## Sternal (Breastbone) Precautions:

- Incisions and chest wall discomfort may occur for several weeks
- You may have numbness in the left or right side of your chest if the Internal Mammary Artery was used for one of your bypass grafts
- The sternum (breastbone) takes 8-10 weeks to heal
- Support your chest with your hands or a pillow when coughing or sneezing
- Wear a supportive bra (without underwire)
- Wear your seatbelt/shoulder harness while riding in the car
- You may ride in the front seat, despite airbags
- No driving for 3-6 weeks following surgery. Check with your surgeon at post operative appointment
- You may do light housework, cook light meals

## Swelling in Your Legs

You may have swelling in your legs, ankles, and feet especially if you had a leg incision to remove veins for bypass grafts. This swelling may last for several months.

## Activities to Avoid for 4-8 Weeks During the Healing Process:

- Lifting anything heavier than 10lbs including children, pets, or groceries
- Check with your physician about activities like yard work, raking, mowing, gardening, and shoveling snow
- Housework such as vacuuming, washing floors, windows, or carrying trash
- Opening jars, windows, or doors, that may be stuck

## And, Remember To:

- Elevate your legs above level of heart when lying down or sitting in a recliner
- Notify your physician if leg swelling increases or becomes uncomfortable
- Weigh yourself daily first thing in the morning after urinating and before you eat and record (daily weight diary on page 31). Notify physician if weight gain greater than 2 pounds per day or 5 pounds per week
- Check with your physician before dental procedures especially if you had valve surgery (please see Bacterial Endocarditis Precaution information highlighted in purple below)
- Check with your doctor about shoveling snow
- Do not smoke. Stay away from smoke. This includes cigars, cigarettes, pipes and second hand smoke.
- Do not use recreational or illegal drugs of any kind

## Bacterial Endocarditis Precautions:

- You are at risk for infective (bacterial) endocarditis because of your heart valve surgery.
- It may be recommended to take antibiotics prior to some types of procedures including dental work. Please discuss with your cardiologist before doing so.
- It is your responsibility to tell all your physicians and your dentist about your valve surgery.
- Your physician and dentist may consult your cardiologist for detailed information.
- Always carry your valve identification card and show it to your physician and dentist.
- Good oral hygiene is very important to help prevent an infection that can grow on your new heart valve.
- See your dentist regularly and follow their recommendations closely.



# WHEN TO CALL YOUR DOCTOR

- If you have fever, incisional redness, increased tenderness or warmth and/or drainage
- If you have unrelieved or increased incisional pain
- If you have difficulty breathing, increase swelling
- If you notice that your angina occurs more frequently, is more uncomfortable, lasts longer than usual or occurs at rest
- If you gain 2lbs in one day and/or 5lbs in one week (weight diary can be found on page 31)
- If you have unusual fatigue
- Fast or irregular heart beat
- Persistent cough or trouble breathing when you lay down at night
- Swelling of feet or legs
- If you are experiencing side effects from the medications
- To have prescriptions filled or re-filled
- If you run out of renewable prescriptions
- To schedule a follow-up appointment with your doctor(s) within 1-2 weeks of your discharge
- Your doctor will clear you to return to work. Call if you need documentation.
- If you are thinking about or planning to become pregnant
- If you feel depressed

If your angina is associated with any of the following symptoms, call 911: Nausea, shortness of breath not relieved with rest, vomiting, cold sweats, palpitations.

# CARDIAC REHABILITATION PROGRAM

Before beginning any exercise program, it is important that you speak with your physician. He/she may have specific guidelines for you to follow based on your current health status.

Getting involved in Cardiac Rehabilitation is an essential part of your treatment plan. We will help you with a referral to a program. The goal of Hoffman Heart's Cardiac Rehabilitation program is to provide guidelines for exercise and lifestyle changes that can reduce your risk of another cardiac event. A multidisciplinary team will teach you how to start an exercise program. You will also learn how to stop smoking, eat heart healthy, control your weight, and manage stress. Not only do you get expert monitoring during an exercise session from medically trained staff, you get the support from others that have similar heart problems.

Cardiac rehabilitation is recommended for people with heart disease, or with coronary risk factors such as:

- Smoking
- Hypertension (high blood pressure)
- Dyslipidemia (abnormal blood fats)
- Diabetes
- Overweight
- Family history of heart disease
- Lack of exercise
- Stressful lifestyle

*The cardiac rehabilitation staff will assist you in the program to restore and promote an active, healthy way of life. If you have any further questions, please call us at 860-714-4538.*

# EXERCISE

Please speak with your doctor before starting an exercise program.

Exercise that is most beneficial to the heart involves movement of the whole body such as walking, swimming, rowing, biking, etc. These exercises use large muscle groups and should be performed 20-30 minutes daily for optimal benefits.

## Regular Exercise:

- Helps the heart pump better
- Helps control weight and blood pressure
- Helps control blood sugar
- Helps handle stress better
- Helps manage lipid levels

## Exercise Considerations/Precautions:

- Wear comfortable clothing and walking shoes
- Never hold your breath
- Do NOT exercise in extreme temperatures. Use an indoor facility instead
- You should be able to carry on a conversation while walking, without feeling breathless
- Remember to warm-up and cool-down for 3-5 minutes at a slower walking pace before and after exercise to prevent injury
- Walk on level surfaces and avoid treadmills until you begin your Cardiac Rehabilitation Program
- If at any time you feel any discomfort in neck, chest, jaw, back or arms or if you feel lightheaded or dizzy, STOP and REST. Discontinue exercise and report your symptoms to your doctor
- Cool down completely before taking a warm shower

*If you have any questions feel free to contact the Cardiac Rehabilitation Program at Hoffman Heart and Vascular Institute of Connecticut at Saint Francis at 860-714-4538.*

## Sample Walking Program:

Always walk at your own pace and do what is comfortable for you. The following guidelines may help you get started.

	Frequency	Duration	Intensity
Week	(Daily)	(Min/Walk)	
1	1-2	10	Low Level
2	1-2	20	Low Level
3	1	30	Low Level
4	1	30-40	Low Level
5	1	30-40	Low Level

*Helpful Reminder: Exercise at a low level. Report any problems to your doctor.*

## Stairs:

When you first get home, do not climb stairs unnecessarily. When you do, take them at a slow pace. Stop and rest if you tire. When using the handrail, do not pull yourself up with your arms. Use your legs.

Climb up the stairs stepping first onto your good leg and follow with your bad. Repeat for next stair. Good leg (without incision), bad leg (with incision).

Climb down the stairs, stepping first onto your bad leg and follow with your good leg. Repeat for next stair.

*Remember: "Up with the good, down with the bad."*

# EAT MYPLATE WAY

Eat a healthy diet, making sure it is low in fat, salt and cholesterol. It is recommended to avoid caffeine and alcohol for the first few weeks following a cardiac surgery or cardiac event. After that, consumption should be cleared by your doctor.

## Fruits:

*Focus on fruits.*

- Eat a variety of fruit
- Choose fresh, frozen, canned or dried fruit
- Go easy on fruit juices

## Vegetables:

*Vary your vegetables.*

- Eat more dark green vegetables (patients on Coumadin, see page 21)
- Choose more colorful vegetables
- Eat more dry beans and peas

## Grains:

*Make at least half of your grains whole.*

- Eat at least 3 ounces of whole grain bread, cereal, rice, or pasta everyday
- Look for the word “whole” before the grain name on the list of ingredients

## Milk:

*Get your calcium-rich foods.*

- Go low-fat or fat-free

- If you can't consume milk, choose lactose-free products or other calcium sources

## Meats & Beans:

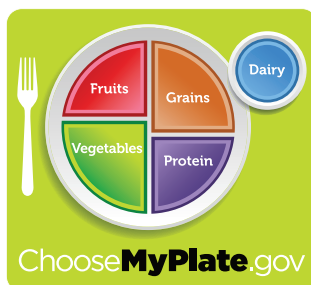
*Go lean on protein.*

- Choose low-fat or lean meats and poultry
- Bake it, broil it, or grill it
- Vary your choices with more fish, beans, peas, nuts, and seeds

## Oils:

*Know your fats.*

- Make the most of your fat sources from fish, nuts and vegetable oils
- Limit solid fats like butter, stick margarine, shortening, and lard



## Additional Resource:

[www.heart.org/en/healthy-living/healthy-eating/eat-smart](http://www.heart.org/en/healthy-living/healthy-eating/eat-smart)

# SMOKING AND THE EFFECTS ON YOUR HEART AND VASCULAR SYSTEM

The chemicals in tobacco harm nearly every organ in the body including the heart, lungs, and blood vessels. Smoking is a major risk factor for heart and vascular disease.

Any amount of smoking, even light smoking or occasional smoking, damages the heart and blood vessels. If you smoke and already have heart disease, quitting smoking will reduce your risk of heart attack and death. Quitting smoking and avoiding secondhand smoke can help reverse heart and blood vessel damage and reduce heart disease risk.

Quitting smoking is possible, but it can be hard. Millions of people have quit smoking successfully and remained nonsmokers. A variety of strategies, programs, and medicines are available to help you quit smoking. These programs can help you recognize events, feelings or activities that increase your desire to smoke and help identify and build your coping skills to effectively stop smoking. Talk to your cardiologist about these options.

You can get support from hotlines and websites such as the Connecticut Quitline. To learn more, visit [www.quitnow.net/connecticut](http://www.quitnow.net/connecticut) or call 1-800-QUIT-NOW.

## The Benefits of Quitting Tobacco Use:

- After one month you improve your circulation, cough less, are less likely to be short of breath and fatigued.
- After one year your risk of heart disease is half that of someone who does smoke.
- After five to fifteen years, your risk of stroke decreases to that of a non-smoker, and your risk of lung disease and cancer decreases significantly.

*For more information on programs available to help you quit smoking please call: 1-877-STFRANCIS (1-877-783-7262) or Integrative Medicine at Saint Francis 860-714-4450.*

# SEXUAL ACTIVITY

You can most likely resume sex as soon as you feel ready. Ask your doctor first as each individual may be different.

Usually both men and women may resume sex within a few weeks after a heart attack or heart surgery. It is important to keep in mind that sexual activity after heart surgery may cause stress on the chest and altered breathing patterns may cause discomfort to a sternal wound that is healing. Patients should be mindful to avoid sexual positions that cause discomfort or put undue stress on the surgical site.

The cardiac effort used during sexual activity is no different than any other physical activity. Sexual activity uses about the same amount of energy it takes to climb 2 flights of stairs or walk briskly around a medium size block.

Some medications do affect sexual performance. Some medications including blood pressure medicines, water pills, tranquilizers, antidepressants and some medications used for chest pain or irregular heart beat can affect sexual drive and sexual function. If you experience any of these symptoms, do NOT stop taking your medications and talk to your doctor.

Sildenafil (Viagra), tadalafil (Cialis) and vardenafil (Levitra) are medications used to treat erectile dysfunction. People with heart disease should talk to their doctors about the benefits and risks of using these medications. The use of nitrates and these medications should be avoided as combining the two drugs can cause abnormally low blood pressure that may be life threatening.

Heart disease does not only affect you, but your partner and family as well. It is extremely important to include your partner when discussing the resumption of sexual activity. Caring, understanding and communication are keys to recovery of the cardiac patient. Always discuss your feelings with your partner.

### Helpful Hints When Resuming Sexual Activity:

- Be patient with yourself and avoid rushing into sex
- Don't expect too much at first.
- Choose a time when you're both rested and free from stress
- Wait two to three hours after eating a full meal before having sex
- Avoid consuming alcohol prior to sexual activity
- Initially you may find that engaging in sex in the morning when you are fully rested is best and as you get stronger you may choose any time of the day
- If you are thinking about or planning to become pregnant, be sure to consult your doctor

*For more information on sex and heart disease, visit the American Heart Association's website [www.heart.org](http://www.heart.org) and search sex and heart disease.*



# YOUR EMOTIONS

After your cardiac event you may experience many different emotions. You may feel angry, irritable, frightened, discouraged, and/or depressed. It is normal to have ups and downs.

After a cardiac event you need to take care of yourself physically and emotionally. There are some things you can do to help you cope.

- Having a positive attitude helps with recovery. Spend time with family and friends. Share your feelings. Strong support is important at this time. Talking to family and friends can be of great comfort.
- Get back into your routines as soon as you can.
- Join a cardiac rehabilitation program. These programs not only offer exercise, but emotional support from staff and other patients. The program addresses stress and anger management. It provides social interaction.
- Ask for help if you need it. You may have some degree of depression after a cardiac event. If you still feel depressed, talk with your doctor. By participating in counseling sessions and/or taking medications you can reduce your symptoms of depression.
- A cardiac event is a life-altering experience. Your emotional health needs to be restored as much as your heart needs to heal.

*For more information on depression and heart disease, visit the American Heart Association's website [www.heart.org](http://www.heart.org) and search depression.*

# MEDICATION GUIDELINES

Before you leave the hospital, your doctor will prescribe medications for you to take at home. The nurse will give you a list of these medications, information about how they work and their side effects.

Take your medications as directed. This is one of the most important things you can do to improve and maintain your health. Fill your prescriptions promptly, and be careful not to miss a dose.

Talk with your doctor before taking other prescriptions, over-the-counter medications, vitamin supplements, herbal remedies, erectile dysfunction medications and non-steroidal anti-inflammatory drugs (NSAIDs). Some common NSAID medications include: ibuprofen (Advil, Motrin), naproxen (Aleve, Anaprox DS, Naprosyn) and celecoxib (Celebrex).






*Talk with your doctor if you are thinking about or planning to become pregnant.*

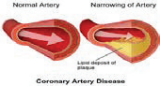





## **For Safe and Effective Use of Your Medications Remember the Following Guidelines:**

- Keep medications in separate labeled containers
- Take your pills at approximately the same time each day according to your schedule
- If you forget to take a pill, do not take two the next time. If you are unsure of what to do, call your doctor
- Carry a current list of your medications at all times
- If you begin having new problems or think something unusual is related to your medication, call your doctor. Do not change the dosage or stop taking your pills without your doctor's advice. They may be able to switch you to a different medication which achieves the same effect
- With some medications, you may need to avoid grapefruit juice

# MyMEDS: Patient Medication Guide

This guide offers information about your medications, why you're taking them, and the most common side effects to look for. If you have any questions, feel free ask your nurse or doctor for help.

Medication Name Generic - (Brand)	Reason for Medication	Common Side Effects
<b><u>Anti-Platelet</u></b> Aspirin Clopidogrel - (Plavix®) Ticagrelor - (Brilinta®) Prasugrel - (Effient®)	<ul style="list-style-type: none"> <li>Stops blood clots from forming</li> <li>Keeps arteries, stents and grafts open</li> </ul> 	<ul style="list-style-type: none"> <li>Upset Stomach</li> <li>Bruising</li> <li>Risk of bleeding</li> <li>❖ Watch for dark or bright red stool</li> </ul>
<b><u>Beta Blocker</u></b> Metoprolol - (Lopressor®, Toprol XL®) Atenolol - (Tenormin®) Labetalol - (Trandate®) Carvedilol - (Coreg®)	<ul style="list-style-type: none"> <li>Lowers blood pressure and heart rate</li> <li><i>Diltiazem</i> controls irregular heart rate</li> </ul> 	<ul style="list-style-type: none"> <li>Tired</li> <li>Dizziness</li> <li>Lightheaded</li> <li>Weakness</li> </ul>
<b><u>Calcium Channel Blocker</u></b> Amlodipine - (Norvasc®) Diltiazem - (Cardizem®) Verapamil - (Calan®)		
<b><u>ACE Inhibitor</u></b> Lisinopril - (Prinivil®, Zestril®) Enalapril - (Vasotec®) Ramipril - (Altace®) Captopril - (Capoten®)	<ul style="list-style-type: none"> <li>Lowers blood pressure</li> <li>Improves heart function</li> </ul> 	<ul style="list-style-type: none"> <li>Dizziness</li> <li>Lightheaded</li> <li>Dry Cough</li> <li>Loss of taste</li> </ul>
<b><u>ARB</u></b> Losartan - (Cozaar®) Valsartan - (Diovan®)		
<b><u>Antiarrhythmic</u></b> Amiodarone - (Cordarone®, Pacerone®) Digoxin - (Digitek®) Sotalol - (Betapace®)	<ul style="list-style-type: none"> <li>Treats heart rate/rhythm</li> </ul> 	<ul style="list-style-type: none"> <li>Upset stomach</li> <li>Headache</li> <li>Sensitivity to the sun</li> </ul>
<b><u>Diuretic</u></b> Furosemide - (Lasix®) Torsemide - (Demadex®) Bumetanide - (Bumex®) Hydrochlorothiazide - (Microzide®) Metolazone - (Zaroxolyn®) Spironolactone - (Aldactone®)	<ul style="list-style-type: none"> <li>Gets rid of extra body fluid</li> </ul> 	<ul style="list-style-type: none"> <li>Thirst</li> <li>Dry mouth</li> <li>Increased urination</li> <li>Muscle Cramps</li> </ul>

Medication Name Generic - (Brand)	Reason for Medication	Common Side Effects
<b>Statin</b> Atorvastatin - (Lipitor®) Pravastatin - (Pravachol®) Rosuvastatin - (Crestor®) Simvastatin - (Zocor®)	<ul style="list-style-type: none"> <li>• Lowers bad cholesterol</li> <li>• Increases good cholesterol</li> </ul> 	<ul style="list-style-type: none"> <li>• Abdominal discomfort</li> <li>• Muscle cramps</li> </ul>
<b>Electrolytes</b> Potassium Chloride - (K-Dur®, Klor-Con®) Magnesium Sulfate	<ul style="list-style-type: none"> <li>• Electrolytes support function of the heart, kidneys, muscles, nerves, and digestive system</li> </ul> 	<ul style="list-style-type: none"> <li>• Abdominal discomfort</li> <li>• Nausea/Vomiting</li> <li>• Diarrhea</li> </ul>
<b>Anticoagulant</b> Warfarin - (Coumadin®) Dabigatran - (Pradaxa®) Rivaroxaban - (Xarelto®) Apixaban - (Eliquis®) Enoxaparin - (Lovenox®)	<ul style="list-style-type: none"> <li>• Thins blood</li> <li>• Breaks up clots</li> </ul> 	<ul style="list-style-type: none"> <li>• Bruising</li> <li>• Bleeding</li> <li>❖ Watch for dark or bright red stool</li> </ul>
<b>Acid Reducer</b> Omeprazole - (Prilosec®) Pantoprazole - (Protonix®) Lansoprazole - (Prevacid®) Esomeprazole - (Nexium®) Famotidine - (Pepcid®) Ranitidine - (Zantac®)	<ul style="list-style-type: none"> <li>• Treats heartburn or reflux</li> <li>• Protects from and heals stomach ulcers</li> </ul> 	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Constipation</li> <li>• Diarrhea</li> </ul>
<b>Pain</b> Oxycodone/Acetaminophen - (Percocet®) Hydrocodone/Acetaminophen - (Vicodin®) Tramadol - (Ultram®) Hydromorphone - (Dilaudid®) Oxycodone I.R. - (Roxicodone®) Oxycodone ER - (Oxycontin®) Morphine - (MSContin®) Butorphanol - (Stadol®)	<ul style="list-style-type: none"> <li>• Pain relief</li> </ul> 	<ul style="list-style-type: none"> <li>• Nausea/Vomiting</li> <li>• Constipation</li> <li>• Drowsiness</li> <li>• Dizziness</li> </ul>
<b>Anti-Nausea</b> Ondansetron - (Zofran®) Promethazine - (Phenergan®) Prochlorperazine - (Compazine®) Metoclopramide - (Reglan®) Scopolamine Patch - (Transderm Scop®)	<ul style="list-style-type: none"> <li>• Nausea relief</li> </ul> 	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Constipation</li> <li>• Drowsiness</li> <li>• Dizziness</li> </ul>

## Tips to Follow When Taking Warfarin (Coumadin):

- Take the medication at the same time each day, preferably at night
- Go for blood test (INR) as directed, the results will determine your dose
- Many medications can interact with Warfarin, including antibiotics. Please let the doctor who manages your Warfarin know that you are taking antibiotics
- Do not take any other medications without checking with your doctor. This includes aspirin, vitamins, herbal supplements, dietary supplements and NSAIDs
- Tell your doctor, dentist and all healthcare providers that you take warfarin. It is also a good idea to carry a medical ID card or wear a medical-alert bracelet
- Use a soft toothbrush and an electric razor
- Keep your diet consistent

Vitamin K helps your blood clot. Eating foods that contain vitamin K can affect the way warfarin works. You don't need to avoid foods that contain vitamin K. But you do need to keep the amount you eat steady (about the same day-to-day).

Examples of foods high in vitamin K are asparagus, avocado, broccoli, cabbage, kale, spinach, and some other leafy green vegetables. Oils, such as soybean, canola, and olive oils, are also high in vitamin K.

Below are some other foods and drinks that can affect the way warfarin works in your body:

- Grapefruit, grapefruit juice, cranberries, cranberry juice, fish oil supplements, garlic, ginger, licorice, and tumeric and other herbal supplements
- Herbs used in herbal teas
- Avoid alcohol. Alcohol can increase the effect of Warfarin in your body

For more information regarding Anticoagulants see page 20.

# RISK FACTORS FOR CORONARY ARTERY DISEASE

Risk factors are something that increase your chance of getting a disease. Below, you will find risk factors for coronary artery disease divided into two categories: non-modifiable (factors you can't change) and modifiable (factors you can change).

A cardiac rehabilitation program is recommended for people with heart disease and with the following risk factors:

## **Non-Modifiable:**

- Increasing age
- Family history of coronary artery disease
- Gender (male sex)
- Heredity

## **Modifiable:**

- Tobacco use
- High blood pressure
- High blood cholesterol
- Obesity/Overweight
- Inactive lifestyle
- Poor diet and nutrition
- Diabetes
- Stress
- Metabolic syndrome

The good news is, the Hoffman Heart Cardiac Rehabilitation team can help you manage your health and well-being in order to reduce your risk factors for coronary artery disease. For more information, please call 860-714-4538.

*For more information on risk factors, visit the American Heart Association's website [www.heart.org](http://www.heart.org) and search coronary artery disease risk factors.*

# ANGINA

Angina is the symptom or discomfort that occurs when a certain area of your heart temporarily does not receive enough oxygenated blood.

Usually angina happens with increased stress or activity when the heart must work harder and needs more blood supply for energy. Partial blockages in the coronary arteries may cause decreased blood flow and oxygen to the heart. When the heart needs more oxygen than it receives, you may feel angina. This acts as a warning signal that tells you to stop what you are doing and rest. When the workload on your heart decreases, your angina may go away.

If you begin to experience angina at rest, or you have an increase in the intensity or frequency of angina episodes, call your doctor. Often a person's angina will feel the same each time and be brought on by the same level of activity.

Even if you have had coronary bypass surgery, or angioplasty, it is still possible to experience angina.

If your angina is associated with any of the following symptoms, call 911: Nausea, shortness of breath not relieved with rest, vomiting, cold sweats, palpitations.

# WHAT DOES ANGINA FEEL LIKE?

The locations and severity of discomfort differ among individuals. The most common sensations experienced as angina are as follow:

- Burning; squeezing; heaviness; pain; pressure fullness or tightness in the chest, upper abdomen or throat
- Shortness of breath
- Indigestion
- Numbness; heaviness; tingling; aches or pains in the arms, shoulders, elbows or fingers, especially on the left side
- Choking sensation in the throat
- Pain in the jaw, gums, teeth or throat
- Pain between the shoulders
- Extreme fatigue

Angina is not a heart attack and causes no permanent damage to the heart muscle. Symptoms usually will resolve with rest and/or nitroglycerin. However, if the character of your symptom changes and you are unsure what to do, contact your doctor.

Women's symptoms may also include:  
pain or aching in the jaw, ear, shoulder, back, or abdomen.



# HEART ATTACK

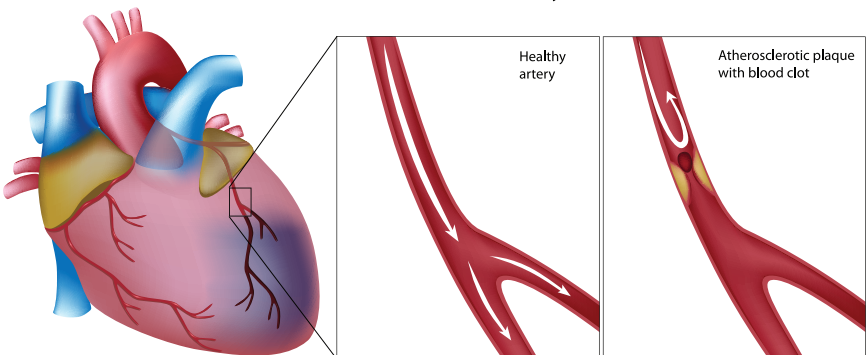
A heart attack occurs when there is a severe blockage in an artery that carries oxygen-enriched blood to the heart muscle. The sudden lack of blood flow and oxygen supply to the heart muscle can cause permanent damage.

## What Causes a Heart Attack?

- Plaque buildup inside the artery wall
- A blood clot – blood cells that stick to the plaque inside the artery wall
- Spasm – a coronary artery that temporarily constricts
- Stress cardiomyopathy – reversible left ventricular apical ballooning of heart (broken heart syndrome) caused by acute emotional stress

When your heart muscle does not get enough blood and oxygen, damage to the heart muscle can quickly happen. It is very important to get medical help as soon as you have signs of a heart attack. Treatment may decrease the amount of damage, but work best if given soon after symptoms occur.

Anatomy of a heart attack



# SYMPTOMS OF A HEART ATTACK

## Warning Signs:

- Burning, squeezing, heaviness, pain, pressure, fullness or tightness in the upper chest, upper abdomen, or throat
- Shortness of breath
- Indigestion
- Numbness; heaviness; tingling; aches or pains in the arms, shoulders, elbows or fingers, especially on the left side
- Choking sensation in the throat
- Pain in the jaw, gums, teeth or throat
- Pain between the shoulders
- Extreme fatigue
- Sweating (may be a cold, clammy sweat)
- Dizziness or fainting
- Rapid or irregular heartbeat
- Pale or grey-looking skin

## Women Tend to Present Differently:

- Shortness of breath
- Cold sweats
- Weakness or unusual fatigue
- Pain high in the abdomen or chest, or in the back, neck, jaw

In weeks leading up to heart attack women may have symptoms of unusual fatigue, shortness of breath, anxiety, insomnia, and indigestion.

**If you have symptoms of a heart attack – call 911.**

# ATRIAL FIBRILLATION

Atrial fibrillation (A Fib) is when the upper chambers of the heart beat erratically and cause an irregular heartbeat.

The upper chambers of your heart do not pump blood into the lower chambers efficiently. The blood left in the upper chambers tends to pool and may form clots. These clots can move to any part of your body. If the clot goes to your brain, it can block the flow of oxygen to part of your brain. When this happens, some of your brain cells may die. This is called a stroke. Having A Fib makes you five times more likely to have a stroke.

## Symptoms

Some people with A Fib have no symptoms. Others may have heart palpitations, shortness of breath, chest pain and more. A Fib can occur every day or only a few times a year.

## Stroke prevention:

Medication prescribed by your doctor can reduce the risk of stroke with A Fib. Anticoagulants known as blood thinners help prevent clots from forming. It is important to stay on medication as prescribed.

# CONGESTIVE HEART FAILURE

## What is Heart Failure?

The heart is a muscle. It pumps oxygen-rich blood to all parts of the body. When you have heart failure, the heart cannot pump as well as it should. Blood and fluid may back up into the lungs, and some parts of the body do not get enough oxygen-rich blood to work normally. These problems lead to the symptoms you feel.

When you have heart failure, not enough blood leaves the heart with each beat. Ejection fraction is the percentage of blood that is pumped out of the ventricles with each heart beat. There are two types of heart failure. Both affect the ventricles' ability to pump blood. You may have one or both types.

1. **Systolic Heart Failure:** The heart muscle becomes weak and enlarged. It cannot pump enough blood forward when the ventricles contract. Ejection fraction is lower than normal.
2. **Diastolic Heart Failure:** The heart muscle becomes stiff. It does not relax normally between contractions, which keeps the ventricles from filling with blood. Ejection fraction is often in the normal range.

# LIVING WITH HEART FAILURE

## What You Can Do:

- Weigh yourself daily first thing in the morning after urinating and before you eat and record
- If you gain 2 pounds in one day or 5 pounds in one week, call your doctor (daily weight diary on page 31)
- Maintain a low sodium diet 2,000mg per day unless otherwise instructed by your doctor
- Read food labels for sodium content
- Watch your fluid intake follow instruction as prescribed by your doctor
- Take your medications the same time every day
- If you forget to take your medication, do not double your dosage the next time. Always call your doctor if you are unsure of what to do.
- If you are short of breath, ankles are swollen, shoes are tight, or fatigued, call your doctor
- Get up and get dressed every day
- Maintain your activity level
- Pick one to two activities daily that you like to do (short walks are great)
- Join a cardiac rehabilitation program
- Add a little movement to things you do now
- Follow-up care
- Do not miss your doctor's appointment
- Do not miss your lab tests that are needed to check your medications and condition

*Interested in a support group? Visit the American Heart Association's website [www.heart.org](http://www.heart.org) and search support network.*

# DAILY WEIGHT DIARY

Following open heart surgery, you are at risk of developing congestive heart failure. Weighing yourself and tracking your symptoms is a great way to monitor this. Here are some things to remember:

- Weigh yourself on the same scale every morning. This should be done before breakfast, after urinating, and without clothes.
- Be sure your scale is on a hard surface (not on a rug).
- Call your doctor if your weight increases two pounds in a day, five pounds in a week, or if you are in the Yellow Zone.
- Call 911 if you are in the Red Zone.

Admission Weight \_\_\_\_\_ Date \_\_\_\_\_

Symptom Zones
<b>GREEN ZONE</b> – Great job! Keep it up!
<ul style="list-style-type: none"><li>• No weight gain</li><li>• No shortness of breath</li><li>• No swelling in feet, ankles, legs, or stomach</li><li>• No chest pain</li><li>• Normal activity level</li><li>• No redness, swelling, or drainage from incisions</li></ul>
<b>YELLOW ZONE</b> – Call your Surgeon
<ul style="list-style-type: none"><li>• Weight gain of two or more pounds in a day or five pounds in a week</li><li>• New or worsening shortness of breath with activity or at night</li><li>• New or worsening swelling in the feet, ankles, legs, or stomach</li><li>• Increased dry cough</li><li>• Dizziness lasting more than one minute</li><li>• Feeling more tired, no energy, decrease in appetite</li><li>• Unable to take medications as prescribed</li><li>• Fever greater than 101°F</li><li>• Redness, swelling, or drainage from incisions</li></ul>
<b>RED ZONE</b> – Call 911!
<ul style="list-style-type: none"><li>• Struggling to breathe</li><li>• Chest pain at rest</li><li>• Feeling confused or can't think clearly</li></ul>

Day/Date	Weight	Zone			Day/Date	Weight	Zone		
1		Green	Yellow	Red	22		Green	Yellow	Red
2		Green	Yellow	Red	23		Green	Yellow	Red
3		Green	Yellow	Red	24		Green	Yellow	Red
4		Green	Yellow	Red	25		Green	Yellow	Red
5		Green	Yellow	Red	26		Green	Yellow	Red
6		Green	Yellow	Red	27		Green	Yellow	Red
7		Green	Yellow	Red	28		Green	Yellow	Red
8		Green	Yellow	Red	29		Green	Yellow	Red
9		Green	Yellow	Red	30		Green	Yellow	Red
10		Green	Yellow	Red	31		Green	Yellow	Red
11		Green	Yellow	Red	32		Green	Yellow	Red
12		Green	Yellow	Red	33		Green	Yellow	Red
13		Green	Yellow	Red	34		Green	Yellow	Red
14		Green	Yellow	Red	35		Green	Yellow	Red
15		Green	Yellow	Red	36		Green	Yellow	Red
16		Green	Yellow	Red	37		Green	Yellow	Red
17		Green	Yellow	Red	38		Green	Yellow	Red
18		Green	Yellow	Red	39		Green	Yellow	Red
19		Green	Yellow	Red	40		Green	Yellow	Red
20		Green	Yellow	Red	41		Green	Yellow	Red
21		Green	Yellow	Red	42		Green	Yellow	Red

# EDUCATIONAL RESOURCES CAN BE FOUND AT [WWW.TRINITYHEALTHOFNE.ORG](http://WWW.TRINITYHEALTHOFNE.ORG)

## **Other educational resources that may be helpful:**

- The American Heart Association - [www.americanheart.org](http://www.americanheart.org)
- National Heart, Lung and Blood Institute – [www.nhlbi.nih.gov/health](http://www.nhlbi.nih.gov/health)
- Mended Hearts - [www.mendedhearts.org](http://www.mendedhearts.org)
- The Society of Thoracic Surgeons – [www.sts.org](http://www.sts.org)

## **Family and Friend Resources found on the Saint Francis Hospital website @ [www.trinityhealthofne.org](http://www.trinityhealthofne.org) - For Patients and Families**

- General Patient Information (Admissions, Patient Handbook, Advance Directives, Patient Forms, HIPAA Privacy Notice, Patient Bill of Rights, Language Interpreters)
- Admissions (Location, Direction, Parking, Valet Parking, e-mail a patient, amenities including Blossoms Flower Shop, gift shop, mini-cab service, overnight accommodations, dining, pastoral care, integrative medicine, visitor information and hours)



# NOTES

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# Saint Francis Hospital

Trinity Health

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