



**Journey to a  
Healthy Heart**



# Journey to a Healthy Heart

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The BSA Cardiac Rehab team is highly-trained in helping patients improve their overall health and reduce their chance of developing future heart related health issues. Throughout this book, helpful tips on reducing heart disease risk can be found.

**Name:** \_\_\_\_\_

**Exercise Time:** \_\_\_\_\_

**Education Time:** \_\_\_\_\_



# About the Program

The BSA Cardiac Rehabilitation Program is certified by the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR). Programs certified by AACVPR are recognized as leaders in the field of cardiovascular rehabilitation and this designation showcases BSA's commitment to quality patient care.

Participation in the BSA Outpatient Cardiac Rehab Program can be the first step toward improving a patient's quality of life. Cardiac rehab provides support and personalized treatment plans.

The three components of cardiac rehab include:

- Education
- Exercise
- Support

Benefits from participating in a cardiac rehab program include:

- Improving overall confidence and well-being
- Improving stamina and strength to get back to a daily routine
- Reducing the physical and emotional effects of heart disease
- Stopping or reversing damage to the heart's blood vessels


This program is 12-weeks long with exercise sessions on Mondays, Wednesdays and Thursdays. **Regular attendance is encouraged to maximize benefits received from the program and required to keep requested exercise appointment times. If unable to attend a session, please notify staff in advance by calling (806) 212-0756.**

During exercise, patients will wear a heart monitor to track EKG rhythm. In addition, heart rate, blood pressure and level of exertion will be monitored. Avoid heavy meals or stimulants, such as caffeine or nicotine, at least two hours prior to exercise. Please notify a BSA Cardiac Rehab team member of any medication changes, illnesses, discomfort or other symptoms including excessive fatigue, shortness of breath, swelling or dizziness.

**Immediately notify staff if experiencing any chest, arm, neck, jaw or upper back discomfort while exercising.**

On Mondays and Wednesdays, education classes about various aspects of heart disease will be presented by dietitians, pharmacists, nurses and former patients.

Family members are invited to attend both education and exercise sessions and are encouraged to stay for patients that are not physically independent.



**The primary goal of cardiac rehab is to help reduce chances of further heart problems.**

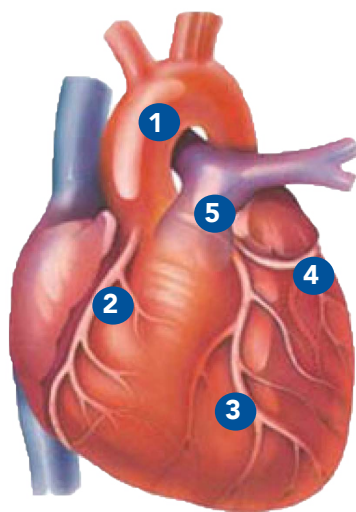
# Understanding the Heart

Heart disease is the leading cause of death in the United States. In many cases, heart disease develops gradually over time due to plaque buildup in the heart's arteries and weakness due to cardiomyopathy/heart failure. Plaque buildup decreases blood flow to the heart and may lead to a heart attack. Cardiomyopathy refers to diseases of the heart muscle. These diseases can cause the heart to become weaker, less able to pump blood throughout the body and incapable of maintaining a normal electrical rhythm. The result can be heart failure or irregular heartbeats called arrhythmias. A weakened heart can also cause other complications, such as heart valve problems. Exercising, taking medications as directed, managing stress and following a heart healthy diet can help reduce the risk of heart issues.

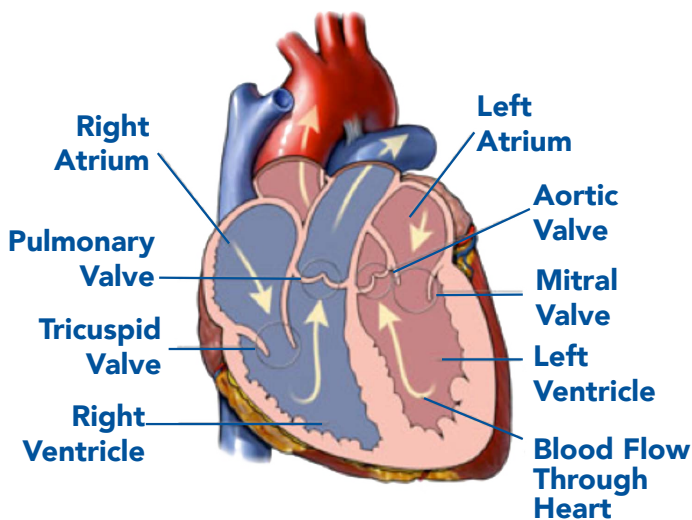
## How Blood Flows Through the Heart

Each day, the heart beats about 100,000 times and circulates approximately five liters of blood throughout the body each day.

The heart is made up of four chambers. The two upper chambers are the left and right atrium, the lower chambers are the left and right ventricles. The right side of the heart pumps blood to the lungs where the blood takes in oxygen. The left side of the heart receives the oxygen rich blood which it pumps through your body. The left ventricle is the heart's main pumping system and is where the majority of heart attacks take place.



- 1 Aorta
- 2 Right Coronary Artery
- 3 Left Anterior Descending Coronary Artery
- 4 Circumflex Coronary Artery
- 5 Left Main Coronary Artery



## SIGNS AND SYMPTOMS OF A HEART ATTACK

- Pressure, fullness, squeezing pain in the center of the chest, spreading to the neck, shoulder or jaw.
- Chest discomfort with light-headedness, fainting, sweating, nausea or shortness of breath.
- Upper abdominal pressure or discomfort
- Back pain
- Unusual fatigue
- Unusual shortness of breath
- Dizziness
- Nausea




**DON'T WAIT.  
CALL 9-1-1**



# Common Risk Factors

Risk factors of heart disease include certain lifestyle habits or inherited traits. Below are some of the most common risk factors for heart disease.

CONTROLLABLE RISK FACTORS									
									
Cigarette Smoking and Second-hand Tobacco Smoke Inhalation	High Blood Cholesterol	High Blood Pressure	Physical Inactivity	Being Obese or Overweight	Diabetes	Stress	Sleep Apnea	Lack of Medication Compliance	Unhealthy Diet

UNCONTROLLABLE RISK FACTORS		
		
Advanced Age Men 45+, Women 50+	Heredity Family medical history of premature heart disease (men under age 55, and women under age 65)	Race — African Americans, Mexican Americans and Native Americans may have a higher risk



# Smoking

One in five deaths each year in the United States is a result of cigarette smoking or exposure to secondhand smoke. The life expectancy of someone who smokes is 10 years shorter than someone who does not. Smokers have twice the risk of having a heart attack as non-smokers.

When a person smokes, they take in carbon monoxide and decrease the amount of oxygen rich blood flowing to their heart. Blood pressure and heart rate increase, causing the heart to work harder. Nicotine and carbon monoxide damage arteries, create plaque build up and create a higher risk for blood clot formation.

Electronic-cigarettes (E-cigs) are unregulated by the FDA and their risk factors are currently not known. They are not considered to be a harmless alternative to smoking.



**Cigarette  
SMOKING  
kills more than  
480,000  
Americans  
EACH YEAR**

**The  
ANNUAL  
healthcare cost  
FOR SMOKING  
one pack per day is  
\$12,775.00**

**SMOKING  
harms  
almost every  
organ in  
the body**



# High Cholesterol

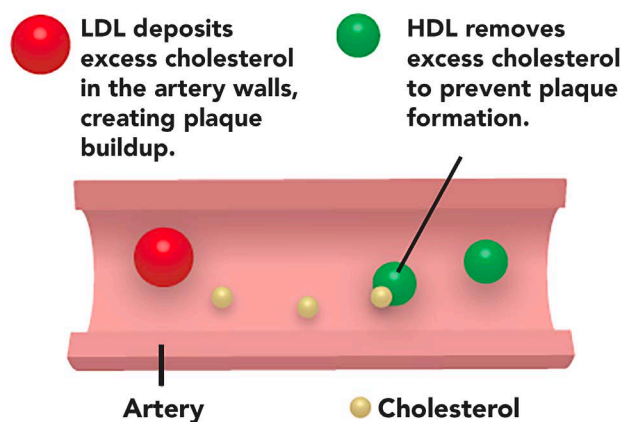
Cholesterol is a waxy, fat-like substance found in the body. When foods high in saturated fat, trans fat and cholesterol are consumed, the body can make too much cholesterol. Over time, this extra cholesterol can clog arteries and increase the risk of heart attack or stroke.

**High Density Lipoprotein (HDL)** is “good cholesterol.” It helps clean fat and cholesterol from blood vessels. Remember the “H” in HDL is for healthy, and the higher it is, the better. Exercising will increase HDL levels.

**Low Density Lipoprotein (LDL)** is “bad cholesterol.” It carries cholesterol to blood vessels, clogging them like rust in a pipe. Remember the “L” in LDL is for lousy, and the lower it is, the better.

**Triglycerides** are a type of fat that is naturally produced by the body and also comes from food. When more carbohydrate calories than the body requires are consumed, triglyceride levels will elevate, increasing the risk of heart disease.

## Cholesterol in the Arteries



### “Good” Cholesterol - HDL

The HDL cholesterol scrapes away unnecessary LDL from artery walls, preventing the formation of plaque. That’s why HDL cholesterol is commonly called “good”.

### “Bad” Cholesterol - LDL

LDL, on the contrary, deposits excess cholesterol on the artery walls, thus promoting plaque formation. For this reason, the LDL cholesterol is defined as “bad”.

## Recommended Lipid Levels

Cholesterol	Triglycerides	HDL “Good” Cholesterol	LDL “Bad” Cholesterol
Desirable: < 200 Borderline: 200-240 Elevated: >240	Desirable: < 150	Desirable: > 40 for men Desirable: > 50 for women	Desirable: < 70 for patients with heart disease Borderline: 100-160 Elevated: >160

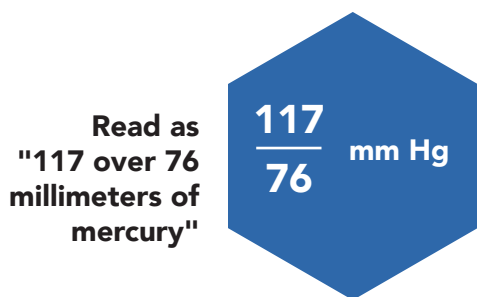


# High Blood Pressure

Blood pressure is the force of blood against the walls of the arteries. The blood that flows through the arteries provides organs in the body with oxygen. Healthy arteries are made of muscle and a semi-flexible tissue that stretches like elastic when the heart pumps blood through them. The more forcefully blood pumps through the arteries, the more elastic the arteries become. Too much stretching of the arteries will cause damage over time.

## Measuring Blood Pressure

Blood pressure is recorded as a two number ratio — the systolic pressure over diastolic pressure.



### SYSTOLIC

The top number, which is also the higher of the two numbers, measures the pressure in the arteries when the heart beats (when the heart muscle contracts).

### DIASTOLIC

The bottom number, which is also the lower of the two numbers, measures the pressure in the arteries between heartbeats (when the heart muscle is resting between beats and refilling with blood).

## Blood Pressure Readings

Blood Pressure Category	Systolic mm Hg (upper number)		Diastolic mm Hg (lower number)
Normal	Less than 120	and	Less than 80
Pre-hypertension	120-139	or	80-89
High Blood Pressure (Hypertension) Stage 1	140-159	or	90-99
High Blood Pressure (Hypertension) Stage 2	160 or Higher	or	100 or Higher
Hypertensive Crisis (Emergency care needed)	Higher than 180	and/or	Higher than 110

Keep blood pressure scores in the healthy range to:

- Ensure tissues receive regular supplies of blood rich in oxygen
- Reduce the risk of having a heart attack or stroke, developing heart failure, kidney failure or peripheral vascular disease
- Reduce the risk of the blood vessel walls from becoming overstretched and injured



# High Blood Pressure

High blood pressure, commonly called hypertension, is known as the “Silent Killer” because it often has no symptoms. High blood pressure is caused by cholesterol or plaque buildup or scarring that causes the arteries to become less elastic over time, making the heart pump harder to move blood.

## What Happens When More Force is Needed to Move Blood

### 1. VASCULAR WEAKNESS

Overstretching creates weak places in the blood vessels, making them more prone to rupture.

### 2. VASCULAR SCARRING

The overstretching may also cause tiny tears in the blood vessels, creating scar tissue on the artery and vein walls. This scar tissue catches debris such as cholesterol and blood cells that are traveling through the bloodstream.

### 3. INCREASED RISK OF BLOOD CLOTS

The trapped blood causes clots to form. These clots may narrow or block arteries, break off and block vessels or block blood supply to other parts of the body. This blockage often results in heart attack or stroke.

### 4. INCREASED PLAQUE BUILD-UP

Limited blood flow caused by cholesterol and plaque buildup at damaged artery sites forces the heart to work harder. If plaque pieces break off or vessels become completely blocked, heart attack or stroke may occur.

### 5. TISSUE AND ORGAN DAMAGE

Narrowed and blocked arteries can cause tissue and organ damage. Ultimately, the arteries on the other side of the blockage do not receive enough freshly oxygenated blood, which results in tissue damage.

### 6. INCREASED CIRCULATION WORKLOAD

This is similar to a home where several faucets are open and running. The water pressure flowing out of any one faucet is lower, but when pipes get clogged and narrow, the pressure is much greater behind the clog. If all the household water is flowing out of only one faucet, the pressure will continue to increase.











# High Blood Pressure

High blood pressure can cause:

- Brain Damage
- Damage to the Eyes
- Heart Attacks
- Heart Failure
- Kidney Failure
- Stroke

## Risk Factors of High Blood Pressure

In most cases, the cause of high blood pressure is unknown. However there are several factors that may increase a person's risk of developing high blood pressure.

CONTROLLABLE RISK FACTORS		UNCONTROLLABLE RISK FACTORS	
	Being Overweight or Obese Having a Body Mass Index (BMI) score of 25 or more.		Advanced Age
	Physical Inactivity		Being African American
	Poor Diet Habits Consuming foods high in calories, fats, sugar or sodium.		Family History of High Blood Pressure
	Stress		Gender Men have a higher risk than women until age 45. Women have a higher risk than men after age 65.

## Preventing High Blood Pressure

Although uncontrollable risk factors of high blood pressure may be present, each person can reduce their risk of developing high blood pressure by:

- Being physically active
- Practicing moderate to vigorous-intensity aerobic activities
- Staying informed of your risk factors
- Taking medications as prescribed by a physician
- Working with a health care professional to determine individual treatment goals and map out an action plan for prevention and management of high blood pressure

# Physical Inactivity and Obesity

In modern society, many people have a daily routine which includes hours of sitting at a desk using computers, watching TV and using delivery apps. These habits create a trend of physical inactivity which can lead to obesity, heart disease and diabetes. According to the Centers for Disease Control only 49.2 percent of American adults older than 18 meet the guidelines for physical activity. Out of these, only 20.8 percent meet the guidelines for both aerobic activity and muscle-strengthening activity.

Regular physical activity helps improve overall health. For cardiovascular health, aerobic exercise such as walking, biking, swimming, jogging or dancing is recommended for at least 30 minutes, five times a week.

Being physically active:

- Controls Weight
- Reduces Blood Pressure
- Reduces Stress

Obesity is an epidemic in the United States with 35.1 percent of adults in America classified as obese. Being overweight or obese increases the risk for diseases such as:

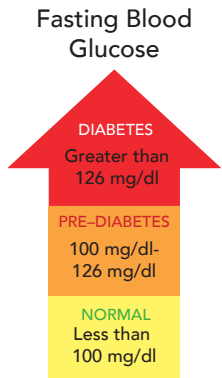
- Certain Cancers
- Diabetes
- Gallbladder Disease
- Heart Disease
- High Blood Pressure
- Osteoarthritis
- Respiratory Disorders
- Stroke

The risk of developing these diseases is even higher when extra weight is concentrated near the waist (central obesity). Obesity is increasing due to a combination of low physical activity and high-calorie diets.



# Diabetes

Diabetes is a disease characterized by high blood sugar caused by a lack of insulin or resistance to the action of insulin.



**According to the National Diabetes Statistics Report from 2017**

**30.3**  
million  
have diabetes

**84.1**  
million  
have prediabetes

Type 1 diabetes occurs when there is a complete stop in your body's insulin production. Type 2 diabetes occurs when the body doesn't produce enough insulin or develops insulin resistance. The onset of Type 2 diabetes can be prevented or delayed by maintaining a healthy weight and eating right. Both type 1 and type 2 diabetes can lead to an increased risk of heart disease and stroke.

Some common symptoms of diabetes include:

- Blurred Vision
- Extreme Thirst
- Fatigue
- Increased Urination
- Weight Loss

Blood sugar that is not well-controlled can lead to serious long term problems such as:

- Damage to the eyes that can cause blindness.
- Damage to the kidneys that can lead to kidney failure or need for dialysis.
- Heart disease.
- Numbness.
- Sores and infections on hands and feet.

Simple tips that may improve blood sugar control:

- Avoid skipping meals.
- Eating at consistent times throughout the day.
- Eating a moderate amount of complex carbs (whole grains, vegetables, beans).
- Exercising 30 minutes a day, five days a week.
- Maintaining a healthy weight.
- Planning meals using carb counting or the "plate method."



# Stress

Stress is the body's response to a real or perceived threat. A release of stress hormones increases heart rate, blood pressure and blood sugar. When a stress response is prolonged and remains active, the stress hormones released can trigger a decrease in blood flow to the heart, irregular heartbeats and increase the chance of blood clot formation.

Stress can cause:

- Chest Pain
- Clenched Jaw or Teeth Grinding
- Fast Heart Rate
- Headaches
- High Blood Pressure
- Indigestion
- Muscle Aches Such as Back and Neck Pain
- Shortness of Breath
- Tight, Dry Throat

## Ways To Minimize Stress



**Develop positive strategies to deal with stress.**



**Embrace spirituality.**



**Focus on ways to improve stressful situations instead of letting it get you down.**



**Maintain a strong social network.**



**Meditate**



**Take time for yourself.**



**Think positively**

## Managing Prescriptions

Prescriptions are important for recovery. When it comes to medications, it is recommended to:

- Always carry an updated list of medications and bring it to every doctor visit.
- Ask a doctor or pharmacist before taking any over-the-counter drugs, vitamins or herbal supplements as they can interact with current prescription drugs.
- Avoid drinking alcohol while taking medications.
- Be consistent with the time and amount of medications you take.
- Consult with a doctor before stopping or changing doses of medications.
- Consult with a doctor if you have any allergic reactions or unusual symptoms from your medications.
- Discuss your medications side effects with your doctor.
- Do not share medications with anyone.
- Keep all medications out of children's reach.
- Know the name and dosage of each medication and why it is needed.
- Keep an adequate amount of medications during travel.
- Never skip or add doses of medications.
- Protect skin from sun exposure using clothing or sunscreen as some medications may increase the risk of sunburn.
- Remember that any medication that has "LA", "CD", "SA", "SR", or "CR" after its name, should be swallowed whole.
- Store medications in a cool, dry place and always dispose of old medications.
- Take the medication exactly as a physician has prescribed and stay on the schedule that he/she has outlined.
- Take your medications, even if you are feeling better.
- Use a pill box and set a reminder every day to take medications.
- When possible, purchase all your medications at the same pharmacy so that your pharmacist can better keep track of your medications and be able to warn you more easily if any of the medications may interact with each other.



# Heart Medications

Place a check mark next to each medication you are taking. Brand names of the medications are in parenthesis.

Antiplatelets	
Aspirin (Bufferin, Ecotrin)	Cilostazol (Pletal)
Clopidogrel (Plavix)	Ticlopidine (Ticlid)
Ticagrelor (Brilinta)	Prasugrel (Effient)
Dipyridamole (Persantine)	

Anticoagulants	
Warfarin (Coumadin, Jantoven)	Rivaroxaban (Xarelto)
Enoxaparin (Lovenox)	Apixaban (Eliquis)
Dabigatran (Pradaxa)	Edoxaban (Savaysa)

Calcium Channel Blockers	
Nifedipine (Adalat, Procardia)	Felodipine (Plendil)
Amlodipine (Norvasc)	Nisoldipine (Sular)
Nicardipine (Cardene)	Diltiazem (Cardizem, Dilacor, Tiazac)
Isradapine (Dynacirc)	Verapamil (Calan, Isoptin, Verelan)

Diuretics	
Furosemide (Lasix)	Hydrochlorothiazide (Microzide)
Spironolactone (Aldactone)	Amiloride (Midamor)
Bumetanide (Bumex)	Chlorthalidone (Hygroton)
Eplerenone (Inspra)	Chlorothiazide (Diuril)
Torsemide (Demadex)	Indapamide (Lozol)
Triamterene (Dyrenium)	Metolazone (Zaroxolyn)

ACE inhibitors	
Lisinopril (Prinivil, Zestril)	Benazepril (Lotensin)
Enalapril (Vasotec)	Quinapril (Accupril)
Ramipril (Altace)	Moexipril (Univasc)
Fosinopril (Monopril)	Trandolapril (Mavik)
Captopril (Capoten)	Perindopril (Aceon)





# Heart Medications *(continued)*

## Angiotensin Receptor Blockers (ARBs)

Candesartan (Atacand)	Eprosartan (Teveten)
Azilsartan (Edarbi)	Irbesartan (Avapro)
Telmisartan (Micardis)	Valsartan (Diovan)
Losartan (Cozaar)	Olmesartan (Benicar)

## Beta-Blockers

Atenolol (Tenormin)	Propranolol (Inderal)
Betaxolol (Kerlone)	Timolol (Blocadren)
Bisoprolol (Zebeta)	Acebutolol (Sectral)
Metoprolol tartrate (Lopressor)	Carteolol (Cartrol)
Nevibolol (Bystolic)	Penbutolol (Levatol)
Metoprolol succinate (Toprol)	Pindolol (Visken)
Nadolol (Corgard)	Carvedilol (Coreg)
Labetalol (Trandate, Normodyne)	

## Nitrates

Nitroglycerin (Nitrostat, Nitrolingual) – Available as a tablet, spray, ointment, or patch	
Isosorbide Mononitrate (Imdur)	Isosorbide dinitrate (Dilatrate, Isordil)

## Anti-Arrhythmics

Amiodarone (Cordarone, Nexterone, Pacerone)	Propafenone (Rhythmol)
Sotalol (Betapace)	Flecainide (Tambocor)
Dronedarone (Multaq)	Procainamide (Procan)
Dofetilide (Tikosyn)	Mexiletine (Mexitil)
Disopyramide (Norpace)	Quinidine (Quinidex)

## Other Anti-Hypertensives

Methyldopa (Aldomet)	Guanfacine (Tenex)
Clonidine (Catapres) – Available as a tablet or patch	Terazosin (Hytrin)
Doxazosin	(Cardua)
Prazosin (Minipress)	Hydralazine (Apresoline)
Minoxidil (Loniten)	

## Miscellaneous

Ranolazine (Ranexa)	Digoxin (Lanoxin, Digitek, Digox)
Potassium chloride (K-Tab, Micro-K, Klor-Con)	



# Other Medications

Place a check mark next to each medication you are taking. Brand names of the medications are in parenthesis. If a medication is marked with an asterisk it is a high-intensity dose medication.

Statins	
<input type="checkbox"/> Atorvastatin (Lipitor) *	<input type="checkbox"/> Pitavastatin (Livalo)
<input type="checkbox"/> Rosuvastatin (Crestor) *	<input type="checkbox"/> Fluvastatin (Lescol, Lescol XL)
<input type="checkbox"/> Simvastatin (Zocor)	<input type="checkbox"/> Lovastatin (Mevacor)
<input type="checkbox"/> Pravastatin (Pravachol)	

Insulin sensitizer	
<input type="checkbox"/> Metformin (Glucophage)	

Sulfonylureas (SU)	
<input type="checkbox"/> Glimepiride (Amaryl)	<input type="checkbox"/> Glyburide (Micronase, Diabeta)
<input type="checkbox"/> Glipizide (Glucotrol)	

Thiazolidinediones (TZDs)	
<input type="checkbox"/> Rosiglitazone (Avandia)	<input type="checkbox"/> Pioglitazone (Actos)

GLP-1 Receptor Agonists	
<input type="checkbox"/> Exenatide (Byetta)	<input type="checkbox"/> Dulaglutide (Trulicity)
<input type="checkbox"/> Liraglutide (Victoza)	

DPP-IV Inhibitors	
<input type="checkbox"/> Sitagliptin (Januvia)	<input type="checkbox"/> Linagliptin (Tradjenta)
<input type="checkbox"/> Saxagliptin (Onglyza)	

SGLT-2 Inhibitors	
<input type="checkbox"/> Canagliflozin (Invokana)	<input type="checkbox"/> Dapagliflozin (Farxiga)
<input type="checkbox"/> Empagliflozin (Jardiance)	

SSRIs/SNRIs	
<input type="checkbox"/> Sertraline (Zoloft)	<input type="checkbox"/> Venlafaxine (Effexor)
<input type="checkbox"/> Citalopram (Celexa)	<input type="checkbox"/> Paroxetine (Paxil)
<input type="checkbox"/> Fluoxetine (Prozac)	<input type="checkbox"/> Duloxetine (Cymbalta)



# Medication Advice for Cardiac Rehabilitation

Advise both your physician and dentist of your antiplatelet prescription.

## Antiplatelets

### What do antiplatelet drugs do?

- Thins the blood to prevent clots from forming.

### What if I miss a dose?

- Take missed dose as soon as it is remembered.
- If it is close to the time of the next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or extra doses.

### What are the potential side effects of antiplatelets?

- Bleeding.
- Bruising.
- Stomach Upset.
- Signs of bleeding include nose bleeds, pink tinged urine, black stools, and bruises that won't go away. Let a physician know if you experience any of these signs of bleeding.

### Antiplatelet Tips:

- It is common to be on more than one antiplatelet medication after having a heart attack or stent placement. Some patients may have an opportunity to stop taking one of their antiplatelets. However, each case is different so ask a physicians before stopping any of these medications.
- Advise both your physician and dentist of your antiplatelet prescription.

These medications are usually stopped before surgery to prevent bleeding complications.

## Anticoagulants

### What do anticoagulant drugs do?

- Prevent harmful clots form forming in the vessels.

### What if I miss a dose?

- Take missed dose as soon as it is remembered.
- If it is close to the time of the next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or extra doses.

### What are the potential side effects of anticoagulants?

- Bleeding, bruising, or stomach upset.
- Signs of bleeding include nose bleeds, pink-tinged urine, black stools and bruises that won't go away. Let physicians know if experiencing any of these signs.

### Anticoagulant Tips:

- When visiting another doctor or dentist, advise them of the anticoagulant prescription.
- Certain anticoagulants such as warfarin can interact with certain medications. Be sure to let pharmacists and physicians know of any other medication prescriptions (including antibiotics) from another provider.
- Certain anticoagulants require routine blood tests to determine the dose. Be sure to follow up with these appointments. Physicians will instruct you on medication changes.
- Ask a pharmacist or physician before taking new over-the-counter medications.
- For patients prescribed to warfarin, foods that are high in vitamin K may affect clotting times. Be consistent with the amount of vitamin K intake.
- These medications are usually stopped before surgery to prevent bleeding complications.



# Medication Advice for Cardiac Rehabilitation *(continued)*

## Calcium Channel Blockers (CCB)

### What do calcium channel blockers do?

- Decreases the amount of work the heart has to do. They relax arteries in the body and decrease blood pressure. Some CCB can also decrease heart rate. They can also help prevent or relieve chest pain.

### How should I take my CCB?

- Do not miss doses; take with or without food.
- Take in the evening if possible. This helps reduce side effects.

### What if I miss a dose?

- Take as soon as remembered. If it is close to the time of the next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or extra doses.

### What are the most common side effects of beta blockers?

- Dizziness, tiredness, low heart rate, swelling and constipation

## Diuretics

### What do diuretics do?

- Help the body get rid of excess fluid that can build up around the heart, lungs, and extremities.

### How should I take my diuretic?

- Take diuretics earlier in the day to prevent having to go to the bathroom at night as diuretics will promote frequent urination.
- With certain diuretics, physicians may have you take a potassium supplement to prevent low potassium levels in the blood.

### What are the most common side effects of diuretics?

- Frequent Urination
- Low Potassium Levels
- Dizziness
- Sensitivity to Sunlight



## ACE Inhibitors

### What do ACE inhibitors do?

- Decreases blood pressure, protects the kidneys and prevents the heart from becoming weak.

### How should I take my ACE inhibitor?

- Do not miss doses; take with or without food.

### What if I miss a dose?

- Take as soon as remembered. If it is close to the time of the next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or extra doses.

### What are the potential side effects of ACE inhibitors?

- Chronic dry cough.
- High potassium levels.

### Ace-inhibitor Tips:

- If experiencing a dry cough that does not go away, it might be due to this drug. Consult a physician about switching medications if this occurs.

## ARBs

### What do ARBs do?

- Decreases blood pressure, protects the kidneys and prevents the heart from becoming weak.

### How should I take an ARB?

- Do not miss doses.
- Take with or without food.

### What if I miss a dose?

- Take as soon as remembered. If it is close to the time of the next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or extra doses.

### What are the potential side effects of ARBs?

- High potassium levels.
- People are not usually on an ACE inhibitor and an ARB at the same time. If you are taking both, check with your doctor to make sure this is correct.
- ARB Tips
- If you are taking both an ARB and Ace Inhibitor, check with your physician to make sure your prescription is correct.



# Medication Advice for Cardiac Rehabilitation *(continued)*

## Beta-Blockers

### What do beta blockers do?

- Decrease the amount of work the heart has to do. They slow down the heart rate and decrease blood pressure.

### How should I take a beta blocker?

- Do not miss doses.
- Take with or without food.
- Take in the evening if possible. This helps reduce side effects.

### What if I miss a dose?

- Take as soon as remembered. If it is close to the time of the next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or extra doses.

### What are the most common side effects of beta blockers?

- Dizziness
- Tiredness
- Low Heart Rate

## Anti-Arrhythmics

### What do anti-arrhythmics do?

- Corrects the heart's irregular heartbeats (called arrhythmias) and converts them to a normal rhythm.

### How should I take my anti-arrhythmic?

- Do not miss doses.
- If the medication causes an upset stomach, take with food.

### What if I miss a dose?

- Take as soon as remembered. If it is close to the time of the next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or extra doses.

### What are the potential side effects of anti-arrhythmics?

- Blurred vision, dry eyes, constipation (with some).
- Dizziness or tiredness.
- Rapid "racing" heartbeats or slower heartbeats.
- Shortness of breath/wheezing.

### Anti-arrhythmic tips:

- Certain anti-arrhythmics, such as amiodarone, can have side effects with long-term use. These medications will require routine lab work to monitor for these side effects.
- Many of these medications interact with other medications. Tell physicians and pharmacists of other prescription and over-the-counter medications.

## Statins

### What do statins do?

- Lowers bad cholesterol (LDL).

### How should I take my statin?

- Do not miss doses.
- Short acting statins like fluvastatin, lovastatin and simvastatin should be taken at bedtime for optimal therapeutic effect.

### What if I miss a dose?

- Take as soon as you remember. If it is close to the time of your next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or an extra dose.

### What are the potential side effects of statins?

- Liver toxicity
- Muscle aches and pains

### Statin tips:

- Avoid taking gemfibrozil while taking statins.

## Metformin

### What does metformin do?

- Reduces the amount of sugar your liver releases into your blood and makes your body respond better to insulin.

### How should I take my metformin?

- Do not miss doses.
- Take with food.

### What if I miss a dose?

- Take as soon as you remember. If it is close to the time of your next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or an extra dose.

### What are the potential side effects of metformin?

- Stomach upset and diarrhea



# Medication Advice for Cardiac Rehabilitation *(continued)*

## Sulfonylureas (SUs)

### What do sulfonylureas do?

- Lowers blood sugar by helping the pancreas produce more insulin.

### How should I take my sulfonylurea?

- Do not miss doses.

### What if I miss a dose?

- Take as soon as you remember. If it is close to the time of your next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or an extra dose.

### What are the potential side effects of sulfonylurea?

- Low blood sugar
- Weight gain
- Nausea/vomiting

### Sulfonylurea tips:

- Avoid skipping meals.

## Thiazolidinediones (TZDs)

### What do TZDs do?

- Decrease insulin resistance in the body.

### How should I take my TZD?

- Do not miss doses.
- Take without food.

### What if I miss a dose?

- Take as soon as you remember. If it is close to the time of your next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or an extra dose.

### What are the potential side effects of TZD?

- Weight gain
- Anemia

### TZD tips:

- Avoid if you have history of heart failure or liver disease.



## GLP-1 Receptor Agonists

### What do GLP-1 Receptor agonists do?

- Improves diabetes control by delaying stomach emptying time, decreasing food intake and increasing release of insulin.

### How should I take my GLP-1 Receptor agonist?

- Do not miss doses.
- Administer as an injection.

### What if I miss a dose?

- Take as soon as you remember. If it is close to the time of your next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or an extra dose.

### What are the potential side effects of GLP-1 Receptor agonists?

- Nausea and vomiting
- Weight loss

## DPP-IV Inhibitors

### What do DPP-IV inhibitors do?

- Increases insulin secretion.

### How should I take my DPP-IV inhibitors?

- Do not miss doses.

### What if I miss a dose?

- Take as soon as you remember. If it is close to the time of your next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or an extra dose.

### What are the potential side effects of DPP-IV inhibitors?

- Stomach upset
- Headache
- Runny nose or sore throat



# Medication Advice for Cardiac Rehabilitation *(continued)*

## SGLT-2 Inhibitors

### What do SGLT-2 inhibitors do?

- Lowers sugars by eliminating sugar through urine.

### How should I take my SGLT-2 inhibitors?

- Do not miss doses.

### What if I miss a dose?

- Take as soon as you remember. If it is close to the time of your next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or an extra dose.

### What are the potential side effects of SGLT-2 inhibitors?

- Excessive urination
- Urinary tract infections
- Weight loss

### SGLT-2 inhibitor tips:

- Avoid taking this medication at night or before bedtime as it may lead to frequent trips to the bathroom in the middle of the night.

## SSRI/SNRI antidepressants

### What do SSRI/SNRI antidepressants do?

- Improves symptoms of depression by altering brain chemistry.

### How should I take my SSRI/SNRI antidepressant?

- Do not miss doses.

### What if I miss a dose?

- Take as soon as you remember. If it is close to the time of your next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or an extra dose.

### What are the potential side effects of SSRI/SNRI antidepressants?

- Anxiety, trouble sleeping, sexual dysfunction, stomach upset
- Increased risk for serotonin syndrome –high body temperature, agitation, tremor, sweating, diarrhea

### SSRI/SNRI antidepressant tips:

- It takes several weeks to feel full effects of the medication.

## Benzodiazepines

### What do benzos do?

- Increases the calming effects of chemicals in the brain.

### How should I take my benzos?

- May be taken every day at regular times or as needed.
- Take with or without food.

### What if I miss a dose?

- Take as soon as you remember. If it is close to the time of your next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or an extra dose.

### What are the potential side effects of benzos?

- Sleepiness, cognitive deficits and reduction in reaction time.

### Benzo tips:

- Avoid taking this medication long term as it may lead to dependence.
- This medication may affect reaction time, so avoid operating machinery after taking a dose.

## Antipsychotics

### What do antipsychotics do?

- Reduce or increase chemicals in the brain to regulate symptoms.

### How should I take my antipsychotics?

- Do not miss doses.
- Do not stop or change the dose without checking with your doctor.

### What if I miss a dose?

- Take as soon as you remember. If it is close to the time of your next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or an extra dose.

### What are the potential side effects of antipsychotics?

- Sedation, blurred vision or drowsiness
- Increased appetite and weight gain

### Antipsychotics tips:

- Takes several weeks to feel full effects of the medication.

# Medication Advice for Cardiac Rehabilitation *(continued)*

## Anticonvulsants

### What do anticonvulsants do?

- Prevent seizures by altering electrical activity in neurons.

### How should I take my anticonvulsants?

- Do not miss doses.
- Do not stop or change the dose without checking with your doctor.

### What if I miss a dose?

- Take as soon as you remember. If it is close to the time of your next dose, skip the missed dose and continue the normal schedule.
- Do not take two doses at the same time or an extra dose.

### What are the potential side effects of anticonvulsants?

- Sleepiness, fatigue, headache, dizziness or nervousness
- Constipation, vomiting and nausea
- Weight loss

### Anticonvulsant tips:

- Some anticonvulsants may cause you to be sleepy or dizzy, so avoid operating machinery after taking a dose.

## Medicine Chart

Use the chart below to help keep track of your current medications.

NAME OF MEDICINE	COLOR	WHAT IS IT FOR?	DOSE	HOW OFTEN & WHAT TIME	PRESCRIBING DOCTOR	PHARMACY PHONE NO.	SPECIAL INSTRUCTIONS	REFILL DATE
<i>Aspirin</i>	<i>white</i>	<i>blood thinner</i>	<i>1 pill</i>	<i>once daily, at night</i>	<i>Dr. Jones</i>	<i>650-555-1234</i>	<i>Take with food</i>	<i>9/1/19</i>



# Warming Up and Cooling Down

Before working out, warm up by gradually stretching to increase flexibility and heart rate. A warm up should take five minutes or less to complete.

After the workout, cool down by:

- Stretching slowly
- Holding the stretch at the point of tension for 10-15 seconds

**When warming up or cooling down, avoid doing anything that hurts or causes pain.**

## Stretching Techniques



### Neck Roll

Roll chin from shoulder to chest down to opposite shoulder five times each way. Do not roll head backwards.



### Shoulder Roll

Lift and roll shoulders five times forward and five times back. Repeat three times.



### Hug

Wrap arms around chest with hands on the opposite shoulder. Hold 10 seconds and repeat three times.



### Arm Circles

Palms up and move in forward motion five times and then backwards five times with palms down.



### Reach for the Stars

Reach straight up and hold 10 seconds. Do each side three times. Do not bend at the waist.



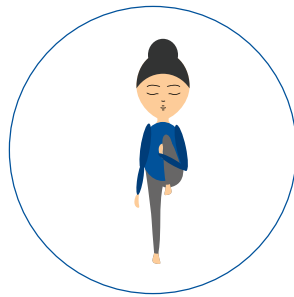
### Calf Stretch

Keep foot forward, knee bent and heel flat for 10 seconds. Do each leg three times.



### Slight Knee Bends

Bend knees slightly, keep back straight, hold for 10 seconds. Repeat five times.



### Knee-quad Stretch

Bend knee, hold right foot with right hand for ten seconds. Repeat with left foot and hand. Do each side three times and hold onto a rail or wall to keep your balance.



### Hamstring Stretch

Bend knees slightly and lean forward. Hold five seconds and come back up slowly. Repeat three times.



# Exercising During Rehab

## Aerobic Exercise

Aerobic exercise is recommended for cardiovascular health. Aerobic activity improves the efficiency of the heart and blood vessels in the delivery and absorption of oxygen. Aerobic exercise uses large muscle groups, is rhythmic and can be maintained for extended periods of time.

Aerobic exercise reduces the risk of:

- Certain Cancers
- Diabetes
- Heart Disease
- Hypertension
- Metabolic Syndrome
- Obesity
- Stroke

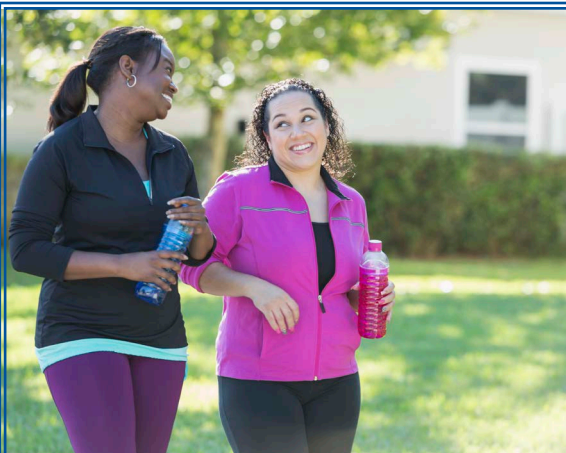
The American Heart Association recommends at least 30 minutes of moderate-intensity aerobic activity at least five days per week and moderate-intensity muscle strengthening activities at least two days per week.

## Exercising During Recovery

During recovery, consult a physician about which exercise activities are suitable.

Exercising during recovery can help improve health by:

- Conditioning the muscles and making them more efficient
- Controlling weight and blood sugar while increasing muscle
- Decreasing the work on the heart during rest or exertion
- Improving self-confidence and reducing stress, anxiety and depression
- Increasing blood circulation throughout the body
- Reducing the negative effects of bed rest
- Reducing the risk of blood clots and lung problems



## Remember the **FITT** Principle:

**F Frequency:** exercise most days of the week

**I Intensity:** keep exercise at a level that still allows comfortable speaking levels

**T Time:** work up to 30-45 minutes of exercise per day

**T Type:** aerobic

# Exercise

## Breathlessness & Muscle Fatigue Scale

Please refer to the chart below to track breathing during the exercise.

1	Very slight breathlessness, able to maintain pace
2	Slight breathlessness, can talk
3	Moderate breathlessness, comfortable, but breathing harder
4	Somewhat severe, sweating but able to push and maintain proper form
5	Severe, STOP exercising

**Know how hard to exercise.**  
It is recommended to stay within the three (moderate) level range.

## Alternative Exercise Options to the Gym



Walk the family dog.



Go on a walk with a friend or family member in the neighborhood, park or in a local mall.



Join a local sports team.



Walk, jog in place or use a treadmill while watching television.



Take the stairs instead of using elevators.



Go dancing.

### During exercising, use caution when:

- Drinking caffeine before exercising.
- Exercises that cause strain or the need to hold in a breath
- Exercising with a fever, flu or discomfort
- Exercising immediately after eating
- Exercising in the cold (below 45 degrees) or in the heat (greater than 85 degrees)
- Smoking prior to exercise
- Taking a hot or cold shower immediately after exercising
- Walking against the wind

# Heart Healthy Diet

A heart healthy diet is designed for patients who have heart disease or are at risk of developing heart disease. Foods on this diet include fruits and vegetables, lean meats, whole grains and low-fat or fat-free dairy products.

To maximize nutrition and overall health:

- Limit meals to 700-800mg of sodium with a daily total of 1,500-2,300mg. Instead of adding salt, season food with herbs and spices.
- Aim for five to six servings of fresh, frozen or no-added-salt or sugar canned fruits and vegetables daily.
- Limit animal protein to six to eight ounces daily and choose lean meats (loin or round cuts of beef or pork or skinless poultry). Eat fish twice weekly.
- Choose whole grain, unprocessed cereal, bread, pasta, rice and beans.
- Limit foods high in saturated fat and cholesterol. These include butter, whole milk, bacon, sausage, regular cheese and lunch meats. Avoid trans fat and partially hydrogenated vegetable oils.
- Choose fats/oils like canola oil and olive oil. Intake should be limited to six to eight teaspoons per day, including the fat used in cooking.

EAT MORE	EAT LESS
<p><b>Breads and Cereals</b> Six servings per day of whole grain, crackers, rice, potatoes, dry beans, peas and low-fat crackers</p>	<p><b>Breads and Cereals</b> Donuts, biscuits, butter rolls, muffins, croissants, cakes, pies, cookies, chips, regular crackers and buttered popcorn</p>
<p><b>Vegetable</b> Three to five servings per day without added fat or salt</p>	<p><b>Vegetables</b> Fried or prepared with butter, cheeses or cream sauces</p>
<p><b>Fruits</b> Two to four servings per day</p>	<p><b>Fruits</b> Fruits that are fried or served with butter, cream or added sugar</p>
<p><b>Dairy Products</b> Two to three servings per day of fat free or one percent milk products</p>	<p><b>Dairy Products</b> Whole milk, two percent milk, whole-milk yogurt, ice cream and cream cheese</p>
<p><b>Meat, Poultry, Fish</b> Lean cuts of protein such as loin, round, extra lean hamburger, skinless poultry and fish</p>	<p><b>Meat, Poultry, Fish</b> Higher fat meat cuts like ribs, T-bone steak, regular hamburger, bacon, sausage, salami, bologna, hot dogs, liver and fried meat</p>
<p><b>Fats and Oils</b> Unsaturated oils, soft or liquid margarines and vegetable oil spreads, avacados, seeds and nuts</p>	<p><b>Fats and Oils</b> Coconut oil, palm oil and milk chocolate. Avoid shortening and stick margarine</p>



# Food Labels and Sodium Intake

## How to Read a Food Label

**\*\*Serving Size and Servings/Container**  
If consuming more than one serving, multiply the amounts by serving size consumed.

**1. Calories**  
To get an estimated average of calories needed per day, multiply desired body weight by 10 if living a sedentary lifestyle or by 12 if living an active lifestyle.

**2. Saturated Fats**  
Saturated fat goals are two grams per serving or less per day. Trans fat or hydrogenated fat goals are 0 grams per day.

**3. Sodium**  
Consume between 1,500 mg - 2,300 mg or less of salt per day to help control high blood pressure.

**4. Carbohydrate**  
Women: 30-40g/meal  
Men: 45-60g/meal  
Everyone: 15-30g/snack  
  
Spread carbohydrate intake evenly throughout the day to maintain weight.

**5. Sugar**  
Consume 25-30 grams of sugar per day. Watch for added sugars when reading food labels.

**6. Fiber**  
Consume 25 - 30 grams of fiber per day to maintain weight.

### Nutrition Facts

Serving Size 2 Tbsp. (34g)  
Servings Per Container: 5

Amount per serving	% Daily Value
<b>Calories 150</b>	Calories from Fat 30
Total Fat 3.5g	5%
Saturated Fat 0.5g	3%
Trans Fat 0.0g	0%
Cholesterol 0mg	0%
Sodium 210 mg	9%
Total Carbohydrate 26g	9%
Sugars 13g	.
Fiber 6g	5%
Protein 3g	.
Calcium 10%	Iron 6%
Vitamin E 2%	.

Not a significant source of Vitamin A and Vitamin C  
\*Percent Daily Values are based on a 2,000 calorie diet

**Look Here First!**

**1**

**2**

**3**

**4**

**5**

**6**

## Reduce Sodium Intake

Too much sodium (salt) is harmful for people who have high blood pressure. As sodium and fluid buildup in the tissues and bloodstream, blood pressure increases which may cause organ damage and increase the risk of stroke. Having less sodium in a diet is still important even for people who take blood pressure or diuretic pills. To know daily sodium requirements, speak with a physician. **Avoid consuming processed foods to help reduce sodium intake.**

To reduce sodium intake:

- Beware of foods labeled "Unsalted" or "No Salt Added". They may still be high in sodium. Be sure to check the nutrition label
- Eat fresh fruits, vegetables and cuts of meat. Read nutrition labels on meats to find cuts low in sodium
- Foods labeled as "Low Sodium" contain less than 140 mg of sodium per serving
- Foods labeled as "sodium-free" contain less than five mg of sodium per serving
- Foods labeled as "Very Low-Sodium" contain less than 35 mg of sodium per serving
- Use less salt when cooking. A single teaspoon of salt contains 2,300 mg of sodium. Instead use lemon juice, lime juice, vinegar, dry or fresh herbs, pepper or a sodium-free seasoning blend
- When shopping look at food packages

# Fiber

Dietary fiber, also known as roughage or bulk, is the parts of a plant that the body can't digest. It helps maintain weight, reduces cholesterol and reduces the risk of developing diabetes by lowering blood sugar levels. Dietary fibers are found mainly in fruits, vegetables and whole grains. They are categorized as soluble or insoluble.

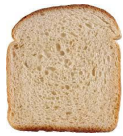
## Soluble Fiber

Soluble fiber, when digested, forms a gel like substance. This type of fiber can help lower blood cholesterol and lower blood sugar. Soluble fiber can be found in oats, peas, beans, apples, citrus fruits, carrots and barley.

## Insoluble Fiber

Insoluble fiber adds bulk to the stool and promotes food movement through the bowels. Whole wheat flour, wheat bran, nuts, beans, vegetables like cauliflower, green beans and potatoes, are all good sources of insoluble fiber.

### The following are examples of whole grain serving sizes:



**One Slice**  
whole grain bread  
(such as 100%  
whole wheat bread)



**One Cup**  
ready to eat  
whole grain  
cereal



**Five**  
Whole  
grain  
crackers



**Three Cups**  
unsalted air  
popped  
popcorn



**One**  
six inch  
whole wheat  
tortilla

### Here are a few tips to increase fiber intake:



Eat whole fruits instead of drinking fruit juice.



Snack on fresh fruits and vegetables.



Switch to whole grain pasta, rice, breads, cereals and flours\*.



Use beans, legumes or lentils in soup or stew in place of meat.

Nutrition Facts	
Serving Size 1/2 cup (125g)	
Amount Per Serving	
Calories 30	Total Fat 1g
	Cholesterol 0g
	Sodium 0mg
	Total Carbohydrate 15g
	Fiber 3g
	Protein 2g

Consume cereals that have five grams of fiber or more per serving.

**INGREDIENTS:** 100% WHOLE GRAIN WHOLE WHEAT FLOUR, WATER, SOY FIBER AND/OR WHEAT FIBER AND/OR SUGAR CANE FIBER, WHEAT GLUTEN, YEAST, BROWN SUGAR, COGNAC, 2% OR LESS OF THE FOLLOWING: MOLASSES, SALT, DOUGH CONDITIONERS (MKG-1, CHOCOLATES, SQUAL, STEAROL, LACTYLATE, ETHOXYLATED MONO-DIGLYCERIDES, ASCORBIC ACID, CALCIUM PROPIONATE, SODIUM CARBONATE, CALCIUM PROPIONATE (TO PREVENT SPOILAGE), GUAR GUM, YEAST NUTRIENTS, CALCIUM SULFATE, CALCIUM CARBONATE, AMMONIUM SULFATE, FUMARIC ACID, WHEAT STARCH, PALM OIL, SOY LECTIN.  
**CONTAINS: WHEAT, SOY.**

Choose cereals and bread with the first words "whole grain"

..... \*Substitute whole grain flour when baking.

It is recommended to consume 20-30 grams of fiber daily based on a 2,000 calorie diet.



# Consuming Healthy Fats

When consuming fats, focus on decreasing the intake of saturated and trans fats. This will aid in decreasing cholesterol levels. Use the chart below as a reference.

TYPE OF FAT	PROPERTIES	SOURCES	DOES IT IMPROVE BLOOD FATS?
<b>Saturated Fat</b>  <b>LIMIT</b> Women: 12g per day Men: 15g per day	These fats will be solid at room temperature. They come mainly from animals.	<ul style="list-style-type: none"> <li>Bacon</li> <li>Butter</li> <li>Lard</li> <li>Cocoa Butter, Coconut and Palm Oils</li> <li>Sausage</li> <li>Whole Milk</li> <li>Dairy Products,</li> <li>Marbled Meats</li> </ul>	↑ LDL ↑ Cholesterol  *May be linked to increased risk for heart disease and cancer
<b>Hydrogenated/ Trans Fat</b>  <b>AVOID</b> Everyone: 0g per day	This type of fat is man-made from hydrogenated vegetable oil.	<ul style="list-style-type: none"> <li>Stick Margarine</li> <li>Commercial Baked Goods (cakes, pies and cookies)</li> </ul>	↑ LDL ↑ TG ↓ HDL  *May be linked to increased risk for heart disease
<b>Monounsaturated Fat</b>  ↑  <b>INCREASE</b>	These fats are mostly plant-based and are liquid at room temperature.	<ul style="list-style-type: none"> <li>Avocado</li> <li>Olives</li> <li>Peanut Butter</li> <li>Almonds</li> <li>Cashews</li> <li>Peanuts</li> <li>Olive Oil, Peanut Oil and Canola Oil</li> </ul>	↓ LDL ↓ TG ↓ Cholesterol ↑ HDL  *Likely to be linked to lower risk for heart disease and diabetes
<b>Polyunsaturated Fat</b>  ↑  <b>INCREASE</b>	These fats are mostly plant-based. They will be liquid at room temperature and high in Omega 3.	<ul style="list-style-type: none"> <li>Margarine: Tub, Squeeze or Spray (Smart Balance, Brummel and Brown, Promise and Land O' Lakes with Canola Oil)</li> <li>Oils: Sunflower, Safflower, Corn and Soybean</li> <li>Fish</li> <li>Nuts: Walnuts and Sunflower Seeds</li> <li>Salad dressings: Oil Based e.g. Vinaigrettes, Balsamic Dressing and Light Italian</li> </ul>	↓ LDL ↓ HDL ↓ Cholesterol  *Good and bad properties. Lower TC and LDL (good) but also lower HDL (undesirable)



# Heart Healthy Menu Day 1

Sample Heart Healthy Menu for People who do or do not have Diabetes



## Breakfast

- Avocado toast
  - One slice of whole grain toast
  - ¼ medium avocado, sliced or mashed
  - One egg, poached or fried in olive oil
- One cup of fresh berries
- One cup of skim milk

## Lunch

- Tuna salad sandwich
  - Three ounces of tuna salad made with low-fat mayonnaise
  - Two slices of whole grain bread
  - Sliced cucumber, tomatoes and onion
- One ounce of mini pretzel twists

## Snack

- ¼ cup of hummus with carrot, bell pepper and celery stick

## Dinner

- Four ounces of grilled or baked salmon with plain fat-free greek yogurt and dill sauce
- One cup of cooked quinoa
- Spinach salad with one sliced hard-boiled egg, purple onion and one tablespoon of low-fat vinaigrette

## Snack

- Three cups of microwave popcorn
- One sugar free jello or popsicle

# Heart Healthy Menu Day 2-4

Breakfast	Breakfast	Breakfast
<ul style="list-style-type: none"> <li>• ½ cup of cooked oatmeal</li> <li>• ¼ cup of walnuts</li> <li>• ¼ cup of dried fruit</li> <li>• One cup of skim milk</li> </ul>	<ul style="list-style-type: none"> <li>• Two scrambled eggs</li> <li>• One slice of whole grain toast with one teaspoon of unsalted butter</li> <li>• ½ fresh grapefruit</li> <li>• One slice of low-sodium bacon</li> <li>• One cup of skim milk</li> </ul>	<ul style="list-style-type: none"> <li>• Breakfast burrito                             <ul style="list-style-type: none"> <li>- One six-inch flour or corn tortilla</li> <li>- One scrambled egg</li> <li>- One ounce of shredded cheese</li> <li>- ½ cup of grilled peppers</li> <li>- One tablespoon of fresh salsa</li> </ul> </li> </ul>
Lunch	Lunch	Lunch
<ul style="list-style-type: none"> <li>• One hamburger (3 ounces of lean ground beef on a whole wheat bun)</li> <li>• One cup of carrots and celery sticks</li> <li>• One tablespoon of light ranch dressing</li> <li>• Two fresh plums</li> <li>• One cup of unsweetened iced tea with lemon</li> </ul>	<ul style="list-style-type: none"> <li>• Turkey pita                             <ul style="list-style-type: none"> <li>- One whole grain pita, round</li> <li>- Three ounces of reduced sodium turkey</li> <li>- ½ cup of red cabbage or broccoli slaw</li> <li>- One ounce of swiss cheese</li> </ul> </li> <li>• One ounce of baked chips (about 15 chips)</li> </ul>	<ul style="list-style-type: none"> <li>• Grilled chicken sandwich                             <ul style="list-style-type: none"> <li>- Four ounces of grilled chicken breast on a toasted hamburger bun</li> <li>- Lettuce, tomato and onion</li> <li>- One teaspoon of mustard</li> </ul> </li> <li>• One cup of coleslaw made with reduced-fat dressing</li> </ul>
Snack	Snack	Snack
<ul style="list-style-type: none"> <li>• ½ cup of grapes</li> <li>• Six whole grain crackers</li> <li>• One mozzarella cheese stick</li> </ul>	<ul style="list-style-type: none"> <li>• One slice of whole grain bread with two tablespoons of natural peanut butter</li> </ul>	<ul style="list-style-type: none"> <li>• ¾ cup of toasted oat cereal</li> <li>• One cup of skim milk</li> </ul>
Dinner	Dinner	Dinner
<ul style="list-style-type: none"> <li>• Four ounces of grilled pork tenderloin with two tablespoons of mango salsa</li> <li>• One cup of oven roasted potatoes</li> <li>• One cup of fresh green beans</li> <li>• One cup of spinach and tomato salad with one tablespoon of light Italian dressing</li> <li>• One cup of skim milk</li> </ul>	<ul style="list-style-type: none"> <li>• Spaghetti with zucchini and meatballs                             <ul style="list-style-type: none"> <li>- One cup of cooked, whole grain spaghetti noodles</li> <li>- ½ cup of low-sodium marinara sauce</li> <li>- One cup of cooked zucchini slices</li> <li>- four homemade lean turkey or beef meatballs</li> </ul> </li> <li>• One cup of green salad with cucumber and tomato slices</li> <li>• One tablespoon of light Italian dressing</li> <li>• One cup of skim milk</li> </ul>	<ul style="list-style-type: none"> <li>• Four ounces of grilled sirloin or filet steak</li> <li>• One small baked sweet potato</li> <li>• One cup of brussel sprouts, squash or cauliflower roasted in olive oil</li> <li>• One whole grain dinner roll with one teaspoon of unsalted butter</li> </ul>
Snack	Snack	Snack
<ul style="list-style-type: none"> <li>• Six whole grain crackers</li> <li>• ¼ cup of tuna</li> </ul>	<ul style="list-style-type: none"> <li>• Six whole grain crackers</li> <li>• One ounce of cheese</li> </ul>	<ul style="list-style-type: none"> <li>• ¼ cup of almonds or walnuts</li> <li>• ¼ cup of dried fruit</li> </ul>



# Healthy Heart Menu Day 5–7

Breakfast	Breakfast	Breakfast
<ul style="list-style-type: none"> <li>• One small orange</li> <li>• Egg &amp; cheese on toast               <ul style="list-style-type: none"> <li>- One fried egg (in olive oil)</li> <li>- One slice of Swiss cheese</li> <li>- One slice of whole grain bread, toasted</li> </ul> </li> <li>• One cup of skim milk</li> </ul>	<ul style="list-style-type: none"> <li>• Six ounces of light, reduced-sugar or fat-free greek yogurt</li> <li>• ¼ cup of granola</li> <li>• One cup of fresh berries</li> </ul>	<ul style="list-style-type: none"> <li>• One whole wheat English muffin</li> <li>• Two tablespoons of natural peanut butter</li> <li>• One cup of skim milk</li> </ul>
Lunch	Lunch	Lunch
<ul style="list-style-type: none"> <li>• Chef Salad               <ul style="list-style-type: none"> <li>- Greens tops</li> <li>- Four ounces of turkey</li> <li>- One ounce of mozzarella cheese</li> <li>- Cucumber slices</li> <li>- Tomatoes</li> </ul> </li> <li>• Six crackers</li> <li>• Two tablespoons of light salad dressing</li> </ul>	<ul style="list-style-type: none"> <li>• Turkey sandwich               <ul style="list-style-type: none"> <li>- Two slices of whole grain bread</li> <li>- Four slices of low-sodium deli turkey</li> <li>- Two slices of tomato</li> <li>- One teaspoon of light mayonnaise</li> </ul> </li> <li>• One small apple</li> <li>• One cup of skim milk</li> </ul>	<ul style="list-style-type: none"> <li>• Bean, cheese and veggie burrito               <ul style="list-style-type: none"> <li>- One six-inch flour tortilla</li> <li>- ½ cup of low sodium pinto beans</li> <li>- One ounce of reduced-fat shredded cheese</li> <li>- Two tablespoons of salsa</li> <li>- ¼ cup of chopped green pepper</li> <li>- ¼ cup of chopped onion</li> </ul> </li> <li>• ½ cup of cherries</li> <li>• One cup of skim milk</li> </ul>
Snack	Snack	Snack
<ul style="list-style-type: none"> <li>• One cup of red and green bell pepper slices</li> <li>• Two tablespoons of light ranch dressing</li> <li>• Six whole grain crackers</li> </ul>	<ul style="list-style-type: none"> <li>• Three graham cracker squares (Two ½ inch squares)</li> <li>• Two tablespoons of natural peanut butter</li> </ul>	<ul style="list-style-type: none"> <li>• ½ cup of peaches</li> <li>• ½ cup of low-fat one percent cottage cheese</li> </ul>
Dinner	Dinner	Dinner
<ul style="list-style-type: none"> <li>• Four ounces of baked chicken breast without skin</li> <li>• One small baked potato</li> <li>• One tablespoon of light sour cream</li> <li>• One cup of cooked broccoli</li> <li>• One slice of watermelon</li> </ul>	<ul style="list-style-type: none"> <li>• Beef stir-fry</li> <li>• Four ounces of sirloin or flank steak, sliced thin</li> <li>• One cup of brown rice</li> <li>• One cup of cooked red peppers and onions</li> <li>• ¼ cup of low-sodium beef broth</li> <li>• One teaspoon of cooking oil, such as peanut or canola oil</li> <li>• One cup of mixed fresh berries</li> </ul>	<ul style="list-style-type: none"> <li>• Four ounces of baked or grilled shrimp</li> <li>• One cup of cooked brown rice or couscous</li> <li>• One cup of cooked asparagus</li> <li>• One cup of tossed salad with one tablespoon of light ranch dressing</li> <li>• One cup of skim milk</li> </ul>
Snack	Snack	Snack
<ul style="list-style-type: none"> <li>• Four whole wheat crackers</li> <li>• Two ounces of colby-jack cheese</li> <li>• Six ounces of light, reduced-sugar yogurt or Greek yogurt</li> </ul>	<ul style="list-style-type: none"> <li>• One slice of whole grain bread</li> <li>• Two tablespoons of natural peanut butter</li> <li>• One medium apple</li> </ul>	<ul style="list-style-type: none"> <li>• One medium apple</li> <li>• One string cheese stick</li> </ul>









# Glossary

**Angina Pectoris:** Chest pain behind the breast bone that may radiate to the neck, jaw, back or arms. This is caused by exertion and can be relieved by rest and/or nitroglycerin.

**Aorta:** The main artery which receives oxygen rich blood from the left side of the heart and carries it through the body.

**Artery:** A blood vessel which carries oxygen rich blood away from the heart.

**Atrium (plural: atria):** One of two upper chambers of the heart.

**Atherosclerosis:** A disease caused by the deposit of fatty substances on the artery walls.

**Balloon Angioplasty:** A heart cauterization procedure which restores blood flow to the heart by inflating a balloon tipped catheter to compress plaque blocking arteries.

**Blood Pressure:** The force of blood against the walls of arteries.

**Coronary Arteries:** Arteries which supply blood to the heart.

**Coronary Artery Bypass Grafting (CABG):** An operation where blood vessels from the leg or chest are attached to arteries on the heart's surface, allowing blood to bypass blocked areas.

**Coronary Artery Disease (CAD):** Atherosclerosis of the coronary arteries.

**Cardiac:** Pertaining to the heart.

**Cardiac Arrest:** The heart stops beating and is unable to deliver blood and oxygen.

**Cardiology:** The study of the heart.

**Cardiomyopathy:** A disease of the heart muscle that makes it harder for the heart to pump blood to the rest of the body. Cardiomyopathy can lead to heart failure.

**Cardiopulmonary Resuscitation (CPR):** A combination of chest compressions and mouth-to-mouth breathing used during cardiac arrest to keep blood flowing to the brain.

**Cholesterol:** A waxy, fat-like substance found in your body.

**Collateral Circulation:** Circulation of blood through smaller vessels when a main vessel has been narrowed or blocked.

**Congestive Heart Failure:** A backing up of blood in the veins leading to the heart, often resulting in an accumulation of fluids in various parts of the body.

**Coronary Occlusion:** Blockage of a coronary artery which prevents blood flow to a portion of the heart.

**Defibrillator:** An electronic device that stops an irregular contraction of the heart.

**Diabetes:** A chronic disorder in which your body cannot properly use the energy from food consumption.

**Diastolic Pressure:** The blood pressure level during the time when the heart is relaxed.

**Echocardiogram (echo):** A diagnostic test that uses sound waves to show a picture of the structure and function of the heart.

**Edema:** Swelling due to abnormally large amounts of fluid in tissues.

**Electrocardiogram (EKG):** Graphic record of the electric activity of the heart.

**Enzymes:** Complex substances which are involved in body processes. Cardiac enzymes can be measured to test damage to the heart.

**Fibrillation:** Uncoordinated, irregular contractions of the heart muscle.

**High Density Lipoprotein (HDL):** A good cholesterol which cleans fat and cholesterol from arteries.

**Hypertension:** It is high blood pressure and is known as the "Silent Killer" due to a lack of symptoms.

**Low Density Lipoprotein (LDL):** A bad cholesterol which clogs your arteries.

**Lipids:** A term for fats including oils, fatty acids, cholesterol and triglycerides.

# Glossary

**MET:** The measurement for the amount of metabolic energy (oxygen) your body consumes when at rest.

**Myocardial Infraction:** Damage and death to a portion of the heart muscle due to an interruption in blood supply.

**Obesity:** Increased body weight beyond physical and skeletal requirements due to excess fat.

**Occluded Artery:** Blood flow is impaired to decreased due to blockage in an artery.

**Pacemaker:** A small mass of cells in the heart's right atrium which discharge electrical pulses causing the heart to beat or contract.

**Plaque:** A deposit of substances in the inner lining of the artery wall.

**Platelet:** Important for blood clotting, one of the three formed elements in the blood.

**Sino-Atrial Node:** The natural pacemaker of the heart.

**Stress Test:** A diagnostic test done on a treadmill to monitor heart rate, rhythm and blood pressure responses to exercise.

**Stroke:** Results when blood supply to part of the brain is decreased or stopped.

**Systole:** When the heart beats or contracts.

**Systolic Blood Pressure:** Pressure inside the arteries when the heart contracts at each beat.

**Thrombosis:** The formation or presence of a blood clot inside a blood vessel or cavity of the heart.

**Triglycerides:** A form of fat in the blood which may contribute to heart disease.

**Valve:** A flap of tissue within the heart which prevents the back-flow of blood.

**Vein:** A blood vessel which carries blood back to the heart.

**Ventricle:** One of the two lower chambers of the heart.



# Cardiovascular and Related Disease Information

## Common Heart Conditions, Drugs and Treatments

**American College of Cardiology**

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

## Diabetes Information

**American Diabetes Association**

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

## Nutrition Information

**Academy of Nutrition and Dietitians**

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

## Heart Disease and Lifestyle Changes

**American Heart Association**

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

## Lung Disease and Smoking Cessation

**American Lung Association**

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

## Smoking and Smoking Cessation

**American Cancer Society**

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

## Heart Conditions and Treatment Options

**Cleveland Clinic**

[my.clevelandclinic.org/health](http://my.clevelandclinic.org/health)

**Mayo Clinic**

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

## What to Expect After Heart Surgery

**Society of Thoracic Surgeons**

[sts.org/sections/patientinformation](http://sts.org/sections/patientinformation)

## United States Government Resources

**Centers for Disease Control and Prevention**

[cdc.heartdisease](http://cdc.heartdisease)

## Dietary guidelines

**US Department of Agriculture**

[choosemyplate.gov](http://choosemyplate.gov)

**Food and Drug Administration**

[fda.gov](http://fda.gov)

## Medication Information

**National Institute of Health**

[nlm.nih.gov/medlineplus/druginformation](http://nlm.nih.gov/medlineplus/druginformation)

## General Health Information

**National Institutes of Health**

[nig.gov/health-information](http://nig.gov/health-information)

## Health Topics A-Z

**US Department of Health and Human Services**

[healthfinder.gov/HealthTopics](http://healthfinder.gov/HealthTopics)







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