

# How to Fight Cardiovascular Disease



## February is Heart Health Awareness Month

Today, February 2021, it is more important than ever that people understand how to take care of their hearts and bodies.

While the entire world is fighting a viral pandemic, every person has their own fight to remain physically healthy.

Both Doctors and Patients should have an understanding of not only how to actively fight existing cardiovascular disease, but how to prevent those diseases from occurring.

Understanding how to identify the current status of an individual's heart, what should be done to keep one's heart healthy, what should be done to improve an individual's heart health, and what causes heart and cardiovascular disease(s) is important for every kind of person to know.

In this article, the three points of prevention, maintenance, and restoration will be recognized and explained.

## How to identify the current status of an individual's heart

There are many telling signs and tests of an individual's current cardiovascular health.

The most important being:

- ECG (Electrocardiogram)
- High Blood Pressure (Hypertension)
- High Cholesterol (Hypercholesterolemia)
- Diabetes (Diabetes Mellitus)
- LVH (Left Ventricular Hypertrophy)



### **ECG (Electrocardiogram) “The Heart Test”**

An ECG is a simple, painless test that measures the electrical activity in a patient's heart.

The Data provided by an ECG exposes any current problems in the heart and locates them.

The information found can be used to determine a patient's diagnosis and treatment if an issue is found.

Example: The type of diet, exercise routine, or medication to be recommended or prescribed to a patient.

### **High Blood Pressure (Hypertension)**

High Blood Pressure is a common problem where the pressure of blood against artery walls is high enough that it may cause heart disease.

Even without symptoms, damage to blood vessels and the heart can continue if left unchecked.

Age, Genetics, Diet, and Activity Level can affect this number.

A blood pressure monitor is used to diagnose High Blood Pressure.





### **High Cholesterol (Hypercholesterolemia)**

High Cholesterol is the presence of high levels of cholesterol (lipoproteins) in the blood.

An individual with high cholesterol can develop fatty deposits, which can eventually grow and make it difficult for blood to flow through their arteries.

These deposits of lipoproteins can cause chest pain and break unexpectedly, forming a clot that can cause a heart attack or stroke.

High Cholesterol can be inherited, but is often the result of unhealthy lifestyle choices.

Age, Diet, Weight, and Activity Level can affect an individual's Cholesterol Levels.

A blood test is the only way to detect High Cholesterol.



### **Diabetes (Diabetes Mellitus)**

Diabetes is a metabolic disease that causes high blood sugar.

With Diabetes, a person's body either does not make enough insulin or cannot correctly use insulin. A hormone that moves sugar from the blood into cells to be stored or used for energy.

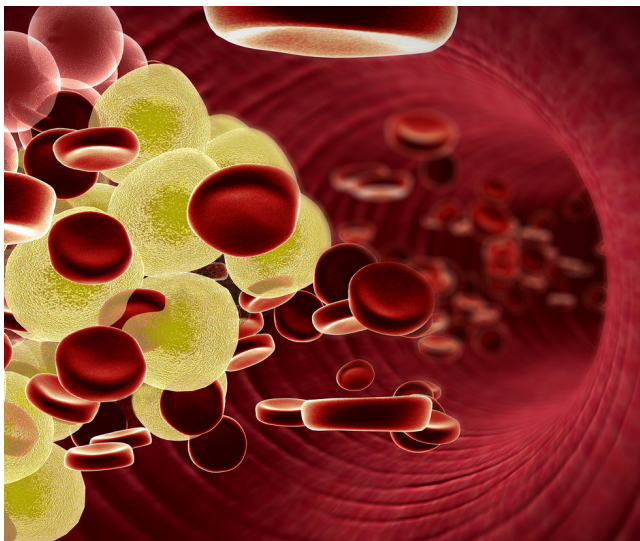
High Blood sugar can damage a person's blood vessels and the nerves that control their heart.

If left unchecked, Diabetes can cause coronary artery disease, heart attack, stroke, and even heart failure.

Diabetes can also cause High Cholesterol by contributing to higher levels of VLDL (Very Low-Density Lipoprotein).

Age, Genetics, Weight, and Activity Level can affect a person's blood sugar levels.

A blood test is the only way to detect high blood sugar levels.



### **LVH (Left Ventricular Hypertrophy)**

Left Ventricular Hypertrophy is the thickening of the wall of the heart's main pumping chamber.

This thickening of the heart can result in elevated pressure within the heart and possible poor pumping action.

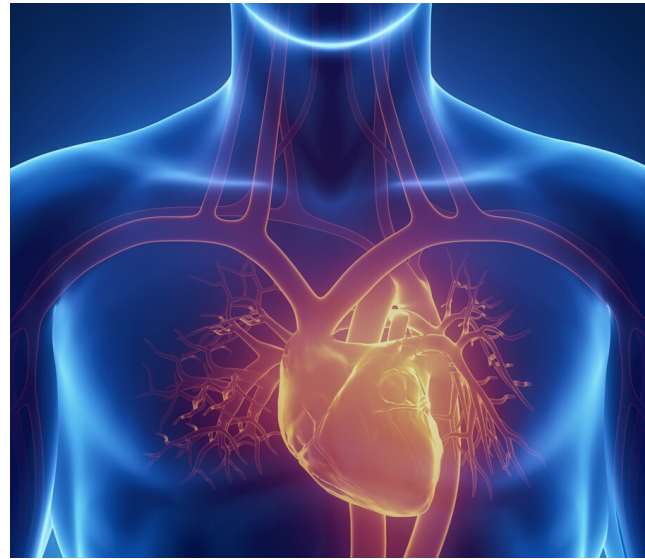
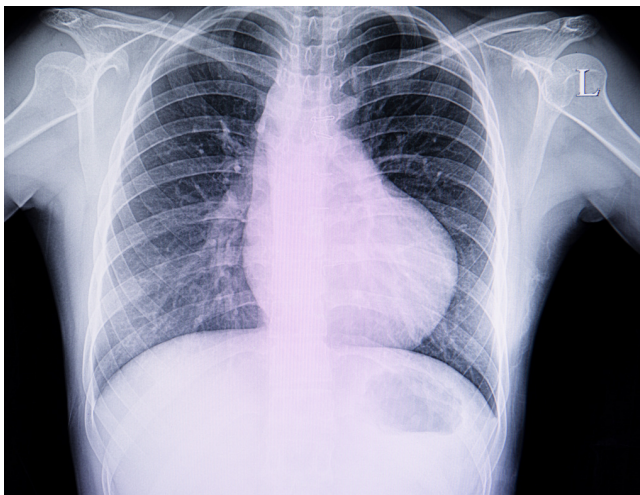
The heart may eventually fail to pump with the force needed if left unchecked. LVH is common in those with high blood pressure, the most common cause of LVH.

Treating High Blood pressure can help reduce symptoms and can even reverse Left Ventricular Hypertrophy.

Age, Weight, Diet, Genetics, and Activity Level are factors for LVH.

An Electrocardiogram (ECG), Echocardiogram, and MRI can detect LVH.

Enlarged R waves across Leads V5 and V6 are found in an ECG of an LVH Patient.



### **How to keep a heart healthy**

A healthy individual can keep their heart healthy by eating the right foods, exercising often, and actively monitoring their heart health.

### **Heart-Healthy Foods consist of:**

- Whole Grain Carbohydrates  
High in Fiber and Low in Sugar
- Healthy and Natural Proteins  
Low in Saturated and Trans Fats
- Healthy and Natural Fats  
Like those Found in Olive Oil and Fish
- Micro Nutrients such as Vitamins  
Found in Fruits and Vegetables





### **How to keep a heart healthy (continued)**

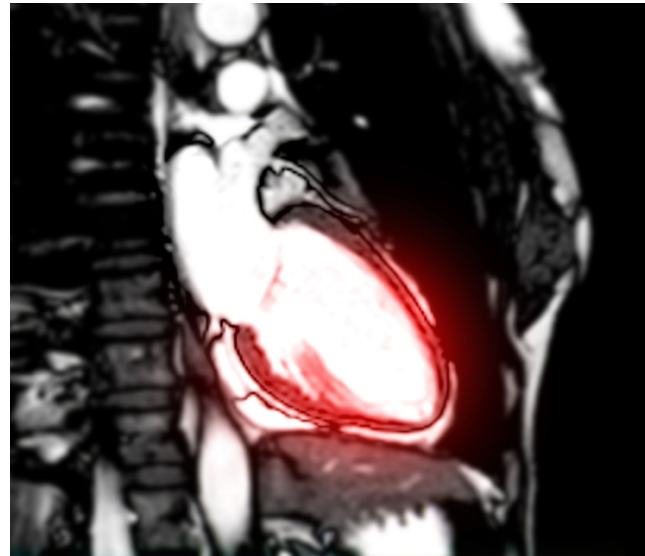
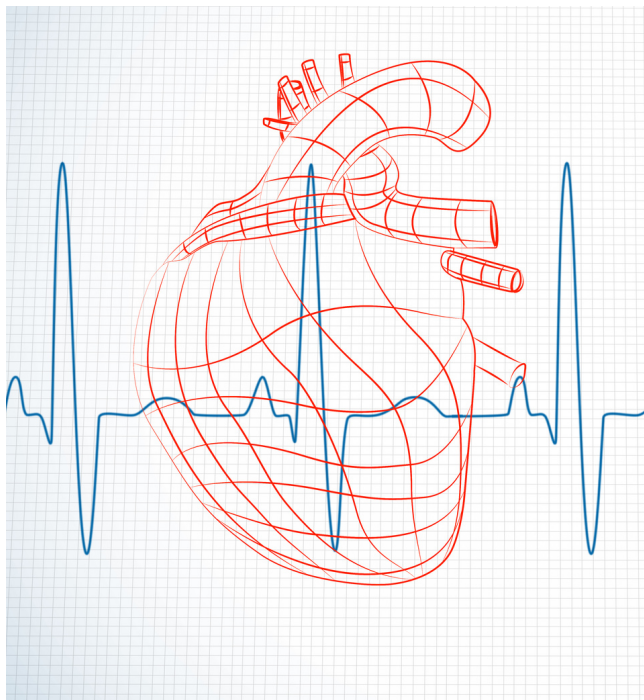
Staying active will help keep an individual's heart healthy. Cardiovascular exercise should be done for at-least 3 hours a week.

These exercises include; walking, running, dancing, and biking.

Stress management will reduce blood pressure and the risk of heart disease. While also allowing a person's immune system to have a fighting chance against infectious disease, and even cancer.

Smoking should be removed from any lifestyle, and alcohol should be moderated if not removed.

Regularly taken ECG's will monitor an individual's heart health, and identify and locate problems if and when they occur.



### **How to improve heart health**

An individual can improve their heart health, and even in some cases, reverse cardiovascular diseases by following a healthy diet and exercise plan.

Unhealthy foods can be addictive, so diet plans should be faded into a person's lifestyle.

Exchanging snacks like chocolate and chips with fruits and vegetables will reduce blood sugar and increase vitamin intake.

Exchanging unhealthy carbs like white bread with whole-grain bread, will increase fiber and vitamin intake while decreasing blood sugar.



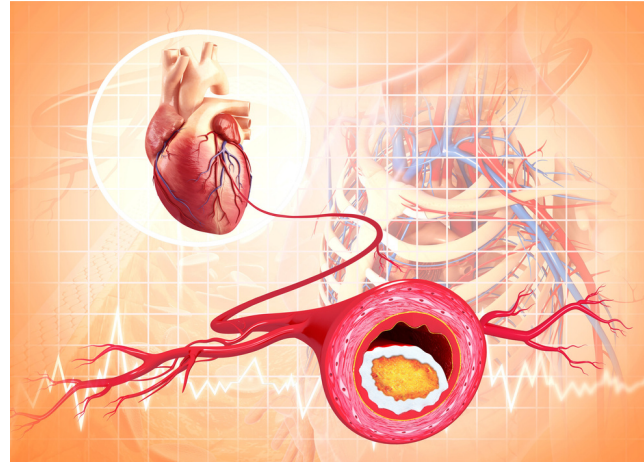
### **How to improve heart health (continued)**

Replacing protein high in saturated and trans fats like low-grade beef with fish or chicken will reduce cholesterol and even decrease inflammation.

Decreasing and managing stress will reduce blood pressure and the risk of heart disease while also allowing a person's immune system to have a fighting chance against infectious disease, and even cancer.

Smoking should be removed from any lifestyle, and alcohol should be moderated if not removed.

Regular ECG tests should be conducted on all Cardiology Patients to monitor their heart health.



### **What causes heart disease(s)**

Cholesterol, high blood pressure, smoking, and high blood sugar all cause plaque to build up, making it hard for blood to flow to the body and heart, and can even block arteries.

A blocked artery can cause coronary artery disease, chest pain, and even a heart attack.

### **The common cardiovascular diseases:**

- **Coronary Artery Disease**  
The buildup of plaque in the arteries supplying blood to the heart.
- **Peripheral Artery Disease**  
The buildup of plaque in the arteries supplying blood to the arms and legs.
- **Carotid Artery Disease**  
The buildup of plaque in the arteries supplying blood to the brain.
- **Heart Failure** When the heart cannot keep up with its workload or blood pressure.

*“A Full 12 Lead ECG will show if there are any signs of heart disease, define, and locate it. That information will help you identify the current cardiovascular state of your patients heart, and affect what diet or exercise program you may recommend to your patient. You will want to monitor your patient’s heart alongside any programs you may recommend to your patient over time.” - Roger E. Nasiff Ph.D.*



## Resources

### Blood Pressure

Mayo Clinic - High blood pressure (hypertension)

### High Cholesterol

Mayo Clinic - High cholesterol

### Diabetes

CDC - Diabetes and Your Heart

Mayo Clinic - Diabetes

### LVH (Left Ventricular Hypertrophy)

Mayo Clinic - Left Ventricular Hypertrophy

### Heart Health

U.S. Department of Health and Human Services  
Keep Your Heart Healthy

### Cardiovascular Disease

National Center for Biotechnology Information  
Identifying Patients at High Risk of a  
Cardiovascular Event in the Near Future

Kaiser Permanente  
Common Heart Conditions

U.S. Department of Health  
Types of Cardiovascular Disease

The American Heart Association  
What is Heart Failure

National Heart, Lung, and Blood Institute  
Smoking and Your Heart

John Hopkins Medicine  
Alcohol and Heart Health:  
Separating Fact from Fiction

The Cleveland Clinic  
4 Facts You Should Know About  
How Alcohol Affects Your Heart