# Valve Disease





#### What do our heart valves actually do?

Your heart pumps oxygen- and nutrient-rich blood throughout your body, to its cells. To do this, blood must flow in the right direction through your heart's four chambers. This is where your tricuspid, pulmonary, mitral, and aortic valves come into play. With each heartbeat, the valves open so that blood can empty from your heart's chambers, and close so that blood doesn't travel back up into the chambers. Valve disease interrupts the body's ability to keep blood flowing into the heart correctly and forces the heart to work harder.





## The complex process of a simple heartbeat.

#### Here's How Your Heart Valves Work:

To start, oxygenated blood coming back to your heart from your lungs fills your heart's two upper chambers (atria). As blood fills the atria, the mitral and tricuspid valves open and blood flows into the lower two chambers (ventricles).

When your ventricles contract, the mitral and tricuspid valves close. This stops blood from flowing back into the atria and allows it to pump through the pulmonary and aortic valves. Then, the pulmonary valve opens to allow blood to

travel from the right ventricle into the pulmonary artery. This artery brings blood to your lungs for oxygen.

At the same time, the aortic valve opens to allow blood to flow from the left ventricle into the aorta, which brings oxygen-rich blood to the body. As the cycle finishes, the ventricles relax and the pulmonary and aortic valves shut tightly. These valves prevent blood from flowing back into the ventricles.



## Types of valve disease.

In valve disease, blood is either not able to flow forward because of a blocked valve, or leaks backward into your heart's chambers because of a leaking or defective valve. These conditions can cause the heart to work harder, making it more difficult to pump blood to your body as your heart weakens.

Some of the most common valve disorders include:

- Valvular stenosis (stiffening or narrowing of the valve)
- Valvular insufficiency (blood flows backward because the valve doesn't close completely)



## There are ways you can protect yourself from valve disease.

A risk factor is anything that increases your chances of developing a disease or injury. For valve disease, there are some risk factors that you can control and others that you can't. It is important to know these risk factors so that you can talk about them with your doctor.

#### Controllable Risks

#### **EXCESS BODY WEIGHT**

People who are overweight are more likely to develop heart disease, even if they don't have other risk factors.

#### PHYSICAL INACTIVITY

Exercise is important for a healthier heart, and can help control cholesterol levels, diabetes and obesity.

#### HIGH BLOOD PRESSURE

140/90 mm Hg or higher, or you've been told by a physician that it's too high.

#### **CHOLESTEROL**

A 240 mg/dl or higher level for total cholesterol as well as an HDL (good) cholesterol level of less than 40 mg/dl (men) or 50 mg/dl (women).

#### **DIABETES**

Increases the risk of heart disease even when blood sugar levels are under control.

#### **TOBACCO USE**

Smoking harms nearly every organ of the body and severely damages your heart and lungs.

#### Uncontrollable Risks

#### **AGE**

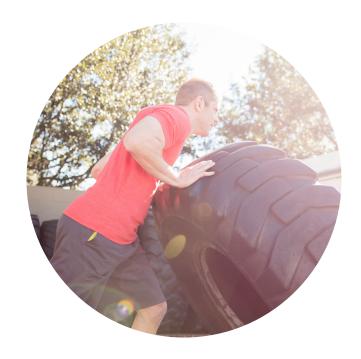
Risk for both men and women increases significantly after 65.

#### **ETHNICITY**

African, Asian, Mexican, Native Hawaiian and/or Native American.

#### **FAMILY HISTORY**

You or someone in your family has heart disease or has a history of a heart attack.



### Here are a few things to look out for.

Because heart valve disease can be serious and life threatening, it is very important to know the warning signs so that you can quickly get to a doctor for an evaluation and treatment, if necessary. If you're experiencing any of these symptoms, please call 9-1-1 immediately.

#### **CHEST PAIN**

Discomfort that presents as pain or a tight ache, pressure, fullness or squeezing in the center of your chest.

#### **DIZZINESS**

Feeling dizzy or lightheaded.

#### **FATIGUE**

Extreme tiredness, weakness or fainting.

#### SHORTNESS OF BREATH

Having a hard time breathing normally or deeply, with or without chest pain.

#### **PALPITATIONS**

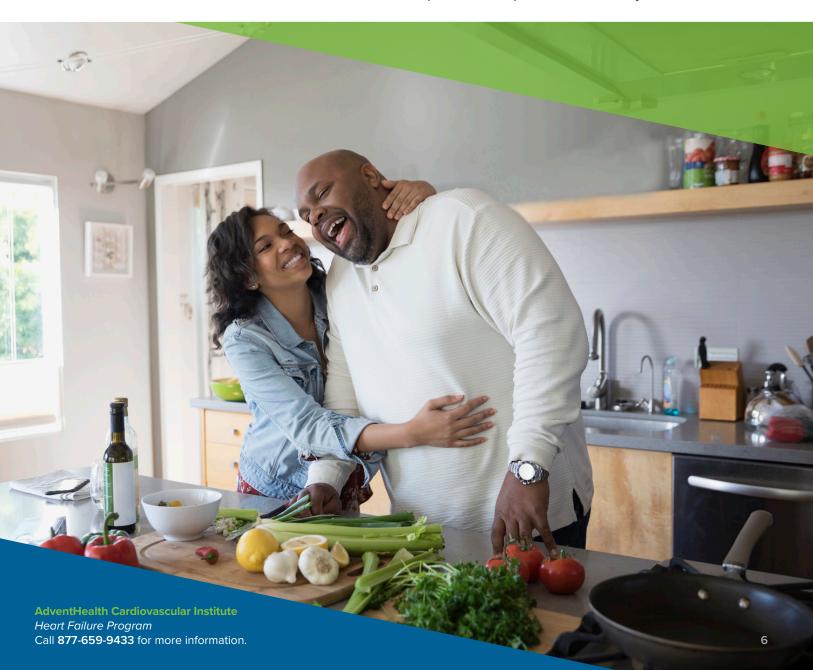
Having a racing heart, odd "flip-flop" sensations.

#### **SWELLING**

Larger than normal ankles, feet or abdomen.

#### **RAPID WEIGHT GAIN**

Up to several pounds in one day.





## Here's how we can help.

If not treated, valve diseases may be lifethreatening. The good news is that many patients can be cured with several types of surgical procedures. Most of the time, heart valve surgery is needed to repair or replace the damaged valve tissue and restore the function of the heart.

Heart valve surgery can involve an open-heart valve replacement or repair procedure, or minimally invasive procedures depending on each patient's unique factors. Recent breakthroughs in medicine and technology have led to the development of percutaneous procedures that may be heart valve surgery options for many patients.

A doctor may also offer non-surgical treatment options like balloon valvuloplasty. In addition, a doctor may work with patients on controlling blood pressure and heart rate, which reduce stress and strain on the heart. Some of these other treatment options are not cures for heart valve disease.



## We're designed to help patients like you.

As a chosen hospital partner of the American Heart Association in Central Florida, The AdventHealth Cardiovascular Institute's Valve Center of Excellence offers groundbreaking treatment options and a world-class multidisciplinary team to treat heart valve disease. From complex aortic reconstruction to advanced minimally invasive procedures, our highly trained and experienced specialists treat more valve patients than any other hospital in the state.

AdventHealth is one of the leading institutions for percutaneous valve replacement called transcatheter aortic valve replacement (TAVR) for qualified patients. Our valve team is also treating patients that have high risk mitral valve regurgitation with the MitraClip, a less invasive treatment option.

Staying at the forefront of medical care, the AdventHealth Cardiovascular Institute participates in national trials and new technology research exploring heart valve treatment options. Our team of physicians, researchers, nurses and staff works seamlessly to incorporate these new technologies and treatments into each comprehensive patient care plan.

## Take charge of your cardiovascular care.

For more information or for a physician referral, call our cardiac care coordinator at 877-659-9429.

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