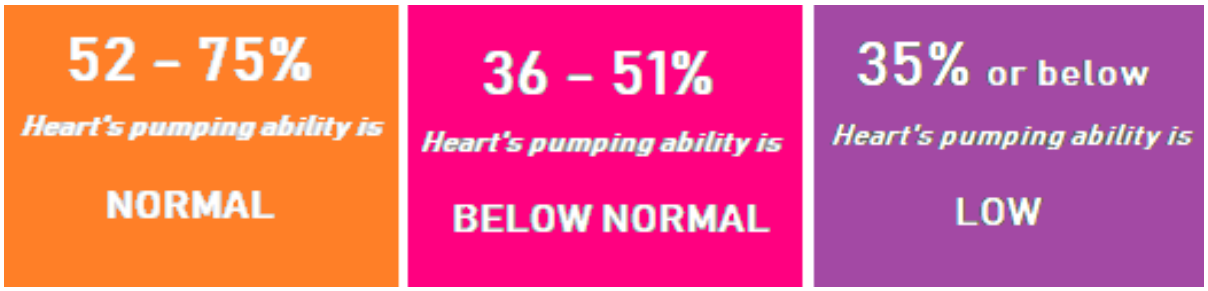
REACH Education for ~ The Role of Ejection Fraction in Diagnosing and Treating Heart Failure

What is Ejection Fraction?
Ejection fraction (EF) is the percentage of blood that is pumped out of the heart during each beat. The normal EF percentage is 50-75%. Many people with heart failure have an EF that is 40% or less. A below-normal EF means that your heart is not pumping as well as it should.



Why is EF Important?
Measuring EF is one of the ways doctors classify the type and severity of heart failure.

If you have a below-normal EF and your heart isn't pumping well, you have systolic heart failure. This type of heart failure involves the large, lower chambers of your heart called the ventricles, which push blood throughout your body.

If you have a normal EF and your heart is not filling with blood normally, you have diastolic heart failure. This type of heart failure often occurs when the ventricles cannot relax properly to fill up with blood.

Your EF and type of heart failure will determine the type of therapy your doctor will use. If you have systolic heart failure, your EF can be used to judge how well your therapies are working or whether your heart failure is getting worse.

A low EF also means that there is an increased risk for Sudden Cardiac Arrest (SCA). Sudden Cardiac Arrest is caused by an electrical problem in the heart that triggers a dangerously fast heartbeat, which causes the heart muscle to quiver and not pump blood to the rest of the body and brain. If this occurs, your heart must be started again within minutes to prevent death. An implantable defibrillator, a pacemaker-like device, is a very effective way to treat Sudden Cardiac Arrest and save people's lives.

A Sudden Cardiac Arrest and a heart attack are not the same. A heart attack is caused by blockage in one or more of the arteries that supply blood to the heart. It can be thought of as a problem with the heart's *plumbing* system. Sudden Cardiac Arrest is caused by a very fast and irregular heart rhythm that starts in the ventricles. It can be thought of as a problem with the heart's *electrical* system.

Your EF Can Change

Your EF can go up or down depending on the nature of the disease and the type and effectiveness of therapies. Small changes in your EF are not harmful, but if your EF drops steadily over months, your doctor will change your therapy. Drugs, devices, and surgeries can cause a person's EF to increase over time, therefore, the overall trend of your EF is more important than on a particular day.

Measuring EF

One of the most important tests used to diagnose heart failure and measure EF is called an echocardiogram, or echo. The test involves using sound waves to make a picture of your heart. An echocardiogram allows your doctor to look at your heart valves and the chambers of your heart to find out whether the heart is pumping normally. Your doctor may also decide to use other ways to measure your EF, such as a MUGA scan.