

Ask *the* Expert

How Does an Impella Device Help My Heart?

Taking steps to care for and protect your heart are important. Sometimes matters of health are out of your control and when you do need extra help caring for your heart, you want to know that your doctors have the experience and technology necessary to provide you with the best care possible.

The new NEA Baptist medical campus places a special emphasis on heart care – from wellness and prevention to emergency heart care processes to advanced surgical equipment and technology; all backed by experienced and respected physicians.

Recently, cardiologists at NEA Baptist used a new, advanced piece of technology that increases their level of care and ability to save lives. This technology is called the Impella Left Ventricular Assist Device (which is commonly referred to as an LVAD). NEA Baptist is the only place in Northeast Arkansas currently performing this procedure.

What is the Impella Device?

The Impella Device is a ventricular assist device, also known as the world's smallest heart pump. In fact, the Impella is 1/100th the size of a human heart and is smaller than the width of a pencil. The device assists the heart in pumping blood and the insertion of the device typically does not require surgery.

The Impella Device can aid in stabilizing a patient who is under cardiac arrest or can be used to assist with any high risk percutaneous coronary intervention (aka coronary stent) procedure. Once stabilized, the patient is then able to undergo the necessary surgery and treatment.

When is it used?

The Impella device is used in patients with a severe heart attack that causes shock (life threatening low blood pressure) and/or respiratory failure. This device helps to stabilize the life threatening situation

while a cardiologist intervenes in opening the heart attack artery with angioplasty or stenting, etc. Another use for the Impella device is in patients that have critical blockage of coronary arteries, but the heart is weak or the blockage is in a high risk position. Again, this Impella support allows for a safer procedure. These patients would otherwise have a high risk procedure or be turned down altogether. This device can also be used to optimize a patient's condition prior to surgery.

How does it work?

Impella is an LVAD that can be placed percutaneously (through the blood vessels via needle stick in the groin or arm and not requiring open surgery), going up through the aorta and into the left ventricle, which is the main pumping chamber of the heart. The Impella pump can deliver 2.5 to 5 liters of blood flow per minute, i.e. near normal.

Since the procedure does not typically

require surgery, it is usually performed in the catheterization (cath) lab.

Also, the advanced Hybrid Operating Rooms at NEA Baptist allow for cath procedures in the surgical suite, physicians are able to save even more time by having the ability to insert the device and to then go straight into surgery when necessary.

What are the benefits of this technology?

Research has shown this technology to provide many benefits to the patient and their overall level of care. The device has shown to reduce bleeding and stroke, restore hemodynamics (blood flow at the left ventricle of the heart), and improve overall outcome.

The physicians at NEA Baptist are dedicated to acquiring and utilizing the most advanced and safest technology available to aid in the care of patients. To learn more about the advanced technology used in heart care and other areas of care at NEA Baptist, visit www.neabaptist.com



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