What is TAVI (or TAVR)?

TAVI or TAVR stands for Transcatheter Aortic Valve Implantation or Replacement. During this minimally invasive procedure a new heart valve is inserted without removing the old, diseased valve. The new valve is placed inside the diseased valve.

Somewhat similar to placing a stent in an artery, the TAVI approach delivers a collapsible replacement valve to the valve site through a catheter (a thin wire or tube). Once the new valve is expanded, it pushes the old valve leaflets out of the way. Then the replacement valve takes over the job of managing blood flow.

What is involved in this procedure?

Valve replacement may require open-heart surgery with the chest surgically separated (opened) for the procedure. TAVI (or TAVR) can be done through very small openings that leave all the chest bones in place.

While TAVI is not without risks, it provides beneficial treatment options to people who are not candidates for valve replacement with open-heart surgery due to poor health status or other medical conditions. You will likely spend less time in the hospital after TAVI compared to open-heart valve replacement.

The TAVI procedure is done using one of several approaches. This allows the interventional cardiologist to choose the one that provides the best and safest way to access the valve:

- Entering through the femoral artery (large artery in the groin), called the transfemoral approach, which does not require a surgical incision in the chest, or
- Using a minimally invasive approach with a small incision in the chest and entering through a large artery in the chest, known as transaortic or subclavian, or through the tip of the left ventricle (the apex), which is known as the transapical approach.

Who’s a good candidate for this type of valve surgery?

TAVI is available for patients with severe symptomatic aortic stenosis in all risk categories (low, intermediate or high) for standard open-heart valve replacement surgery. The risk level is based on the chance of not surviving surgery. Low risk is less than 4% chance of not surviving. Intermediate risk is 4% or higher and high risk is 8% or higher.

TAVI can be an effective option to improve quality of life in patients who otherwise have limited choices for repair of their aortic valve.

What are the benefits of a TAVI procedure?

The benefits of TAVI and other minimally invasive treatment options may include:

- Lower risk of infection
- Less trauma to the chest and heart muscle
- Reduced length of hospital stay
- Decreased recovery time
- Ability to return to daily activities sooner, such as exercising and driving
These factors along with age, health history, type and severity of the valve problem, and overall health will be considered as you discuss options with your cardiologist.

**What can I expect after my procedure?**

About four to six weeks after the procedure, you’ll have a follow-up visit with your TAVI doctor. They will test to see how well the valve is working and how well you are healing. After that, it’s important to have check-ups every year and as needed to make sure the valve is working as it should.

Two important parts of recovery are a good diet and regular physical activity.

During recovery and beyond, make sure to follow a heart-healthy diet. Eat a variety of fruits, vegetables, whole grains, fish, skinless poultry and low-fat dairy products. Limit foods high in saturated fats, sugar and sodium. Avoid trans fats. And limit red and processed meats. Also don’t take calcium or other supplements without your health care professional’s approval.

During your recovery, follow your clinician’s advice and gradually build up your physical activity level. Ask about goals for your heart rate or exertion level. Work up to at least 150 minutes per week of moderate-intensity physical activity (such as brisk walking).

**How can I learn more?**

1. Call 1-800-AHA-USA1 (1-800-242-8721), or visit heart.org to learn more about heart disease and stroke.

2. Sign up for our monthly Heart Insight e-news for heart patients and their families, at HeartInsight.org.

3. Connect with others sharing similar journeys with heart disease and stroke by joining our Support Network at heart.org/SupportNetwork.

**Do you have questions for your doctor or nurse?**

Take a few minutes to write down your questions for the next time you see your health care professional.

For example:

**How long will my new heart valve last?**

**When can I resume my normal daily activities?**

We have many other fact sheets to help you make healthier choices to reduce your risk, manage your condition or care for a loved one. Visit heart.org/AnswersByHeart to learn more.