CT Scan for Transcatheter Aortic Valve Replacement (TAVR)

General Information

A computerized tomography (CT) scan uses X-ray and a computer to create detailed images of your body.

The CT scan for your transcatheter aortic valve replacement (TAVR) will look closely at your heart, including your aortic valve and aorta.

The results of the CT scan will be used to determine:

- the best insertion site for the catheter (groin or chest)
- the valve type and size that is right for you.

You will receive a contrast injection through an intravenous (IV) line placed in your arm. The contrast will make your heart and aorta visible on the images taken by the CT scanner.

No surgery is needed and there is no recovery time.

The scan takes 12 to 30 seconds but you will be in the CT scanning room for about 15 to 20 minutes. The entire CT process takes 1 to 2½ hours (from the time you arrive to the time you leave), depending on your heart rate when you arrive.

What to Tell Your Health Care Provider

Before the day of your scan tell your health care provider if you:

- are pregnant or think you may be pregnant
- have had a contrast reaction during an X-ray, CT, MRI (magnetic resonance imaging) or angiogram test. You may need a medicine before the scan.

Before the Scan

- Do not eat or drink anything with caffeine the day of your scan. This can increase your heart rate and make it hard to get clear images of your heart. Do not have:
 - any type of coffee or tea
 - soda with caffeine
 - chocolate
 - medicines that have caffeine unless your health care provider gives you other directions.
- Do not eat anything for 2 hours before your scan.
- Take your regular medicines with water the morning of your scan, unless your health care provider tells you otherwise.
- If you take a medicine containing metformin for diabetes, you will be given additional instructions at the time of your scan. You may need to stop taking this medicine for 48 hours after you receive the contrast.

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- You will remove clothing and any jewelry and change into a hospital gown and pants.
- An IV line will be started in your arm.
- If you have not had a recent creatinine blood test, you will need one before the scan. This is a test that measures kidney function. This test may be done at the time your IV is started.
- The nurse or technologist will place some electrodes on your chest to record your heart rate during the scan.

During the Scan

- You may be given a medicine to slow your heart rate. A lower heart rate helps get clearer images.
- You will lie on a long table that slides into a short, doughnut-shaped machine.
- The technologist will go into a control room. He or she will talk with you through an intercom.
- You will be asked to hold your breath for a brief time. Lying still during the scan is important. Any movement can blur the X-ray images.
- The contrast is given through the IV in your arm. You may feel a warmth or flushing throughout your body. You may also have the sensation of urinating during the injection. These feelings last about 2 minutes.

After the Scan

- You will sit in a waiting area for about 15 minutes to make sure you don't have a reaction to the contrast.
- Your IV will be removed and you may return to your normal activity for the rest of the day.
- If you have a reaction such as itching or hives, please call your health care provider.
- If you start wheezing, have shortness of breath or trouble swallowing, call 911 right away.

CT Scan Results

- A cardiologist (heart doctor) will look at the images of your heart, aorta, aortic valve and blood vessels.
- A radiologist (imaging doctor) will look at anatomy outside of your heart, such as your lungs, on the images.
- The results will be given to you by the TAVR coordinator or doctor within 5 business days.