

Tests You May Need Prior to Surgery

Your surgeon will order pre-operative testing before you have surgery. These tests give your surgeon valuable information regarding your current health condition. Below is a list of some of the tests that may be done before you have surgery.

Dental Clearance

What is it? A dental clearance is a letter from your dentist stating you have no dental infections. Schedule an appointment for a cleaning and dental evaluation if you have not had one within 6 months of your surgery date.

Special Instructions: Any possible source of infection should be addressed and treated. You may need antibiotics prior to the treatment, so discuss with your surgeon.

What is needed for surgery? You will be provided a clearance letter form to give to your dentist. Have your dentist fax the clearance letter to your surgeon at (734) 232-5021.

Lab Tests

What are they? We will need to perform many lab tests before your surgery. Blood and urine samples will be taken.

Special Instructions: These tests must be done at the UM Hospital within 30 days of your scheduled surgery. Please do not eat or drink for 6 hours before this test.

What is needed for surgery? On the day of your surgery, please bring with you the Blue Sheet given to you at the blood draw.

Chest X-Ray

What is it? A chest x-ray is a picture of the heart and lungs that is used to assess your heart and lungs.

What will happen? When you have a chest x-ray, you will be asked to sit or stand in different positions while holding your breath so that picture can be taken.

Electrocardiogram (EKG)

What is it? An EKG records the electrical activity of your heart.

What will happen? You will have electrodes with wires put on your chest, arms, and legs. Electrodes feel like sticky patches and will connect you to the EKG machine which will graph the electrical activity of your heart.

Pulmonary Function Test (PFT)

What is it? A PFT measures how well your lungs take in and release air.

What will happen? The test usually takes one hour. You will breathe into a mouthpiece that is connected to a spirometer. A spirometer records how well your lungs work.

Carotid Doppler/Ultrasound Study

What is it? A carotid ultrasound checks for blockages or narrowing in the arteries of your neck that provide blood to your brain.

What will happen? This test usually takes 30 minutes. Gel will be applied to your neck and then an ultrasound probe will be moved against your skin.

Ankle-Brachial Index (ABI)

What is it? An ABI test checks for decreased blood flow to your arms and legs.

What will happen? This test usually takes 1 hour. You will have your blood pressure measured at your ankles and your arms.

Vein Mapping

What is it? A vein mapping test will create a map of your leg veins for the surgeon.

What will happen? This test usually takes 30 minutes. A gel is put on your legs and an ultrasound probe is moved around your skin while pictures are taken.

Surface Echocardiogram (Echo)

What is it? An Echo uses sound waves to measure your heart's size and shape, how well the valves are working, and how well your heart fills and pumps blood.

What will happen? This test usually takes 30 minutes. A gel is put on your chest and an ultrasound probe is moved around your chest while pictures are taken.

Trans-esophageal Echocardiogram (TEE)

What is it? A TEE provides a more detailed picture of your heart valves, chambers, aorta, and heart function.

What will happen?

- This test usually takes 1 hour to do and 2-3 hours recovery time.
- You cannot eat or drink 6 hours prior to the procedure and you will need someone to drive you home.
- A technician sprays your throat with a medicine to numb it.
- A nurse puts an intravenous line (IV) in your arm, and gives you medicine to help you relax.
- The doctor then gently guides a thin, flexible tube (probe) into your mouth and down your throat, and asks you to swallow as it goes down.
- The probe captures pictures of your heart.

ECG-gated SPECT Myocardial Perfusion Imaging (Stress Test)

What is it? A stress test is used to measure the amount of blood in your heart at rest and during exercise. It can detect coronary artery disease or damage to the heart.

What will happen? This test may take 3-6 hours to complete. During the scan, a camera takes pictures of the heart after a special test medicine (radioactive tracer) is injected into a vein in your arm.

- You will have an IV for this test.
- You can not eat or drink 4 hours prior to the test.
- You cannot have caffeine or tobacco 24 hours prior to this test.
- Certain medications cannot be taken prior to this test. The scheduler will discuss specific medications with you.

Coronary Angiogram (heart catheterization)

What is it? A coronary arteriogram is a procedure where contrast material is injected into your coronary arteries and pictures are taken of your coronary arteries (located on the outside of your heart). It shows if you have any blockages in your coronary arteries and how well your heart muscle and valves are working.

This test takes 1 hour to complete and 4-6 hours to recover.

What will happen?

- You cannot eat or drink for 6 hours prior to this procedure and you will need someone to drive you home.
- The nurse will give you medications through your IV line to help you relax and make you drowsy.
- Next, the site of the procedure (either your wrist or groin) will be numbed with a local anesthetic, similar to what your dentist may use.
- A catheter is placed in your blood vessel while a camera captures images.

Right Heart Catheterization

What is it? A test that measures the blood pressure and fluid levels in your heart and lungs.

This test takes 30 minutes – 1 hour to complete.

What will happen?

- You cannot eat or drink 6 hours prior to the procedure and you will need someone to drive you home.
- You will have an IV placed before the procedure.
- A small catheter is placed in your neck vein and guided through the vessel to the heart.
- You will have a chest x-ray performed after the procedure.

Computed Tomography Scan (CT)

What is it? A “CT” or “CAT” scan is a special x-ray that can see parts of your body that cannot be seen on regular x-rays. This test will take 1 hour to complete.

What will happen?

- You cannot eat 6 hours prior or drink 2 hours prior to this procedure.
- You will have an IV placed before the procedure.
- During the scan, you will lie on your back inside the machine while pictures are taken.
- A contrast material is injected through an intravenous (IV) line into a vein in your hand or arm IV to allow your doctor to see parts of your body more clearly.

Cardiac Magnetic Resonance Imaging (MRI)

What is it? An MRI provides detailed pictures of the heart and vessels. It also reveals how well your heart is functioning.

You will need to complete a questionnaire prior to your appointment.

What will happen?



If you are worried about feeling claustrophobic inside the MRI machine, talk to your doctor beforehand. You may receive a sedative before the scan.

- Metal and electronic objects are not allowed in the exam room because they interfere with the magnetic field of the MRI machine.
- Be sure to tell your physician if you have a history of metal implants, shrapnel and/or claustrophobia.
- You will be asked to wear a hospital gown during the MRI scan.
- The machine looks like a long metal tube. You lie down on a movable table that slides into the opening of the tube.
- There will be a technologist who monitors you from another room. You can talk with this person by microphone.
- During the MRI scan, the magnet produces repetitive tapping, thumping and other noises. Earplugs or music may be provided to help block the noise.
- In some cases, a contrast material may be injected through an intravenous (IV) line into a vein in your hand or arm to allow your doctor to see parts of your body more clearly.
- You must hold very still because movement can blur the test results.

