

Computed Tomography (CT) Chest

Exam Duration: Approximately 10-15 minutes IV Required? Varies

Exam Preparation: For CT exams without any kind of contrast:

No preparation required.

For CT exams with oral contrast (with or without IV contrast):

Do not eat or drink after the first dose of contrast until after the exam is complete.

For CT exams with IV contrast only:

Do not eat or drink 2 hours prior to the exam.

CT scans (sometimes called CAT scans) are quick, non-invasive diagnostic exams used to evaluate a wide variety of pathologies. CT may be used to diagnose or evaluate internal injuries from trauma, cancer, infectious disease, cardiovascular abnormalities, and a multitude of other conditions. The cross-sectional images provide a very detailed look at the internal anatomy of the body. Chest CT exams are very common and are used to evaluate organs such as the heart, lungs, muscle tissue, lymph nodes, and other nearby tissues.

Exam Procedure: Upon your arrival, a CT technologist will explain the exam in detail and ask questions about your relevant medical history. For exams ordered with IV contrast, an IV will be started in your arm if you do not already have one. You will lie on an imaging table on your back, with arms raised over your head if possible. The table will move in and out of the CT gantry as needed, giving instructions to hold your breath when appropriate. The entire exam generally takes 10-15 minutes.

IV Contrast Notes: Chest CT exams may or may not be ordered with IV contrast. If you have an iodine allergy, it is important to tell the technologist before your exam is performed. Most patients experience a warm flushed feeling when the contrast is administered along with a metallic taste. Patients may also experience a sensation like they have to urinate, but this is merely a side effect of the contrast and subsides quickly. Not all IVs are adequate for contrast injection; for example, butterfly IVs and certain small-gauge IVs may not be used.

Important: Diabetic patients will need to stop taking oral medications containing metformin for a period of 48 hours following IV contrast injection. Other oral medications and insulin are not affected.

PE Protocol Notes: The PE (pulmonary embolism) protocol is a specialized type of chest CT that looks for blood clots in the lungs. From the patient perspective, the exam is very similar to a normal chest CT with contrast. It does, however, require a larger IV to be placed no lower than the bend of the elbow (specialized IV access such as a PICC line rated for power injection is adequate as well).

Additional Notes: Patients will need to remove metal objects from the area of interest prior to the scan, including underwire bras, piercings, and clothing with metal buttons or zippers. Current creatinine levels must be available for patients who are diabetic or over the age of 60 if IV contrast is to be administered; these labs are performed in the CT department if necessary.

It is not uncommon to have an order for a CT of the chest, abdomen, and pelvis all in a single exam. There are additional considerations when performing an exam of the abdomen and/or pelvis, such as oral contrast and additional NPO instructions. Please refer to the CT Abdomen/Pelvis prep document for guidelines.