

## WHAT IS CT SCANNING OF THE BODY?

CT scanning—sometimes called CAT scanning—is a noninvasive medical test that helps physicians diagnose and treat medical conditions.

CT scanning combines special x-ray equipment with sophisticated computers to produce multiple images or pictures of the inside of the body. These cross-sectional images of the area being studied can then be examined on a computer monitor, printed or transferred to a CD.

CT scans of internal organs, bones, soft tissue and blood vessels provide greater clarity and reveal more details than regular x-ray exams.

Using specialized equipment and expertise to create and interpret CT scans of the body, radiologists can more easily diagnose problems such as cancers, cardiovascular disease, infectious disease, appendicitis, trauma and musculoskeletal disorders.

## HOW SHOULD I PREPARE?

You should wear comfortable, loose-fitting clothing to your exam. You may be given a gown or scrubs to wear during the procedure.

Metal objects including jewelry, eyeglasses, dentures, and hairpins may affect the CT images and should be left at home or removed before your exam. You may also be asked to remove hearing aids and removable dental work. Women should always inform their physician and the CT technologist if there is any possibility that they are pregnant.

## WHAT DOES THE EQUIPMENT LOOK LIKE?



The CT scanner is typically a large, box-like machine with a hole, or short tunnel, in the center. You will lie on a narrow examination table that slides into and out of this tunnel. Rotating around you, the x-ray tube and electronic x-ray detectors are located opposite each other in a ring, called a gantry. The computer workstation that processes the imaging information is located in a separate

control room, where the technologist operates the scanner and monitors your examination.

## **HOW DOES THE PROCEDURE WORK?**

In many ways, CT scanning works very much like other x-ray examinations. X-rays are a form of radiation—like light or radio waves—that can be directed at the body. Different body parts absorb the x-rays in varying degrees.

With CT scanning, numerous x-ray beams and a set of electronic x-ray detectors rotate around you, measuring the amount of radiation being absorbed throughout your body. At the same time, the examination table is moving through the scanner, so that the x-ray beam follows a spiral path. A special computer program processes this large volume of data to create two-dimensional cross-sectional images of your body, which are then displayed on a monitor.

## **HOW IS THE CT SCAN PERFORMED?**

The technologist begins by positioning you on the CT examination table, usually lying flat on your back or less commonly, on your side or your stomach. Straps and pillows may be used to help you maintain the correct position and to hold still during the exam. Depending on the part of the body being scanned, you may be asked to keep your hands over your head.

Next, the table will move quickly through the scanner to determine the correct starting position for the scans. Then, the table will move slowly through the machine as the actual CT scanning is performed. Depending on the type of CT scan, the machine may make several passes.

The CT examination is usually completed within 20 minutes.

## **WHAT WILL I EXPERIENCE DURING AND AFTER THE PROCEDURE?**

CT exams are generally painless, fast and easy.

## **WHO INTERPRETS THE RESULTS AND HOW DO I GET THEM?**

A radiologist (specialized physician) will interpret the images and dictate a report for your physician.