



Health Awareness

All About Medical Imaging Tests

(NAPSA)—Before you or someone you love becomes ill, you may want to check your knowledge of medical imaging tests. For instance, do you know what a CT scan is? Or when your doctor will recommend that you have an X-ray versus an ultrasound exam? What if your doctor ordered an MRI scan—would you know what your options are?

For the most part, today's medical imaging tests are fast and painless procedures carried out at local hospitals or medical imaging centers. To help you be better prepared if your doctor orders one of these exams for you or someone you know, here is some general information on X-rays, CT scans, MRI scans and ultrasound exams:

X-ray exam. X-rays are a form of radiation that pass through the body and when they strike a detector, such as photographic film, they produce an image. Dense tissue such as bones appear white on the X-ray picture, while less dense tissue such as muscles appear in shades of grey. If there are any abnormalities—for instance, a broken bone—they will show up clearly on the X-ray. The most common type of X-ray is the chest X-ray, which can help doctors identify lung conditions like pneumonia. Doctors also order X-rays to check for fractures and heart problems such as an enlarged heart.

CT scan. Computed tomography scans—also known as CT or “CAT” scans—combine the use of X-rays with the latest computer



Today's medical imaging tests help doctors quickly identify a variety of health problems.

technology. Your doctor may recommend you have a CT scan when there's a need to check your soft tissue to help identify cysts, as well as to diagnose diseases of the liver, lungs, coronary arteries and other internal organs.

The new cardiac CT scanners, such as the Aquilion 64 CFX from Toshiba America Medical Systems, also let doctors check for suspected heart disease and often eliminate the need for people to undergo invasive cardiac angiograms. These fast and painless cardiac CT scans can be done while you take a single breath—usually in just 10-15 seconds.

MRI scan. MRI uses a powerful magnet and pulses of radio waves to create images of the body's internal organs and structures. The MRI can detect changes which may indicate diseases caused by trauma, infection, inflammation or tumors. For instance, your doctor will have you undergo an MRI scan if you have a

sports injury, lower back problems, or suspected arthritis or osteoporosis. If you're claustrophobic, you may want to ask to have an open MRI instead of a traditional enclosed MRI.

Ultrasound exam. During this procedure (also known as a sonogram), a small instrument placed on the body directs high frequency sound waves toward internal organs. This produces an echo that returns to the instrument and creates an image. Ultrasound does not use X-rays or other types of radiation and is particularly good at capturing motion. For instance, millions of expectant parents have seen the first “picture” of their unborn child thanks to pelvic ultrasound examinations. An ultrasound exam can be given at any time during pregnancy to track the development and health of the baby.

In addition, your doctor will have you undergo this exam to check for health problems such as gallstones, deep vein thrombosis, appendicitis, ectopic pregnancy, hip dysplasia, pancreatitis and aortic aneurysm.

If you want to know what to expect during any of the above exams, ask your doctor, hospital or medical imaging center for a list of written instructions.

Also, if you have any last minute questions, talk with the technologist—the person operating the equipment—before the exam starts so you're 100 percent ready for the procedure.