Types of Diagnostic Imaging Tests

There are several types of diagnostic imaging tests. Each type is used based on what the provider is looking for.

Radiography: A quick, painless test that takes a picture of the inside of your body. These tests are also known as X-rays and mammograms. This test uses low doses of radiation.

Fluoroscopy: Uses many X-ray images that are shown on a screen. It is like an X-ray "movie." To make images clear, providers use a contrast agent (dye) that is put into your body. These tests can result in high doses of radiation. This often happens during procedures that take a long time (such as placing stents or other devices inside your body). Tests include:

- Barium X-rays and enemas
- Cardiac catheterization
- Upper GI endoscopy
- Angiogram

Magnetic Resonance Imaging (MRI) and Magnetic Resonance Angiography (MRA): Use magnets and radio waves to create pictures of your body. An MRA is a type of MRI that looks at blood vessels. Neither an MRI nor an MRA uses radiation, so there is no exposure.

Ultrasound: Uses sound waves to make pictures of the inside of your body. This test does not use radiation, so there is no exposure.

Computed Tomography (CT) Scan: Uses a detector that moves around your body and records many X-ray images. A computer then builds pictures or "slices" of organs and tissues. A CT scan uses more radiation than other imaging tests. A CT scan is often used to answer, "What does it look like?"

Nuclear Medicine Imaging: Uses a radioactive tracer to produce pictures of your body. The tracer is given before the test. It may be injected, swallowed, or inhaled. A tracer is not a dye or a medicine and has no side effects. The radiation in these scans tends to be very low. Tests include:

- Bone scan
- PET scan
- Gallium scan
- Thallium cardiac stress test
- MIBG scan

To learn more about radiation in medicine, visit: https://www.cdc.gov/nceh/radiation/ionizing.htm