MEDICAL RADIATION SAFETY



Answers to Questions About Medical Radiation

A Community Service of Yavapai Regional Medical Center

YAVAPAI REGIONAL MEDICAL CENTER

YRMC's Imaging Team: Committed to Your Health and Safety

Today's medical imaging technology makes it possible to diagnosis as well as treat injuries and illnesses with minimally invasive X-rays—or radiation. Imaging Services at Yavapai Regional Medical Center (YRMC) utilizes state-of-theart technology for all of these purposes.

YRMC's Imaging Services team includes experienced and skilled healthcare professionals. These imaging experts are dedicated to delivering high quality care and safe services to all patients. YRMC Imaging Services staff members are available to answer questions about the imaging procedure your physician has recommended for you or your family member. Additionally, this pamphlet was developed to answer questions you may have about X-ray technology and its potential risks.

YRMC Delivers Comprehensive Imaging Services

YRMC's Imaging Services Department performs more than 120,000 diagnostic imaging procedures each year. YRMC's comprehensive imaging services include:

- Angiography
- Angioplasty & Stenting
- CT Scans & CTA-CT Angiography
- Diagnostic X-rays
- Digital Mammography
- Interventional Cardiology Services
- Interventional Radiology Services
- Magnetic Resonance Imaging*
- Nuclear Medicine
- PET Scans
- Ultrasound*
- Vascular Testing*

*Procedure does not use X-ray technology.



Want more information? Please feel free to contact YRMC's Imaging Services at (928) 771-5140.

"To explain it in simple terms, we can compare the radiation exposure from one chest X-ray as equivalent to the amount of radiation exposure one experiences from our natural surroundings in 10 days."

- www.radiologyinfo.org



Two Great Hospitals... One Caring Spirit

YRMC West

1003 WILLOW CREEK RD. PRESCOTT, AZ 86301

YRMC East

7700 E. FLORENTINE ROAD PRESCOTT VALLEY, AZ 86314

YRMC Del E.Webb Outpatient Center

3262 N. WINDSONG DR. PRESCOTT VALLEY, AZ 86314

For more information call (928) 771-5140. To schedule an appointment call (928) 759-5860.

www.yrmc.org

What are X-rays?

The word *X-ray* often is linked with the procedure that helps to diagnosis fractures, pneumonias and other injuries or illnesses. However, the definition of the word *X-*ray is broader. *X-*rays are forms of radiant energy—like light or radio waves—that can produce pictures of internal structures in the body.

How are X-rays used in a healthcare setting?

X-ray images are important to helping physicians accurately diagnose illnesses or injuries. Medical X-rays, as these are called, are used in many types of examinations and procedures. Some examples of diagnostic procedures include:

- X-rays to detect bone fractures, tumors, pneumonias, foreign objects and more.
- CT scans to produce cross-sectional images of the body.
- Positron Emission Tomography (PET) scans to assist physicians with diagnosing and staging of various cancers.
- Nuclear medicine procedures to diagnose a variety of diseases, including many types of cancers, heart disease and certain other abnormalities within the body.

Is there danger from overexposure to X-rays?

People are exposed to radiation every day. Air, building materials, rocks and soil are sources of what is called naturally occurring background radiation. In medicine, radiation is used to diagnose and heal. In order to do this, trained medical professionals deliver it in doses that are higher than the amount people experience every day. This is why it is important to carefully monitor radiation exposure, both during each procedure and over time. YRMC's Imaging Services team is committed to patient safety, high quality patient care and superior image quality.

What safety precautions does YRMC take during radiologic procedures?

YMRC's radiologists and radiologic technologists follow these important guidelines:

- Using the lowest amount of radiation dose possible to attain the needed results.
- Imaging only when there is a clear medical benefit.
- Limiting imaging to the indicated area.
- Avoiding multiple scans.
- Using alternative diagnostic tools (such as ultrasound or MRI) when possible.

What concerns are there about the safety of medical procedures that use radiation?

Medical radiation procedures are safe when administered by radiologists and radiologic technologists who are trained to use the least amount of radiation to gather the greatest amount of information about the patient's condition. For higher dose procedures the radiologist considers past X-ray exposure before making a recommendation. For those who have had frequent X-ray exams and have changed healthcare providers, it's a good idea to maintain an X-ray history (see form at right). This will help your physician make an informed decision about the exam.

Radiation does not linger after an exam. Exposure is limited to the time the "switch" is turned on.

Should I get an X-ray exam if I think I am pregnant?

It is important to inform your physician or a member of the YRMC Imaging Services team if you are pregnant or if there is a possibility you are pregnant. While most medical imaging procedures do not pose a risk to a developing child, there is a small possibility of causing a serious illness or other complication. The risk depends on gestation and the type of X-ray. X-ray studies of the head, arms, legs and chest do not expose the baby directly to radiation. The YRMC radiologic technologist who takes the X-rays will implement special precautions to ensure that the baby of a pregnant patient is not directly exposed.

Is there anything I can do to minimize my risk to radiation exposure?

Maintain a "medical imaging history" listing the dates and locations of your procedures and the physicians who requested them. This pamphlet includes a form for your use. Share this information with your current physicians to help them determine if new tests are necessary. Also, inform your radiologist in advance if you are pregnant or think you may be pregnant.

Would you like to learn more?

If you have additional questions, contact your physician or YRMC's Imaging Services at (928) 771-5140. The following sources also

provide credible, useful information:

- www.radiologyinfo.org
- www.imagegently.org

Provided as a community service o Yavapai Regional Medical Center. essary information as you and your physician make decisions about X-ray exams or procedures.

Name:

