What is Radiation?

Radiation is a form of energy used in medical tests for accurate diagnosis of disease and injury. Radiation creates images that give your doctor important information about your health. Tests using radiation help ensure that you get appropriate care.

Some procedures that use radiation are:

- X-rays
- Mammograms
- CT scans
- Angiograms
- Bone density scans
- Nuclear medical exams

Exposures to high levels of radiation can increase the risk of cancer. However, at the low radiation levels used in medical tests, the risk is small and can’t be effectively estimated for an individual. Discuss the benefits and potential risks of any planned procedure with your doctor. Benefits from these procedures usually outweigh any small risk from the radiation used.
Did You Know?
You’re exposed to radiation from natural sources all the time. A medical test adds a small fraction of exposure when compared to these natural sources.

Some tests use more radiation than others. The table below shows some examples. The radiation from each test is compared to the radiation from time spent in your natural surroundings.

<table>
<thead>
<tr>
<th>Radiation source</th>
<th>Time spent in natural surroundings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bone density scan</td>
<td>3 hours</td>
</tr>
<tr>
<td>Chest x-ray (single)</td>
<td>10 days</td>
</tr>
<tr>
<td>Mammogram</td>
<td>up to 7 weeks</td>
</tr>
<tr>
<td>Head CT scan</td>
<td>up to 8 months</td>
</tr>
<tr>
<td>Chest CT scan</td>
<td>up to 2 years</td>
</tr>
</tbody>
</table>

There is no set answer to “How much radiation is too much?” Your doctor should recommend tests that are necessary, based on the information needed to diagnose or treat you.

Safety in Imaging
At Intermountain Healthcare, we participate in the Image Wisely campaign. This campaign is a commitment to provide the benefits of medical imaging while minimizing the risks. We work hard to:

- Use only the radiation necessary to produce quality images.
- Routinely review our processes so the least amount of radiation necessary is used.
- Communicate with doctors to help them choose imaging tests wisely. We consult with them about specific situations if needed.

To learn more, see www.imagewisely.org.

Safety in Pediatric Imaging
Because we value your little ones, we participate in the Image Gently campaign. This campaign involves a commitment to adjust imaging processes for each individual child.

To learn more, see www.imagegently.org.

What We’re Doing
- Intermountain works to help make sure imaging tests are medically appropriate.
- We participate in the Image Wisely and Image Gently campaigns (see the panel at left).
- Our imaging teams are regularly trained in radiation safety.
- We work hard to make sure our equipment is appropriate for the test or treatment you’ll receive.

What You Can Do
- Be sure to tell your doctor if you are pregnant or might be pregnant.
- Keep a history of all your procedures involving radiation. Share this information with your doctor.
- Discuss alternatives with your doctor.