



CT Scan Doses

Your risks of exposure to radiation

This handout explains the small risk from radiation during *computed tomography* (CT) scans.

Why is my doctor recommending a CT scan?

Computed tomography (CT) can help diagnose certain diseases and health conditions. The information from a CT scan can help you and your doctor decide whether or not to treat these diseases or conditions.

What health risks are involved?

The radiation you get from a CT scan is very small. The risk of developing a cancer in the future from CT is very low.

Even with this low risk, we are careful to do CT only when it is needed. When a person has many CT scans, the risk can increase. This could produce a cancer many years after the radiation exposure from the CT scans.

Many different things cause cancer, and cancer is fairly common (25% of people, or 25 out of 100, get cancer sometime during their lifetime). If a cancer develops, it is hard to know if it was caused by radiation from a CT scan or by something else.

Your doctor will decide whether your CT scan is needed. Your doctor knows that a CT scan should be done only if it will provide useful information about your health or help diagnose your condition.

Radiation Safety at UWMC and SCCA

University of Washington Medical Center (UWMC) and Seattle Cancer Care Alliance (SCCA) are known nationwide for their excellent radiology departments. Staff work to make sure that patients get the best CT scans with the lowest radiation dose possible. UWMC and SCCA are committed to your safety and to the safety of their staff, the public, and the environment.

Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns. Clinic staff are also available to help.

- Imaging Services at UWMC:
206-598-6200
- Radiology Department at SCCA:
206-288-7200

Low-dose CT at UWMC and SCCA produces high-quality images using the lowest dose of radiation possible. This safety standard is known as ALARA, which stands for doses that are “As Low As Reasonably Achievable.” Both UWMC and SCCA also monitor the radiation dose of every CT scan.

These standards and new CT methods have reduced CT radiation up to 60%. This is a much lower radiation dose than patients receive in many other health care facilities.

Comparing Risks

The radiation you receive from CT scans is very small. It is thought of as a very minor health risk.

This is true even though CT often uses 100 to 300 times more radiation than a low-dose X-ray such as a chest X-ray. A CT scan provides the same amount of radiation you could get from our natural environment in 1 to 3 years.

In a lifetime, the risk of dying from a cancer caused by a CT scan of the abdomen and pelvis is about 1 in 2,000. This is about the same as the risk of dying from a car accident when driving 35,000 miles in about 2 years in the United States.

Websites to Learn More

- **RadiologyInfo.org**

www.radiologyinfo.org/en/safety

This website for patients was created by the American College of Radiology (ACR) and the Radiological Society of North America (RSNA). It gives information about patient safety, radiology benefits and risks, and radiation exposure in CT scans.

- **U.S. Food and Drug Administration “Radiation-Emitting Products”**

www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/MedicalImaging/MedicalX-Rays/UCM115317#4

This webpage was created by the Food and Drug Administration (FDA). It describes how CT works and explains its uses, risks, and benefits.

UW Medicine
UNIVERSITY OF WASHINGTON
MEDICAL CENTER



UWMC Imaging Services
Box 357115

1959 N.E. Pacific St. Seattle, WA 98195
206-598-6200