

## CT: Scan Doses

### *About radiation exposure*

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

### **Why am I having a CT scan?**

Computed tomography (CT) uses radiation to help diagnose certain diseases and health issues. The information from a CT scan can help you and your healthcare provider decide whether or not to treat these health issues.



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### **Are there cancer risks from the radiation?**

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

But, even with this low risk, we are careful to do CT only when it is needed. If a person has many CT scans, their risk of cancer can increase. The cancer may develop many years after the CT scans.

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

Your provider will decide if you need to have a CT scan. Your provider knows that a CT scan should be done only if it will give useful information about your health or can help diagnose your condition.

### **Radiation Safety at UW Medicine and Fred Hutch**

UW Medicine facilities and Fred Hutchinson Cancer Center are known nationwide for our excellent radiology departments. Our staff make sure that patients get the best CT scans using the lowest radiation



*A CT scanner*

dose possible. UW Medicine and Fred Hutch are committed to your safety and to the safety of their staff, the public, and the environment.

Low-dose CT at UW Medicine and Fred Hutch 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 UW Medicine and Fred Hutch monitor the radiation dose of every CT scan.

Our high standards and new CT methods have reduced radiation up to 60% since we first started doing CT scans. We are able to keep your radiation exposure much lower than is possible in many other healthcare facilities.

## Comparing Risks

The radiation you receive from CT scans is very small. Doctors believe it is only 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 belly 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](http://www.radiologyinfo.org/en/safety)

This website 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](http://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.

## Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

- UWMC - Montlake Imaging Services: 206.598.6200
- UW Roosevelt Radiology: 206.598.6868
- Harborview Imaging Services: 206.744.3105
- UWMC - Northwest Imaging Services CT: 206.668.2061