

DOE LM | RADIATION EXPOSURE

EVERYDAY EXPOSURES



Approx 21 mrem from land



Approx 29 mrem from internal



Approx 33 mrem from space



Approx 228 mrem from radon

Average daily dose in the US from naturally occurring radiation.

Full body exposure for any duration past this level is harmful and potentially lethal.

DOE limit for remediation of land (Annual dose)	From all natural sources (Annual dose)	From all natural and human-made sources (Annual dose)	DOE radiation worker dose limit (Annual dose)
≤25 mrem	310 mrem	620 mrem	5,000 mrem

What is mrem?

The unit of **millirem (mrem)** is a measure of the dose or quantity of radiation energy that could be deposited in our bodies.

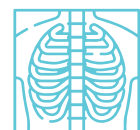
LM Sites
(Occupational dose)

0 mrem



Dental X ray
(Dose per examination)

10 mrem



Chest X ray
(Dose per examination)



Flight Crews
(Annual increase in cosmic radiation due to high altitude)

100 mrem



PET Scan
(Dose per examination)

1,000 mrem



CT Scan
(Dose per examination)

10,000 mrem



Acute radiation sickness

At 100,000 mrem you will begin feeling nauseous.

100,000 mrem



Lethal full body dose

1,000,000 mrem



Cancer radiotherapy
(Dose only at the treated region)

5,000,000 mrem

Notes:

When radiation doses are spread out over time, the body has time to adapt and repair any damage. However, a person receiving such doses over a lifetime will have a small additional risk of cancer later in life. The current chances of developing cancer in the US are about 50% for men and about 33% for women without any extra radiation.