RADIATION EXPOSURE

What Is Radiation

Ionizing radiation consists of energetic particles (photons, protons, electrons, alpha particles or heavy nuclei) that interact with cells in the human body and deposit part or all of their energy. This may cause changes in the tissue.

Radiation Effect

0 -200 mSv → No damage

250-1000 mSv → Some individuals may lose their appetites, experience nausea and have some damage to the spleen, bone marrow and lymph nodes.

1000 -3000 mSv → Nausea is mild to severe, no appetite, considerably higher susceptibility to infections. Injury to spleen, lymph node and bone marrow will be more severe.

3000-6000 mSv → Nausea much more severe, serious risks of infections, diarrhea, skin peels, sterility.

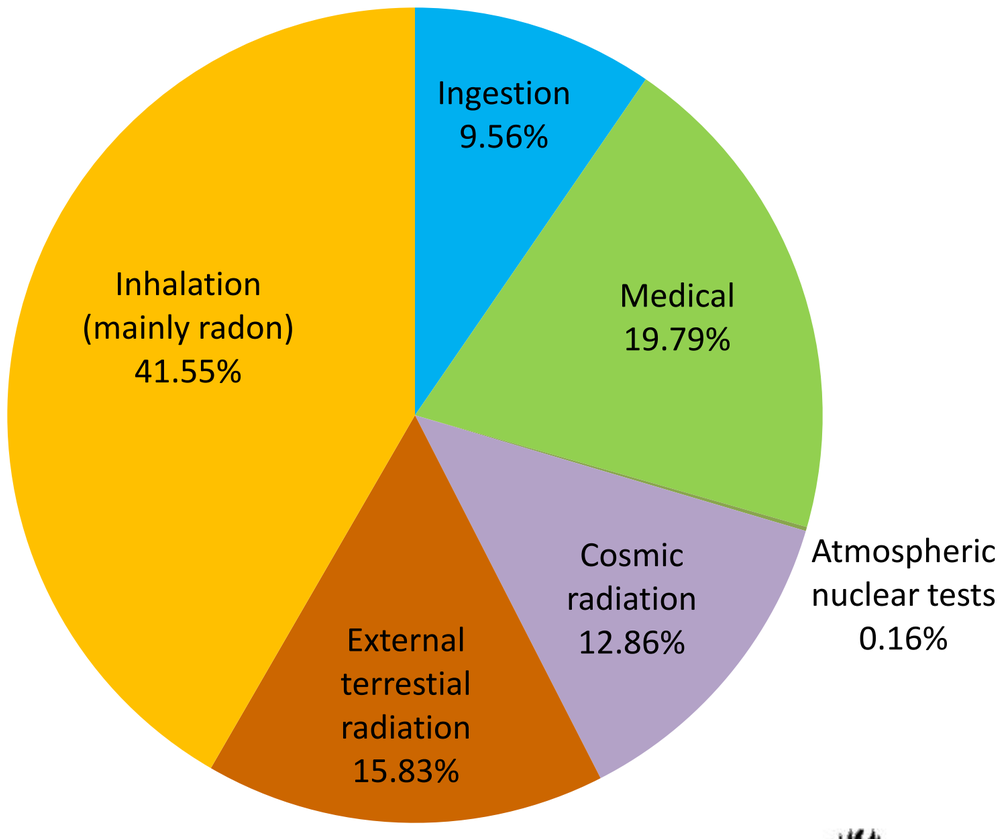
6000-10000 mSv → Central nervous system becomes severely damage.

>10000 mSv → Incapacitation. Death. Those who survive have considerably higher risk of developing some cancers such as lung cancer, thyroid cancer, breast cancer, leukemia and cancer of several organs.



All human beings are constantly exposed to naturally occurring background radiation. No increased risk has been scientifically demonstrated from this level of exposure, through a very small increase in cancer risk may exist.

Source of Radiation Exposure





BERT
Background Equivalent Radiation Times

Exam	Effective Dose (mSv)	BERT
CT abdominal	7.6	2 years
CT head	1.8	6 months
CT neck	3.6	1 year
Barium enema	8.7	2.5 years
Lumbar spine	2.1	7 months
Chest	0.04	4 days
CT Chest	7.8	26 months
Skull	0.1	10 days
Abdomen	1.2	4 months
Pelvis	1.1	4 months
Thoracic spine	1.0	3 months
CT pelvis	7.1	2 years
Hip	0.83	3 months
Extremities	0.01	1 day
Intravenous urography	4.2	14 months
Mammography	1.0	3 months