

Government of India  
Atomic Energy Regulatory Board



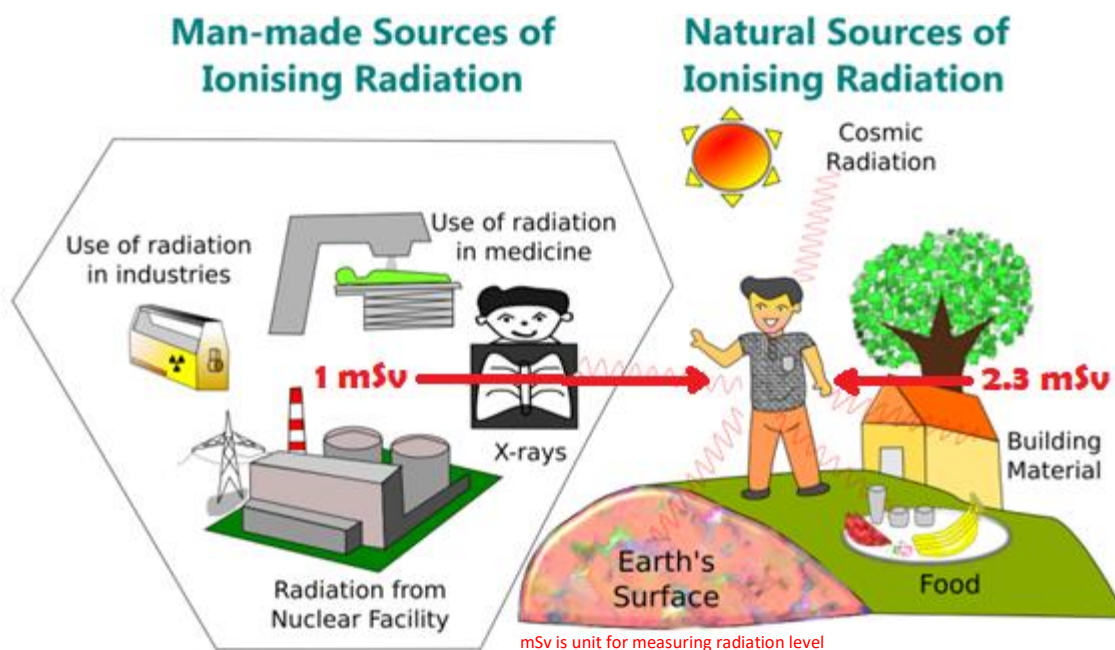
**Advisory on Radiation Safety concerns with respect to medical diagnostic X-ray facilities [X-ray radiography/CT-Scan/ Dental/Mammography]**

*This advisory is issued to address the concerns of public around medical diagnostic X-ray facilities on the perceived health risk due to radiation from these facilities.*

Medical diagnostic x-ray facilities are an essential and integral part of healthcare in a society. Ready access to these facilities in your neighbourhood is an indicator of mature healthcare infrastructure. Frequent concerns are being raised by the residents/ people working nearby such facilities on health risk due to radiation leakage from X-ray facilities. We would like to inform that medical X-ray facilities pose insignificant radiation risk to the general public and it's only the perceived fear of radiation that may be causing the concern.

Atomic Energy Regulatory Board (AERB) is having the mandate of ensuring radiation protection of society from applications of radiations in the various fields (such as medical, industrial, research).

**It is important to note that use of medical diagnostic X-ray equipment/CT equipment pose insignificant health risk to the public.**



Radiation is part of our daily existence and we are continuously getting exposed to natural background radiation from Sun, Earth's surface, Water and certain food items also. Hence, Radiation is all pervasive and on an average, we receive radiation dose of 2.3 mSv /year in India. This is called as background radiation. In comparison, radiation dose received around X-ray facility to the areas of occupancy is negligible and well within the AERB prescribed dose limit of 1 mSv in a year for the public.

Further, X-ray rooms/ CT-scan rooms are built with 23 cm (9 inch) brick wall or 2 mm lead equivalent partition. Similarly, entrance door is provided with 2 mm lead equivalent shielding. A radiation warning symbol as shown below is required to be pasted on the entrance door to prevent the public from entering the X-ray room during its use.



AERB issues license for operation of medical Diagnostic X-ray facilities from radiation safety view point based on use of design (type) approved X-ray equipment installed in a shielded room. Because of its in-built safety, AERB do not conduct regular inspections of such facilities. **However the owner of the X-ray facility is required to obtain other approvals/permissions as required by the concerned authorities/agencies/housing society.** The list of all the licensed X-ray facilities is available on AERB website. Any concerned person may verify the same if required (Follow the link for list <https://elora.aerb.gov.in/ELORA/prePopulateGraphData.htm>).

**AERB has no objection to have medical diagnostic X-ray facility operating in the public domain including office or residential area from radiation safety view point. Hence, public are advised not to fear or have undue concerns of radiation leakage or risk from medical diagnostic X-ray facility operating in their building/neighbourhood.**