



IAEA Free Webinar

## Is cataract a real risk to those working in interventional suites?

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Radiation induced eye lens opacities have been found in 1/3<sup>rd</sup> to half of the operators in interventional suites primarily among interventional cardiologists (ICs) but this may apply to interventional radiologists, electro-physiologists and vascular surgeons as well, who perform similar magnitude of work as ICs. Further, nurses in interventional suites who stay inside for most of the time when radiation beam is ON have been shown to have lens opacities. Data among other category of medical professionals like orthopaedic surgeons, urologists, gastroenterologists and anaesthetists is awaited but lack of use of protective means that is common, tends to indicate that they too may have significant risk. Most studies so far have shown lens opacities rather than frank cataract, but data from A Bomb survivors indicates that lens opacities have the potential to lead to cataract after several years of latent period. There is great momentum currently in large part of the world in this area. While the risk is real, the avoidance is also a real possibility. International Commission on Radiological Protection (ICRP) has reduced dose limits for occupational exposure for the eyes from 150 mSv/year to 20 mSv/year and this has been adopted by the IAEA and many countries.

### Learning objectives

1. To understand difference between lens opacities, cataract and difference between radiation induced cataract and cataract from other sources
2. To learn about difference in risks to those present in interventional suites
3. To learn about the latest recommendations of international organizations on radiation dose limit

## Presenter



Dr. Madan Rehani is currently a Visiting Scientist/Professor at the Harvard Medical School and Massachusetts General Hospital, Boston, and Adjunct Professor at the Duke University Medical Centre, Durham, NC, USA.

He was formerly a Radiation Safety Specialist at the IAEA for 11 years and during his tenure he initiated studies on surveying eyes of interventional cardiologist (ICs) and support staff for eye lens opacities. The team that consisted of collaborators from a number of countries published for the first time [reports in peer-reviewed journals](#) of eye lens opacities among Interventionalists and support staff. These studies and recommendations from ICRP and IAEA have created momentum in many countries.