

Invited Talk 7.1

Up-to-date dose conversion factors for radon isotopes and their historical overview

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New radon conversion factors (DCF) for radon/thoron progeny have been presented in the ICRP Publication 137 (2017). There used to be a large difference in the DCF between those derived from epidemiological (ICRP 65) and from dosimetric approaches (ICRP 66). This revision results in a higher DCF than before. Hereafter a variety of radon issues may arise. In the present talk, the following topics will be presented:

1. Characteristics of radon and progeny
2. How to assess the effective dose due to inhalation of radon progeny
3. Lung dosimetry and influential parameters for dose assessment
4. Review of dose conversion factors in published data
5. Thoron issues

References

- [1]. International Commission on Radiological Protection (ICRP); ICRP Publication 65, 1993, *Ann. ICRP*, 23
- [2]. International Commission on Radiological Protection (ICRP); ICRP Publication 66, 1994, *Ann. ICRP*, 24
- [3]. International Commission on Radiological Protection (ICRP); ICRP Publication 137, 2017, *Ann. ICRP*, 46
- [4]. International Commission on Radiological Protection (ICRP); ICRP ref 4836-9756-8598, 2018