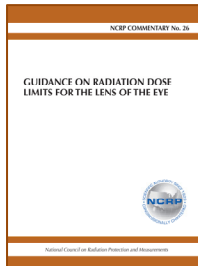




January 25, 2017

NCRP Releases Commentary No. 26, *Guidance on Radiation Dose Limits for the Lens of the Eye*



The National Council on Radiation Protection and Measurements (NCRP), with financial support from the Centers for Disease Control and Prevention and the U.S. Nuclear Regulatory Commission, addresses radiation protection principles with respect to the lens of the eye, summarizes the current understanding of eye biology and lens effects (including ionizing radiation effects), reviews and evaluates the current epidemiology related to ionizing radiation and cataracts, assesses exposed populations with the potential for significant radiation exposures to the lens, and makes conclusions and recommendations.

Commentary No. 26, *Guidance on Radiation Dose Limits for the Lens of the Eye*, takes into account the most current information regarding the epidemiologic and mechanistic understanding of the development of cataracts and specifically addresses four core questions:

- Should radiation-induced cataracts be characterized as stochastic effects or tissue reactions?
- What effects do linear-energy transfer, dose rate, acute and/or protracted dose delivery have on radiation cataract induction and progression?
- How should detriment be measured and/or evaluated for radiation cataracts?
- Based on current evidence, should NCRP change the recommended annual occupational equivalent dose limit for the lens of the eye?

NCRP answers these questions and recommends that the annual dose limit for occupational exposures for the lens of the eye be reduced to 50 mGy. While the currently available information for the effects of ionizing radiation on the lens has provided input on appropriate guidance with regard to radiation protection, much more work is needed to develop a complete understanding of such detriments. NCRP recommends ongoing evaluation and additional research in the following areas:

- comprehensive evaluation of the overall effects of ionizing radiation on the eye;
- dosimetry methodology and dose-sparing optimization techniques;
- additional high-quality epidemiology studies;
- medical countermeasures; and
- a basic understanding of the mechanisms of cataract development.

The Commentary is available from the NCRP website, <http://NCRPonline.org>.

The National Council on
Radiation Protection and
Measurements

7910 Woodmont Avenue, Suite 400
Bethesda, Maryland 20814-3095
Telephone: (301) 657-2652
Fax: (301) 907-8768
<http://NCRPonline.org>