

## **Implications of radiological Exposure of Children and Pregnant Women**

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Authorities agree that undue concern and apprehension would be elicited by information that a population might be or had been exposed to ionizing radiation or radioactive material (NCRP 2001). Agencies are providing guidance and training to emergency responders and disseminating information about radiation effects to health care facilities. The potential for exposure of children and the embryo/fetus warrants special consideration because they tend to be more sensitive to the effects of radiation and many toxic agents than are adults while exposures can produce unique responses. Moreover, reports of accidental or deliberate events that harm children or pregnant women and their embryo/fetus elicit especially great emotional response in our society.

Publications, including papers in this volume, propose scenarios under which populations might be exposed to radiation or radioactive materials (NCRP 2001). Three of these scenarios seem most relevant for exposure of populations that include children or the embryo/fetus. There is a need to establish perspective because there might be an elevated psychosocial reaction when children and pregnant women are members of the exposed population. This paper will briefly review radiation effects that are relevant for these age groups, indicate the dose levels at which the effects might be observed, summarize special features associated with internal radionuclide exposures, and examine how these factors pertain and/or interact under the conditions pertaining to the pertinent exposure scenarios.

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