

Radiation risks to health: A joint statement from leading scientific experts

March 18 2011

The growing concern surrounding the release of radiation from an earthquake and tsunami-stricken nuclear complex in Japan has raised fears of radiation exposure to populations in North America from the potential plume of radioactivity crossing the Pacific Ocean. To help Americans understand their radiation-related health risks, the American Association of Clinical Endocrinologists (AACE), the American Thyroid Association (ATA), The Endocrine Society and the Society of Nuclear Medicine (SNM) issued a joint statement (<http://www.endo-society.org/advocacy/policy/upload/Joint-Statement-on-Radiation-Risks-to-Health.pdf>).

The statement suggests that the principal radiation source of concern, in regard to impact on health, is radioactive iodine including iodine-131. This presents a special risk to health because exposure of the thyroid to high levels may lead to development of thyroid nodules and [thyroid cancer](#) years later.

Radioactive iodine uptake to the thyroid can be blocked by taking potassium iodide (KI) pills. However the statement cautions KI should not be taken unless there is a clear risk of exposure to high levels of radioactive iodine. While some radiation may be detected in the United States as a result of the nuclear reactor accident in Japan, current estimates indicate radiation levels will not be harmful to the [thyroid gland](#) or general health. If [radiation levels](#) did warrant the use of KI, the statement recommends it should be taken as directed by physicians or public health authorities until the risk for significant exposure dissipates.

The statement discourages individuals needlessly purchasing or hoarding of KI in the United States. Since there is not a radiation emergency in the United States or its territories, the statement does not support the ingestion of KI prophylaxis at this time. KI can cause allergic reactions, skin rashes, [salivary gland](#) inflammation, hyperthyroidism or hypothyroidism in a small percentage of people.

AACE, ATA, The Endocrine Society and SNM will continue to monitor potential risks to health from this accident and will issue amended advisories as warranted.

Provided by The Endocrine Society

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