Basic Information on Thyroid Thyroid Exposure

Exposure of a Group of Evacuees
- Chernobyl Accident -

Countries	Number of people (1,000 people)	Average effective dose (mSv)		Average thyroid dose (mGy)
		External exposure	Internal exposure (in organs other than the thyroid)	
Belarus	25	30	6	1,100
Russia	0.19	25	10	440
Ukraine	90	20	10	330

mSv: millisieverts mGy: milligrays

Source: United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) 2008 Report

Thyroid exposure doses are high for people who were forced to evacuate after the Chernobyl accident and the average is estimated to be approx. 490 mGy. The average thyroid dose for children is estimated to be even higher. One of the major causes is that they drank milk contaminated with I-131 for two to three weeks after the accident.

The average thyroid exposure dose for people who resided outside evacuation areas in the former Soviet Union was approx. 20 mGy, while that for people who resided in the contaminated areas was approx. 100 mGy. Both values were much higher than the average dose (approx. 1 mGy) for people in other countries in Europe.

The effective dose from internal exposure in organs other than the thyroid and from external exposure was approx. 31 mSv on average. The average effective dose was approx. 36 mSv in Belarus, approx. 35 mSv in Russia, and approx. 30 mSv in Ukraine. It is known that the average effective dose is larger in Belarus than in Ukraine and Russia as in the case of the average thyroid exposure dose.

(Related to p.130 of Vol. 1, "Time of Developing Childhood Thyroid Cancer - Chernobyl Accident -")

Included in this reference material on March 31, 2013
Updated on March 31, 2017