## Basic Information on Thyroid

## Thyroid Cancer and Iodine Intake

- Chernobyl Accident -

| Stable iodine tablets | Relative risks* of exposure to 1 Gy<br>(95% confidence interval) |                                                 |
|-----------------------|------------------------------------------------------------------|-------------------------------------------------|
|                       | Areas where iodine concentration in soil is high                 | Areas where iodine concentration in soil is low |
| Administered          | 2.5<br>(0.8-6.0)                                                 | 9.8<br>(4.6-19.8)                               |
| Unadministered        | 0.1<br>(-0.3-2.6)                                                | 2.3<br>(0.0-9.6)                                |

Source: Cardis et al., JNCI, 97, 724, 2005

As shown in the table, there has been a report that the relative risk of thyroid cancer per gray increases in areas where iodine concentration in soil is low and iodine intake is insufficient. Areas around Chernobyl, where the relevant data was obtained, are located inland away from the sea and iodine concentration in soil is low. Additionally, people there do not habitually eat seaweed and salt-water fish that are rich in iodine.

Compared to areas around Chernobyl, iodine concentration in soil is higher in Japan as a whole and iodine intake is also higher than in other countries. Accordingly, such data as obtained in areas around Chernobyl is not necessarily applicable in Japan. (Related to p.93 of Vol. 1, "Relative Risks and Attributable Risks")

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<sup>\*</sup> Relative risks indicate how many times larger the cancer risks are among people exposed to radiation when assuming the risks among non-exposed people as 1.