

Approach for the Calculation of the Standard Limits (2/2)

3. Calculation of the upper limits by age bracket

Intervention level: 1 mSv/y

Subtract permissible dose for drinking water (approx. 0.1 mSv)

Permissible dose to be allocated to general foods (approx. 0.9 mSv) determined

Age brackets are divided more finely than for the provisional regulation values

The upper limit is calculated in consideration of **the amount of consumption** and **the conversion factor (effective dose coefficient)** by age bracket.

* Effects of radionuclides other than cesium are also taken into account.

Age bracket	Gender	Upper limit (Bq/kg)
Under 1 year old	Total average	460
1 to 6 years old	Male	310
	Female	320
7 to 12 years old	Male	190
	Female	210
13 to 18 years old	Male	120
	Female	150
19 years old or older	Male	130
	Female	160
Pregnant women	Female	160
Minimum value		120

Standard limit 100 Bq/kg

The standard limit is set based on the strictest upper limit (the minimum value) out of those for all age brackets.


- The standard limit results in reflecting requirements for all age brackets.
- The standard limit secures an extra margin of safety from the upper limit especially for infants.

4. Standard limits for milk and infant foods

These categories are established in consideration of young children. Therefore, the standard limits should be stricter so that consumption of these foods would not cause any harmful effects even if all of them contain radioactive materials up to the upper limits.

→ The standard limits for milk and infant foods are both set to be 50 Bq/kg, namely half of the 100 Bq/kg for general foods.



Prepared based on the Ministry of Health, Labour and Welfare's website, "Measures for Radioactive Materials in Foods"  厚生労働省

The idea of figuring out dose limits for each age bracket underlies the basic approach for setting the standard limits.

The annual permissible dose allocated to general foods is approx. 0.9 mSv, subtracting that for drinking water from the total.

The table above shows upper limits (Bq/kg) by age bracket calculated based on the annual consumption and the effective dose coefficient for each age bracket.

As a result, the strictest upper limit was found to be 120 Bq/kg for males aged between 13 and 18.

In order to ensure safety for all age brackets, the standard limit was set to be 100 Bq/kg on the safe side, below the strictest upper limit of 120 Bq/kg.

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