

## 乳児用食品の放射性セシウム濃度調査 (2012 年度～2023 年度)

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### Concentration of radioactive cesium in infant food (FY 2012 - FY 2023)

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#### Abstract

In response to food contamination by radioactive materials arising from the Fukushima Daiichi Nuclear Power Station Accident, new standard limits for radioactive materials in food were established in 2012 in Japan. As it is possible that infants have a higher sensitivity to radiation than adults, the standard limit for infant food (50 Bq/kg) was set at half the limit for food in general (100 Bq/kg). As infant foods are not as rigorously monitored by municipalities as fresh foods, it is crucial that infants' exposure to radiation be assessed by measuring and understanding the concentration of radioactive materials in infant foods. In this study, we investigated the concentration of radioactive cesium (Cs-134 and Cs-137) in 906 samples of infant foods available on the Japanese market from 2012 to 2023 using a germanium semiconductor detector. The sum of the limit of detection for Cs-134 and Cs-137 was set as less than 5 Bq/kg for infant foods and less than 1 Bq/kg for drinking water for infants. Totals of 238 samples of infant formula, 471 samples of infant foods, and 197 samples of snacks and beverages were analyzed, with none of the samples exceeding the new standard limits and the limit of detections for radioactive cesium. These results suggest that manufacturers have implemented strict production management procedures since the accident so that the intake of radioactive cesium from infant foods produced in Japan is negligibly low.

**Keywords :** 放射性セシウム、乳児用食品、福島原発事故

radioactive cesium, infant food, Fukushima Daiichi Nuclear Power Station Accident

#### I 緒言

放射性物質は、一般的に、内部被ばくと外部被ばくという二つの経路を通じて人体に影響を与える。その中で、経口摂取による内部被ばくの主要な要因は放射性物質を含む食品と水の摂取である<sup>1)</sup>。2011年に発生した東京電力福島第一原子力発電所事故（福島原発事故）によ

り、放射性物質による食品汚染が発生し、さまざまな品目の食品から放射性物質が検出される事態となった。厚生労働省は食品の安全性を確保するために暫定規制値を設定し、食品中の放射性物質に関する規制を開始した。

放射性物質は年齢によって異なる影響を及ぼす可能性がある。小児では組織の細胞分裂が盛んで、DNAに生じた損傷を修復するまでの時間が短く、突然変異や染色体