



Sodium Iodide I 123

Revised: June 30, 2019.

CASRN: 24359-64-6



Drug Levels and Effects

Summary of Use during Lactation

Information in this record refers to the use of sodium iodide I 123 as a diagnostic agent. Considerable controversy exists in the literature concerning the breastfeeding interruption time after the diagnostic use of sodium iodide I 123, partly depending on assumptions used for the levels of impurities, especially I 125, in commercial products. Some international agencies state that breastfeeding should be interrupted for more than 3 weeks following diagnostic use of sodium iodide I 123.[1][2] This usually will result in permanent discontinuation of breastfeeding for this infant. However, other experts recommend much shorter times. Recent information indicates that I 125 contamination is currently much less than earlier estimates.[3] The American Thyroid Association recommends discontinuation of breastfeeding for only 3 to 4 days after a diagnostic scan[4] and UK authorities recommend a cessation of 42 hours after a 20 MBq dose.[5] The safest course of action may be to have breastmilk tested at a nuclear medicine facility at a hospital. When the radioactivity is at a safe level

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the mother may resume breastfeeding. A method for measuring milk radioactivity and determining the time when a mother can safely resume breastfeeding has been published.[6] Mothers who receive a dose less than 400 MBq for a thyroid scan need not refrain from close contact with their infants.[7]

Drug Levels

I 123 is a gamma emitter with a principal photon energy of 159 keV and a physical half-life of 13.2 hours.[8] Iodide is actively secreted into breastmilk and actively taken up by the mother's and infant's thyroid glands. The effective half-life of I 123 is 5.8 hours.[6][9]

Maternal Levels. A lactating woman was administered 270 microcuries of NaI 123. The estimated level of contamination with I 123 in one breastmilk sample was 1.2 pCi/mL.[3]

Infant Levels. Relevant published information was not found as of the revision date.

Effects in Breastfed Infants

Relevant published information was not found as of the revision date.

Effects on Lactation and Breastmilk

Relevant published information was not found as of the revision date.

Alternate Drugs to Consider

(Hyperthyroidism Diagnosis) [Sodium Pertechnetate Tc 99m](#)

References

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Substance Identification

Substance Name

Sodium Iodide I 123

CAS Registry Number

24359-64-6

Drug Class

Breast Feeding

Lactation

Radiopharmaceuticals

Iodine Radioisotopes

Diagnostic Agents