



## I 123-Labeled Human Serum Albumin

Revised: October 15, 2023.

### Drug Levels and Effects

#### Summary of Use during Lactation

Information in this record refers to the use of 123-labeled human serum albumin (I 123 HSA) as a diagnostic agent. The International Commission on Radiological Protection states that breastfeeding should be interrupted for more than 3 weeks following diagnostic use of I 123 HSA. This usually will result in permanent discontinuation of breastfeeding for this infant.[1] However, this assumes that I 123 is contaminated with other iodine isotopes, which does not occur any longer and a discontinuation period as short as 3 days may be acceptable.[2] Mothers concerned about the level of radioactivity in their milk could ask to have it tested at a nuclear medicine facility at their hospital. When the radioactivity is at a safe level, she may resume breastfeeding. A method for measuring milk radioactivity and determining the time when a mother can safely resume breastfeeding has been published.[3]

#### Drug Levels

I 123 is a gamma emitter with a principal photon energy of 159 keV and a physical half-life of 13.1 hours.[2] Iodide is actively secreted into breastmilk and actively taken up by the mother's and infant's thyroid glands.

#### 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.

#### References

1. Mattsson S, Johansson L, Leide Svegborn S, et al. Radiation dose to patients from radiopharmaceuticals: A compendium of current information related to frequently used substances. ICRP Publication 128. Annex D. Recommendations on breast-feeding interruptions. Ann ICRP 2015;44 (2 Suppl ):319-21.

**Disclaimer:** Information presented in this database is not meant as a substitute for professional judgment. You should consult your healthcare provider for breastfeeding advice related to your particular situation. The U.S. government does not warrant or assume any liability or responsibility for the accuracy or completeness of the information on this Site.

**Attribution Statement:** LactMed is a registered trademark of the U.S. Department of Health and Human Services.

2. Dilsizian V, Metter D, Palestro C, Zanzonico P. Advisory Committee on Medical Uses of Isotopes (ACMUI) Sub-Committee on Nursing Mother Guidelines for the Medical Administration of Radioactive Material. Final report submitted: January 31, 2019. 2019. Available at: <https://www.nrc.gov/docs/ML1903/ML19038A498.pdf>
3. Stabin MG, Breitz HB. Breast milk excretion of radiopharmaceuticals: Mechanisms, findings, and radiation dosimetry. J Nucl Med 2000;41:863-73. PubMed PMID: 10809203.

## Substance Identification

### Substance Name

I 123-Labeled Human Serum Albumin

### Drug Class

Breast Feeding

Lactation

Milk, Human

Radiopharmaceuticals

Iodine Radioisotopes

Serum Albumin, Radio-Iodinated

Diagnostic Agents