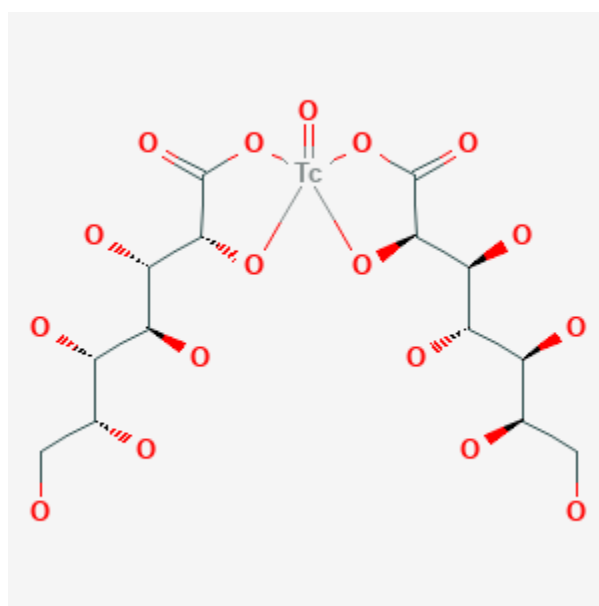




## Technetium 99mTc Glucoheptonate

Revised: June 30, 2019.

CASRN: 153546-52-2



## Drug Levels and Effects

### Summary of Use during Lactation

Information in this record refers to the use of technetium 99mTc glucoheptonate as a diagnostic agent. Breastfeeding need not be interrupted after administration of technetium 99mTc glucoheptonate.[1] However, to follow the principle of keeping exposure "as low as reasonably achievable", some experts recommend nursing the infant just before administration of the radiopharmaceutical and interrupting breastfeeding for 3 to 6 hours after the dose, then expressing the milk completely once and discarding it. If the mother has expressed and saved milk prior to the examination, she can feed it to the infant during the period of nursing interruption.[2][3][4] Mothers need not refrain from close contact with their infants after usual clinical doses.[5]

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

**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 .

measuring milk radioactivity and determining the time when a mother can safely resume breastfeeding has been published.[6]

For nursing mothers who work with Tc 99m substances in their workplace, there is no need to take any precautions other than those appropriate for general radiation protection.[7]

## Drug Levels

Tc 99m is a gamma emitter with a principal photon energy of 140.5 keV and a physical half-life of 6.024 hours. [8]

## 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. Annex D. Recommendations on breast-feeding interruptions. Ann ICRP. 2015;44 (2 Suppl):319-21. PubMed PMID: 26069086.
2. Mountford PJ, Coakley AJ. A review of the secretion of radioactivity in human breast milk: data, quantitative analysis and recommendations. Nucl Med Commun. 1989;10:15-27. PubMed PMID: 2645546.
3. National Radiation Protection Board (UK). Administration of radioactive substances advisory committee. Notes for guidance on the clinical administration of radiopharmaceuticals and use of sealed radioactive sources. 2019. Available at: [https://assets.publishing.service.gov.uk/government/.../file/.../ARSAC\\_NfG\\_2019.pdf](https://assets.publishing.service.gov.uk/government/.../file/.../ARSAC_NfG_2019.pdf)
4. Mitchell KB, Fleming MM, Anderson PO et al. ABM Clinical Protocol #30: Radiology and Nuclear Medicine Studies in Lactating Women. Breastfeed Med. 2019;14:290-4. PubMed PMID: 31107104.
5. Mountford PJ, O'Doherty MJ . Exposure of critical groups to nuclear medicine patients. Appl Radiat Isot. 1999;50:89-111. PubMed PMID: 10028630.
6. Stabin MG, Breitz HB. Breast milk excretion of radiopharmaceuticals: mechanisms, findings, and radiation dosimetry. J Nucl Med. 2000;41:863-73. PubMed PMID: 10809203.
7. Almen A, Mattsson S. Radiological protection of fetuses and breast-fed children of occupationally exposed women in nuclear medicine - Challenges for hospitals. Phys Med. 2017;43:172-7. PubMed PMID: 28882410.
8. Howe DB, Beardsley M, Bakhsh S. Appendix U. Model procedure for release of patients or human research subjects administered radioactive materials. In, NUREG-1556. Consolidated guidance about materials licenses. Program-specific guidance about medical use licenses. Final report. U.S. Nuclear Regulatory Commission Office of Nuclear Material Safety and Safeguards. 2008;9, Rev. 2. Available at: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v9/r2/>

## Substance Identification

### Substance Name

Technetium 99mTc Glucoheptonate

## **CAS Registry Number**

153546-52-2

## **Drug Class**

Breast Feeding

Lactation

Radiopharmaceuticals

Technetium Compounds

Diagnostic Agents