

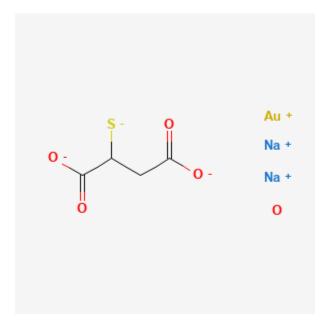
**NLM Citation:** Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006-. Gold Sodium Thiomalate. [Updated 2024 Jun 15]. **Bookshelf URL:** https://www.ncbi.nlm.nih.gov/books/



### **Gold Sodium Thiomalate**

Revised: June 15, 2024.

CASRN: 39377-38-3



# **Drug Levels and Effects**

## **Summary of Use during Lactation**

Excretion of gold into milk after gold sodium thiomalate has not been rigorously studied. Case reports indicate that gold appears in milk in small quantities and at least a little of it is absorbed because it is detectable in the infant's urine. No convincing cases of toxicity have been reported. Monitoring for possible adverse effects in the breastfed infant would seem prudent. Opinions of authors of review articles vary from recommending avoidance to allowing use.[1-5] Since gold salts are rarely used any longer, an alternative is preferred.

**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.

### **Drug Levels**

*Maternal Levels*. The milk of one mother contained 22 mcg/L after a total dose of gold sodium thiomalate of 370 over a 7-week period and 40 mcg/L after 395 mg over about 8 weeks.[6]

Gold levels reached a peak of 30 mcg/L 17 hours after a 20 mg intramuscular dose of gold sodium thiomalate and persisted at about the same levels for at least 72 hours when another dose of 50 mg was administered. A peak milk level of 153 mcg/L was measured 22 hours after this dose and fluctuated around this level until at least 42 hours after the dose. In another mother reported in the same paper, peak milk level of 15 mcg/L occurred 36 hours after a dose of 10 mg. Following a subsequent dose of 20 mg, a peak milk level of 140 mcg/L occurred at 24 hours and 165 mcg/L at 69 hours after the dose. A third 20 mg dose resulted in a level of 185 mcg/L 3 hours after the dose when collection was stopped.[7]

A woman received gold sodium thiomalate during pregnancy and after delivery in dose of 10 mg every 3 to 4 weeks. Milk levels ranged between 15 and 30 mcg/L after the postpartum doses.[8]

*Infant Levels.* Gold was detectable in an infant's urine at a level of 0.4 mcg/L after a cumulative maternal dose of 370 mg over a 7-week period. One month later, gold was undetectable (<0.4 mcg/L) in the infant's urine after another maternal dose of 20 mg during this time.[6]

A woman received gold sodium thiomalate during pregnancy and after delivery in dose of 10 mg every 3 to 4 weeks. Gold was detected in the infant's urine in a concentration of 51 mcg/L on one occasion 21 days after the previous dose.[8]

#### **Effects in Breastfed Infants**

Four infants reportedly have been breastfed during maternal gold therapy (including gold sodium thiomalate and gold aurothioglucose).[6,8-10] Transient facial edema occurred in an 18-month-old infant, 3 months after the mother's treatment stopped.[6] The reaction was possibly due to gold in the mother's milk ingested by the infant.

#### **Effects on Lactation and Breastmilk**

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

#### **Alternate Drugs to Consider**

(Rheumatoid Arthritis) Etanercept, Hydroxychloroquine, Infliximab, Methotrexate, Penicillamine, Sulfasalazine

#### **References**

- 1. Østensen M. Treatment with immunosuppressive and disease modifying drugs during pregnancy and lactation. Am J Reprod Immunol 1992;28:148-52. PubMed PMID: 1285866.
- 2. Rayburn WF. Connective tissue disorders and pregnancy. Recommendations for prescribing. J Reprod Med 1998;43:341-9. PubMed PMID: 9583066.
- 3. Janssen NM, Genta MS. The effects of immunosuppressive and anti-inflammatory medications on fertility, pregnancy and lactation. Arch Intern Med 2000;160:610-9. PubMed PMID: 10724046.
- 4. Ramsey-Goldman R, Schilling E. Optimum use of disease-modifying and immunosuppressive antirheumatic agents during pregnancy and lactation. Clin Immunother 1996;5:40-58. doi:10.1007/BF03259314
- 5. Brooks PM, Needs CJ. Antirheumatic drugs in pregnancy and lactation. Baillieres Clin Rheumatol 1990;4:157-71. PubMed PMID: 2282661.
- 6. Bell RA, Dale IM. Gold secretion in maternal milk. Arthritis Rheum 1976;19:1374. PubMed PMID: 826260.

Gold Sodium Thiomalate 3

7. Østensen M, Skavdal K, Myklebust G, et al. Excretion of gold into human breast milk. Eur J Clin Pharmacol 1986;31:251-2. PubMed PMID: 3100315.

- 8. Bennett PN, Humphries SJ, Osborne JP, et al. Use of sodium aurothiomalate during lactation. Br J Clin Pharmacol 1990;29:777-9. PubMed PMID: 2116162.
- 9. Blau SP. Metabolism of gold during lactation. Arthritis Rheum 1973;16:777-8. PubMed PMID: 4757877.
- 10. Sørensen SS. Pharmacodynamic examination of patients treated with gold preparations. Nord Med 1970;84:1508. PubMed PMID: 5494985.

#### **Substance Identification**

#### **Substance Name**

Gold Sodium Thiomalate

## **CAS Registry Number**

39377-38-3

#### **Drug Class**

**Breast Feeding** 

Lactation

Milk, Human

Antirheumatic Agents