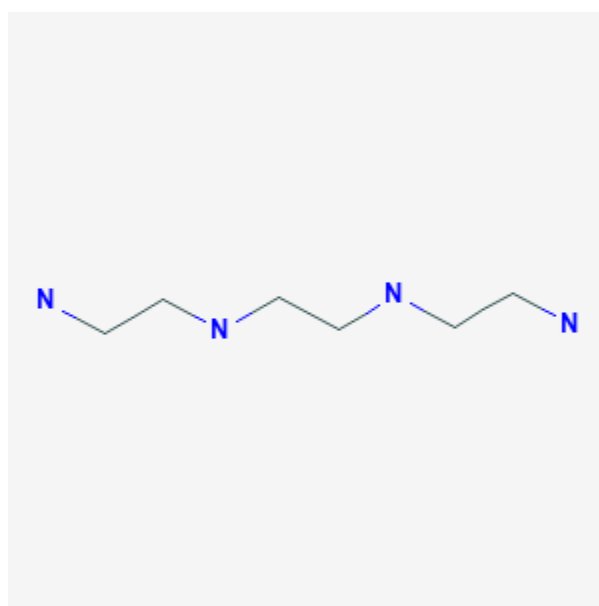




## Trientine

Revised: June 30, 2019.

CASRN: 112-24-3



## Drug Levels and Effects

### Summary of Use during Lactation

Limited information indicates that trientine is not detectable in breastmilk, and no adverse effects have been reported among breastfed infants whose mothers were taking the drug. The effect of trientine on breastmilk copper and zinc concentrations in milk is conflicting,[1][2][3] but breastfed infants appear to have normal serum copper and zinc plasma levels. Based on available data, it appears that trientine is acceptable to use during breastfeeding.

### Drug Levels

*Maternal Levels.* Four patients received trientine for Wilson's disease in dosages of 1000, 1500 (2 patients) and 1750 mg daily. Trientine was not detectable by HPLC in the breastmilk of any of the mothers' milk samples.[1]

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

## Effects in Breastfed Infants

Three infants were breastfed during maternal treatment of Wilson's disease with trientine. Serum zinc and copper concentrations were normal in these infants.[3]

A center in Turkey reported 23 infants born to mothers with Wilson's disease over a 20-year period. One patient was treated with 600 mg of trientine plus 100 mg of zinc daily. All of the infants were breastfed (extent and duration not specified). One premature infant died at 3 weeks of age (maternal drug not specified), but the other infants had no apparent complications over a median of 51 months (range 13 to 105 months) of follow-up.[4]

A center in Germany reports 32 patients with Wilson's disease who became pregnant. Four of the patients were taking trientine in dosages of 600 to 1200 mg daily. Of the 31 women who delivered a live infant, 27 of them breastfed their infants (extent not stated). Four of the infants had neonatal jaundice, but its relationship to trientine cannot be determined. The exact number of women who breastfed while taking trientine is unclear in the report.[5]

## Effects on Lactation and Breastmilk

Conflicting data exist on breastmilk concentrations of zinc and copper during therapy of Wilson's disease with trientine. One abstract reported that breastmilk concentrations were normal during therapy,[2] but another abstract from the same authors reported lower milk concentrations of zinc and copper.[1]

## Alternate Drugs to Consider

Penicillamine

## References

1. Izumi Y. [Can mothers with Wilson's disease give her breast milk to their infant?]. *Teikyo Med J.* 2012;35:17-24.
2. Kaga F, Kodama H, Shiga K et al. Copper and zinc status in the breast milk of mothers with Wilson disease. *J Inherit Metab Dis.* 2008;31 (Suppl 1):157. Abstract. DOI: [10.1007/s10545-008-9975-0](https://doi.org/10.1007/s10545-008-9975-0).
3. Shiga K, Kaga H, Kodama H et al. Copper and zinc concentrations in the breast milk of mothers with Wilson disease and effects on infants. *J Inherit Metab Dis.* 2006;29 (Suppl 1):139. Abstract. DOI: [10.1007/s10545-006-9995-6](https://doi.org/10.1007/s10545-006-9995-6).
4. Demir K, Soyer OM, Karaca C et al. The course of pregnancy in Wilson's disease-one center, 20 years' experience. *Gastroenterology.* 2014;146:S-1009. Abstract TU1834.
5. Reuner U, Dinger J. Pregnancy and Wilson disease: Management and outcome of mother and newborns-experiences of a perinatal centre. *Ann Transl Med.* 2019;7 (Suppl 2):S56. DOI: [10.21037/atm.2019.04.40](https://doi.org/10.21037/atm.2019.04.40).

## Substance Identification

### Substance Name

Trientine

### CAS Registry Number

112-24-3

## **Drug Class**

Breast Feeding

Lactation

Chelating Agents