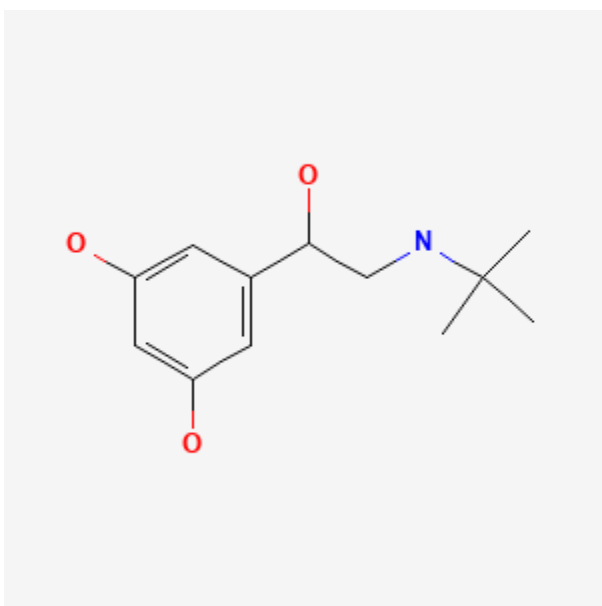




## Terbutaline

Revised: February 15, 2021.

CASRN: 23031-25-6



## Drug Levels and Effects

### Summary of Use during Lactation

Maternal use of oral or inhaled terbutaline is unlikely to affect a breastfed infant. The authors of several reviews and an expert panel agree that use of inhaled bronchodilators is acceptable during breastfeeding because of the low bioavailability and maternal serum levels after use.[1-4] Terbutaline use as a tocolytic agent might decrease the duration of breastfeeding.

### Drug Levels

*Maternal Levels.* With long-term maternal intake of 2.5 or 5 mg three times daily orally, milk terbutaline levels ranged from 2.5 to 4 mcg/L at various times during the dosing interval. There was little fluctuation of milk levels.

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The average dose that an exclusively breastfed infant would receive based on these patients is 1.4% (range 0.7 to 2.2%) of the maternal weight-adjusted dose.[5-7]

*Infant Levels.* Serum levels were undetectable (<0.1 mcg/L) in one 8-week-old exclusively breastfed infant whose mother was taking oral terbutaline 5 mg three times daily.[6,7]

## Effects in Breastfed Infants

Two papers have reported a total of 4 infants aged 3 to 8 weeks who were breastfed during maternal use of oral terbutaline 2.5 or 5 mg three times daily. None of the infants had any signs of sympathetic stimulation and all were developing normally.[5,7] These cases were also summarized in a third publication.[6]

## Effects on Lactation and Breastmilk

A small retrospective survey from Serbia found that mothers who received a beta agonist pharmacologically similar to terbutaline (fenoterol or hexoprenaline) as a tocolytic breastfed for a shorter period of time than those who received no tocolytic (4.5 vs 9.5 months).[8] It is not known if terbutaline has a similar effect.

A study in an Australian hospital compared breastfeeding outcomes in women who received a cesarean section during 2 time periods. During the first time period women did not receive terbutaline before a category one or two cesarean section (n = 423). In the second period, all women receiving a category one or two cesarean section received terbutaline 250 mcg subcutaneously as a tocolytic agent unless there was a contraindication at the time a decision was made to perform a cesarean section (n = 253). The breastfeeding rates at the time of discharge were 95% in the first period and 99% in the second period. The difference was statistically significant.[9]

## References

1. McDonald CF, Burdon JGW. Asthma in pregnancy and lactation. A position paper for the Thoracic Society of Australia and New Zealand. *Med J Aust.* 1996;165:485–8. PubMed PMID: 8937369.
2. Nelson-Piercy C. Asthma in pregnancy. *Thorax.* 2001;56:325–8. PubMed PMID: 11254828.
3. Taddio A, Ito S. Drugs and breast-feeding. In: Koren G, ed. *Maternal-fetal toxicology. A clinician's guide.* 3rd ed. New York. Marcel Dekker. 2001:177-32.
4. National Heart, Lung, and Blood, Institute, et al. NAEPP expert panel report. Managing asthma during pregnancy: recommendations for pharmacologic treatment-2004 update. 2004:1-57. Available at: <http://www.nhlbi.nih.gov/health/prof/lung/asthma/astpreg.htm>
5. Boréus LO, de Chateau P, Lindberg C, et al. Terbutaline in breast milk. *Br J Clin Pharmacol* 1982;13:731-2. Letter. PMID: 7082542
6. Lindberg C, Boréus LO, de Chateau P, et al. Transfer of terbutaline into breast milk. *Eur J Respir Dis Suppl.* 1984;134:87–91. PubMed PMID: 6586490.
7. Lönnerholm G, Lindström B. Terbutaline excretion into breast milk. *Br J Clin Pharmacol* 1982;13:729-30. Letter. PMID: 7082541
8. Bjelakovic L, Trajkovic T, Kocic G, et al. The association of prenatal tocolysis and breastfeeding duration. *Breastfeed Med.* 2016;11:561–3. PubMed PMID: 27704871.
9. Buckley VA, Wu J, De Vries B. Outcomes following acute tocolysis prior to emergency caesarean section. *Aust N Z J Obstet Gynaecol.* 2020;60:884–9. PubMed PMID: 32378185.

## Substance Identification

### Substance Name

Terbutaline

## **CAS Registry Number**

23031-25-6

## **Drug Class**

Breast Feeding

Lactation

Bronchodilator Agents

Beta Adrenergic Agonists