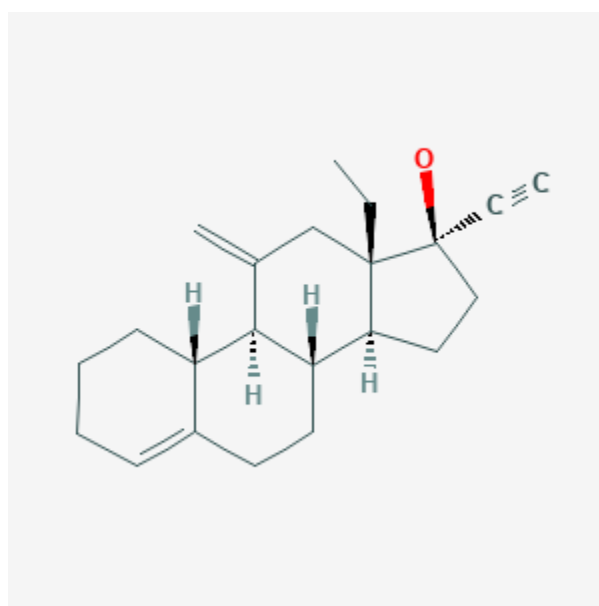




Desogestrel

Revised: October 31, 2018.

CASRN: 54024-22-5



Drug Levels and Effects

Summary of Use during Lactation

Desogestrel is only available in the United States in combination oral contraceptive products containing 150 mcg of desogestrel and 30 mcg of ethinyl estradiol. Based on the available evidence, expert opinion holds that nonhormonal methods are preferred during breastfeeding and progestin-only contraceptive are preferred over combined oral contraceptives in breastfeeding women, especially during the first 4 weeks postpartum. For further information, consult the record entitled, "Contraceptives, Oral, Combined."

Drug Levels

Desogestrel is metabolized in the body to the active metabolite, etonogestrel.

Maternal Levels. Ten women participating in a study of desogestrel 75 mcg daily as a progestin-only contraceptive had blood and milk samples taken multiple times after taking a single tablet at the end of 1 and 4 treatment cycles. Peak etonogestrel concentrations in milk were not significantly different: 0.2 picograms/L at 6 hours after the dose and 0.3 picograms/L at 5.2 hours after the dose at 1 and 4 months, respectively. An exclusively breastfed infant would receive an average of 15 to 22 ng/kg daily of etonogestrel, which is 1.2 to 1.7% of the maternal weight-adjusted dosage.[1]

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

Effects in Breastfed Infants

A nonblinded, nonrandomized study compared oral desogestrel 75 mcg alone daily (n = 42) to an intrauterine device (IUD; n = 40) begun 28 to 56 days postpartum for contraception. No differences in infant length, weight or biparietal head circumferences were found after 1, 4, and 7 treatment cycles. Temporary breast enlargement was reported in 2 infants and increased sweating was reported in 1 infant in the desogestrel group, compared with no adverse effects reported in infants in the IUD group. The growth of some infants were again measured at 1.5 and 2.5 years; no clinically important differences were found.[1]

A breastfed (extent not stated) infant developed scrotal hair at 4 months of age. His mother had received the progestin, dydrogesterone, during the first trimester of pregnancy and began taking desogestrel 0.075 mg daily as a contraceptive beginning at 3 months postpartum. His mother discontinued desogestrel after 28 days and the scrotal hair resolved by 11 months of age. Desogestrel was a possible contributing cause of scrotal hair growth in this infant.[2]

Effects on Lactation and Breastmilk

A nonblinded, nonrandomized study compared oral desogestrel 75 mcg alone daily (n = 42) to an intrauterine device (n = 40) begun 28 to 56 days postpartum for contraception. During the 7-month trial period, 1 woman dropped out of the trial because of diminished lactation compared with none in the IUD group. At the end of the first and fourth treatment cycle, there were no differences in the amount of milk produced between the desogestrel and IUD groups. No differences in triglyceride, protein or lactose content of milk were found at the end of 1, 4, and 7 cycles of therapy.[1]

A nonrandomized study followed 200 women given a desogestrel-only contraceptive 75 mcg daily for 6 months beginning at 6 weeks postpartum and compared them to 200 women who received placebos. No difference was found in the amounts of milk production or infant growth and development between the two groups.[3]

Alternate Drugs to Consider

Etonogestrel, Intrauterine Copper Contraceptive, Oral Levonorgestrel, Intrauterine Levonorgestrel, Levonorgestrel Implant, Medroxyprogesterone Acetate, Norethindrone, Progesterone

References

1. Bjarnadottir RI, Gottfredsdottir H, Sigurdardottir K et al. Comparative study of the effects of a progestogen-only pill containing desogestrel and an intrauterine contraceptive device in lactating women. *BJOG*. 2001;108:1174-80. PubMed PMID: 11762658.
2. Janus D, Wojcik M, Tyrawa K, Starzyk J. Transient isolated scrotal hair development in infancy. *Clin Pediatr (Phila)*. 2013;52:628-32. PubMed PMID: 23482727.
3. Dutta DK, Dutta I. Desogestrel mini pill: Is this safe in lactating mother? *J Indian Med Assoc*. 2013;111:553-5. PubMed PMID: 24783396.

Substance Identification

Substance Name

Desogestrel

CAS Registry Number

54024-22-5

Drug Class

Breast Feeding

Lactation

Contraceptive Agents, Female

Contraceptives, Oral, Synthetic