

Clonazepam (Klonopin®)

Selected References:

- Almgren M, et al. 2009. Population-based study of antiepileptic drug exposure in utero—influence on head circumference in newborns. *Seizure* 18(10):672-675.
- Artama M, et al. 2013. Drug and Pregnancy Group: Effects of maternal epilepsy and antiepileptic drug use during pregnancy on perinatal health in offspring: nationwide, retrospective cohort study in Finland. *Drug Saf* 36(5):359-369.
- Bech BH, et al. 2014. Use of antiepileptic drugs during pregnancy and risk of spontaneous abortion and stillbirth: population-based cohort study. *BMJ* 349:g5159.
- Berry-Noronha A, et al. 2025. Risk of Adverse Pregnancy Outcomes Associated With Antiseizure Medications and Their Indications: A Systematic Review and Meta-Analysis. *Neurology*; 104(3):e210233
- Bjork M-H, et al. 2022. Association of prenatal exposure to antiseizure medication with risk of autism and intellectual disability. *JAMA Neurol.* Jul 1;79(7): 727.
- Brandlistuen RE, et al. 2017. Association of prenatal exposure to benzodiazepines and child internalizing problems: A sibling-controlled cohort study. *PLoS ONE* 12(7): e0181042.
- Cohn DF, et al. 1982. The effect of anticonvulsant drugs on the development of male rats and their fertility. *J Neurol Neurosurg Psychiatry*; 45(9):844-6.
- Christensen et al. 2013. Prenatal valproate exposure and risk of autism spectrum disorders and childhood autism. *JAMA* 309(16):1696-703.
- Christensen J, et al. 2024. Prenatal exposure to antiseizure medications and fetal growth: a population-based cohort study from the Nordic countries. *Lancet Reg Health Eur*; 38:100849
- Clonazepam. U.S. Food and Drug Administration website. https://www.accessdata.fda.gov/drugsatfda_docs/label/2016/017533s055lbl.pdf. Revised 2016. Accessed February 2026.
- Daugaard C, et al. 2020. Association of prenatal exposure to valproate and other antiepileptic drugs with intellectual disability and delayed childhood milestones. *JAMA Netw Open* 3(11):e2025570.
- Kallen B, et al. 2013. The use of central nervous system active drugs during pregnancy. *Pharmaceuticals* 6(10):1221-1286.
- Kilic D, et al. 2014. Birth outcomes after prenatal exposure to antiepileptic drugs—a population-based study. *Epilepsia* 55(11):1714-1721.
- Lin, A, et al. 2004. Clonazepam use in pregnancy and the risk of malformations. *Birth Defects Res A Clin Mol Teratol* 70(8):534-536.
- Oberlander TF, et al. 2004. Pharmacologic factors associated with transient neonatal symptoms following prenatal psychotropic medication exposure. *J Clin Psychiatry* 65(2):230-237.
- Soussan C. et al. 2014 Drug-induced adverse reactions via breastfeeding: a descriptive study in the French Pharmacovigilance Database. *Eur J Clin Pharmacol.* 70:1361-6.
- Vajda FJE, et al. 2014. The teratogenicity of the newer antiepileptic drugs – an update. *Acta Neurol Scand* 130(4):234-238.
- Veiby G, et al. 2014. Fetal growth restriction and birth defects with newer and older antiepileptic drugs during pregnancy. *J Neurol* 261(3):579-588.
- Veiby G, et al. 2015. Epilepsy and recommendations for breastfeeding. *Seizure* 28:57-65.
- Veroniki, AA, et al. 2017. Comparative safety of antiepileptic drugs for neurological development in children exposed during pregnancy and breast feeding: a systematic review and network meta-analysis. *BMJ Open* 7(7):e017248.
- Weinstock L, et al. 2001. Obstetrical and neonatal outcome following clonazepam use during pregnancy: a case series. *Psychother Psychosom* 70(3):158-162.

问题？致电 866.626.6847 | 短信 855.999.3525 | 在 [MotherToBaby.org](https://www.MotherToBaby.org) 上发送电子邮件或聊天。

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, 2026年2月1日。

Clonazepam (Klonopin®)

Selected References:

- Bodamer OA, et al. 2010. Laboratory and genetic evaluation of Gaucher disease. Wien Med Wochenschr.; 160(23-24):600-4.
- Cox TM, et al. 2008. Management of non-neuronopathic Gaucher disease with special reference to pregnancy, splenectomy, bisphosphate therapy, use of biomarkers, and bone disease monitoring. J Inherit Metab Dis. 31:319-336.
- Dornelles AD, et al. 2014. Breastfeeding in Gaucher disease: is enzyme replacement therapy safe? Clin Ther; 36(6):990-1.
- Elstein Y, et al. 2004. Pregnancies in Gaucher disease: a 5-year study. Am J Obstet Gynecol; 190:435-41.
- Giannubilo SR, et al. 2015. Replacement Therapy for Gaucher Disease during Pregnancy: A Case Report. J Reprod Infertil; 16(1):53-7.
- Giraldo P, et al. 2021. Novel Management and Screening Approaches for Haematological Complications of Gaucher's Disease. J Blood Med; 12:1045-1056.
- Granovsky-Grisaru S, et al. 2011. The management of pregnancy in Gaucher disease. Eur J Obstet Gynecol Reprod Biol. 156: (1) 3-8.
- Hughes DA, Pastores GM. 2000 [Updated December 7, 2023]. GeneReviews: Gaucher Disease. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK1269/>. Accessed 12/2023.
- Komninaka, V, et al. 2020. Outcomes of pregnancies in patients with Gaucher Disease: The experience of a center of excellence on rare metabolic Disease-Gaucher Disease, in Greece. Eur J Obstet Gynecol Reprod Biol; 254: 181-187. doi:10.1016/j.ejogrb.2020.09.027
- Lau H, et al. 2018. Reported outcomes of 453 pregnancies in patients with Gaucher disease: An analysis from the Gaucher outcome survey. Blood Cells Mol Dis; 68:226-231.
- Lukina E, et al. 2020. Pregnancy outcome in women with Gaucher disease type 1 who had unplanned pregnancies during eliglustat clinical trials. JIMD Rep; 57(1):76-84.
- Mamopoulos A M, et al. 2009. Gaucher disease and pregnancy. J Obstet Gynaecol; 29: 240-242.
- Rosenbaum H. 2015. Management of women with Gaucher disease in the reproductive age. Thromb Res; 136(2):489.
- Revel-Vilk S, et al. 2026. Maternal and Fetal Outcomes in Imiglucerase-Treated Patients with Gaucher Disease:

Real-World Evidence From the International Collaborative Gaucher Group (ICGG) Gaucher Registry Pregnancy Sub-Registry. *J Inherit Metab Dis*; 49(2):e70161.

- Sakarelou N, et al. 1999. Pregnancy in Gaucher disease, *Eur J Obstet Gynecol Reprod Biol*; 83(1):113-4.
- Sekijima Y, et al. 2010. Successful pregnancy and lactation outcome in a patient with Gaucher disease receiving enzyme replacement therapy, and the subsequent distribution and excretion of imiglucerase in human breast milk. *Clin Ther*; 32(12):2048-52.
- Simchen MJ, et al. 2011. Impaired platelet function and peripartum bleeding in women with Gaucher disease. *Thromb Haemost*;105(3):509-14.
- Sugiura T, et al. 2022. Gaucher disease carrier with gestational thrombocytopenia and anemia: a case report. *J Med Case Rep*. 13;16(1):203.
- Zimran A, et al. 2009. The female Gaucher patient: the impact of enzyme replacement therapy around key reproductive events. *Blood Cells Mol Dis*. 43:264-288.
- Zimran, A. 2011. How I treat Gaucher Disease. *Blood*; 11

问题？致电 866.626.6847 | 短信 855.999.3525 | 在 [MotherToBaby.org](https://www.MotherToBaby.org) 上发送电子邮件或聊天。 .

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, 2026年2月1日.

Clonazepam (Klonopin®)

Selected References:

- Accrombessi M, et al. 2018. Cohort profile: effect of malaria in early pregnancy on fetal growth in Benin (RECIPAL preconceptional cohort). *BMJ Open*. 2018 Jan 8;8(1):e019014.
- Alecrim WD, et al. 2000. Plasmodium falciparum infection in the pregnant patient. *Infect Dis Clin North Am*; 14:83-95.
- Arguin PM. 2009. S.F.S.S. Chapter 2: Malaria, The Pre-Travel Consultation. Centers for Disease Control and Prevention: Atlanta, GA.
- Coll O, et al. 2008. Treatment and prevention of malaria in pregnancy and newborn. *J Perinat Med*. 36(1):15-29.
- Garrison A, et al. 2022 The effects of malaria in pregnancy in neurocognitive development in children at 1 and 6

- years of age in Benin: A prospective mother-child cohort. *Clin Infect Dis.* 74(5):766-775.
- Ibhanesebhor S.E. 1995. Clinical characteristics of neonatal malaria. *J Trop Pediatr.* 41(6):330-333.
 - Kojom Foko LP, Singh V. 2023. Malaria in pregnancy in India: a 50-year bird's eye. *Front Public Health.* 11: 1150466-1150466
 - Lawford H, et al. 2021. Associations between malaria in pregnancy and neonatal neurological outcomes. *Int J Infect Dis.* 112: 144-151.
 - Lufele E, et al. 2017. Risk factors and pregnancy outcomes associated with placental malaria in a prospective cohort of Papua New Guinean women. *Malar J;* 16(1):427.
 - Mahande AM, Mahande MJ. 2016. Prevalence of parasitic infections and associations with pregnancy complications and outcomes in northern Tanzania: a registry-based cross-sectional study. *BMC Infect Dis.* 16:78.
 - McGready R, et al. 2012. Adverse effects of falciparum and vivax malaria and the safety of antimalarial treatment in early pregnancy: a population-based study. *Lancet Infect Dis.* 12(5):388-396.
 - Moore KA, et al. 2017. Quantification of the association between malaria in pregnancy and stillbirth: a systematic review and meta-analysis. *Lancet Glob Health;* 5(11):e1101-e1112.
 - Nathwani D, et al. 1992. *Plasmodium falciparum* malaria in pregnancy: review. *Br J Obstet Gynaecol* 99:118-121.
 - Park S, et al. 2020. Impact of Malaria in Pregnancy on Risk of Malaria in Young Children: Systematic Review and Meta-Analyses. *J Infect Dis.* 222(4):538-550. doi: 10.1093/infdis/jiaa139
 - Patel JC, et al. 2017. Increased risk of low birth weight in women with placental malaria associated with P. falciparum VAR2CSA clade. *Sci Rep* 7(1): 7768.
 - Saito M, et al. 2020. Deleterious effects of malaria in pregnancy on the developing fetus: a review on prevention and treatment with antimalarial drugs. *Lancet Child Adolesc Health.* 4(10):761-774.
 - Sartelet H, et al. 1996. Malaria associated pre-eclampsia in Senegal. *Lancet* 347:1121.
 - Schmiegelow C, et al. 2013. Malaria and fetal growth alterations in the 3(rd) trimester of pregnancy: a longitudinal ultrasound study. *PLoS One.* 8(1):e53794.
 - Shulman CE, et al. 2002. Malaria as a cause of severe anemia in pregnancy. *Lancet* 360:494.
 - Singer R et al. 1987. Decreased semen quality in a male infected with malaria. *Int J Androl* 10:685-9.
 - U.S. Centers for Disease Control (CDC). 2024. About Malaria. Available at: <https://www.cdc.gov/malaria/about/index.html>. Accessed 17 Feb 2026.
 - Umbers AJ, et al. 2011. Malaria in pregnancy: small babies, big problem. *Trends Parasitol.* 27(4):168-75.
 - Unger HW, et al. 2023. The effect and control of malaria in pregnancy and lactating women in the Asia-Pacific region. *Lancet Glob Health.* 11(11) e1805-e1818.
 - World Health Organization (WHO). Malaria. Available at: <https://www.who.int/malaria/en/> [Accessed 2/2020].
 - Zakama AK, et al. 2019. Malaria in Pregnancy: What the Obstetric Provider in Nonendemic Areas Needs to Know. *Obstet Gynecol Surv.* 74(9):546-556.

问题？致电 866.626.6847 | 短信 855.999.3525 | 在 [MotherToBaby.org](https://www.MotherToBaby.org) 上发送电子邮件或聊天。

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, 2026年2月1日.

Clonazepam (Klonopin®)

Selected References:

- Altshuler LL, et al. 1996. Pharmacologic Management of Psychiatric Illness during Pregnancy: Dilemmas and Guidelines. *Am J Psychiatry*, 153(5):592-606.
- Ban L, et al. 2012. Live and Non-Live Pregnancy Outcomes among Women with Depression and Anxiety: A Population-Based Study. *PLoS ONE*, 7(8):e43462.
- Bennet PN, The WHO Working Group. 1988. *Drugs and Human Lactation*. Elsevier, Amsterdam, New York, Oxford, pp. 289-290.
- Committee on Drugs, American Academy of Pediatrics. 2001. The transfer of drugs and other chemicals into human breast milk. *Pediatrics*, 108:776-89.
- Deligiannidis K, et al. 2014. A Review of Pharmacokinetic Changes and Clinical Recommendations for Therapeutic Drug Monitoring. *J Clin Psychopharmacology*, 34(2):244-255.
- Desaunay P, et al. 2022. Neonatal hypotonia following in utero exposure to antidepressant drugs. *J Pediatr*, 245:222-226.e2.
- Ericson A, et al. 1999. Delivery outcome after the use of antidepressants in early pregnancy. *Eur J Clin Pharmacol*, 55:503-508.
- Hemels MEH, et al. 2005. Antidepressant Use During Pregnancy and the Rates of Spontaneous Abortions: A Meta-Analysis. *Ann Pharmacother*, 39(5):803-809.
- Horst PGJ, et al. 2011. Clomipramine concentration and withdrawal symptoms in 10 neonates. *Br J Clin Pharmacol*, 73(2):295-302.
- Huybrechts KF, et al. 2015. Antidepressant use late in pregnancy and risk of persistent pulmonary hypertension of the newborn. *JAMA*, 313(21):2142-2151.
- Larsen ER, et al. 2015. Use of psychotropic drugs during pregnancy and breastfeeding. *Acta Psychiatr Scand*, 132:1-28.
- McElhatton PR, et al. 1996. The Outcome of Pregnancy in 689 Women Exposed to Therapeutic Doses of Antidepressants. A Collaborative Study of The European Network of Teratology Information Services (ENTIS)
- Misri S, et al. 1991. Tricyclic drugs in pregnancy and lactation: a preliminary report. *Int J Psychiatry Med*, 21(2):157-171.
- Mitchell JE, Popkin MK. 1983. Antidepressant drug therapy and sexual dysfunction in men: a review. *J Clin Psychopharm*, 3:76-79.
- Nulman I, et al. 1997. Neurodevelopment of Children Exposed in Utero to Antidepressant Drugs. *The New England Journal of Medicine*, 336(4):258-262.
- Nulman I, et al. 2002. Child Development Following Exposure to Tricyclic Antidepressant or Fluoxetine throughout Fetal Life: A Prospective, Controlled Study. *Am J Psychiatry*, 159(11):1889-1895.
- Osborne LM, et al. 2014. Returning to tricyclic antidepressants for depression during childbearing: clinical and dosing challenges. *Arch Womens Ment Health*, 17:239-246.

- Pearson KH, et al. 2007. Birth Outcomes Following Prenatal Exposure to Antidepressants. J Clin Psychiatry, 68(8):1284-1289.
- Shah AA, et al. 2015. Are Psychotropic Drugs Safe to Use During Lactation? Psychiatric Annals, 45(2):77-82.
- Shatan C, et al. 1966. Withdrawal Symptoms after Abrupt Termination of Imipramine. Canadian Psychiatric Association Journal, 11:150-158.
- Uguz F, et al. 2014. Low-dose imipramine for treatment of panic disorder during pregnancy: a retrospective chart review. J Clin Psychopharmacol, 34(4):513-515.

问题？致电 866.626.6847 | 短信 855.999.3525 | 在 [MotherToBaby.org](https://www.MotherToBaby.org) 上发送电子邮件或聊天。

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, 2026年2月1日.

Clonazepam (Klonopin®)

Selected References:

- Abramowitz A, et al. 2017. Treatment options for hyperemesis gravidarum. Arch Womens Ment Health. 20(3): 363-372.
- American College of Obstetricians and Gynecologists (ACOG). 2018. ACOG Practice Bulletin No. 189: Nausea and vomiting on pregnancy. Obstet Gynecol. 131(1):e15-e30.
- Anderka M, et al. 2012. Medications used to treat nausea and vomiting of pregnancy and the risk of selected birth defects. Birth Defects Res A Clin Mol Teratol. 94(1):22-30.
- Association of Professors of Gynecology and Obstetrics (APGO). 2015. Educational series on women's health issues on nausea and vomiting of pregnancy.
- Attard CL, et al. 2002. The burden of illness of severe nausea and vomiting of pregnancy in the United States. Am J Obstet Gynecol. 186(5 Suppl):S220-S227.
- Bruun MR, et al. 2021. Nausea During Pregnancy and Timing of Pubertal Development in Sons and Daughters: A Population-Based Cohort Study. Clin Epidemiol. 13:895-905.
- Chortatos A, et al. 2015. Pregnancy complications and birth outcomes among women experiencing nausea only or nausea and vomiting during pregnancy in the Norwegian Mother and Child Cohort Study. BMC Pregnancy

Childbirth. 15:138.

- Clark SM, et al. 2014. The outpatient management and special considerations of nausea and vomiting in pregnancy. *Semin Perinatol.* 38(8):496-502.
- Clark SM, et al. 2024. Inpatient Management of Hyperemesis Gravidarum. *Obstet Gynecol.* 143(6):745-758.
- Colodro-Conde L, et al. 2016. Nausea & Vomiting During Pregnancy is Highly Heritable. *Behav Genet.* 46(4):481-491.
- Einarson A, et al. 2007. Treatment of nausea and vomiting in pregnancy. *Can Fam Physician.* 53(12): 2109-2111.
- Ebrahimi N, et al. 2010. Optimal management of nausea and vomiting of pregnancy. *Int J Womens Health.* 2: 241-248.
- Fejzo M, et al. 2015. Neurodevelopmental delay in children exposed in utero to hyperemesis gravidarum. *Eur J Obstet Gynecol Reprod Biol.* 189:79-84.
- Fiaschi L, et al. 2018. Adverse Maternal and Birth Outcomes in Women Admitted to Hospital for Hyperemesis Gravidarum: a Population-Based Cohort Study. *Paediatr Perinat Epidemiol.* 32(1):40-51.
- Gill SK, et al. 2009. The effect of Acid-reducing pharmacotherapy on the severity of nausea and vomiting of pregnancy. *Obstet Gynecol Int.* 2009:585269.
- Gu L, et al. 2021. Association of nausea and vomiting of pregnancy with infant growth in the first 24 months of life. *Arch Gynecol Obstet.* 304(2):429-438
- Heitmann K, et al. 2016. Nausea in pregnancy: attitudes among pregnant women and general practitioners on treatment and pregnancy care. *Scand J Prim Health Care.* 34(1):13-20.
- Heitmann K, et al. 2016. Treatment of nausea and vomiting during pregnancy -a cross-sectional study among 712 Norwegian women. *Eur J Clin Pharmacol.* 72(5):593-604.
- Koren G, et al. 2004. Pre-emptive therapy for severe nausea and vomiting of pregnancy and hyperemesis gravidarum. *J Obstet Gynaecol.* 24(5):530-533.
- Koren G, et al. 2014. The protective effects of nausea and vomiting of pregnancy against adverse fetal outcome – a systematic review. *Reprod Toxicol.* 47:77-80.
- Madjunkova S, et al. 2013. The Leading Concerns of American Women with Nausea and Vomiting of Pregnancy Calling Motherisk NVP Helpline. *Obstet Gynecol Int.* 2013:752980. doi: 10.1155/2013/752980.
- Maltepe C, et al. 2013. The management of nausea and vomiting of pregnancy and hyperemesis gravidarum-a 2013 update. *J Popul Ther Clin Pharmacol.* 20(2):e184-92.
- Maltepe C, et al. 2013. Preemptive treatment of nausea and vomiting of pregnancy: results of a randomized controlled trial. *Obstet Gynecol Int.* 2013; 2013:809787.
- McCormack D. 2010. Hypnosis for hyperemesis gravidarum. *J Obstet Gynaecol.* 30(7):647-653.
- Muchanga SMJ, Japan Environment and Children's Study Group, et al. 2020. Association between nausea and vomiting of pregnancy and postpartum depression: the Japan Environment and Children's Study. *J Psychosom Obstet Gynaecol.* 4(1):2-10.
- Nana M, et al. 2026. Hyperemesis gravidarum. *Lancet.* 407(10523):78-89.
- Nulman I, et al. 2009. Long-term neurodevelopment of children exposed to maternal nausea and vomiting of pregnancy and Diclectin. *J Pediatr.* 155(1):45-50. Oudmana E, et al. 2019. Wernicke's encephalopathy in hyperemesis gravidarum: A systematic review. *Eur J Obstet Gynecol Reprod Biol.* 236:84-93.
- Regodón Wallin A, et al. 2020. Nausea, vomiting and poor appetite during pregnancy and adverse birth outcomes in rural Nepal: an observational cohort study. *BMC Pregnancy Childbirth.* 20(1):545.
- Varela P, Deltsidou A. 2021. Hyperemesis gravidarum and neonatal outcomes: A systematic review of observational studies. *Taiwan J Obstet Gynecol.* 60(3):422-432.
- Veenendaal MV, et al. 2011. Consequences of hyperemesis gravidarum for offspring: a systematic review and meta-analysis. *BJOG.* 118(11):1302-1313.
- Wang H, et al. 2020. Severe nausea and vomiting in pregnancy: psychiatric and cognitive problems and brain structure in children. *BMC Med.* 18(1):228.

- Weigel RM, Weigel MM. 1989. Nausea and vomiting of early pregnancy and pregnancy outcome. A meta-analytical review. Br J Obstet Gynaecol; 96(11):1312-1318.
- Zhang Y, et al. 2018. Association between severe nausea and vomiting in early pregnancy and the risk of neural tube defects in Northern China. Birth Defects Res. 110(5):406-412.

问题？致电 866.626.6847 | 短信 855.999.3525 | 在 [MotherToBaby.org](https://www.MotherToBaby.org) 上发送电子邮件或聊天。 .

Disclaimer: MotherToBaby Fact Sheets are meant for general information purposes and should not replace the advice of your health care provider. MotherToBaby is a service of the non-profit Organization of Teratology Information Specialists (OTIS). Copyright by OTIS, 2026年2月1日.