

Clindamycin

Selected References:

- Klebanoff MA, et al., 2023. Antibiotic treatment of bacterial vaginosis to prevent preterm delivery: Systematic review and individual participant data meta-analysis. *Paediatr Perinat Epidemiol*, 37(3):239-251.
- Lamont RF, et al. 2003. The efficacy of vaginal clindamycin for the treatment of abnormal genital tract flora in pregnancy. *Infect Dis Obstet Gynecol*, 11(4):181-189.
- Mackeen AD, et al. 2015. Antibiotic regimens for postpartum endometritis. *Cochrane Database Syst Rev*, 20(2):CD001067.
- Mann CF. 1980. Clindamycin and breast-feeding. *Pediatrics*, 66:1030-1031.
- McCormack WM, et al. 1987. Effect on birth weight of erythromycin treatment of pregnant women. *Obstet Gynecol*, 69:202-207.
- McGready R, et al. 2001. Randomized comparison of quinine-clindamycin versus artesunate in treatment of falciparum malaria in pregnancy. *Trans R Soc Trop Med Hyg*, 95:651-656.
- Mitrano JA, et al. 2009. Excretion of antimicrobials used to treat methicillin-resistant *Staphylococcus aureus* infections during lactation: safety in breastfeeding infants. *Pharmacotherapy*, 29(9):1103-1109.
- Muanda F, et al. 2017. Use of antibiotics during pregnancy and the risk of major congenital malformations: a population based cohort study. *Br J Clin Pharmacol*, 83:2557-2571.
- Nahum GG, et al. 2006. Antibiotic use in pregnancy and lactation: what is and is not known about teratogenic and toxic risks. *Obstet Gynecol*, 107(5):1120-1138.
- Ou MC, et al. 2001. Antibiotic treatment for threatened abortion during the early first trimester in women with previous spontaneous abortion. *Acta Obstet Gynecol Scand*, 80(8):753-756.
- Reboucas KF, et al. 2019. Treatment of bacterial vaginosis before 28 weeks of pregnancy to reduce the incidence of preterm labor. *Int J Gynecol Obstet*, 146(3):271-276.
- Smith JA, et al. 1975. Clindamycin in human breast milk. *Can Med Assoc J*, 112:806
- Steen B, Rane A. 1982. Clindamycin passage into human milk. *Br J Clin Pharmacol*, 13:661-664.
- Subtil D, et al. 2018. Early clindamycin for bacterial vaginosis in pregnancy (PREMEVA): a multicentre, double-blind, randomised controlled trial. *Lancet*, 392(10160):2171-2179.
- Ugwumadu A, et al. 2003. Effect of early oral clindamycin on late miscarriage and preterm delivery in asymptomatic women with abnormal vaginal flora and bacterial vaginosis: a randomised controlled trial. *Lancet*, 361:983-988.
- Weinstein AJ et al. 1976. Placental transfer of clindamycin and gentamicin in term pregnancy. *Am J Obstet Gynecol*, 124:688-691.

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Clindamycin

Selected References:

- Clowse M, et al. 2016. Pregnancy outcomes in the tofacitinib safety databases for rheumatoid arthritis and psoriasis. *Drug Saf*; 39(8):755-762.
- Fernández-Sánchez M, et al. 2021. Fetal exposure to tofacitinib during the first trimester: A healthy newborn case report. *Birth Defects Res*; 113(17):1275-1279.
- Julsgaard M, et al. 2023. Tofacitinib concentrations in plasma and breastmilk of a lactating woman with ulcerative colitis. *Lancet Gastroenterol Hepatol*; 8:695-697.
- Mahadevan U, et al. 2018. Outcomes of pregnancies with maternal/paternal exposure in the tofacitinib safety databases for ulcerative colitis. *Inflammatory Bowel Diseases* 24(12):2494-2500.
- Mahadevan U, et al. 2019. Inflammatory bowel disease in pregnancy clinical care pathway: A report from the American Gastroenterological Association IBD Parenthood Project Working Group. *Gastroenterology* 156(5):1508-1524.
- Mahadevan U, et al. 2025. Pregnancy Outcomes After Maternal or Paternal Exposure to Tofacitinib Across Clinical Programs. *Am J Gastroenterol*. Epub ahead of print. PMID: 4100213.
- Merren A, et al. 2015. THU0173 Pregnancy outcomes in the tofacitinib RA study database through April 2014. *Annals of the Rheumatic Diseases* 74:256-257.
- Mitrova K, et al. 2025. Assessing pregnancy and infant outcomes, cord blood and breast milk concentrations. *Clin Gastroenterol Hepatol*; 23:163-5.e3.
- Picardo S, Seow CH. 2019. A pharmacological approach to managing inflammatory bowel disease during conception, pregnancy and breastfeeding: Biologic and oral small molecule therapy. *Drugs* 79(10):1053-1063.
- Rüegg L, et al. 2025. EULAR recommendations for use of antirheumatic drugs in reproduction, pregnancy, and lactation: 2024 update. *Ann Rheum Dis* 84:910-926.
- Selinger C, et al. 2024. Appropriateness of small molecule agents for patients with IBD of childbearing age – a RAND/UCLA appropriateness panel. *Therap Adv Gastroenterol* 2024;17:17562848241299737.
- U.S. Pharmaceuticals. Xeljanz/Xeljanz XR Prescribing Information. 2025. Available online at: <https://dailymed.nlm.nih.gov/dailymed/getFile.cfm?setid=68e3d6b2-7838-4d2d-a417-09d919b43e13&type=pdf> Accessed 27 January 2026.

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Clindamycin

Selected References:

- Alves FRC, et al. 2024. Maternal and long-term offspring outcomes of obesity during pregnancy. *Arch Gynecol Obstet*. 309(6):2315-2321.
- American College of Obstetricians and Gynecologists. 2021. ACOG Practice Bulletin Number 230: Obesity in Pregnancy. *Obstet Gynecol*. 137(6):e128-e144
- American College of Obstetricians and Gynecologists. 2013. ACOG Committee opinion no. 548: Weight Gain During Pregnancy. *Obstet Gynecol*. 121(1):210-212.
- Amiri M, et al. 2020. Potential adverse effects of female and male obesity on fertility: A narrative review. *Int J Endocrinol Metab*. 18(3): e101776.
- Andersen CH, et al. 2018. Maternal body mass index before pregnancy as a risk factor for ADHD and autism in children. *Eur Child Adolesc Psychiatry*. 27: 139-148. Cai GJ, et al. 2014.
- Association between maternal body mass index and congenital heart defects in offspring: a systematic review. *Am J Obstet Gynecol*. 211(2):91-117.
- Catalano PM, et al. 2017. Obesity and pregnancy: mechanisms of short term and long term adverse consequences for mother and child. *BMJ*. 356:j1.
- Dong M, et al. 2013. Maternal obesity, lipotoxicity and cardiovascular diseases in offspring. *J Mol Cell Cardiol*. 55:111-116.
- Gilboa SM, et al. 2010. Association between prepregnancy body mass index and congenital heart defects. *Am J Obstet Gynecol*. 202(1):51-e1-e10.
- Giouleka S, et al. 2023. Obesity in pregnancy: A comprehensive review of influential guidelines. *Obstet Gynecol Surv*. 78(1):50-68.
- Gustafson D, et al. 2024. Treatment of obesity before, during, and after pregnancy: Time for obstetricians to get involved. *Obstet Gynecol Surv*. 79(11):665-672.
- Huang I, et al. 2014. Maternal prepregnancy obesity and child neurodevelopment in the Collaborative Perinatal Project. *Int J Epidemiol*. 43(3):783-792.
- Jarlenski M, et al. 2014. Association between support from a health professional and breastfeeding knowledge and practices among obese women: Evidence from the Infant Practices Study II. *Womens Health Issues*. 24(6):641-648.

- Johnson J, et al. 2013. Pregnancy outcomes with weight gain above or below the 2009 Institute of Medicine guidelines. *Obstet Gynecol.* 121(5):969-975.
- Lin J, et al. 2022. Effects of Paternal Obesity on Fetal Development and Pregnancy Complications: A Prospective Clinical Cohort Study. *Front Endocrinol (Lausanne).* 13:826665.
- Lyons S, et al. 2019. Learning from women with a body mass index (Bmi) ≥ 30 kg/m² who have breastfed and/or are breastfeeding: a qualitative interview study. *Matern Child Health J.* 23(5): 648-656.
- Matias SL, et al. 2021. Maternal prepregnancy weight and gestational weight gain in association with autism and developmental disorders in offspring. *Obesity (Silver Spring).* 29(9):1554-1564.
- McLean S, et al. 2023. Obesity and miscarriage. *Semin Reprod Med.* 41(3-04):80-86.
- Mohammadbeigi A, et al. 2013. Fetal macrosomia: risk factors, maternal, and perinatal outcome. *Ann Med Health Sci Res.* 3(4):546-550.
- Nohr EA, et al. 2021. Cause-specific stillbirth and neonatal death according to prepregnancy obesity and early gestational weight gain: a study in the Danish National Birth Cohort. *Nutrients.* 13(5):1676.
- Persson M, et al. 2017. Risk of major congenital malformations in relation to maternal overweight and obesity severity: cohort study of 1.2 million singletons. *BMJ* 357:j2563.
- Poniedziałek-Czajkowska E, et al. 2023. Preeclampsia and obesity-The preventive role of exercise. *Int J Environ Res Public Health.* 20(2):1267.
- Sibai BM, et al. 1997. Risk factors associated with preeclampsia in healthy nulliparous women. The Calcium for Preeclampsia Prevention (CPEP) Study Group. *Am J Obstet Gynecol.* 177(5):1003-1010.
- Silvestris E, et al. 2018. Obesity as disruptor of the female fertility. *Reprod Biol Endocrinol.* 16(1):22.
- Schmidt M, et al. 2024. The German guideline "Obesity in pregnancy": comparison with the international approach. *Arch Gynecol Obstet.* 309(5):1699-1705.
- Stothard KJ, et al. 2009. Maternal overweight and obesity and the risk of congenital anomalies: a systematic review and meta-analysis. *JAMA* 301(6):636-650.
- Stubert J, et al. 2018. The risks associated with obesity in pregnancy. *Dtsch Arztebl Int.* 115(16):276-283.
- Tanda L, et al. 2013. The impact of prepregnancy obesity on children's cognitive test scores. *Matern Child Health J.* 17(2):222-229.
- Vats H, et al. 2021. Impact of maternal pre-pregnancy body mass index on maternal, fetal and neonatal adverse outcomes in the worldwide populations: a systematic review and meta-analysis. *Obes Res Clin Pract.* 15(6):536-545. Wang et al. 2021. Does
- obesity based on body mass index affect semen quality? -A meta-analysis and systematic review from the general population rather than the infertile population. *Andrologia.* 53(7):e14099.

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Clindamycin

Selected References:

- Aslinia F, et al. 2006. Megaloblastic anemia and other causes of macrocytosis. *Clinical Medicine & Research* 4.3:236-41.
- Benjamin RH, et al. 2025. National Birth Defects Prevention Study and the Birth Defects Study to Evaluate Pregnancy Exposures. Maternal folic acid supplement use, folate intake, and preterm birth among infants with spina bifida. *Birth Defects Res.* 117(12):e70008.
- Bortolus R., et al. 2021. Efficacy of 4.0 mg versus 0.4 mg folic acid supplementation on the reproductive outcomes: A randomized controlled trial. *Nutrients.* 13(12):4422.
- Centers for Disease Control and Prevention (CDC). 2025. Folic Acid Safety, Interactions, and Effects on Other Outcomes. Available at <https://www.cdc.gov/folic-acid/about/safety.html> [Accessed 01/2026].
- Centers for Disease Control and Prevention (CDC). 2025. Folic Acid: Sources and Recommended Intake. Available at <https://www.cdc.gov/folic-acid/about/intake-and-sources.html> [Accessed 01/2026].
- Centers for Disease Control and Prevention (CDC). 2025. MTHFR Gene Variant and Folic Acid Facts. Available at <https://www.cdc.gov/folic-acid/data-research/mthfr/> [Accessed 01/2026].
- Christian P. et al. 2010 Prenatal micronutrient supplementation and intellectual and motor function in early school-aged children in Nepal. *JAMA.* 304:2716-2723.
- Crider KS, et al. 2011. Folic acid food fortification-its history, effect, concerns, and future directions. *Nutrients;* 3(3):370-84.
- Cui Y, et al. 2021. Association of maternal pre-pregnancy dietary intake with adverse maternal and neonatal outcomes: A systematic review and meta-analysis of prospective studies. *Critical reviews in food science and nutrition,* 1-22.
- Dervla K, et al. 2012: Use of folic acid supplements and risk of cleft lip and palate in infants: A population-based cohort study. *Br J Gen Pract British Journal of General Practice* 62.600:466-72.
- Gaskins AJ, et al. 2012. The impact of dietary folate intake on reproductive function in premenopausal women: A prospective cohort study. *PLoS One* 7(9):e46276.
- Gaskins AJ, et al. 2014. Maternal prepregnancy folate intake and risk of spontaneous abortion and stillbirth. *Obstet Gynecol.* 124(1):23-31.
- Gildestad T, et al. 2020. Maternal use of folic acid and multivitamin supplements and infant risk of birth defects in Norway 1999-2013. *Br J Nutr.* 1-38.
- Gomez MG, et al. 2024. Global Neurosurgery at the 76th World Health Assembly (2023): First neurosurgery-driven resolution calls for micronutrient fortification to prevent spina bifida. *World Neurosurg.* S1878-8750(24)00101-3.
- Hodgetts VA, et al. 2015. Effectiveness of folic acid supplementation in pregnancy on reducing the risk of small-for-gestational age neonates: a population study, systematic review and meta-analysis. *BJOG.* 122:478-490.
- Ito K, et al. 2019. Association between maternal serum folate concentrations in the first trimester and the risk of birth defects: The Hokkaido Study of Environment and Children's Health. *J Epidemiol.* 29(4):164-171.
- Levine SZ, et al. 2018. Association of maternal use of folic acid and multivitamin supplements in the periods before and during pregnancy with the risk of autism spectrum disorder in offspring. *JAMA Psychiatry.* 75(2):176-184. Liu C, et al. 2018. Supplementation of folic acid in pregnancy and the risk of preeclampsia and gestational hypertension: a meta-analysis. *Arch Gynecol Obstet.;* 298:697-704.
- Liu X, et al. 2023. Folic acid supplements and perinatal mortality in China. *Front Nutr.* 10:1281971.
- Li X, et al. 2023. Effects of folic acid and folic acid plus zinc supplements on the sperm characteristics and

pregnancy outcomes of infertile men: A systematic review and meta-analysis. *Heliyon*. 13;9(7):e18224.

- Mohseni GK, et al. 2025. Association of spontaneous abortion with dietary folate intake in individuals with different genotypes of FTO gene. *BMC Pregnancy Childbirth*. 25(1):961.
- National Institutes of Health (NIH) Office of Dietary Supplements. 2022. Folate Fact Sheet for Consumers. <https://ods.od.nih.gov/factsheets/Folate-Consumer/> [Accessed 01/2026].
- National Institutes of Health (NIH) Office of Dietary Supplements. 2022. Folate Fact Sheet for Health Professionals. <https://ods.od.nih.gov/factsheets/Folate-HealthProfessional/> [Accessed /01/2026].
- Pittschieler S, et al. 2008. Spontaneous abortion and the prophylactic effect of folic acid supplementation in epileptic women undergoing antiepileptic therapy. *J Neurol*. 255(12):1926-31.
- Raghavan R, et al. 2018. Maternal multivitamin intake, plasma folate and vitamin B12 levels and autism spectrum disorder risk in offspring. *Paediatr Perinat Epidemiol*. 32(1):100-111.
- Schmidt RJ, et al. 2012. Maternal periconceptional folic acid intake and risk of autism spectrum disorders and developmental delay in the CHARGE (CHildhood Autism Risks from Genetics and Environment) case-control study. *Am J Clin Nutr*. 96(1):80-9.
- Surén P, et al. 2013. Association between maternal use of folic acid supplements and risk of autism spectrum disorders in children. *JAMA*. 309(6):570-7.
- Toriello H. 2011. Policy Statement on Folic Acid and Neural Tube Defects. *Genet Med* 13.6: 593-96.
- U.S. Food and Drug Administration (FDA). 2024. Folate and Folic Acid on the Nutrition and Supplement Facts Labels. <https://www.fda.gov/food/nutrition-facts-label/folate-and-folic-acid-nutrition-and-supplement-facts-labels> [Accessed 01/2026].
- Wang G, et al. 2016. Association between maternal pregnancy body mass index and plasma folate concentrations with child metabolic health. *JAMA Pediatr*. 170(8):e160845.
- Wantong H, et al. 2024. Periconceptional supplementation with folic acid or multiple micronutrients containing folic acid and the risk for hypertensive disorders in pregnancy. *Med Princ Pract*. 33(6):578-586.
- Wen S, et al. 2016. Folic acid supplementation in pregnancy and the risk of pre-eclampsia—A cohort study. *PLoS ONE* 11.2 .
- Wong W, et al. 2002. Effects of folic acid and zinc sulfate on male factor subfertility: A double-blind, randomized, placebo-controlled trial. *Fertility and Sterility* 77:491-8.
- World Health Organization (WHO). 2009. Recommendations on wheat and maize flour fortification: meeting report – interim consensus statement. http://www.who.int/nutrition/publications/micronutrients/wheat_maize_fortification/en/ [Accessed 01/2026].
- Young SS, et al. 2008. The association of folate, zinc and antioxidant intake with sperm aneuploidy in healthy non-smoking men. *Hum. Reprod*. 23(5):1014-1022.
- Zhang M, et al. 2025. Duration of folic acid supplementation and adverse pregnancy outcomes: A prospective multicenter cohort study in China. *Nutrients*. 18(1):81.

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Clindamycin

Selected References:

- Baheiraei A, et al. 2001. Effects of progestogen-only contraceptives on breast-feeding and infant growth Int J Gynaecol Obstet, 74; 203-205.
- Borgatta L, et al. 2002. Pregnancies diagnosed during Depo- Provera use. Contraception. Sep;66(3):169-72.
- Callahan R et al. 2015. Ectopic pregnancy with use of progestin-only injectables and contraceptive implants: A systemic review. Contraception 92(6):514-522.
- Dahlberg K. 1982. Some effects of depotmedroxyprogesterone acetate (DMPA): Observations in the nursing infant and in the long-term user. Int J Gynaecol Obstet 20:43-48.
- Deshmukh P, Antell K, Brown EJ. 2017. Contraception Update: Progestin-Only Implants and Injections. FP Essent.. 462:25-29.
- Gray RH and Pardthaisong T. 1991. In utero exposure to steroid contraceptives and outcome of pregnancy. Am J Epidemiol 134:795-803.
- Gray RH, Pardthaisong T. 1991. In utero exposure to steroid contraceptives and survival during infancy. Am J Epidemiol; 134:804-811.
- Gu YQ, et al. 2004. Male hormonal contraception: effects of injections of testosterone undecanoate and depot medroxyprogesterone acetate at eight-week intervals in chinese men. J Clin Endocrinol Metab. 89(5):2254-62.
- Hogue CJ. 1991. Invited commentary: the contraceptive technology tightrope. Am J Epidemiol 134: 812-815; author response 816-817.
- Jaffe B et al. 1990. Health, growth and sexual development of teenagers exposed in utero to medroxyprogesterone acetate. Paediatr Perinat Epidemiol 4:184-195.
- Jimenez J et al. 1984. Long-term follow-up of children breast-fed by mothers receiving depotmedroxyprogesterone acetate. Contraception 30:523-533.
- Koetsawang S, et al. 1982. Transfer of contraceptive steroids in milk of women using long-acting gestagens. Contraception 25:321- 331.
- Pardthaisong T, et al. 1992. The long-term growth and development of children exposed to Depo-Provera during pregnancy or lactation. Contraception 45:313-324.
- Pardthaisong T, Gray R. 1988. Steroid contraceptive use and pregnancy outcome. Teratology 38:51-58.
- PDR Entry for: Depo-Provera Contraceptive Injection. 2016. Pharmacia and Upjohn Company LLC.

- Phillips SJ, et al. 2016. Progestogen-only contraceptive use among breastfeeding women: A systematic review. *Contraception*; 94:226-252.
- Ratchanon S and Taneepanichskul S. 2000. Depot medroxyprogesterone acetate and basal serum prolactin levels in lactating women. *Obstetrics & Gynecology* 96(6):926-928.
- Saxena BN et al. 1977. Levels of contraceptive steroids in breast milk and plasma of lactating women. *Contraception* 16:605-613.
- Virutamasen P et al. 1996. Pharmacodynamic effects of depot-lprogesterone acetate (DMPA) administered to lactating women on their male infants. *Contraception* 54:153-157.
- World Health Organization. 2016. Resource chart medical eligibility contraceptives – FHI 360. (n.d.). Available at: <https://www.fhi360.org/sites/default/files/media/documents/resource-chart-medical-eligibility-contraceptives-english.pdf>. Accessed 13 January 2026.
- Yovich JL, et al. 1988. Medroxyprogesterone acetate therapy in early pregnancy has no apparent fetal effects. *Teratology* 38:135-144.

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