

Functional Constipation

Selected References:

- Longstreth GF, et al. 2006. Functional bowel disorders. *Gastroenterology*, 130(5):1480-1491.
- Mearin F, et al. 2016. Bowel disorders. *Gastroenterology*, S0016-5085(16)00222-5.
- Shi W, et al. 2015. Epidemiology and risk factors of functional constipation in pregnant women. *PLoS One*, 10(7):e0133521.

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://www.mothertobaby.org).

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, April 1, 2025.

Functional Constipation

Selected References:

- Auerbach JG, Hans SL, Marcus J, Maeir S. 1992. Maternal psychotropic medication and neonatal behavior. *Neurotoxicol Teratol* 14:399-406.
- Chan J, Alldredge BK, Baskin LS. 1991. Perphenazine-induced priapism. *DICP* 24:246-9
- FDA https://www.accessdata.fda.gov/drugsatfda_docs/label/2013/089683s024lbl.pdf
- FDA Drug Safety Communication. 2011. Antipsychotic drug labels updated on use during pregnancy and risk of abnormal muscle movements and withdrawal symptoms in newborns: <http://www.fda.gov/Drugs/DrugSafety/ucm243903.htm>.
- Handal M, Matheson I, Bechensteen AG, Lindemann R. 1995. [Antipsychotic agents and pregnant women. A case report]. *Tidsskr Nor Laegeforen*;115:2539-40.
- Harer WB: Tranquilizers in obstetrics and gynecology. 1958. Studies with Trilafon. *Obstet Gynecol* 11:273-9.
- Idapaan-Heikkila J, Saxen L. 1973. Possible teratogenicity of imipramine/chloropyramine. *Lancet* 2:282-4.

- Liu X, Trabjerg BB, Munk-Olsen T, Christensen J, Dreier JW. 2022. Association of Maternal Antipsychotic Prescription During Pregnancy With Standardized Test Scores of Schoolchildren in Denmark. *JAMA internal medicine*. 182(10):1035-43.
- Olesen OV, Bartels U, Poulsen JH. Perphenazine in breast milk and serum. 1990. *Am J Psychiatry*;147:1378-9.
- Reis M, Kallen B. 2008. Maternal use of antipsychotics in early pregnancy and delivery outcome. *Journal of clinical psychopharmacology*;28(3):279-88.
- Slone D et al. 1977. Antenatal exposure to the phenothiazines in relation to congenital malformations, perinatal mortality rate, birth weight, and intelligence quotient score. *Am J Obstet Gynecol* 128:486-8.
- Wertelecki W et al. 1980. Amitriptyline/perphenazine maternal overdose and birth defects. *Teratology* 21:74A.

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://www.MotherToBaby.org).

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, April 1, 2025.

Functional Constipation

Selected References:

- Hallock RM, et al. 2013. A survey of hallucinogenic mushroom use, factors related to usage, and perceptions of use among college students. *Drug Alcohol Depend* 130(1-3):245-8.
- Jairaj C, et al. 2022. Postpartum depression: A role for psychedelics? *Journal of Psychopharmacology* 36(8), 920-931.
- Rolsten C, 1997. Effects of chlorpromazine and psilocin on pregnancy of C57BL/10 mice and their offspring at birth. *Anat Rec* 157:311.
- Stein CA, et al. 2022. The Pharmacology and Clinical Applications of Psychedelic Medicines Within Midwifery Practice. *J Midwifery Womens Health* 67(3):373-383.
- Timar L, Czeizal AE. 1997, Birth weight and congenital anomalies following poisonous mushroom intoxication during pregnancy. *Reprod Toxicol* 11: 861.

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://www.mothertobaby.org).

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, April 1, 2025.

Functional Constipation

Selected References:

- AlHarthi A, et al. 2023. Investigating behavioral and neuronal changes in adolescent mice following prenatal exposure to electronic cigarette (e-cigarette) vapor containing nicotine. *Brain Sci*, 13(10): 1417.
- Archie S, et al. 2023. Maternal e-cigarette use can disrupt postnatal blood-brain barrier (BBB) integrity and deteriorates motor, learning and memory function: influence of sex and age. *Fluids Barriers CNS*, 20.
- Baez-Loya S, et al. 2014. Perceptions about e-cigarette safety may lead to e-smoking during pregnancy. *Bull Menninger Clin*. 78(3):243-52.
- Bednarczuk N, et al. 2022. Nicotine replacement therapy and e-cigarettes in pregnancy and infant respiratory outcomes. *Early Hum Dev*, 164:105509.
- Bell L, et al. 2023. Use of e-cigarettes in pregnancy: a systematic review of evidence published from 2020-2022. *Journal of Public Health*, 33: 315-328
- Cardenas VM, et al. 2019. Use of Electronic Nicotine Delivery Systems (ENDS) by pregnant women I: Risk of small-for-gestational-age birth. *Tobacco induced diseases*, 17:44.
- Centers for Disease Control and Prevention (CDC). 2018. Electronic Cigarettes. https://www.cdc.gov/tobacco/e-cigarettes/?CDC_Aref_Val=https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm [Accessed 4/2025].
- Centers for Disease Control and Prevention (CDC). 2023: General Information About Secondhand Smoke. https://www.cdc.gov/tobacco/secondhand-smoke/?CDC_Aref_Val=https://www.cdc.gov/tobacco/secondhand-smoke/about.html [Accessed 4/2025].
- Çetin T & Durmaz Ö. 2024. An assessment of the impact of smoking and vaping during pregnancy on placental dysfunction using shear-wave elastography. *Arch Basic Clin Res*, 6(3): 188-194.

- Chen T, et al. 2023. Ovarian toxicity of e-cigarette liquids: effects of components and high and low nicotine concentration e-cigarette liquid in vitro. *Tobacco Induced Diseases*, 21:128.
- Froggatt S, et al. 2020. The effects of prenatal cigarette and e-cigarette exposure on infant neurobehavior: A comparison to a control group. *EClinicalMedicine*, 28:10062.
- Hahn J, et al. 2014. Electronic cigarettes: overview of chemical composition and exposure estimation. *Tob Induc Dis*, 12(1):23.
- Holmboe SA, et al. 2020. Use of e-cigarettes associates with lower sperm counts in a cross-sectional study of young men from the general population. *Hum Reprod*, 35(7):1693-1701.
- Kahr MK, et al. 2015. A qualitative assessment of the perceived risks of electronic cigarette and hookah use in pregnancy. *BMC Public Health*. 15(1):1273.
- Kim S, Oancea SC. 2020. Electronic cigarettes may not be a “safer alternative” of conventional cigarettes during pregnancy: Evidence from the nationally representative PRAMS data. *BMC Pregnancy Childbirth*, 20(1):557.
- Kopa-Stojak PN & Pawliczak R. 2024. Disposable electronic cigarettes – chemical composition and health effects of their use. A systematic review. *Toxicology Mechanisms and Methods*, 35(3): 250-261.
- Lin S, et al. 2023. E-cigarette use during pregnancy and its association with adverse birth outcomes in the US. *Prev Med*, 166:107375.
- McDonnell BP, et al. 2020. Electronic cigarettes and obstetric outcomes: A prospective observational study. *BJOG*, 127(6):750-756. Nanninga EK et al. 2023. Adverse maternal and infant outcomes of women who differ in smoking status: e-cigarette and tobacco cigarette users. *Int. J. Environ. Res. Public Health*, 20(3): 2632.
- Nguyen T, et al. 2018. Maternal e-cigarette exposure results in cognitive and epigenetic alterations in offspring in a mouse model. *Chemical research in toxicology*, 31(7): 601-611.
- Noël A, et al. 2020. In utero exposures to electronic-cigarette aerosols impair the *Wnt* signaling during mouse lung development. *American journal of psychology. Lung cellular and molecular physiology*, 318(4):L705-L722.
- Orzabal MR, et al. 2019. Chronic exposure to e-cig aerosols during early development causes vascular dysfunction and offspring growth deficits. *Translational research: the journal of laboratory and clinical medicine*, 207:70-82.
- Popham K & Kandasamy Y. 2023. The impact of smoking and nicotine exposure during pregnancy on fetal nephrogenesis: a systematic review. *Journal of Developmental Origins of Health and Disease*, 14(5): 559-569.
- Phillips L et al. 2023. Developing a taxonomy to describe offspring outcomes in studies involving pregnant mammals’ exposure to non-tobacco nicotine: a systematic scoping review. *Plos One*, 18(2).
- Sana M et al. 2023. Maternal cigarette and electronic cigarette use before pregnancy associated with the risk of hypertension and gestational hypertension. *Obstetrics & Gynecology*, 141(5S): 83S-83S.
- Suter MA, et al. 2015. Is there evidence for potential harm of electronic cigarette use in pregnancy? *Birth Defects Res A Clin Mol Teratol*, 103(3):186-95.
- Walayat A et al. 2024. Maternal e-cigarette exposure alters DNA methylome, site-specific CpG and CH methylation, and transcriptomic signatures in the neonatal brain. *Sci Rep*, 14.
- Wang X, et al. 2020. Smoking and use of electronic cigarettes (vaping) in relation to preterm birth and small-for-gestational age in a 2016 U.S. national sample. *Preventative medicine*, 134:106041.

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://www.mothertobaby.org).

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, April 1, 2025.

Functional Constipation

Selected References:

- Ackerman S. Discovering the Brain. Washington (DC): National Academies Press (US); 1992. 6. The Development and Shaping of the Brain. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK234146/>.
- American College of Obstetricians and Gynecologists (ACOG). 2024. Facts Are Important: Understanding and Navigating Viability. Retrieved from: <https://www.acog.org/advocacy/facts-are-important/understanding-and-navigating-viability>.
- Hales B, et al. 2018. Teratology Primer, 3rd Edition. Society for Birth Defects Research and Prevention. <https://www.birthdefectsresearch.org/primer/>
- Helwany M, et al. 2023. Embryology, Ear. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK557588/>
- Libretti S, Aeddula NR. 2023. Embryology, Genitourinary. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK559309/>.
- Malhotra R, et al. 2023. Enhancing Omphalocele Care: Navigating Complications and Innovative Treatment Approaches. *Cureus*; 15(10):e47638.
- Moore KL, et al. 2013. The Developing Human: Clinically Oriented Embryology (9th Ed.). Saunders.
- Rentea RM, Gupta V. 2023. Gastroschisis. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK557894/>.
- Sadler TW. 2014. Langman's Medical Embryology (13th Edition), Philadelphia, PA: Wolters Kluwer.
- Singh R, Munakomi S. Embryology, Neural Tube. [Updated 2023 May 1]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK542285/>.
- The Centers for Disease Control and Prevention (CDC). 2024. Specific Birth Defects and Other Health Conditions. Retrieved from: <https://www.cdc.gov/birth-defects/about/types.html>.
- Tickle C. 2015. How the embryo makes a limb: determination, polarity and identity. *J Anat*; 227(4):418-30.
- Zaontz MR, Packer MG. 1997. Abnormalities of the external genitalia. *Pediatr Clin North Am*; 44(5):1267-97.

Questions? Call 866.626.6847 | Text 855.999.3525 | Email or Chat at [MotherToBaby.org](https://www.MotherToBaby.org).

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, April 1, 2025.