

# Working in a Dental Office

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## Selected References:

- American Dental Association (ADA). <https://www.ada.org/resources/practice/legal-and-regulatory/amalgam> [accessed May 2026].
- Bjorklund G, et al. 2019. Mercury exposure and its effects on fertility and pregnancy outcome. *Basic Clin Pharmacol Toxicol* 125(4):317-327
- Brodsky JB, et al. 1985. Occupational exposure to mercury in dentistry and pregnancy outcome. *J Am Dent Assoc*; 111:779-780.
- Centers for Disease Control and Prevention (CDC). 2003. Guidelines for Infection Control in Dental Health-Care Settings. *Morbidity and Mortality Weekly Report (MMWR)*. 52(RR17):1-61.
- CDC. 2021. Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care. Available at: <https://www.cdc.gov/oralhealth/infectioncontrol/summary-infection-prevention-practices/index.html> <https://www.cdc.gov/dental-infection-control/hcp/summary/index.html>
- CDC. 2011. Immunization of Health-Care Personnel: Recommendations of the Advisory Committee on Immunization Practices (ACIP). *Morbidity and Mortality Weekly Report (MMWR)*; 60 (RR07):1-45.
- Ericson A, Kallen B. 1989. Pregnancy outcome in women working as dentists, dental assistants or dental technicians. *Int Arch Occup Environ Health* 61:329-33.
- Glick M, Goldman HS. 1993. Viral infections in the dental setting: potential effects on pregnant HCWs. *J Am Dent Assoc*. 124(6):79-86.
- Heggland I, et al. 2011. Pregnancy outcomes among female dental personnel-a registry-based retrospective cohort study. *Scand J Work Environ Health*; 37(6): 539-546.
- Knill-Jones RP, et al. 1975. Anaesthetic practice and pregnancy. *Lancet*; 2:807-9.
- LeBeau J. 2015. Laser Safety in the Dental Office. [https://www.aldadmin.org/index.cfm/patients/ALD\\_Blog/show/blogPost/LaserSafetyInTheDentalOffice](https://www.aldadmin.org/index.cfm/patients/ALD_Blog/show/blogPost/LaserSafetyInTheDentalOffice) [last accessed May 2026].
- Lindbohm ML, et al. 2007. Occupational exposure in dentistry and miscarriage. *Occup Environ Med*; 64:127-133.
- Mann A, et al. 2020. Considerations for pregnant dental and health care workers amid COVID-19. *JDR Clin Trans Res* 5(4):300-306.
- Marklund S, et al. 2019. Work ability and productivity among dentists: associations with musculoskeletal pain, stress, and sleep. *Int Arch Occup Environ Health*. PMID: 31654126
- Nagpal N, et al. 2017. A Review of Mercury Exposure and Health of Dental Personnel. *Saf Health Work*. 8(1): 1-10.
  
- Naimi-Akbar A, et al. 2012. Cognitive function among sons of women who worked in dentistry. *Scand J Work Environ Health*. 38(6):546-552.
- Occupational Safety and Health Administration (OSHA). Dentistry Hazard Recognition, Control and Prevention: Available at: <https://www.osha.gov/dentistry/hazard-control-prevention> [Accessed 6/2025].
- OSHA. Laser/Electrosurgery Plume. <https://www.osha.gov/laser-electrosurgery-plume> [Accessed May 2026].
- OSHA. Mercury OSHA Standards. <https://www.osha.gov/mercury/standards> [Accessed May 2026].
- Olfert SM. 2006. Reproductive outcomes among dental personnel: a review of selected exposures. *J Can Dent Assoc*. 72(9):821-5.
- Romano F, et al. 2017. Electrosurgical Smoke: Ultrafine Particle Measurements and Work Environment Quality in Different Operating Theatres. *Int J Environ Res Public Health*; 14(2): 137.

- Rowland A et al. 1995. Nitrous oxide and spontaneous abortion in female dental assistants. *Am J Epidemiol.* 141(6):531-8. doi: 10.1093/oxfordjournals.aje.a117468. PMID: 7900720.
- Smalley P. 2011. Laser safety: Risks, hazards, and control measures. *Laser Ther;* 20(2): 95-106.
- Warwick D, et al. 2019. Mercury vapor volatilization from particulate generated from dental amalgam removal with a high-speed dental drill – a significant source of exposure. *Jrnl of Occ Med & Tox.* 14,22.
- United States Food and Drug Administration (FDA). 2017. About Dental Amalgam Fillings. <https://www.fda.gov/medical-devices/dental-devices/dental-amalgam-fillings> [Accessed May 2026].

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### Selected References:

- Ahlqvist VH, et al. 2024. Acetaminophen Use During Pregnancy and Children’s Risk of Autism, ADHD, and Intellectual Disability. *JAMA*, 331(14):1205–1214.
- Alwan S, et al. 2022. Paracetamol use in pregnancy – caution over causal inference from available data. *Nat Rev Endocrinol*, 18(3):190.
- American College of Obstetricians and Gynecologists (ACOG). 2025. Acetaminophen Use in Pregnancy and Neurodevelopmental Outcomes. Practice Advisory, ACOG. <https://www.acog.org/clinical/clinical-guidance/practice-advisory/articles/2025/09/acetaminophen-use-in-pregnancy-and-neurodevelopmental-outcomes>
- Andrade C. 2016. Use of acetaminophen (paracetamol) during pregnancy and the risk of autism spectrum disorder in the offspring. *J Clin Psychiatry;* 77(2):e152-4. Arneja J, et al. 2020. Association between maternal acetaminophen use and adverse birth outcomes in a pregnancy and birth cohort. *Pediatr Res;* 87(7):1263-1269.
- Aselton P, et al. 1985. First-trimester drug use and congenital disorders. *Obstet Gynecol* 65:451-5.
- Aw M, et al. 1999. Neonatal paracetamol poisoning. *Arch Dis Child Fetal Neonatal Ed;* 81(1):F78.
- Baker BH, et al. 2020. Association of Prenatal Acetaminophen Exposure Measured in Meconium With Risk of

Attention-Deficit/Hyperactivity Disorder Mediated by Frontoparietal Network Brain Connectivity. *JAMA pediatrics*, 174(11):1073-1081.

- Bauer AZ, et al. 2018. Prenatal paracetamol exposure and child neurodevelopment: A review. *Hormones Behav* 101:125-147.
- Baur AZ, et al. 2021. Paracetamol use during pregnancy – a call for precautionary action. *Nat Rev Endocrinol*, 17(12):757-766.
- Bornehag CG, et al. 2018. Prenatal exposure to acetaminophen and children’s language development at 30 months. *Eur Psychiatry*, in press.
- Bornehag CG, et al. 2018. Reply to: Shukla et al., Commentary on: Prenatal exposure to acetaminophen and children’s language development at 30 months. *Eur Psychiatry* 51:86.
- Brandlistuen RE, et al. 2013. Prenatal paracetamol exposure and child neurodevelopment: a sibling-controlled cohort study. *Int J Epidemiol*; 42(6):1702-13.
- Castro CT, et al. 2022. Effect of Acetaminophen use during pregnancy on adverse pregnancy outcomes: a systematic review and meta-analysis. *Expert Opin Drug Saf*, 21(2):241-251.
- D’Antonio F, et al. 2026. Prenatal paracetamol exposure and child neurodevelopment: a systematic review and meta-analysis. *The Lancet Obstetrics, Gynaecology, & Women’s Health*; 2, e190-e198.
- Damker P, et al. 2022. Handle with care – interpretation, synthesis and dissemination of data on paracetamol in pregnancy. *Nat Rev Endocrinol*, 18:191.
- Damkier P, et al. 2025. Acetaminophen in Pregnancy and Attention-Deficit and Hyperactivity Disorder and Autism Spectrum Disorder. *Obstetrics and Gynecology*, 145(2):168-176.
- Feldkamp ML, et al. 2010. Acetaminophen use in pregnancy and risk of birth defects. *Obstet Gynecol*;
- Golding J, et al. 2020. Associations between paracetamol (acetaminophen) intake between 18 and 32 weeks gestation and neurocognitive outcomes in the child: A longitudinal cohort study. *Paediatr Perinat Epidemiol*; 34(3):257-266.
- Harvard Health Publishing. 2017. Acetaminophen safety: Be cautious but not afraid. <https://www.health.harvard.edu/pain/acetaminophen-safety-be-cautious-but-not-afraid> [Accessed 5/18]115(1):109-15.
- Jick H, et al. 1981. First-trimester drug use and congenital disorders. *JAMA*; 246(4):343-6.
- Li DK, et al. 2003. Exposure to non-steroidal anti-inflammatory drugs during pregnancy and risk of miscarriage: population-based cohort study. *BMJ*, 327(7411):368. doi: 10.1136/bmj.327.7411.368.
- Li D, et al. 2018. Use of nonsteroidal anti-inflammatory drugs during pregnancy and risk of miscarriage. *Am J Obstet Gynecol*; 219(3):275.e1-275e8.
- Kang EM, et al. 2009. Prenatal exposure to acetaminophen and asthma in children. *Obstet Gynecol*; 114 (6):1295-1306.
- Liew Z, et al. 2019. Use of negative control exposure analysis to evaluate confounding: An example of acetaminophen exposure and attention-deficit/hyperactivity disorder in Nurses’ Health Study II. *Am J Epidemiol* 188(4): 768-775.
- Liew Z, et al. 2014. Acetaminophen use during pregnancy, behavioral problems, and hyperkinetic disorders. *JAMA Pediatr*;168(4):313-20.
- Marsh CA, et al. 2014. Case-control analysis of maternal prenatal analgesic use and cardiovascular malformations: Baltimore-Washington Infant Study. *Am J Obstet Gynecol*; 211(4):404.e1-9.
- McElhatton PR, et al. 1997. Paracetamol overdose in pregnancy analysis of the outcomes of 300 cases referred to the Teratology Information Service. *Reprod Toxicol*; 11(1):85-94.
- Niederhoff H and Zahradnik HP 1983. Analgesics during pregnancy. *Am J Med*; 75:117-120.
- Ricci C et al. 2023. In utero acetaminophen exposure and child neurodevelopmental outcomes: Systematic review and meta-analysis. *Paediatric and perinatal epidemiology*, 37(5):473-484.
- Riggs BS, et al. 1989. Acute acetaminophen overdose during pregnancy. *Obstet Gynecol*; 74(2):247-53.
- Rosevear SK and Hope PL. 1989. Favourable neonatal outcome following maternal paracetamol overdose and severe fetal distress. Case report. *Br J Obstet Gynaecol*; 96(4):491-3.

- Smarr MM, et al. 2016. Urinary paracetamol and time-to-pregnancy. *Hum Reprod*, 31(9):2119–2127.
- Wesselink AK, et al. 2020. Association Between Male Use of Pain Medication and Fecundability. *Am J Epidemiol*, 189(11):1348–1359.
- Zafeiri A, et al. 2022. Maternal over-the-counter analgesics use during pregnancy and adverse perinatal outcomes: cohort study of 151,141 singleton pregnancies. *BMJ Open*, 12:e048092.

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---

### Selected References:

- ACOG. 1993. Hepatitis in pregnancy. ACOG Technical Bulletin Number 174–November 1992. *Int J Gynaecol Obstet*. 42(2):189-98.
- Celzo F et al. 2020. Safety evaluation of adverse events following vaccination with Havrix, Engerix-B or Twinrix during pregnancy. *Vaccine*; 38(40):6215-6223.
- Chilaka VN, Konje JC. 2020. Viral Hepatitis in Pregnancy. *Eur J Obstet Gynecol Reprod Biol*; 256:287-296.
- Cho GJ, et al. 2013. Hepatitis A virus infection during pregnancy in Korea: Hepatitis A infection on pregnant women. *Obstet Gynecol Sci*; 56(6):368-374.
- D’Acremont V, et al. 2008. Impact of vaccines given during pregnancy on the offspring of women consulting a travel clinic: a longitudinal study. *J Travel Med*; 15(2):77-81.
- Daudi N, et al. 2012. Breastmilk hepatitis A virus RNA in nursing mothers with acute hepatitis A virus infection.

Breastfeed Med; 7:313-315.

- Dionne-Odom J, et al. 2022. Treatment and prevention of viral hepatitis in pregnancy. Am J Obstet Gynecol; 226(3):335-346.
- Duff P. 1998. Hepatitis in Pregnancy. Semin Perinatol; 22(4):277-283.
- Elinav E, et al. 2006. Acute hepatitis A infection in pregnancy is associated with high rates of gestational complications and preterm labor. Gastroenterology; 130(4):1129-1134.
- Groom HC, et al. 2019. Uptake and safety of hepatitis A vaccination during pregnancy: A Vaccine Safety Datalink study. Vaccine; 37(44):6648-6655.
- Lemon SM. 1997. Type A viral hepatitis: epidemiology, diagnosis, and prevention. Clin Chem; 43(8 Pt 2):1494-1499.
- Motte A, et al. 2009. Acute hepatitis A in pregnant women at delivery. Int J infect Dis; 13(2):e49-51.
- Ornoy A, Tenenbaum, A. 2006. Pregnancy outcome following infections by coxsackie, echo, measles, mumps, hepatitis, polio, and encephalitis viruses. Reprod Toxicol; 21(4):446-457.
- Panagiotou OA, et al & Costa Rica HPV Vaccine Trial (CVT) Group. 2015. Effect of bivalent human papillomavirus vaccination on pregnancy outcomes: long term observational follow-up in the Costa Rica HPV Vaccine Trial. BMJ 351:h4358457.
- Selander B, et al. 2009. No evidence of intrauterine transmission of hepatitis A virus from a mother to a premature infant. Acta Paediatr, 98(10):1603-1606
- Seto MT, et al. 2020. Management of viral hepatitis A, C, D, and E in pregnancy. Best Pract Res Clin Obstet Gynaecol, 68:44-53.
- Tang J, et al. 2024. Screening for viral hepatitis carriage. Best Pract Res Clin Obstet Gynaecol; 96:102523.
- Terrault NA, et al. 2021. Viral hepatitis and pregnancy. Nat Rev Gastroenterol Hepatol; 18(2):117-130.
- Van Damme P, et al. 2023. Hepatitis A virus infection; Nat Rev Dis Primers. 9(1):51.

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## Selected References:

- Bang Madsen K, et al. 2023. In utero exposure to ADHD medication and long-term offspring outcomes. *Molecular psychiatry*; 28(4):1739-1746.
- Boutroy MJ, et al. 1988. Clonidine: Placental transfer and neonatal adaptation. *Early Hum Dev*; 17:275-286.
- Bunjes R, Schaefer C. 1993. Clonidine and breast-feeding. *Clinical Pharm* 12:178-9.
- Frazier, LM, et al. 2020. Emerging therapies for the treatment of neonatal abstinence syndrome. *The Journal of Maternal-Fetal & Neonatal Medicine*; 6:1-9.
- Horvath JS, et al. 1985. Clonidine hydrochloride a safe and effective antihypertensive agent in pregnancy. *Obstet Gynecol*; 66:634-8.
- Huisjes, et al. 1986. Is clonidine a behavioural teratogen in the human? *Early Hum Dev*; 14:43-8.
- Khan A, et al. 1970. Clonidine (Catapres): a new anti-hypertensive agent. *Cur Ther Res*; 12:10.
- Liu X, et al. 2026. Clonidine compromises human sperm functions. *Reproductive Toxicology*; 140, 109164.
- Maina A, et al. 2014. Transdermal clonidine in the treatment of severe hyperemesis: A pilot randomized controlled trial (CLONEMESI). *BJOG: An International Journal of Obstetrics & Gynaecology*; 121,1556-1562.
- Mirmiran M. 1986. The importance of fetal/neonatal REM sleep. *Eur J Obstet Gynecol Reprod Biol*; 21:283-91.
- Rothberger S, et al. 2010. Pharmacodynamics of clonidine therapy in pregnancy: a heterogeneous maternal response impacts fetal growth. *Am J Hypertens*; 23(11):1234-40.
- Sevrez C, et al. 2014. [Transplacental or breast milk intoxication to clonidine: a case of neonatal hypotonia and drowsiness]. *Arch Pediatr*; 21(2):198-200.
- Stoll C, et al. 1979. Robert's syndrome and clonidine. *J Med Genet*; 16:486-8.
- Terada H, et al. 2005. Oral clonidine advances spermatogenesis in oligozoospermic patients with spermatogenetic maturation arrest. *International journal of urology: official journal of the Japanese Urological Association*; 12(9),815-820.
- Tuimala R, et al. 1985. Clonidine in the treatment of hypertension during pregnancy. *Annales Chirurgiae et Gynaecologiae Supplementum*; 197,47-50.
- Tsai TH, et al. 1982. Teratologic and reproductive studies of lofexidine. *Arzneimittelforsch*; 32:962-6.
- Zangeneh F, et al. 2022. The first report of clonidine in vivo/in vitro effects on infertile women with polycystic ovary syndrome (in vivo/in vitro study). *Journal of the Institute of Obstetrics and Gynaecology*; 42(5),1331-1339.

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### Selected References:

- Allocca M, et al. 2018. Sexual and reproductive issues and inflammatory bowel disease: a neglected topic in men. *Eur J Gastroenterol Hepatol.* 30(3):316-322.
- Asthana R, et al. 2025. Meta-analysis and systematic review on sulfasalazine/5-ASA use during pregnancy: Impact on neonatal and pregnancy outcomes. *Reprod Toxicol*135:108939.
- Ban L et al. 2014. Limited risks of major congenital anomalies in children of mothers with IBD and effects of medications. *Gastroenterology.* 146 (1):76-84. Banerjee, A et al. 2019. Inflammatory
- Bowel Disease Therapies Adversely Affect Fertility in Men- A Systematic Review and Meta-analysis. *Endocrine, metabolic & immune disorders drug targets,* 19(7), 959-974.
- Chermesh I & Eliakim R. 2004. Mesalazine-induced reversible infertility in a young male. *Dig Liver Dis* 36:551-2.
- Diav-Citrin O, et al. 1998. The safety of mesalamine in human pregnancy: a prospective controlled cohort study. *Gastroenterology;* 114:23-28.
- Gaidos J. & Kane SV. 2020. Medication Adherence During Pregnancy in IBD: Compliance Avoids Complications. *Digestive diseases and sciences,* 10.1007/s10620-020-06271-w. Advance online publication.
- Hosseini-Carroll P, et al. 2015. Pregnancy and inflammatory bowel diseases: Current perspectives, risks and patient management. *World J Gastrointest Pharmacol Ther.* 6(4):156-171.
- Ito S, et al. 1993. Prospective follow-up of adverse reactions in breast-fed infants exposed to maternal medication. *Am J Obstet Gynecol.* 168:1393-9.
- Källén B. 2014. Maternal use of 5-aminosalicylates in early pregnancy and congenital malformation risk in the offspring. *Scand J Gastroenterol;* 49(4):442-8.
- Mahadevan U, Matro R. Care of the pregnant patient with inflammatory bowel disease. *Obstet Gynecol.* 2015;126:401-12.
- Maliszewska, AM, et al. 2017. Inflammatory bowel disease and pregnancy. *Ginekologia Polska,* 88(7), 398-403.
- Marteau P & Devaux CB. 1994. Mesalazine during pregnancy. *Lancet* 344(8938):1708-1709.
- Moskovitz DN, et al. 2004. The effect on the fetus of medications used to treat pregnant inflammatory bowel-disease patients. *Am J Gastroenterol* 99(4):656-661.
- Moretti ME. 1998. Prospective follow-up of infants exposed to 5-aminosalicylic acid containing drugs through maternal milk. *Theses Canada.* Moretti ME, et al. 1998. Prospective follow-up of infants exposed to 5-aminosalicylic
- acid containing drugs through maternal milk. *J Clin Pharmacol.* 38:867.
- Nelis GF. 1989. Diarrhoea due to 5-aminosalicylic acid in breastmilk. *Lancet* 1:383.
- Nielsen OH, et al. 2014. IBD medications during pregnancy and lactation. *Nat Rev Gastroenterol Hepatol.* 11(2):116-127.
- Norgård, B et al. 2003. Birth outcome in women exposed to 5-aminosalicylic acid during pregnancy: a Danish

cohort study. *Gut*, 52(2), 243-247.

- Pervez, H, et al. 2019. The Impact of Inflammatory Bowel Disease on Pregnancy and the Fetus: A Literature Review. *Cureus*, 11(9), e5648.
- Shin T, et al. 2014. Inflammatory bowel disease in subfertile men and the effect of mesalazine on fertility. *Syst Biol Reprod Med*. 60(6); 373-376.
- Silverman DA, et al. 2005. Is mesalazine really safe for use in breastfeeding mothers? *Gut* 54: 170-1.
- Watanabe, C. et al. 2020. Non-adherence to Medications in Pregnant Ulcerative Colitis Patients Contributes to Disease Flares and Adverse Pregnancy Outcomes. *Digestive diseases and sciences*, 10.1007/s10620-020-06221-6. Advance online publication.
- Wiersma TK, et al. 2022. The Effect of Pregnancy and Inflammatory Bowel Disease on the Pharmacokinetics of Drugs Related to Inflammatory Bowel Disease-A Systematic Literature Review. *Pharmaceutics*. 14(6):1241.
- Xu YL, et al. 2017. Inflammatory bowel disease in pregnancy: A report of 7 cases and review of the literature. *Int J Clin Exp Med*; 10:5525-32.

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