



MotherToBaby

Medications & More During Pregnancy & Breastfeeding  
Ask The Experts

Fact Sheet

by the **Organization of Teratology Information Specialists (OTIS)**

For more information about us or to find a service in your area,  
call **(866) 626-6847**. Visit us online at **www.MotherToBaby.org**.

Find us! Facebook.com/MotherToBaby or @MotherToBaby on Twitter

## Methamphetamine

### Selected References:

- AAP Section on Breastfeeding. 2012. Breastfeeding and the use of human milk. *Pediatrics*; 129:e827-41. ACOG Committee on Health Care for Underserved Women. 2011. Committee Opinion No. 479: Methamphetamine abuse in women of reproductive age. *Obstet Gynecol*; 117:751-5. Brecht ML, Herbeck DM. 2014. Pregnancy and fetal loss reported by methamphetamine-using women. *Subst Abuse*; 8:25-33.
- Chang L, et al. 2004. Smaller subcortical volumes and cognitive deficits in children with prenatal methamphetamine exposure. *Psych Res:Neuroimaging* 132:95-106.
- Chomchai C, et al. 2016. Transfer of methamphetamine (MA) into breast milk and urine of postpartum women who smoked MA tablets during pregnancy: Implications for initiation of breastfeeding. *J Hum Lact*; 32:333-9.
- Cohen JM, et al. 2017. Placental Complications Associated With Psychostimulant Use in Pregnancy. *Obstet Gynecol*; 130(6):1192-201.
- Courtney KE, Ray LA. 2014. Methamphetamine: an update on epidemiology, pharmacology, clinical phenomenology, and treatment literature. *Drug Alcohol Depend*. 1;143:11-21.
- Derauf C, et al. 2012. Prenatal methamphetamine exposure and inhibitory control among young school-age children. *J Pediatr*; 161(3):452-9.
- Dinger J, et al. 2017. Methamphetamine Consumption during Pregnancy – Effects on Child Health. *Pharmacopsychiatry*; 50(3):107-113.
- Dyk Jv, et al. 2014. Maternal methamphetamine use in pregnancy and long-term neurodevelopmental and behavioral deficits in children. *J Popul Ther Clin Pharmacol*; 21(2):e185-96.
- Eriksson M, et al. 1981. Amphetamine addiction and pregnancy II. Pregnancy, delivery and the neonatal period. Socio-medical aspects. *Acta Obstet Gynecol Scand* 60:253-259, 1981.
- Golub M, et al. 2005. NTP CERHR Expert Panel Report on the reproductive and developmental toxicity of amphetamine and methamphetamine. *Birth Defects Res B Dev Reprod Toxicol* 74(6):471-584.
- Good MM, et al. 2010. Methamphetamine use during pregnancy: maternal and neonatal implications. *Obstet Gynecol*; 116(2 Pt 1):330-4.
- Gorman MC, et al. 2014. Outcomes in pregnancies complicated by methamphetamine use. *Am J Obstet Gynecol*; 211(4):429.e1-7.
- Heinonen OP, et al. 1977. *Birth Defects and Drugs in Pregnancy*. Littleton, MA: John Wright-PSG, pp 346-347, 439.
- LaGasse LL, et al. 2011. Prenatal methamphetamine exposure and neonatal neurobehavioral outcome in the USA and New Zealand. *Neurotoxicol Teratol*; 33(1):166-75.
- LaGasse LL, et al. 2012. Prenatal methamphetamine exposure and childhood behavior at 3 and 5 years of age. *Pediatrics*; 129(4):681-688.
- Little BB, et al. 1988. Methamphetamine abuse during pregnancy: outcome and fetal effects. *Obstet Gynecol*; 72:541-4.
- Kalaitzopoulos DR, et al. 2018. Effect of Methamphetamine Hydrochloride on Pregnancy Outcome: A Systematic Review and Meta-analysis. *J Addict Med*. doi: 10.1097/ADM.0000000000000391.
- Kittirattanapaiboon P, et al. 2017. Methamphetamine use and dependence in vulnerable female populations. *Curr Opin Psychiatry*; 30(4):247-252.
- Kwiatkowski MA, et al. 2018. Cognitive outcomes in prenatal methamphetamine exposed children aged six to seven years. *Compr Psychiatry*; 80:24-33.
- Newport DJ, et al. 2016. Prenatal psychostimulant and antidepressant exposure and risk of hypertensive disorders of pregnancy. *J Clin Psychiatry*; 77(11):1538-45.
- Nguyen D, et al. 2010. Intrauterine growth of infants exposed to prenatal methamphetamine: results from the infant

- development, environment, and lifestyle study. *J Pediatr*; 157(2):337-9.
- Ornoy A. 2018. Pharmacological treatment of attention deficit hyperactivity disorder during pregnancy and lactation. *Pharm Res*; 35:46.
  - Pflügner A, et al. 2018. [Methamphetamine Consumption During Pregnancy and its Effects on Neonates]. *Klin Padiatr*; 230(1):31-38.
  - Roussotte FF, et al. 2012. Frontostriatal connectivity in children during working memory and the effects of prenatal methamphetamine, alcohol, and polydrug exposure. *Dev Neurosci*; 34(1):43-57.
  - Shah R, et al. 2012. Prenatal methamphetamine exposure and short-term maternal and infant medical outcomes. *Am J Perinatol*; 29(5):391-400.
  - Smith LM, et al. 2003. Effects of prenatal methamphetamine exposure on fetal growth and drug withdrawal symptoms in infants born at term. *J Dev Behav Pediatr* 24(1):17-23.
  - Smith LM, et al. 2006. The infant development, environment, and lifestyle study: effects of prenatal methamphetamine exposure, polydrug exposure, and poverty on intrauterine growth. *Pediatrics*; 118(3):1149-56.
  - Smith LM, et al. 2008. Prenatal methamphetamine use and neonatal neurobehavioral outcome. *Neurotoxicol Teratol*. 30(1):20-28.
  - Smith LM, et al. 2011. Motor and cognitive outcomes through three years of age in children exposed to prenatal methamphetamine. *Neurotoxicol Teratol*; 33(1):176-84.
  - Stewart JL, Meeker JE. 1997. Fetal and infant deaths associated with maternal methamphetamine abuse. *J Anal Toxicol*; 21(6):515-7.
  - Twomey J, et al. 2013. Prenatal methamphetamine exposure, home environment, and primary caregiver risk factors predict child behavioral problems at 5 years. *The American journal of orthopsychiatry*; 83(1):64-72.
  - Woules TA, et al. 2014. Prenatal methamphetamine exposure and neurodevelopmental outcomes in children from 1 to 3 years. *Neurotoxicol Teratol*; 42:77-84.
  - Wright TE, et al. 2015. Methamphetamines and pregnancy outcomes. *J Addict Med*; 9(2):111-7.

**March, 2018**