

Prenatal Exposure to Illegal Drugs and Alcohol: Media Hype and Enduring Myths Are Not Supported By Science

Based on the extraordinary misinformation that appeared frequently in the popular press, many people believe that a pregnant woman who uses any amount of an illegal drug or alcohol will inevitably harm or even kill her fetus. But media hype is not the same as science. As explained by Dr. Deborah Frank in this on-line video, *Prenatal Drug Exposure: Award-Winning Pediatrician Discusses What The Science Tells Us*,¹ popular news reports have misrepresented the scientific facts about prenatal exposure to drugs.

What The Experts Have to Say About Cocaine

A 2009 *New York Times* article tried to set the record straight by reporting that while researchers have found some effects of prenatal exposure to cocaine, those “effects are less severe than those of alcohol and are comparable to those of tobacco — two legal substances that are used much more often by pregnant women, despite health warnings.”² Indeed, the most careful and comprehensive study to consider the medical evidence concluded: “[T]here is no convincing evidence that prenatal cocaine exposure is associated with any developmental toxicity difference in severity, scope, or kind from the sequelae of many other risk factors.”³ Without knowing that cocaine was used by their mothers, clinicians could not distinguish so-called “crack-addicted babies” from babies born to comparable mothers who had never used cocaine.⁴

In 2004, thirty leading doctors and researchers signed an open letter explaining “Throughout almost 20 years of research, none of us has identified a recognizable condition, syndrome or disorder that should be termed ‘crack baby.’” These researchers also explained that the term “crack addicted baby” is scientifically inaccurate. “Addiction is a technical term that refers to compulsive behavior that continues in spite of adverse consequences. By definition, babies cannot be ‘addicted’ to crack or anything else.”⁵

As the National Institute for Drug Abuse has reported, “Many recall that ‘crack babies,’ or babies born to mothers who used crack cocaine while pregnant, were at one time written off by many as a lost generation. . . . It was later found that this was a gross exaggeration.”⁶ Similarly, the U.S. Sentencing Commission concluded, “research indicates that the negative effects from prenatal exposure to cocaine, in fact, are significantly less severe than previously believed[.]”⁷

What The Experts Have to Say About Methamphetamine

In 2005, a national expert panel reviewed published studies about the developmental effects of prenatal exposure to methamphetamine and related drugs and concluded that, “the data regarding illicit methamphetamine are insufficient to draw conclusions concerning developmental toxicity in humans.”⁸ In that same year more than 90 leading medical doctors, scientists, psychological researchers, and treatment specialists released

an open letter warning that terms such as “meth babies” lack medical and scientific validity and should not be used.⁹

The American College of Obstetrics and Gynecology’s special information sheet about methamphetamine use in pregnancy notes that “the effects of maternal methamphetamine use cannot be separated from other factors” and that there “is no syndrome or disorder that can specifically be identified for babies who were exposed in utero to methamphetamine.”¹⁰

What The Experts Have to Say About Opiates

Prenatal exposure to opiates, most commonly heroin and oxycodone, is not associated with birth defects.¹¹ Moreover, there is no scientific evidence that growth and development are compromised by exposure to opiates.¹² Some newborns exposed prenatally to opiates experience an abstinence (withdrawal) syndrome at birth. Withdrawal symptoms may also occur when adults with opioid addictions abstain from opiate use. In pregnant women, withdrawal symptoms are known to cause uterine contractions, miscarriage or early labor, but these symptoms can be prevented through methadone maintenance treatment, the medically approved treatment for opiate addiction that is particularly recommended during pregnancy. The U.S. Department of Health and Human Services advises:

If you’re pregnant and using drugs such as heroin or abusing opioid prescription pain killers, it’s important that you get help for yourself and your unborn baby. Methadone maintenance treatment can help you stop using those drugs. It is safe for the baby, keeps you free of withdrawal, and gives you a chance to take care of yourself.¹³

For those newborns that do experience withdrawal syndrome, safe and effective treatment can be instituted in the nursery setting.¹⁴

What The Experts Have to Say About Marijuana

As for prenatal exposure to marijuana, the leading researcher in the field has stated unequivocally:

Based on my 30 plus years of experience examining the newborn, infants, toddlers, children, adolescents and young adults born to women who used marihuana during pregnancy it is important to emphasize that to characterize an infant born to a woman who used marihuana during pregnancy as being ‘physically abused’ and/or ‘neglected’ is contrary to all scientific evidence (both mine and subsequent work by other researchers). The use of marijuana during pregnancy . . . has not been shown by any objective research to result in abuse or neglect.

There have been a few reports of mild negative effects in high-risk

populations on the birth weight or birth length of newborns but, in those studies, these effects were no longer present after a few months. This is in contrast to many other substances that are commonly used during pregnancy, including alcohol and cigarettes, where the effects on growth are much more pronounced.¹⁵

What The Experts Have to Say About Alcohol

Fetal Alcohol Syndrome (FAS) is recognized by experts as a disorder caused by prenatal exposure to alcohol. Much remains unknown about the specific effects, if any, that any individual pregnant woman's pattern of alcohol use may have in any particular pregnancy. While many medical experts, particularly in the United States, recommend abstaining from alcohol during pregnancy altogether as a precautionary matter,¹⁶ there is no medical certainty regarding the level of alcohol consumption during a particular pregnancy that will result in negative fetal outcomes.¹⁷ Even the exact mechanism that establishes a causal link between alcohol ingestion and manifestation of harmful fetal symptoms has yet to be definitively established.¹⁸

As researchers explain, "defining the factors that place certain women at risk of giving birth to an alcohol-affected child is a key research issue. Risk factors include maternal age, socioeconomic status, ethnicity, genetic factors, and maternal alcohol metabolism, among others" and noting that "further research is needed to evaluate the relative contributions of the various risk factors for FAS [fetal alcohol syndrome.]"¹⁹

Conclusion

The principal import of existing research is not that drug and alcohol use during pregnancy is "safe," but rather that no scientific basis exists for concluding that exposure to these substances will inevitably cause harm. In other words, *the fact that a baby was exposed to a certain drug or alcohol in utero does not mean the baby was harmed by the exposure.* Moreover, existing research clarifies that the risks presented by use of illegal substances are not any greater than risks associated with many other conditions and activities common in the lives of all people.

¹ Prenatal Drug Exposure: Award-Winning Pediatrician Discusses What The Science Tells Us, *available at* <http://www.vimeo.com/3916613>.

² Susan Oakie, *The Epidemic That Wasn't*, N.Y. TIMES, Jan. 27, 2009, at D1, *available at* <http://www.nytimes.com/2009/01/27/health/27coca.html>.

³ Deborah A. Frank et al., *Growth, Development, and Behavior in Early Childhood Following Prenatal Cocaine Exposure: A Systematic Review*, 285 JAMA 1613, 1621 (2001).

⁴ See LAURA GÓMEZ, MISCONCEIVING MOTHERS: LEGISLATORS, PROSECUTORS, AND THE POLITICS OF PRENATAL DRUG EXPOSURE 14 (1997).

⁵ David C. Lewis et al., PHYSICIANS, SCIENTISTS TO MEDIA: STOP USING THE TERM "CRACK BABY" (2004), *available at* <http://www.jointogether.org/news/yourturn/announcements/2004/physicians-scientists-to-stop.html>.

⁶ NAT'L INSTITUTE ON DRUG ABUSE, RESEARCH REPORT, COCAINE: ABUSE AND ADDICTION 6 (May 2009) (emphasis added), *available at* <http://www.drugabuse.gov/PDF/RRCoCaine.pdf>.

⁷ U.S. Sentencing Commission, *Report to Congress: Cocaine and Federal Sentencing Policy* 68, 70 (May 2007), *available at* http://www.uscc.gov/r_congress/cocaine2007.pdf.

⁸ CTR. FOR THE EVALUATION OF RISKS TO HUMAN REPRODUCTION, REPORT OF THE NTP-DERHR EXPERT PANEL ON THE REPRODUCTIVE & DEVELOPMENTAL TOXICITY OF AMPHETAMINE & METHAMPHETAMINE 163, 174 (2005).

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- ⁹ See CESAR Weekly Fax from the Center for Substance Abuse Treatment, Vol. 14 Issue 33 (Aug. 2005); David C. Lewis et al., METH SCIENCE NOT STIGMA: OPEN LETTER TO THE MEDIA, (July 25, 2005), available at <http://www.jointogether.org/news/yourturn/commentary/2005/meth-science-not-stigma-open.html>.
- ¹⁰ Am. College of Obstetrics & Gynecology, Information about Methamphetamine Use in Pregnancy, Mar. 3, 2006, available at <http://www.rhrealitycheck.org/emailphotos/ACOGmethalkingpoints.pdf>.
- ¹¹ Gary D. Hembrecht & Sivia Thiagarajah, *Management of Addiction Disorders in Pregnancy*, 2 J. ADDICTION MED. 1, 9 (2008).
- ¹² See, e.g., Laura P. Finnegan & Stephen R. Kandall, *Maternal and Neonatal Effects of Alcohol and Drugs*, in SUBSTANCE ABUSE: A COMPREHENSIVE TEXTBOOK 805 (Lowinson J, ed. 4th ed. 1997); W.F. Rayburn & M.P. Bogenschutz, *Pharmacotherapy for Pregnant Women with Addictions*, 191 AM. J. OBSTETRICS & GYNECOLOGY 1885 (2004).
- ¹³ SUBSTANCE ABUSE & MENTAL HEALTH SERVS. ADMIN., U.S. DEP'T HEALTH & HUMAN SERVS., METHADONE TREATMENT FOR PREGNANT WOMEN, Pub. No. SMA 06-4124 (2006), available at <http://csat.samhsa.gov/publications/PDFs/PregnantWomen.pdf>. With regard to safety of methadone during pregnancy, the prestigious National Institute of Medicine reported that “[i]here is no reported evidence of any toxic effects of methadone in the woman, fetus or child, although such evidence has been sought.” INSTITUTE OF MEDICINE, FEDERAL REGULATION OF METHADONE TREATMENT 203 (1995), available at <http://www.nap.edu/openbook.php?isbn=0309052408>.
- ¹⁴ See generally SUBSTANCE ABUSE & MENTAL HEALTH SERVS. ADMIN., U.S. DEP'T HEALTH & HUMAN SERVS., METHADONE TREATMENT FOR PREGNANT WOMEN, Pub. No. SMA 06-4124 (2006), available at <http://csat.samhsa.gov/publications/PDFs/PregnantWomen.pdf>.
- ¹⁵ Affidavit of Peter Fried, Ph.D. in Support of Defendants’ Answer to Complaint for S.C. Code § 63-7-1650 at ¶ 4-5, S.C. Dep’t Soc. Servs. v. Doe (S.C. Fam. Ct. July 13, 2009) (on file with National Advocates for Pregnant Women).
- ¹⁶ See, e.g., Elizabeth M. Armstrong & Ernest L. Abel, *Fetal Alcohol Syndrome: The Origins of a Moral Panic*, 35 ALCOHOL & ALCOHOLISM 276, 277 (2000).
- ¹⁷ See, e.g., Elizabeth M. Armstrong, *Diagnosing Moral Disorder: The Discovery and Evolution of Fetal Alcohol Syndrome*, 47 SOC. SCI. MED. 2025–42, 2029 (noting disagreement among American and European researchers over risks of alcohol ingestion during pregnancy to fetal outcomes); Ulrik Kesmodel et al., *Does Alcohol Increase the Risk of Preterm Delivery?*, 11 EPIDEMIOLOGY 512, 512 (2000) (noting controversy among researchers over “whether there is a safe level of drinking during pregnancy”).
- ¹⁸ See, e.g., Elizabeth M. Armstrong, *Diagnosing Moral Disorder: The Discovery and Evolution of Fetal Alcohol Syndrome*, 47 SOC. SCI. MED. 2025–42, 2029, 2028 (noting possibility that effect of enzyme deficiencies that prevent breakdown of alcohol—rather than effect of alcohol itself—may explain why similar patterns of alcohol consumption do not necessarily correlate with the same incidence of fetal symptoms).
- ¹⁹ Elizabeth M. Armstrong & Ernest L. Abel, *Fetal Alcohol Syndrome: The Origins of a Moral Panic*, 35 ALCOHOL & ALCOHOLISM 276, 277 (2000) (disproportionate incidence of symptoms associated with fetal alcohol syndrome among poor women may result from their simultaneous experience with “smoking and poor diet, [which] exacerbate the effects of alcohol”) (citation omitted); Nesrin Bingol et al., *The Influence of Socioeconomic Factors on the Occurrence of Fetal Alcohol Syndrome*, 6 ADVANCES IN ALCOHOL & SUBSTANCE ABUSE 105 (1987) (demonstrating that differences in infant health are attributable to differences in economic status).