

[Smith, Kozloski, and others \(2009\)](#), 24% of pregnant women admitted to federally funded treatment centers in the United States used methamphetamines in 2006, which was up from 8% in 1994; 63% of pregnant women using methamphetamines reported using the drug throughout the pregnancy. A higher incidence of preterm delivery and placental abruption was associated with methamphetamine use. In addition, fetal growth restriction (small for gestational age) was slightly higher in methamphetamine-exposed offspring; however, 80% of these neonates' mothers also had significant alcohol and tobacco use.

Study reports vary in the time of clinical manifestations of withdrawal from this drug. A study of infants exposed to methamphetamine in utero showed that such infants exhibited withdrawal signs of stress, low tone, and poorer quality of movement, which were not observed in the unexposed infants ([LaGasse, Wouldes, Newman, et al, 2011](#)). After birth, infants may experience abnormal sleep patterns, agitation, poor feeding, and state disorganization ([Pitts, 2010](#)).

The long-term effects of methamphetamine exposure on children remains unclear; however, some studies have shown problems with math and language skills. It is postulated that similar to cocaine, methamphetamine exposure may affect areas of the brain responsible for higher order functioning with effects more likely to be manifest when the child reaches school age ([Lester and LaGasse, 2010](#)).

## **Marijuana Exposure**

Marijuana has replaced cocaine as the most common illicit drug used by women ages 18 to 44 years (nonpregnant and pregnant) in the United States ([McCabe and Arndt, 2012](#)). Marijuana crosses the placenta; however, specific effects on the fetus have been difficult to determine. Some studies have reported an association between the chronic use of marijuana and a decrease in infant birth weight and length ([Gray, Eiden, Leonard, et al, 2010](#)); however, this finding is confounded by cigarette smoking ([Bandstra and Accornero, 2011](#)). More subtle effects of major exposure, such as an increase in attention problems, have also been identified ([Marroun, Hudziak, Tiemeier, et al, 2011](#)). Compounding the issue of the effects of marijuana is multidrug use, which combines the harmful effects of