

Methamphetamine and Pregnancy

Author: Kathryn Wells, MD

Medical Director

Denver Family Crisis Center

(720) 944-3747

kathryn.wells@dhha.org

Methamphetamine use during pregnancy is believed to place the unborn fetus at risk. Methamphetamine causes increased maternal blood pressure and heart rate, which can result in premature delivery or spontaneous abortion. The drug also constricts blood vessels in the placenta that feed the fetus which results in reduced blood flow to the fetus and ultimately reduced oxygen and nutrient supply. It is known that methamphetamine passes through the placenta that feeds the fetus and can cause elevated fetal blood pressure potential leading to prenatal strokes, heart or other major organ damage. It can also cause an increased or extremely variable heart rate in the fetus and slowing or alteration of fetal growth.

Fetal development abnormalities have been described sporadically in the medical literature but no true syndrome specifically linked with maternal use of methamphetamine use in the prenatal period has been described. Fetuses exposed in utero have been shown to have central nervous system abnormalities, cardiovascular system abnormalities, intestinal abnormalities, urogenital system abnormalities, and malformations of the extremities. However, though these results are very suspicious and highly suggestive of the involvement of methamphetamine use, the direct link between fetal abnormalities and maternal methamphetamine use is not clearly discernable.

With the exception of any major organ system damage or permanent vessel damage, birth outcomes are felt to improve if the mother stops using the drug in the last 1 to 3 months of the pregnancy.

The full effect of maternal use of methamphetamine on the newborn infant is not completely known and there is currently a multi-center study underway to better describe this issue. It is, however, known that the infant may suffer intrauterine growth delay and may be smaller than the norm at birth. Some of these infants have withdrawal symptoms and a recent study showed that about 4% of that study of methamphetamine-exposed infants needed treatment for withdrawal. Newborns that were exposed to methamphetamine in utero are frequently very sleepy for the first few weeks after birth, often to the point on not waking to feed. After this time, the infants behave more like a cocaine-exposed infant and are often jittery, irritable and have a shrill cry. Infants may have irregular sleep patterns, poor feeding, tremors and increased muscle tone. These infants may also have a poor ability to habituate or self-regulate, especially under stressful situations. Therefore, if their environment is noisy and chaotic, the infants do not tolerate it well and can become even more irritable. Finally, these infants are known to be at increased risk for SIDS, viral hepatitis (such as Hepatitis B and C), and HIV.