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| --- | --- | --- | --- | --- |
|  | Marijuana | Cocaine | Methamphetamine/  Amphetamines/Ecstasy | Opiates /Morphine/Heroin/  Methadone/Demerol/Meperidine  Codeine |
| Possible Physical Symptoms | * Alters neurobehavioral performance (Barros et al., 2006) * Lower gestational age at delivery * Increased risk of prematurity (Sherwood et al., 1999) * Reduction in the heart rate of the fetus (Schaefer, Peters, and Miller, 2007). * Growth Reduction (Taeusch et al, 2005) | * Low birth weight (Bateman et al., 1993) * Lower length * Lower head circumference (Bauer et al., 2005) * IUGR * Abnormal fetal monitoring and circulatory issues * Higher heart rates (Schuetze and Eiden, 2006) * Higher incidence of hypertension (Shankaran et al., 2006) * Abnormal ABR, possible compromise to auditory system (Tax-Laxa et al, 2004) * Higher incidence of respiratory distress syndrome * Meconium staining * Malformations (Taeusch et al, 2005)   + Urogenital   + Brain   + Midline deformities   + Skull defects, encephaloceles   + Ocular malformations   + Vascular disruptions, such as limb reduction and intestinal atresia   + Cardiac * Neurodevelopmental   + Hypertonia   + Tremors   + Strokes   + Seizures   + Brainstem conduction relays | * More likely to have APGAR of <7 (Ludlow et al., 2004) * SGA * Prematurity * IUGR * Smaller head circumference * Lower birthweight * Transient bradycardia and tachycardia * Reports of higher incidence of cleft palate and cleft lip * Congenital defects, including limb anomalies and cardiac septal defects have been reported with Ecstasy use (Taeusch et al, 2005) | * More feeding problems (LaGasse et al., 2002) * More likely to require resuscitation (Ludlow, et al, 2004) * APGAR scores of methadone-exposed equivalent to those not exposed to opiates * More feeding problems (LaGasse et al., 2002) * Higher rates of prematurity, SGA,(Taeusch et al., 2005) * Methadone treatment can cause bradycardia, tachycardia or an irregular heart rate (Hussain and Ewer, 2007) |
| Possible Post-Natal Symptoms | * Neurological symptoms * Hypertonicity * Irritability * Jitteriness | * Tremors and jitters (Bauer et al., 2005) * High pitched cry * Excessive sucking * Seizures * Tachycardia * Tachypnea * Apnea * Hyperirritability (may occur as late as 30 days after birth) | * Same as cocaine * Tremors and jitters (Bauer et al., 2005) * High-pitched cry * Excessive sucking * Possible seizures * Tachycardia * Tachypnea * Apnea * Hyperirritability (may occur as late as 30 days after birth) | Symptoms of Neonatal Abstinence Syndrome (NAS)   |  | | --- | | * Central nervous system dysfunction   + Irritability   + Excessive crying   + Jitteriness   + Tremulousness   + Hyperactive reflexes   + Increased tone   + Sleep disturbance   + Seizures | | * Autonomic dysfunction   + Excessive sweating   + Mottling   + Hyperthermia   + Hypertension | | * Respiratory symptoms   + Tachypnea (rapid breathing)   + Nasal stuffiness | | * Gastrointestinal and feeding disturbances * Diarrhea * Excessive sucking * Hyperphagia (eating too much) | |
|  | **Marijuana** | **Cocaine** | **Methamphetamine/**  **Amphetamines/Ecstasy** | **Opiates /Morphine/Heroin/**  **Methadone/Demerol/Meperidine**  **Codeine** |
| Issues at delivery | * Late prenatal care (Burns et al., 2006) * More often required NICU admission | * Placental abruption (Ananth et al., 2006) * Premature ROM (Addis et al., 2001) * Pre term labor * Less/late prenatal care (Fajemirokin-Odudeyi et al., 2004) * Premature Delivery/prematurity * High risk of maternal death from intracerebral hemorrhage * Stillbirth * High risk of perinatal HIV * Higher risk of syphilis | * Higher incidence of stillbirth * Poor prenatal care * Sexually transmitted diseases * Abruptio Placenta * Postpartum hemorrhage | * Late prenatal care (Burns et al., 2006) * More often require NICU admission * Antepartum hemorrhage * Increased risk of HIV (if mother an intravenous heroin user) * More likely to require resuscitation (Ludlow et al, 2004) * Higher incidence of placental abruption * Higher incidence of premature delivery, preterm labor * Higher incidence of chorioamnionitis * Higher rates of meconium staining |
| Long Term Impacts | * First trimester exposure affects child’s depression and anxiety symptoms * Second trimester affects reading comprehension (Goldschmidt et al., 2004) * Speech and thought impairments (Schaefer, Peters, and Miller, 2007) | * Higher infection rates * Negative behavioral outcomes at 3, 5 and 7 year follow-up (Bada et al., 2007) * Lower IQ scores * Higher risk of SIDS | * Hyperactivity * Sleep disturbances * Aggressiveness | * Higher incidence of SIDS |
| Other information | * In children and adults with pre-existing respiratory problems, worsening of these symptoms may occur with even the slightest exposure to these gases. * (Martyny et al, 2004) | * Mothers more likely to be poly drug users | * Mothers have lower quality of life perceptions * Greater likelihood of substance use in family and social system * Increased risk for ongoing legal difficulties * Increased likelihood of development of a substance abuse disorder (Derauf et al., 2007) |  |
| Breastfeeding | * Marijuana passes into the breast milk * Half life of up to 57 hours. * Breastfeeding should not occur if marijuana is being used. Exposure to marijuana via breast milk has been associated with delayed motor development (Schaefer, Peters, and Miller, 2007). | * Cocaine appears in breast milk within 15 minutes * Half life of less than ½ hour * Clears within 5 hours. * If a mother uses cocaine while breastfeeding, it is recommended that she pump and discard the breast milk for the following 24 hours. * Mothers habitually using cocaine should not breastfeed (Schaefer, Peters, and Miller, 2007) | * Amphetamines pass into breast milk. * Half life is unknown. * Women taking amphetamines should not breastfeed (Schaefer, Peters, and Miller, 2007) | * All opiates pass into breast milk. * Mothers using heroin should not breastfeed. * Methadone does appear to be well tolerated by the infant when breastfed. * Breastfeeding is strongly recommended, as the infant is not being quickly withdrawn from the methadone. The American Academy of Pediatrics (2007) |

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