## Possible Physical Symptoms

### Marijuana
- 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)

### Cocaine
- 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 (Schueuze and Eiden, 2006)
- Higher incidence of hypertension (Shankaran et al., 2005)
- 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, encephalocoeles
  - Ocular malformations
  - Vascular disruptions, such as limb reduction and intestinal atresia
  - Cardiac
- Neurodevelopmental
  - Hypertonia
  - Tremors
  - Seizures
  - Brainstem conduction relays

### Methamphetamine/Amphetamines/Ecstasy
- 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)

### Opiates/Morphine/Heroin/Methadone/Demerol/Meperidine
- More feeding problems (LaGasse et al., 2002)
- 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

### Marijuana
- Neurological symptoms
- Irritability
- Jitteriness

### Cocaine
- 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)

### Methamphetamine/Amphetamines/Ecstasy
- 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)

### Opiates/Morphine/Heroin/Methadone/Demerol/Meperidine
- 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)
  - Gastrointestinal and feeding disturbances
  - Diarrhea
  - Excessive sucking
  - Hyperphagia (eating too much)
Marijuana

- Late prenatal care (Burns et al., 2006)
- More often required NICU admission

Cocaine

- Placental abruption (Ananth et al., 2006)
- Premature ROM (Addis et al., 2001)
- Preterm labor
- Less/late prenatal care (Fajemirokun-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

Methamphetamine/Amphetamines/Ecstasy

- Higher incidence of stillbirth
- Poor prenatal care
- Sexually transmitted diseases
- Abrupt Placenta
- Postpartum hemorrhage

Opiates/Morphine/Heroin/Methadone/Demerol/Meperidine

- 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 (Ludow et al., 2004)
- Higher incidence of placental abruption
- Higher incidence of premature delivery, preterm labor
- Higher incidence of chorioamnionitis
- Higher rates of meconium staining

Issues at delivery

- First trimester exposure affects child’s depression and anxiety symptoms
- Second trimester affects reading comprehension (Goldsmith 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

Long Term Impacts

- First trimester exposure affects child’s depression and anxiety symptoms
- Second trimester affects reading comprehension (Goldsmith et al., 2004)
- Speech and thought impairments (Schaefer, Peters, and Miller, 2007)
- 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.
- 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 (Derar 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 decreased 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).

References


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