

# MATERNAL/FETAL/NEONATAL EFFECTS OF SUBSTANCES COMMONLY ABUSED BY PREGNANT WOMEN

DRUG NAME	MATERNAL EFFECTS	FETAL EFFECTS	NEONATAL/INFANT EFFECTS
Alcohol/Ethanol, Hard liquor, Wine, Beer, etc.	<p>Tolerance, intoxication, CNS depression, withdrawal, risk for seizures and organ damage to liver, heart, CNS, stomach, etc.</p> <p>Alcohol withdrawal may cause: Hypertension Tachycardia Premature labor</p>	<p>Possible abnormalities in growth and development</p> <p>May result in Fetal Alcohol Spectrum Disorder</p>	<p>Fetal Alcohol Spectrum Disorder</p> <p>Three major characteristics:</p> <ul style="list-style-type: none"> <li>• Growth retardation</li> <li>• Central system abnormalities including developmental and mental retardation</li> <li>• Structural abnormalities including characteristic facial, skeleton and organ defects</li> </ul> <p>Possible CNS depression and withdrawal with irritability, restlessness, agitation and increased risk of neonatal mortality</p>
Marijuana/THC	<p>CNS depression, but can act as a stimulant toxic to respiratory and immune systems</p> <p>May cause more complicated labor and delivery including prolonged or arrested deliveries, abnormal bleeding, meconium staining, etc.</p> <p>THC may impair sperm production in males</p>	<p>Reduced fetal weight gain</p> <p>Shorter gestation</p> <p>Some congenital abnormalities</p>	<p>Possible neurological abnormalities resulting from CNS immaturity:</p> <ul style="list-style-type: none"> <li>• Abnormal responses to light and visual stimuli</li> <li>• Tremulousness</li> <li>• High-pitched cry</li> </ul>
Prescription Sedatives or Hypnotics (e.g., Valium, Xanax, Halcion, etc.)	<p>Tolerance</p> <p>CNS depression</p> <p>Respiratory depression</p> <p>Acute withdrawal with risk of premature labor</p>	<p>Drug accumulates in the fetus at levels higher than the mother</p> <p>Fetal depression, abnormal heart rhythm, or even death</p> <p>Increased risk for cleft lip/palate</p>	<p>Drug and metabolites may remain in the neonate for days or weeks longer than in the mother</p> <p>May result in:</p> <ul style="list-style-type: none"> <li>• Lethargy</li> <li>• Poor muscle tone</li> <li>• Sucking difficulties</li> <li>• CNS depression</li> <li>• Withdrawal</li> </ul>
Amphetamines/Stimulants	<p>CNS stimulation and increased cardio-respiratory:</p> <ul style="list-style-type: none"> <li>• Increased heart rate</li> <li>• Increased blood pressure</li> <li>• Rapid respiration</li> </ul> <p>Anorexia, weight loss, insomnia</p> <p>Decreased blood flow to the placenta</p> <p>Risk of aids with IV use</p>	<p>Possible growth retardation and fetal hypoxia</p>	<p>Possible withdrawal or intoxication</p> <p>Low birth weight</p> <p>Adequate studies are lacking</p>

DRUG NAME	MATERNAL EFFECTS	FETAL EFFECTS	NEONATAL/INFANT EFFECTS
Cocaine/Crack	CNS and cardio-vascular stimulation: <ul style="list-style-type: none"> <li>• Increased heart rate</li> <li>• Increased blood pressure</li> <li>• Vascular constrictions</li> </ul> Decreased blood flow to the placenta Possible placental abruption and bleeding Premature labor Possible growth retardation Fetal hypoxia	Growth retardation Fetal hypertension and distress Risk for intrauterine stroke Possible genitourinary abnormalities Necrotizing enterocolitis	Intoxication or withdrawal: <ul style="list-style-type: none"> <li>• Irritability/agitation</li> <li>• Hypertonicity/hypotonicity/mixed muscle tone</li> <li>• Fine motor tremors</li> <li>• Jitters</li> <li>• Heightened startle state</li> <li>• Increased consolability</li> <li>• Increased respiration</li> <li>• Seizure risk</li> </ul> Slower drug excretion in newborn Abnormal sleep and ventilatory patterns
Heroin/Opiates	Tolerance CNS depression Risk for aids and other infections with IV drug use Acute withdrawal and risk for spontaneous abortion or premature labor	Intrauterine growth retardation Risk of AIDS infection from the mother	Dependence Neonatal Narcotic Withdrawal Syndrome: <ul style="list-style-type: none"> <li>• Hyperactivity</li> <li>• Intense irritability</li> <li>• Abnormal state control</li> <li>• Abnormal muscle tone</li> <li>• Fine motor tremors</li> <li>• Inability to coordinate simple motor tasks</li> <li>• Sensory input problems</li> </ul> Microcephaly
Cigarettes/Nicotine and other compounds in smoke	CNS stimulation and respiratory damage	Reduced fetal oxygen supply Impaired fetal growth Increased risk for fetal distress and demise Increased risk for spontaneous abortion and premature labor	Growth retardation Smaller head circumference Risk for congenital palate and heart defects Abnormal nursing