

Acute effects of cocaine

- Blockade of presynaptic dopamine, serotonin, and noradrenalin transporters resulting in a transient increase of monoamine concentration in the synaptic cleft.
- Intense stimulation of the fronto-limbic reward system by dopamine release in the ventral tegmental area, nucleus accumbens, and prefrontal cortex.
- Acute subjective effects: euphoria, increased drive and energy, enhanced vigilance and thoughts, and elevated self-confidence.
- Cocaine readily crosses the placental and fetal blood–brain barriers via simple diffusion and interferes with critical processes associated with brain development specifically associated with the dopamine and serotonin system.
- Inhibition of serotonin and norepinephrine transporters in the placenta could lead to elevation of these neurotransmitters in the intervillous space potentially causing uterine contraction and vasoconstriction, resulting in premature delivery and decreased placental blood flow.

Consequences of cocaine use for the mother

Physical

- Cardiovascular diseases (e.g., cardiac and cerebral infarction, intracranial hemorrhage, hypertension, arrhythmia)
- Lung oedema
- Epileptic seizures
- High vulnerability for infectious diseases



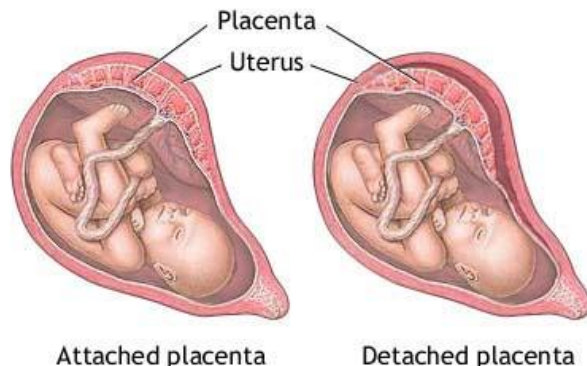
Mental

- Major Depression
- Anxiety disorders
- Suicidality
- Psychoses
- Sleep disorders
- Violence
- Social problems
- Cognitive deficits
 - Attention
 - Learning and memory
 - Executive functions
 - Impulse control
 - Decision-making
 - Social cognition

Consequences of cocaine use in pregnancy

Pregnancy

- Miscarriage
- Reduced length of gestation
- Increased risk of uterine apoplexy and placenta praevia
- Placental abruption
- More premature births and/or hypotrophy were reported.



Offspring

- Growth disorders
- Cardiac and cardiovascular abnormalities
- Cranial and brain abnormalities
- Cognitive disorders
 - Attention
 - Learning and memory
 - Executive functions
- Motor and language disorders
- ADHD
- Aggression and delinquency
- Social problems
- Depression and anxiety
- **Elevated risk for addiction?**

Consequences of cocaine and breastfeeding

Infants (case reports)

- Seizures *
- Cocaine intoxication: tachycardia, tachypnea, hypertension, agitation, irritability, tremor

Referenzen

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