

## Cocaine and heroin harm placenta

June 11 2009

Cocaine and heroin increase permeability of the placenta. Researchers writing in BioMed Central's open access journal *Reproductive Biology* and *Endocrinology* have shown that exposure to the drugs causes an increase in the passage of some chemicals into the fetus.

Antoine Malek led a team of researchers from Zurich University Hospital's Department of Obstetrics, who used a perfusion technique to study human placental tissue function in the lab. They found that exposure to cocaine and/or heroin in the presence of methadone increased transfer of a test chemical called antipyrine across the organ. Malek said, "As the consumption of illegal drugs, especially cocaine, is increasing in many countries, our results concerning cocaine and heroin causing an increased antipyrine transfer may improve the practical management in monitoring pregnant women".

As complete abstinence is impossible for many people addicted to drugs who become pregnant, maintenance treatment with methadone is often used to limit damage to the developing child. However, methadone itself can also be dangerous, too much fetal exposure leading to harmful withdrawal symptoms in the newborn. Malek and his colleagues sought to investigate the effects cocaine and heroin on the placenta. They found that while the narcotics didn't increase transfer of methadone, they did allow transfer of other test substances. This suggests the barrier function of the placenta may be compromised. According to Malek "More toxic substances or bacteria and viruses may cross the placenta and harm the fetus. Previous studies have reported increased prevalence of infectious diagnoses in cocaine-exposed infants".



These results emphasise the fact that pregnant drug users who can't abstain completely must attempt to exclusively use methadone. Combining it with other drugs could cause extra harm to their child.

Source: BioMed Central (<u>news</u>: <u>web</u>)

Citation: Cocaine and heroin harm placenta (2009, June 11) retrieved 17 April 2024 from <a href="https://phys.org/news/2009-06-cocaine-heroin-placenta.html">https://phys.org/news/2009-06-cocaine-heroin-placenta.html</a>

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