



**Medical
Blueprints**

AVOIDING OPIOIDS AFTER LABOR REPORT #2805

BACKGROUND: Research from 2018 showed that 128 people in the United States die every day after overdosing on opioids. This includes prescription pain relievers, heroin, and synthetic opioids such as fentanyl. The Centers for Disease Control and Prevention estimates that the total cost of prescription opioid misuse in the United States is \$78.5 billion a year, including costs of healthcare, lost productivity, addiction treatment, and criminal justice involvement. It's become a public health crisis with consequences including increases in opioid misuse and related overdoses, as well as the rising incidence of neonatal abstinence syndrome due to opioid use and misuse during pregnancy. The increase in injection drug use has also contributed to the spread of infectious diseases including HIV and hepatitis C.

(Source: <https://www.drugabuse.gov/drug-topics/opioids/opioid-overdose-crisis>)

PREGNANCY AND OPIOIDS: Research shows many women are prescribed opioid painkillers after giving birth. Some may become addicted and even overdose. Researchers found in more than 200,000 births out of Tennessee, that nearly all women who had a c-section were prescribed an opioid like oxycodone (OxyContin). The drugs were also prescribed in 59% of vaginal births. Nearly 4,600 of those women resulted in persistent use of the drug, opioid-dependence, or an overdose. The findings raised concerns about overprescribing to new mothers, especially those who deliver vaginally, and suggest doctors need to better monitor new mothers' ongoing pain-relief needs. There is evidence that even after those surgical deliveries, women's pain can be effectively treated with non-opioid options. In fact, women given ibuprofen/acetaminophen had better pain control and fewer side effects.

(Source: <https://www.comhs.org/about-us/newsroom/health-library/2020/06/08/are-painkillers-after-childbirth-a-prescription-for-addiction>)

NEW DISCOVERY AND RESEARCH: Scientists at the University of Missouri have discovered possible biological markers that they hope could help identify the presence of an opioid use disorder during pregnancy. This study focused on the placenta because it is the main communication organ between the mother and her unborn child. Previous studies used human cell cultures, but this is one of the first studies to use an animal model to examine how developmental exposure to these drugs affect embryos. Mouse and human placentas are similar in many ways, including having placenta-specific cells in direct contact with a mother's blood. They found the use of this drug during pregnancy can negatively affect the placenta's structure, such as reducing and killing cells that produce by-products needed for normal brain development. Also, specific differences in genetic expressions between female and male placentas in response to maternal oxycodone exposure. By studying this in an animal model, it allows scientists to see these changes quicker than if they were completing a comparable study in people, because a pregnant mouse can give birth in just 21 days.

(Source: <https://www.sciencedaily.com/releases/2020/08/200826165028.htm>)

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