

Opioids exact another toll on newborns: Smaller heads

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(HealthDay)—Infants born addicted to opioids may be more likely to

have smaller heads that might hinder their development, new research suggests.

"Babies chronically exposed to opiates [during pregnancy] had a [head size](#) about a centimeter smaller" than babies born to moms not using drugs, said lead researcher Dr. Craig Towers. He's an associate professor of obstetrics and gynecology with the University of Tennessee Medical Center in Knoxville.

These infants had three times higher odds of a head size that fell within the lowest 10 percent of all babies in the study, results showed.

Prior research has shown that infants born with smaller heads typically have a higher rate of mental health and developmental problems, Towers said.

The findings call into question treatment standards for [pregnant women](#) addicted to heroin or other opioids.

Addicted women are now placed onto drug maintenance therapy and given methadone or buprenorphine throughout their pregnancy to replace the [street drugs](#) they've been taking, Towers said.

Medical societies such as the American College of Obstetricians and Gynecologists have recommended this approach because weaning a [pregnant woman](#) off narcotics could cause her to relapse and overdose, harming or killing herself and the fetus.

"What we're recommending these moms do, which is get on methadone and buprenorphine, may result in a smaller head size of the baby," Towers said. "This is going to have to make us re-look at what we're doing."

Previous studies already have indicated that babies born addicted to opioids—a condition called neonatal abstinence syndrome (NAS)—might be born with smaller heads due to their [drug exposure](#), Towers said.

But those studies struggled to separate the effect of opioids from the potential role of other exposures the fetus might have endured. These expecting moms often also drink, smoke and take prescribed and illicit substances, Towers said.

To nail this down, Towers and his colleagues followed 858 babies from gestation to birth and beyond. About half of the infants were born with NAS. All of the pregnancies were managed at the University of Tennessee Medical Center.

All the mothers underwent regular drug screens while pregnant, so researchers could take into account the drug exposures from the addicted moms and also could make sure moms in the control group remained drug-negative, Towers said.

Infants born addicted to opioids had significantly smaller head circumferences, researchers found. In fact, NAS was the only variable significantly linked to smaller head size.

More than 30 percent of [babies](#) born with NAS had a head size that ranked among the smallest in the study, compared with about 12 percent of infants in the control group.

No one knows for sure why [opioid](#) exposure in the womb is linked to smaller [head](#) size, but it could be because these drugs work on many neural receptors in the brain, Towers said, and they could alter the way the fetal brain develops.

Women addicted to street drugs definitely need to be put into rehab, Towers said.

"I don't want anyone to think putting them on methadone or buprenorphine is not the way to go. If they continue to use street drugs, that's exponentially worse," Towers said.

"The street drugs aren't pure, the supply is inconsistent. They don't know how much they're taking. Some patients will think they're taking oxycodone and they're taking oxymophone [another opioid painkiller], which is five times stronger," he said.

These results show that those women and their doctors face a heavy decision after they've stopped taking street opioids, Towers said.

"There are risks to the mom if she tapers and detoxes, but there are risks to the baby if she stays on maintenance therapy," Towers said. "There needs to be informed consent so the mother can choose how she wants to go."

The findings were published online Dec. 10 in the journal *Pediatrics*.

The new study is going to be "very controversially received," said Dr. Mark Hudak, lead author of an editorial accompanying the study.

"I think there's going to be pushback on it, but one has to follow the evidence," said Hudak, a professor of pediatrics at the University of Florida College of Medicine.

"The whole pillar of opioid maintenance therapy is based upon the fact this is better for the mother and the baby in the sense that the mother is in therapy, she is more closely monitored, she's more likely to access good prenatal care, she's less likely to engage in behaviors that would be harmful to her or the fetus," Hudak said.

There's also "a correct sense that those women if they undergo detox they're at risk for relapse, which would be harmful to themselves and the fetus. There's no question about that," Hudak said.

But if a mother is highly motivated to get off drugs, doctors will have to weigh these findings in their discussions with her regarding detoxification versus [drug](#) maintenance, he said.

"You now have to ask, is that the only or the best way for all women," Hudak said.

More information: Craig Towers, M.D., associate professor, obstetrics and gynecology, University of Tennessee Medical Center, Knoxville; Mark Hudak, M.D., professor, pediatrics, University of Florida College of Medicine-Jacksonville; Dec. 10, 2018, *Pediatrics*, online

The American College of Obstetricians and Gynecologists has more about [opioid use in pregnancy](#).

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