

Opioids and sedative drugs in Pregnancy

M.Shiehmorteza
Clinical Pharmacist

Depressant

Depressant is a substance that reduces the normal body activity, function or an instinctive desire such as appetite for food. It is also known as “downers”.

Classification of depressants:

- Alcohol
- Barbiturates
- Cannabis
- Opioids
- Benzodiazepines



Effects of Depressant

- Highly addictive
- Produces sedation,
- Dizziness,
- Hypnosis, anxiety
- Permanently damage the developing fetus



BENZODIAZEPINES

(Anxiolytic drug & have sedative, hypnotic ,anti convulsant properties)

Street name : Benzos, Downers, Goofballs



Effects of benzodiazepines:

Normal therapeutic dose:

Dry mouth, light headache, confusion.

Acute overdose :

- Prolong sleep.
- Decrease libido.
- Erection problem.

BENZODIAZEPINES

- **BENZODIAZEPINES + PREGNANCY**

- Benzodiazepines are a class of medications prescribed for sleep, anxiety, and seizures. Benzodiazepines work in a similar way to alcohol in the brain on the same brain receptors.
- Their use might slightly increase the risk of having a baby with **cleft lip or palate**, but there is no link to other birth defects.
- Some studies found an increased risk of **lower birth weight** and other studies did not. Possible lower birth weights among people who take these medications could be related to sleep deprivation, and not the drugs, because many people take benzodiazepines for sleep problems.
- Newborns who are given benzodiazepines in the NICU have shown withdrawal signs. Long-term outcomes are thought to be similar to other children in the same peer group.
- Some common ones are: Lorazepam (Ativan®), diazepam (Valium®), alprazolam (Xanax®), and clonazepam (Klonopin®).

BENZODIAZEPINES + LACTATION

- Because they have side effects, including tolerance and **dependence**, it is important to take as low a dose of benzodiazepine as possible to get the benefits you need if you're breast/chestfeeding.
- Talk to your provider about the dose that is right for you.
- Not all benzodiazepines are the same in regard to their safety and breastfeeding. For example, lorazepam is safer than diazepam.
See: [LactMed](#).
- In small studies, some breastfed babies had low muscle tone, sedation, or difficulties breathing and feeding that resolved. A problem with small studies is that because they include fewer people, their findings are difficult to generalize.

- **What treatment options are available for dependence on benzodiazepines?**
- There are no FDA-approved medications for benzodiazepine dependence, however, doctors can prescribe medications that can ease uncomfortable symptoms.
- If you are using them to help with anxiety, depression, or insomnia, there may be medications that are safer to use while pregnant or lactating. Seek medical advice.
- Stopping use without help can be dangerous because of withdrawal symptoms such as seizures, so it's important to decrease the dose gradually (taper off) with the help of a healthcare provider.

OPIOIDS

(Synthetic & semisynthetic compounds, used as analgesic & suppress diarrhea, cough

Street name : Dope , Painkillers , Oxy)

Effects of opioids :

Common :

- Constipation
- Dry mouth
- Sedation
- Sweats

Less common :

- Delirium
- Seizures
- Urinary retention
- Hallucinations



Morphine

{Analgesic & narcotic drug act on CNS , isolate from crude opium
Street name: Smack, Dragon , H , Dope .

Side Effects of Morphine

If you can't remember much about Morphine...
...think of **MORPHINE** :

Miosis

Out of it (sedation)

Respiratory depression

Pneumonia (aspiration)

Hypo-tension

Infrequency (constipation, urinary retention)

Nausea

Emesis



OPIOIDS + PREGNANCY

- Opioids are substances that work on opioid receptors in the body.
- Opioids are prescribed for pain management or treatment of opioid use disorder (opioid agonist therapy, or OAT).
- Opioids include heroin, morphine, hydromorphone (Dilaudid®), fentanyl, hydrocodone (Vicodin®, Norco®), oxycodone (Percocet®), oxycontin, tramadol, buprenorphine (Subutex®, Suboxone®), nalbuphine (Nubain®), methadone, and meperidine (Demerol®).

- During pregnancy, the body goes through changes that can make drugs work differently. This means opioid medications may feel **stronger or less strong** than they used to. Because of these changes that happen during pregnancy, your opioid doses may need to be adjusted, otherwise there are risks for withdrawal symptoms or over-sedation.
- Opioid use (including heroin) in pregnancy is not associated with birth defects.
- Some studies find normal birth weights, and some find weights at the lower end of normal.
- Long-term outcomes are similar to other children in the same peer group. It is safe to breast/chestfeed on opioid use disorder treatment medications such as **methadone** and buprenorphine, regardless of the dose of medication one takes.
- In fact, if a baby is showing signs of withdrawal breast/chestfeeding appears to make them less severe. This may be because **skin-to-skin contact** and attachment formation help the baby feel better while breast/chestfeeding.

- When we study other opioids like methadone, we find that only about 2% of the total dose makes it into human milk.
- For **buprenorphine**, there are negligible amounts of buprenorphine/norbuprenorphine in breast milk and infants absorb even less because of the way buprenorphine is broken down and metabolized (not absorbed well in the stomach).
- With heroin, it is best not to breastfeed, since we can't know the exact dose and it may be cut with other unknown substances that aren't safe. It's not the heroin itself, but the other factors that make its safety an unknown.
- Consult the LactMed database to learn more about the evidence on use of the medications while lactating.

What treatment options are available for opioid use disorder during pregnancy?

- Treatment for opioid use disorder with methadone, buprenorphine, or a buprenorphine-naloxone combination medication is safe for pregnancy and lactation and is the first-line standard of care treatment for pregnant people. Both **buprenorphine-naloxone** (Suboxone®) and **buprenorphine** (Subutex®) are safe for treatment of pregnant people.
- During pregnancy, the body goes through changes that can make drugs work differently. This means drugs may feel stronger than they used to.
- Many people need to adjust their methadone or buprenorphine doses during pregnancy because they start to experience withdrawal symptoms or feel overly-sedated. Report any withdrawal, cravings, or changes in sleep patterns to your doctor.
- You might need to split your dose of medication into **twice a day** or **three times** a day instead of once a day.

- There is emerging evidence suggesting that **naltrexone** (Vivitrol®) is safe to continue for people who are already using it when they become pregnant. Experts agree that it is better to use methadone or buprenorphine for people who are not already being treated with medications when they become pregnant.
- Women who are being treated with naltrexone can be offered treatment with methadone or buprenorphine if naltrexone is no longer working for them, however it is important to be cautious when changing medications because patients using long-acting naltrexone have decreased opioid tolerance.

NALTREXONE

- Naltrexone (Vivitrol®, Revia®) is another medication that can be used for treatment of opioid use disorder (OUD). It is different from buprenorphine and methadone because it is an **antagonist**, rather than an agonist. Instead of activating the endorphin receptor, it blocks it. This means that opioids will not work until the naltrexone has worn off. Where methadone and buprenorphine can be thought of as a key that opens a lock, naltrexone can be thought of as shoving chewing gum into the lock. It is similar to the overdose reversal medication naloxone (Narcan) but takes longer to wear off.
- Naltrexone can be taken as **a daily tablet** or “as needed.” Naltrexone is also available as a **monthly intramuscular** injection called Vivitrol. With injected Vivitrol, it can take a month of more for the opioid blockade to wear off, and as it wears off, the person’s opioid **tolerance gradually becomes lower and lower**. Use of unprescribed opioids during this time is very dangerous because of risk of death by overdose.
- Naltrexone is not a controlled substance and does not cause physical dependence. There is no withdrawal associated with naltrexone in adults or infants. A naltrexone overdose would require such large doses that it is practically impossible. There are no reports of any effect on infants exposed to naltrexone during pregnancy or lactation. Roughly 1% of a parent’s dose is transferred into human milk.

- Naltrexone is less likely to be effective in reducing substance use than agonist medications (methadone and buprenorphine) and comes with side effects, including increased vulnerability to death by overdose.
- Starting naltrexone requires a person to detox completely before the first dose to avoid severe precipitated withdrawal. Some people with OUD find naltrexone to be helpful, but many others have a hard time sticking with this treatment.
- Long-acting opioid blockers (such as Vivitrol) can be a problem for anesthesia and pain control during unexpected surgeries such as a C-section for premature labor, because many anesthesia medications are opioids. Because naltrexone use lowers people's tolerance for opioids, they are at increased risk for overdose if they resume their opioid use. Some people may try to overcome the opioid-blocking effects of naltrexone by taking larger doses of opioids, which also increases risk of overdose.
- It is not recommended to start treatment with naltrexone during pregnancy. If a patient with OUD becomes pregnant before seeking treatment, agonist treatment should only be available after a thorough risk/benefit discussion with a treatment provider familiar with pregnancy and OUD. If someone who is stable on naltrexone becomes pregnant and desires to continue using the medication, it is considered safe to do so. Providers should work with the pregnant patient to frequently reassess satisfaction with treatment and evaluate whether a switch to an agonist medication would be beneficial.

NEONATAL OPIOID WITHDRAWAL (NOW)

- The risks of using opioids during pregnancy are largely related to the baby experience neonatal opioid withdrawal (NOW), previously known as neonatal abstinence syndrome (NAS). Neonatal opioid withdrawal is easily treatable. NOW has many signs and symptoms that can be assessed at the hospital. Some of these signs and their symptoms include: Irritability, tremors, jitteriness, sleep/wake disturbances, sweating, sneezing, yawning, nasal congestion, overstimulation, difficulty feeding, poor weight gain, gassiness, vomiting, and diarrhea.
- These symptoms can occur within 24 hours to five days after birth and are related to physical withdrawal from any opioid (heroin, fentanyl, or treatments like buprenorphine and methadone). **Withdrawal symptoms are treatable with skin-to-skin contact, rooming-in (the parent staying in the same room as the infant), breast/chestfeeding, or also with medications such as methadone, morphine, buprenorphine or other agents as needed.**
- Not all babies who are exposed to opioids will develop signs of withdrawal, but it is good to know what to watch for and have a plan.

DETOX

MEDICALLY SUPERVISED WITHDRAWAL

- Opioid agonist therapy (OAT) should be offered as a first line of treatment for opioid use disorder. If you want to detox during pregnancy, you should only do it with supervision from a healthcare provider because detoxing can be stressful and dangerous, for both you and the fetus. Detoxification is NOT recommended by experts on opioid use and pregnancy for this reason.
- **No one should ever be pressured or coerced into detox, especially when pregnant.**
- Detoxing and stopping OAT, even for a short time, can lower your tolerance for opioids and make it easier to overdose the next time you use because of decreased tolerance. Some people have heard it is not safe to detox during pregnancy because the distress on the parent puts distress on the fetus, leading to possible negative outcomes (fetal death or preterm delivery), however, this has not been found in more recent short-term studies.

- Please understand that while many people are able to quit or cut back on their use during pregnancy, those who want to stop but can't stop **need support**.
- They may have a substance use disorder. Substance use is not the same as substance use disorder. When we talk about substance use disorder, we mean, “use that causes clinically significant impairment, including health problems, disability, and failure to meet our responsibilities at work, school, or home.” – www.samhsa.gov

Side effect of SSRIs

- **cardiovascular** or **minor malformations**, but did find an increased risk of spontaneous abortion
- **Lower birth weight**, younger gestational age at birth, and lower Apgar scores have been reported with SRI exposure.
- Similar results were seen with third trimester exposure of fluoxetine but not with first or second trimester exposure
- These symptoms include irritability, tremors, trouble feeding, agitation, respiratory distress, and poor sleep. Other symptoms reported include convulsions, abnormal posturing, and shivering.
- The few empirical studies have shown SRIs related to increased active sleep
- Decreased facial and behavioral responses to acute pain in the first week postnatally and at 2 months of age, suggesting a blunting of pain reactivity.

- **Thanks about your attention**