MEDICATION-ASSISTED TREATMENT
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Does Buprenorphine "Really" Cause Bad Withdrawal?

A PATIENT'S GUIDE TO "PRECIPITATED WITHDRAWAL"

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Are you someone who is nervous about starting buprenorphine because you hear it can cause a withdrawal that is worse than feeling “dope sick?” This type of withdrawal, usually called “precipitated withdrawal,” can occur when people start buprenorphine. This guide is meant to help you understand why this experience happens and how to reduce this risk.

BACKGROUND:

Opioids like oxycodone, heroin, and fentanyl bind to proteins in our body called mu-receptors. Normally, mu-receptors give people the ability to feel pleasure – this is why regular activities such as eating a delicious meal or having sex make people feel “happy.” Since opioids bind to the same receptors, they have similar effects. Think of the opioid as the “key” and the receptor as the “lock.” If the opioid gets access to the receptor, the effects of the opioid can then be experienced.

When someone uses an opioid for a long period of time, their mu-receptors get used to these opioids. If they suddenly stop using them, they get “dope sick” or feel withdrawal. In such cases, people need a “minimum” amount of these opioids to no longer feel withdrawal.

OVERALL SUMMARY:

Buprenorphine is a safe and effective drug used to help people overcome an opioid addiction by treating and preventing withdrawal, and reducing the risk of an overdose. When you start buprenorphine, continue to take it indefinitely just like any other chronic medication to help keep the opioid use disorder controlled. As always, consult with your doctor on the most appropriate way for you to start and continue taking buprenorphine.

Disclaimer: The purpose of this guide is to be informational only. It does NOT constitute medical advice. Always follow the directions of your health care provider.

In summary, precipitated withdrawal is NOT usually due to the buprenorphine itself, but rather the DOSE of the buprenorphine taken in someone experiencing "dope sickness." Should a person be in precipitated withdrawal, the doctor may advise to take an additional DOSE of buprenorphine. That is, the treatment of precipitated withdrawal is often with MORE buprenorphine. It is important to always follow the direction of your doctor!

A COMMON ISSUE:

Since people fear precipitated withdrawal, they may elect to stop taking their buprenorphine during periods of "relapse." They think that because buprenorphine "causes" precipitated withdrawal, that they can't use opioids if they are already taking buprenorphine.

Reality: Buprenorphine is used not only to treat withdrawal, but also to prevent overdose. To prevent overdose, however, people must continue to use buprenorphine even when they "relapse." To help understand this, people with diabetes do not stop using insulin when they "relapse" by eating foods too high in sugar to prevent diabetes complications.

Reality: Precipitated withdrawal does NOT occur if a person uses fentanyl and is already taking buprenorphine. Their receptors are already attached to the buprenorphine and because buprenorphine is "stickier" to the receptor than other opioids, fentanyl cannot bind to the receptors and therefore cause a potential overdose. It is, therefore, safe to use an opioid on top of buprenorphine, by reducing the risk of overdose.

Reality: The risk of precipitated withdrawal may only occur in the reverse situation in which someone is starting buprenorphine and still has fentanyl in their system. In these cases, depending on the amount of buprenorphine taken, buprenorphine would "outcompete" with fentanyl and can lead to a potential precipitated withdrawal.

To help people get off opioids, prevent withdrawal and cravings, and prevent an overdose, buprenorphine (Suboxone, Subutex) is often started. However, people who are starting buprenorphine may experience "precipitated withdrawal," especially those who use fentanyl as their drug of choice. Getting buprenorphine started successfully is now so important since fentanyl is very strong and can lead to a higher risk of overdose and death. Let's talk about two common scenarios.

WHAT CAUSES THIS WITHDRAWAL?

Opioids like oxycodone, heroin, and fentanyl fit the receptor very well. Due to this "perfect 100% fit", they are very effective. Buprenorphine is also an opioid but as a key, the fit is "imperfect." That is, it is only about a 40% fit. Even though it doesn't fit the receptor well, it is "stickier" to it than your usual opioids. If you had buprenorphine and an opioid like fentanyl both "competing" for the receptor, the buprenorphine almost always "wins."

OPIOIDS

Perfect fit, but less sticky

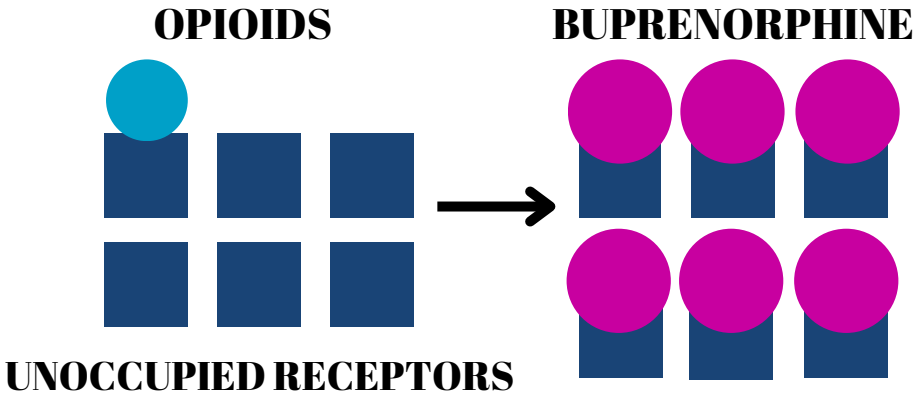
BUPRENORPHINE

Imperfect fit, but stickier

If someone who just used an opioid like fentanyl starts buprenorphine right away, most of their receptors, which fentanyl is attached to, will now be attached by buprenorphine since it is “stickier” and “outcompetes” with the fentanyl. Because buprenorphine is only a 40% fit (vs. 100% from other opioids), the 100% effect from fentanyl drops down to 40% with buprenorphine now being attached, and one will most certainly experience this as “precipitated withdrawal," which can be more severe than typical withdrawal.

If someone is experiencing mild withdrawal from not having used fentanyl (or another opioid) and starts buprenorphine, some of their receptors are still attached by the fentanyl. Just like the case of starting buprenorphine in someone who took fentanyl right away, buprenorphine will “outcompete” with the fentanyl. The risk of “precipitated withdrawal” is still high, but not as severe, since the opioid effects, say is at 70% rather than 100%, and going from 70% to 40% can still be experienced as “precipitated withdrawal” but not as severe.

To reduce the risk of “precipitated withdrawal” altogether, a person would typically need to be in moderate-severe withdrawal, which is when a person has little to no fentanyl attached to the receptors and experiencing nearly a “0% effect” from it. Once buprenorphine is started, going from 0% to 40% will be experienced as relief.



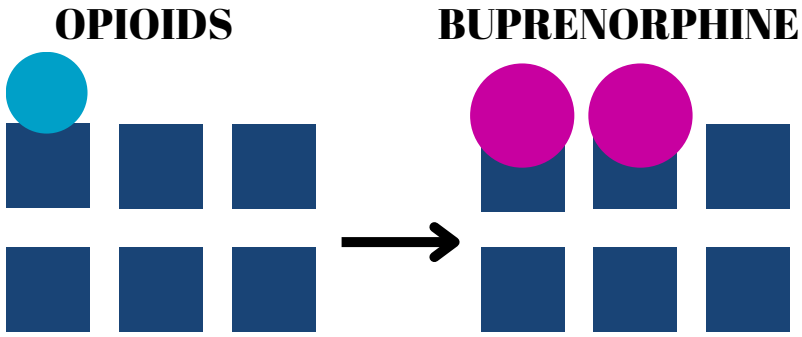
ideal scenario

What are some ways doctors use buprenorphine to avoid & even treat precipitated withdrawal?

Obviously, using the opioid drug of choice can treat withdrawal but this is NEVER recommended. In cases where people wait for a moderate-to-severe withdrawal to start buprenorphine but still experience “precipitated withdrawal,” the likely reason for this is because NOT ENOUGH buprenorphine is taken.

Imagine someone who is in moderate-severe withdrawal. In this situation, there could still be a few receptors attached to the fentanyl. If that person starts buprenorphine but only with a small dose, there may only be enough of it to “outcompete” WITH the remaining fentanyl and one would experience this as “precipitated withdrawal.”

Imagine a similar situation where someone is in moderate-severe withdrawal and starts taking a higher dose of buprenorphine. Not only will the buprenorphine “outcompete” with the remaining fentanyl, but there is still enough buprenorphine to bind the other unoccupied receptors and that person would likely experience a “net relief.”



not ideal, will experience precipitated withdrawal