



## How Opioids Affect the Brain



### Overview

If you've had an injury or a surgery, your doctor may prescribe an "opioid." This is a type of powerful painkiller. Opioids can mask severe pain. They may help when other pain control methods aren't working. But they can also affect your brain in a way that's harmful. You can become addicted. Let's learn about how they interact with your brain.

### Blocking pain

When you take an opioid, your body breaks it into molecules. They travel to your nervous system and brain. Opioid molecules mimic chemicals that your brain makes naturally. You may know these as "endorphins." The molecules attach to tiny parts of nerve cells called "opioid receptors." They block feelings of pain. They also cause your brain to release dopamine, a natural chemical that makes you feel good.

### Danger of addiction

Over time, your brain can get used to this constant flood of dopamine. It's more dopamine than you get from other pleasurable things in your life. So you start to lose interest in the things that used to make you happy. Eventually, you may need more and more of the drug to feel its effects. And when you don't have it, you may feel unhappy and even physically sick. This is addiction.

### Conclusion

Because opioids are so powerful, use them only as directed by your doctor. Talk to your doctor about safe use, safe storage and safe disposal. Talk about the signs of dependence and addiction. If you're aware of the dangers, you can avoid them.