

# OPIOID OVERVIEW

## What are Opioids?

Opioids are a group of drugs that contain opium or its derivative. Heroin is one example of an opioid that is used for recreational purposes and is highly addictive. There are also many medications that are opioids that have been used to treat and relieve pain.

### Examples of Opioids:

Codeine	Vicodin (Hydrocodone)	Morphine	Methadone	OxyContin
Percoset (Oxycodone)	Roxicodone	Norco	Dilaudid	Fentanyl
Demerol	Lorcet	Suboxon	Heroin	Opium
			Carfentanil	

## Opioids and Pain Management

Within the medical field, certain opioids have been prescribed for pain management. Pain is felt when specialized nerves are activated in the body. The spinal cord receives the pain messages, transfers these messages to other neurons, which carry it to the brain. These opioids help to relieve pain by attaching to opioid receptors, which are found in the brain, spinal cord, and gastrointestinal tract.

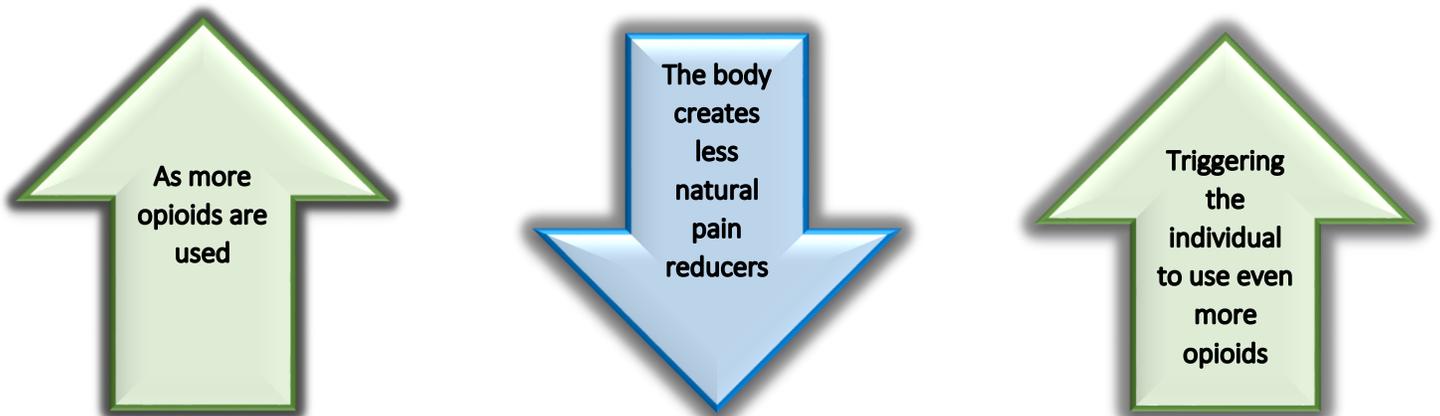
In the spinal cord, opioids reduce the transmission of the pain messages between neurons and decrease the amount of pain messages that reach the brain.

Opioids also help relieve pain by binding to the opioid receptors in the brain and other parts in the body. In doing so, the opioids mirror the effects of the body's pain reduction chemicals and block the pain messages.

Once the opioid binds to the opioid receptors in the brain, dopamine floods this area, creating an intense sense of pleasure.

## Tolerance

Most of the opioids used for pain management are effective for about six weeks. During this time, or if the opioids are used longer, the medication become less effective and the individual begins to use more to get the desired effects. This is known as tolerance.



## **Hyperalgesia**

Hyperalgesia is a condition common with long term use of opioids and affects an individual's tolerance. When an individual experiences this condition his or her level of pain becomes worse. This often triggers the individual's desire to use more prescription medication, but instead of relief, more pain is experienced. Consequently, many people become trapped in a vicious cycle.

## **Withdrawal Symptoms**

Another factor impacting tolerance is the withdrawal. Individuals often experience withdrawal when they try to cut back on their use.

### **Withdrawal Symptoms Can Include:**

- Low energy, Irritability, Anxiety, Agitation, Insomnia
- Runny nose, Teary eyes
- Hot and cold sweats, Goose bumps
- Yawning
- Muscle aches and pains
- Abdominal cramping, Nausea, Vomiting, Diarrhea

When individuals experiences these withdrawal symptoms, they often resume using the opioids for relief. Overtime, this pattern can develop into an addiction.

## **Impact of opioids on the respiratory system**

As tolerance progresses, more of the opioid receptors in the brain become filled with the opioids. Consequently, the individual experiences:

