



Name _____ Class _____ Date _____

Opioid receptors are located in neurons **throughout the body**. When opioids attach to these receptors, they cause **dopamine** to be released. In the short term, the release of dopamine can make people feel very relaxed and happy. But it can also cause **harmful effects**, like extreme sleepiness, confusion, nausea, vomiting and constipation. Over time, opioids can lead to insomnia, muscle pain, heart infections, pneumonia and addiction.

BRAIN

Opioids bind to receptors in many parts of the brain that are involved in perceiving pain, emotional response, and the pleasure/reward pathway.

Opioids can cause excess eye tearing.

BRAINSTEM

Opioids can bind to receptors in the brainstem and cause slowed breathing, which can lead to death (overdose).

SPINAL CORD

Opioids can interfere with the transmission of pain signals through the spinal cord. This is one of the target regions that make opioids an effective drug in treating pain.

PREVIEW

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

INTESTINES

Opioid medications can interfere with neurons that regulate peristalsis in the intestines, leading to constipation.

PERIPHERAL NERVES

Opioids can also bind to receptors on pain-sensing neurons in the peripheral nervous system and curb pain.

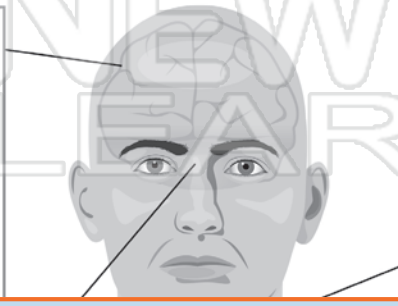


Name _____ Class _____ Date _____

How do opioid receptors work? _____

Describe the effects of opioids on each of the following:

BRAIN



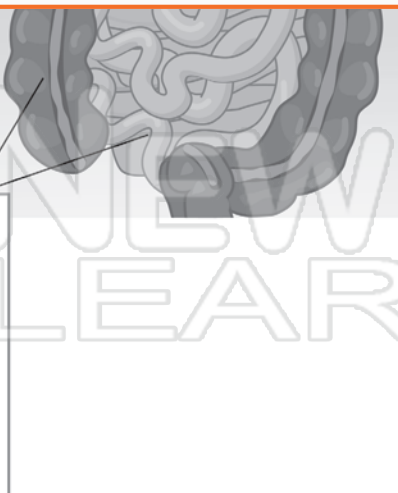
SPINAL CORD



PREVIEW

Please [Sign In](#) or [Sign Up](#) to download the printable version of this worksheet

INTESTINES



PERIPHERAL NERVES

