

## Naloxone (Narcan)

Naloxone (Narcan) is an opioid antagonist that works by blocking opioid receptors in the body, effectively reversing side effects associated with opioid use, such as sedation and respiratory depression. This medication can be used to reverse opioid-induced CNS depression and should be administered every 2 to 3 minutes until the desired patient response is observed. Side effects include severe nausea and vomiting, excitability, and symptoms of opioid withdrawal.



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### Mechanism

#### Competitive Opioid Receptor Antagonist

##### Competitive Poppy-droid Receptor Ant-toga

Naloxone is structurally similar to opioid drugs and works by competing with these medications for opioid receptor sites in the body. Acting as an opioid antagonist, naloxone is able to block the action of opioids, effectively reversing side effects associated with these medications, such as respiratory depression, sedation, coma, and analgesia.

### Indications

#### Opioid Induced CNS Depression

##### Poppy-droid Deflated CNS-brain

When given to a patient who already has an opioid drug in their system, naloxone works to reverse sedation, respiratory depression, and other CNS effects associated with opioid administration. If given prior to administration of an opioid, naloxone will block opioid receptors and will prevent the opioid drug from taking effect.

### Side Effects

#### Severe Nausea and Vomiting

##### Severed Vomit

Severe nausea and vomiting can occur if naloxone is administered too rapidly. To reduce the risk of nausea and vomiting, naloxone should be given slowly as an IV push medication.

#### Excitable State

##### Excited-state

Patients who receive naloxone may experience a change in mood. Typically, this change manifests as increased excitability.

#### Opioid Withdrawal Symptoms

##### Poppy-droid making a Withdrawal with Symptoms

When given to patients who are chronic opioid users or those who are physically addicted to opioids, naloxone will cause an immediate onset of withdrawal symptoms. Because of this withdrawal response, naloxone is administered in small doses rather than a large dose. Symptoms of withdrawal include irritability, insomnia, runny nose, yawning, nausea, vomiting, and diarrhea.

### Considerations

#### Repeated Dosing Often Required

##### Repeatedly Dosing

Additional doses of naloxone may be needed, depending on the duration of the opioid that needs reversing. Naloxone can be given every 2 to 3 minutes until the desired response is obtained/observed. Keep in mind, if 10 milligrams of the medication is administered with no apparent effect, the cause of the patient's CNS depression should be reevaluated.