

You are dedicated.
You want to see people recover.

GET TO KNOW THE BASICS OF BRAIN INJURY FROM OPIOID OVERDOSE.

Learn more and
download resources
at [nhproviders.org/
braininjuryoverdose](https://nhproviders.org/braininjuryoverdose).

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People who have survived a nonfatal opioid overdose, may now have a hypoxic or anoxic brain injury.

- *Hypoxic* brain injuries are caused by a restriction of oxygen to the brain while *anoxic* brain injuries are the result of complete lack of oxygen to the brain.
- Many survivors of nonfatal opioid overdose suffer some level of trauma to the brain and all overdoses have the potential to result in a brain injury.
- The risk of brain damage grows exponentially with multiple overdoses and revivals.

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Brain injury that results from opioid overdose may be impacting the effectiveness of treatment and recovery.

- An individual's challenges and behaviors in treatment are often attributed to lack of motivation, low willingness to participate in treatment, and/or a psychiatric disorder, which can lead to premature termination of treatment. However, there may be an untreated brain injury impacting treatment outcomes.
- Major neurocognitive functions such as attention, memory, processing, and executive functioning are required for successful substance use treatment, but can be the most impacted and impaired functions as a result of brain injury.

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Screening can and should be performed to identify brain injury from opioid overdose and to modify the course of treatment if needed.

- There is not currently a *specific* tool available to screen for a hypoxic or anoxic brain injury that results from opioid overdose. However, there are several questions that can be used (see back for more information) and a tailored screening tool may be coming soon in New Hampshire.
- Formal medical evaluation may also be recommended and should be discussed with the individual's medical care team.
- Substance use disorder treatment can be modified in many ways, including shorter and more frequent therapy sessions, flexible appointment times, and smaller sizes for group settings.



SIGNS & SYMPTOMS OF BRAIN INJURY FROM OPIOID OVERDOSE



Common Cognitive and Behavioral Symptoms

- Decline in executive functions (ability to complete tasks)
- Short-term memory loss
- Decline in the ability to form new memories
- Mood and personality changes
- Inability to pay attention
- Difficulty with words

Common Physical Symptoms

- Lack of coordination
- Inability to execute a familiar sequence of physical movements
- Rigidity and myoclonus (sudden muscle spasm)
- Weakness of the arms and legs

Impacts to Treatment

- Difficulty processing and retaining information
- Difficulty following through with assignments, recalling appointments, etc.
- Impulsivity (controlling emotions and behaviors)
- Perseveration (repetition of words)

Suggested Questions to Screen for Potential Brain Injury From Opioid Overdose

Many individuals who have experienced an overdose or had multiple overdoses may experience some degree of brain injury symptoms, especially if these events are recent. Asking someone “do you have a brain injury?” or asking for a list of medical diagnoses are not always the best ways to determine this information. Many individuals may not even be aware they have a brain injury or may feel ashamed to report it.

Brain injury symptoms often mimic signs of active drug use or post-acute withdrawal, so it is important to try to tease out the root cause of the symptoms reported.

While a specific tool is not yet available to screen for brain injury that results from opioid overdose, there are some recommended questions that you can use to get started:

- Have you ever lost consciousness from a drug overdose(s)?
- Do you know how many times you have lost consciousness from a drug overdose?
- If you have lost consciousness from a drug overdose, do you know when the event(s) occurred?
- Have you noticed changes since the overdose(s) occurred, such as:
 - Word-finding issues
 - Memory impairment
 - Mood swings
 - Difficulty focusing
 - Impulsive behavior

If you suspect that an individual may have experienced a different type of brain injury caused by trauma, such as a concussion, blow to the head, or other injury to the head or neck, there are several screening tools that may be useful. More information on Traumatic Brain Injury (TBI) screening tools can be found at nhproviders.org/braininjuryoverdose.



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