

This resource provides basic information about fentanyl-induced muscle rigidity (FIMR) or “wooden chest syndrome”. For more advanced information, check out **FIMR: Beyond the Basics**.

What is fentanyl-induced muscle rigidity (FIMR)?

FIMR happens when breathing muscles in the jaw, throat, or chest become stiff or spasm soon after taking fentanyl. This stiffening creates two problems: (1) stiff muscles make it difficult to breathe; and (2) a clenched jaw and stiff chest muscles can make it difficult to give breaths and life-saving oxygen to someone with FIMR.

FIMR responds quickly to naloxone. FIMR usually needs multiple naloxone doses.

How is FIMR different from typical drug poisonings (overdose)?

FIMR causes muscle stiffness or spasm in the muscles used in breathing, which makes it difficult or impossible to give enough oxygen or breaths. Typical drug poisonings do not cause stiffness with breathing muscles. If you cannot give enough oxygen or breaths, call 911 and **give naloxone immediately**. Multiple (or increasing) doses of naloxone may be necessary.

How can you tell if someone has FIMR?

Someone with FIMR will have one or more signs of muscle stiffness soon after taking fentanyl.

Signs of FIMR

Stiff muscles or unusual body position:

- Arms stiff, bent, or straight
- Legs straight, toes pointed
- Body stiff, fists clenched
- Neck stiff, head sometimes arched back
- Stiff chest and abdominal (ab) muscles

Cannot give breaths due to resistance

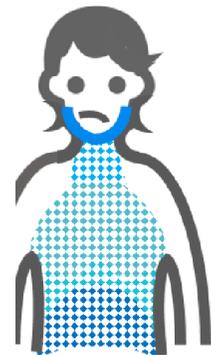
Clenched jaw, difficult or not able to open

Does not respond to voice or pain

Standing and cannot sit down

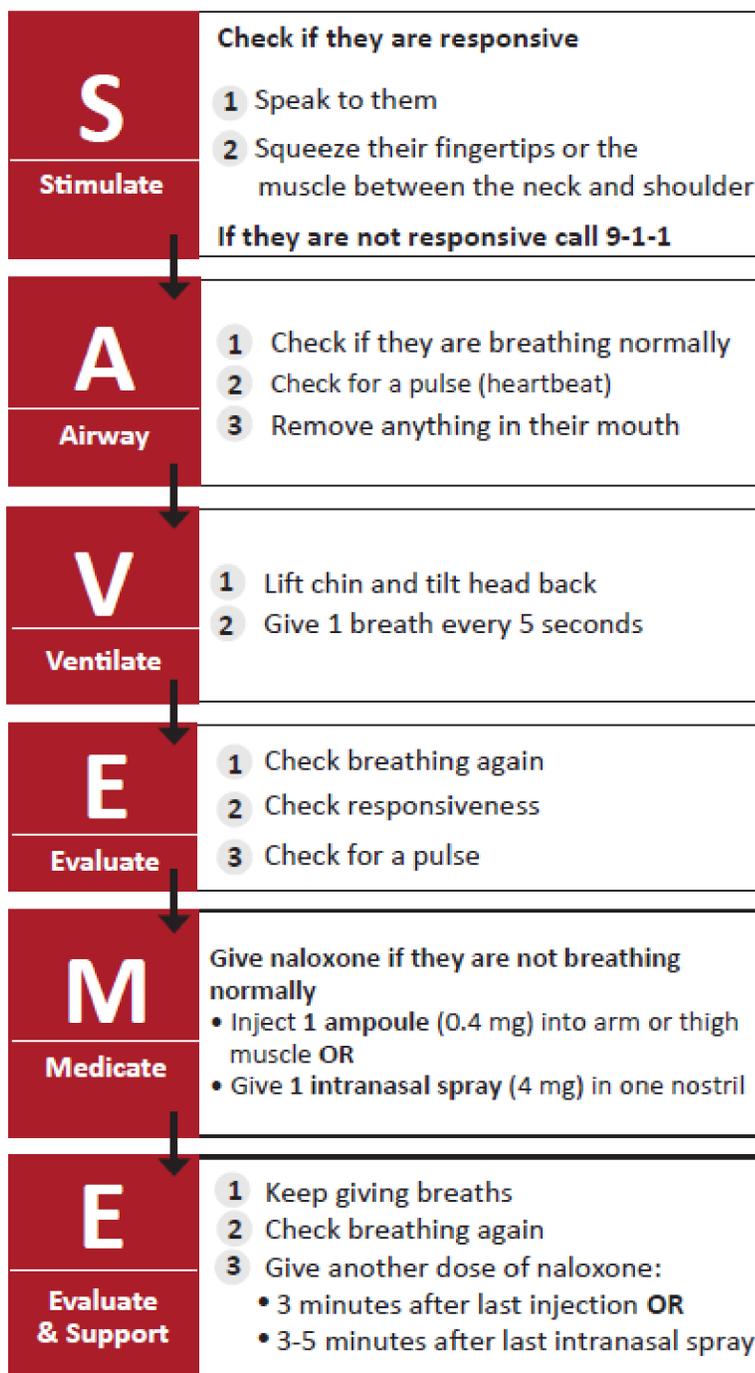
Staring and cannot speak

Movements that look like seizures



If someone has FIMR follow the **SAVE ME** steps:

How to Respond to an Opioid Poisoning



Responsiveness means:

- Awake and alert **OR**
- Easy to wake up

Breathing normally means:

- Taking 12 or more breaths per minute **AND**
- No unusual breathing sounds (e.g. gurgling)

If at any t me:

There is **NO PULSE**:

Start CPR with rescue breathing and compressions

They **start breathing normally**:

- Place them on their side
- Do not leave them alone
- Repeat SAVE ME if their breathing changes
- **STOP** giving naloxone when they are breathing normally – even if they are still unresponsive

What else should I know about FIMR?

Fentanyl can stay in the body for a long time. A second overdose could happen 30-120 minutes after the naloxone has worn off. If the person does not want to go to hospital, make a safety plan with the person. A safety plan may include arranging for someone to stay with the person who is trained in overdose response and has a Take Home Naloxone kit. Recommend using with a buddy or using virtual overdose prevention services such as the [Lifeguard](#) or [Brave](#) apps or the [National Overdose Prevention Services \(NORS\)](#).

For drug-checking services:

- See the [Toward the Heart](#) and [BCCSU Drug Checking BC](#) websites.
- For testing by mail or in person: [Getyourdrugstested.com](#)