

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





Responsiveness means: • Awake and alert OR • Easy to wake up

Breathing normally means:
 Taking 12 or more breaths

No unusual breathing sounds

Start CPR with rescue breathing and

Repeat SAVE ME if their breathing

 STOP giving naloxone when they are breathing normally – even if they are still unresponsive

They start breathing normally:
Place them on their side
Do not leave them alone
Keep monitoring them

per minute AND

(e.g. gurgling)

If at any time:

compressions

changes

There is NO PULSE:

If someone has FIMR follow the SAVE ME steps:

How to Respond to an Opioid Poisoning

	Check if they are responsive
C	1 Speak to them
S	2 Squeeze their fingertips or the
	muscle between the neck and shoulder
Stimulate	
	If they are not responsive call 9-1-1
l i i i i i i i i i i i i i i i i i i i	1 Check if they are breathing normally
	2 Check pulse (heartbeat) for less than
	10 seconds
	3 Remove anything in their mouth
Airway	Insert airway (if trained and permitted)
-	
	 Lift chin and tilt head back
	2 Give 1 breath every 5 seconds
	3 Keep giving breaths until breathing
Ventilate	normally
·	1 Check breathing again
	2 Check responsiveness
	3 Check pulse for less than 10 seconds
Evaluate	S check pulse for less than 10 seconds
-	
	Give 1 dose of naloxone if they are not
M	 breathing normally: Inject 1 ampoule (0.4 mg) into arm or thigh
	 Inject 1 ampoule (0.4 mg) into arm or thigh muscle OR
Medicate	 Give 1 intranasal spray (4 mg) in one nostril
	1 Keep giving breaths
	2 Check breathing again
Evaluate	3 Give another dose of naloxone every
& Support	3 minutes until breathing normally

toward
RECOVERABLE RECOVERED AND ADDRESS.



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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** app 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