

Opioids, Fentanyl, Overdose, and Naloxone

Information Package for Parents, Caregivers, and Students

What are Opioids?

- An opioid is any substance that activates “opioid receptors” in the brain
- Our own brains produce opioids (endorphins)
- We find opioids in plants (morphine, codeine)
- We can modify natural opioids (oxycodone, heroin)
Pharmaceutical companies can design opioids for use as medicines (meperidine, fentanyl)
- Opioids can be synthesized in illegal labs for sale on the street or online (illicit/bootleg fentanyls)

What do Opioids do in the body?

- Opioids are often used to treat short term pain and sometimes to treat chronic pain
- Opioids cause side-effects, including nausea, vomiting, and constipation
- Over time, opioids can cause:
 - tolerance (you need to take more opioid to get the same effect)
 - dependence (you experience withdrawal symptoms if you stop taking opioids)
 - addiction
- In an overdose, opioids can cause **respiratory depression**: breathing slows and eventually stops

What is Fentanyl?

- Fentanyl is a synthetic opioid used to treat severe and chronic pain
- Fentanyl is more potent and toxic than other opioids. This means you need much less to feel the effects and to overdose on fentanyl compared to other opioids.
- Opioids such as carfentanil are even more potent than fentanyl itself.

Opioid	Effective Dose*	Lethal Dose*
Morphine	10 mg	200 mg
Fentanyl	0.1 mg	2 mg
Carfentanil	0.001 mg	0.02 mg

*in a person without any tolerance to an opioid

What are Bootleg Fentanyls?

- Bootleg, or illicit fentanyls, are chemicals synthesized for sale online or the street
- “Fentanyl analogues” are very similar but not exact copies of fentanyl.
- Some fentanyl analogues are even more potent and toxic than fentanyl
- In addition, there are opioids that aren’t fentanyls that are also illegally made and sold, with names like U-47700 and MT-45

Why are Bootleg Fentanyls Dangerous?

All fentanyls are very potent and toxic opioids. This increases the chance of overdose. When these drugs are produced in illicit labs, and supplied to drug dealers to sell as powders or tablets, we lose the ability to know:

- which opioid is in the product
 - is it oxycodone, fentanyl, carfentanil?
- what is the dose of the opioid
 - small amounts of potent opioids are difficult to measure exactly
- whether the four pills you purchase each contain the same opioid
 - mixing pure opioids with other powders prior to sale can result in “hotspots”, localized higher concentrations of the opioid in a powder or pill
- whether other illicit drugs such as cocaine have been contaminated with fentanyl

How do Opioids Cause a Drug Overdose?

- Opioids bind proteins in an area of the brain called the “respiratory centre”
- The respiratory centre keeps you breathing, even when you are not paying attention, are asleep, etc.
- In an opioid overdose, the respiratory centre is turned off so you breathe less and less, and eventually stop altogether

What is Naloxone?

- Naloxone is an opioid receptor blocker
- If a person is experiencing an opioid overdose, naloxone can be administered. It will prevent the opioid from depressing the respiratory centre, bring the person out of the overdose, and restore breathing
- Naloxone is short acting, about 30 minutes. You need to call 911, even if you administer naloxone!

Watch this video to learn more about naloxone:

<https://www.youtube.com/watch?v=ie1YXkDEPN0>

How do Administer Naloxone?

- There are now two types of naloxone available in Canada
- Naloxone can be injected into a muscle
- Naloxone nasal spray is now available too

Watch these videos to see how naloxone is administered by injection:

<https://www.youtube.com/watch?v=oT8EsHuikwY>

<https://www.youtube.com/watch?v=0Z-y7CoeDMc>

Where can you Obtain Naloxone?

In Waterloo Region, Public Health and Sanguen Health Centre are now distributing naloxone nasal spray. It is available to all ages and you do not need a health card.

You can also obtain injectable naloxone for free from pharmacies - all you need is a health card. These naloxone kits are available to all ages as well.

*Note, naloxone is not kept on site at Waterloo Region Schools.

Fentanyls,
including
carfentanil, are now
being sold in
Waterloo region

OVERDOSE ALERT

Overdose Alert for Waterloo Region

December 5, 2016

CARFENTANIL detected in Waterloo Region

- Health Canada has confirmed the presence of carfentanil in green counterfeit pills stamped 'CDN' and '80' found in Waterloo Region
- Carfentanil is 10,000 times more toxic than morphine
- Carfentanil is an opioid that is used to sedate large animals such as elephants and is not for human consumption
- Carfentanil can not be detected by sight, smell, or taste



Please exercise caution when using ALL drugs.

IF SOMEONE OVERDOSES:

1. Call 911
2. Administer naloxone if an opioid overdose is suspected
3. Continue to assist the victim until paramedics arrive
4. The victim should accompany paramedics to hospital

IF USING SUBSTANCES:

- Never use substances alone
- Try a very small amount first
- If you use with someone, do not use at the exact same time
- Avoid mixing substances
- Have naloxone ready. Know how to respond to an overdose

TO GET NALOXONE AND OPIOID OVERDOSE TRAINING CONTACT:

- Region of Waterloo Public Health – 519-575-4400
- Sanguen Health Centre – 519-603-0223
- You can also ask your local pharmacist if they dispense naloxone (health card required)

This Alert is provided by the Waterloo Region Integrated Drugs Strategy via the OMARS initiative (Overdose Monitoring, Alert & Response System). Visit <http://www.waterlooregiondrugstrategy.ca/en/home/> and follow us on

Twitter for overdose alert updates: @DrugStrategyWR.

Additional Resources

Youth and Student-Focused

For a youth-friendly, easy to use website:

<http://www.facethefentanyl.ca>

The Eastern Ontario Health Unit has a fact sheet for students:

<http://www.ucdsb.on.ca/Documents/Fentanyl%20Student%20Factsheet%20-%20EOHU.pdf>

For Teachers and Parents

The Eastern Ontario Health Unit has a fact sheet for parents:

<http://www.ucdsb.on.ca/Documents/Fentanyl%20Parent%20Factsheet%20-%20EOHU.pdf>

From Ottawa Public Health, a fentanyl fact sheet for parents and a general information page:

<https://earlofmarchss.ocdsb.ca/Home%20Page%20Docs/Opioids%20Information%20Sheet%20Parents.pdf>

<http://ottawa.ca/en/residents/public-health/healthy-living/alcohol-drugs-and-tobacco/drugs#ottawa-overdose-prevention>

From Alberta Health, a fact sheet for parents and teachers:

<http://www.health.alberta.ca/documents/Fentanyl-Information-Parents-Teachers-2016.pdf>