

Opioids●

What are opioids?

Opioids include any drug that acts on opioid receptors in the brain, and any natural or synthetic drugs that are derived from or related to the opium poppy. Opiates are a subset of opioids, which are naturally derived from the opium poppy plant, rather than synthetic substances.¹

The opioid receptor system

Opioids bind to opioid receptors which depress the central nervous system, and slow down messages between the brain and the rest of the body. This causes breathing and heart rate to slow down. Opioid receptors also stimulate the release of dopamine, which leads to sensations of pleasure and pain relief.¹

If breathing and heart rate slow down to a certain point, someone may stop breathing, and overdose can occur.¹ Opioid overdose can result in death and other injuries, but can be reversed by CPR and naloxone administration.² Naloxone also binds to opioid receptors, but has the opposite effect than other opioids. It blocks the receptors from attaching to other opioids, and acts to reverse an overdose.

Naloxone has been used in Australia for a number of years in clinical and ambulance settings, and has recently been made available over-the-counter.

How are they used?

Opioids can be used in various ways – opioid-based medications are usually found in tablet form and are often swallowed; opiate-substitution treatment is found in liquid, tablet and film formations and is used orally and by dissolving the film under the tongue; and, heroin is usually injected but is also snorted or smoked.

Types of commonly used opioids

General

Opioids include certain types of pain killers, known as ‘opioid pain medications’ and illegal drugs, such as heroin. Some opioids are plant-based and come from the opium poppy (opiates), whilst others are synthetic or ‘man-made’. Common types of opioid include codeine (Panadeine®, Panadeine Forte® and Nurofen Plus®), fentanyl, morphine, oxycodone (Endone® or OxyContin®), buprenorphine (Subutex® or Suboxone®), methadone (Methadone Syrup® and Biodone Forte®), tramadol and heroin. Newer psychoactive opioid substances include: U-47700, AH-7921, O-desmethyiltramadol, MT-45, acetylfentanyl and furanyl-fentanyl.

Opioid based medications

Common types of opioid-based medications include codeine (Panadeine®, Panadeine Forte® and Nurofen Plus®), fentanyl, morphine, oxycodone (Endone® or OxyContin®), buprenorphine (Subutex® or Suboxone®),

methadone and tramadol. They act in the same way as other opioids such as heroin to produce feelings of pain relief. Opioid-based medications are commonly prescribed by doctors, and until recently (2018), some lower strength opioids were available to buy over the counter. However opioid-based medications are now only available with a prescription, or can be purchased illegally.

Many people do not realise that many medications prescribed for pain relief can cause dependence. If they are overused, or combined with other drugs that depress the central nervous system, such as alcohol or benzodiazepines, they may also cause overdose. Pharmaceutical opioids now account for more drug-related deaths in Australia than any other drug category.³

Heroin

Heroin is the common name for diacetylmorphine or diamorphine. Diamorphine is used in clinical settings and is the substance used in prescription heroin programs internationally. Heroin is an opiate, meaning it is a naturally occurring substance of the opium poppy.⁴

Opiate substitution treatments

Methadone (Methadone Syrup® and Biodone Forte®) and buprenorphine (Suboxone® or Subutex®) are opioid-based medications used to treat addiction to heroin or other opioids, also known as pharmacotherapy or opiate substitution treatment (OST). OST is prescribed by a doctor to assist people using opioids to reduce or stop their use. They are used to manage cravings and withdrawal symptoms. Methadone is also used in clinical settings following heart attacks, trauma and surgery.

Naloxone

Naloxone is classified as an opioid as it binds to opioid receptors, however it acts in the opposite way of most opioids. Naloxone blocks other opioids from binding to receptors, and can reverse opioid overdoses within minutes. It does not have the same effect as other opioids and does not produce feelings of pain relief and pleasure.

Naloxone is only useful to reverse overdoses of other opioids, and will not effect overdoses due to alcohol, benzodiazepines, stimulant or hallucinogenic drugs, or non-opioid based medications.

Effects of opioids

There is no safe level of drug use. Use of any drug always carries some risk. It's important to be careful when taking any type of drug.

Opioids effect everyone differently, based on:

- the person's size, weight and health
- whether the person is used to taking it
- whether other drugs are taken around the same time
- the amount taken
- the strength of the drug.

Generally speaking, people who use opioids may experience the following:

- extreme relaxation
- drowsiness and clumsiness
- confusion, slurred speech,
- slow breathing and heartbeat.

If a large dose is consumed, someone may develop:

- cold, clammy skin
- slow breathing
- blue lips and fingertips
- falling asleep ('going on the nod')
- death by respiratory depression.

Long-term effects include:

- increased tolerance
- constipation
- dependence
- damage to vital organs such as the lungs, brain and heart.⁴

Using opioids with other drugs

The effects of taking opioids with other drugs – including over-the-counter or prescribed medications – can be unpredictable and dangerous, and could cause:

Opioids + alcohol, cannabis or benzodiazepines: slow down breathing and brain activity, and increased risk of overdose.

Opioids + ice, speed or ecstasy: enormous strain on the heart and kidneys, and increased risk of overdose.⁵

Health and safety

Use of opioids is likely to be more dangerous when:

- taken in combination with alcohol or other drugs, in particular benzodiazepines, or other opiates as these can slow breathing and increase the risk of overdose⁶
- driving or operating machinery, as a person's ability to judge distance and space is extremely limited
- alone (in case medical assistance is required). It is recommended that a person unaffected be at hand in case assistance is required
- injecting equipment is not sterile.⁷

If you or someone you know is using opioids, it would be good idea to talk with your doctor about accessing naloxone, the drug that reverses opioid overdoses. Your friends or family members can be trained in overdose reversal in case of an emergency.

Find out more about overdose at **adf.org.au/insights/overdose**

Pain management plans

If you are prescribed opioid-based medications, ask your doctor about a 'pain management plan' and other non-medicine (such as physical therapy) and non-opioid strategies (such as paracetamol) you can use to complement your treatment and reduce your reliance on opioid-based medications.

Tolerance and dependence

There is evidence that after prolonged use, many drugs can cause dependence. People who use a drug regularly can develop dependence and tolerance to it. This means they need to take larger amounts of the drug to get the same effect.

Dependence on a drug can be psychological, physical, or both. People who are dependent on the drug find that using the drug becomes far more important than other activities in their life. They crave the drug and find it very difficult to stop using it.

People who are psychologically dependent on a drug may find they feel the urge to use it when they are in specific surroundings, such as socialising with friends.

Physical dependence occurs when a person's body adapts to a drug and gets used to functioning with the drug present.

Getting help

If your use of opioids is affecting your health, family, relationships, work, school, financial or other life situations, you can find help and support.

Help and support services
adf.org.au/help-support/support-services-directory/

References

1. Penington Institute. (2018). The COPE Program: Overdose fact sheet
2. Penington Institute. (2018). The COPE Program: Naloxone fact sheet
3. Penington Institute. (2018). Australia's Annual Overdose Report 2018
4. National Drug and Alcohol Research Centre. (2016). Heroin fact sheet
5. Goldsmith, R., Weisz, M. & Shapiro, H. (2010). The Essential Guide to Drugs and Alcohol. (14th ed.). London: DrugScope.
6. Queensland Network of Alcohol and other Drugs Agencies. (2018). Opioids and benzodiazepines
7. NPS MedicineWise 2016. How to use opioid medicines safely

Always call an ambulance on triple zero (000) if an overdose is suspected: tell the paramedic exactly what has been taken. Paramedics are there to help and will not involve the police unless there is a danger to themselves or others.

Other help, support services and resources

Links to further help and support • adf.org.au/help-support/

Information on naloxone • adf.org.au/reducing-risk/pharmaceuticals/naloxone-harm-reduction/

Information on methadone • adf.org.au/insights/methadone-works-legal/

● Further information

DrugInfo • 1300 85 85 84

Free confidential information and advice about alcohol and other drugs (9am - 5pm, Mon-Fri)

Family Drug Help • 1300 660 068 • www.familydrughelp.com.au (Victorian-based)

Services are available to support those around you who may be affected by your drug use. As well as providing understanding, they can provide information about how best to help during treatment.

Family Drug Support • 1300 368 186 • www.fds.org.au (Australia-wide)



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