PAINWEST
Excellence in Pain Management

Opioid Medications

What are opioids?

Opioids are a group of medications commonly used for pain relief ("strong painkillers"). They derive their name from the fact that they work like opium, a plant from which morphine and heroin, some of the oldest opioids, were originally extracted from.

How do opioids work?

Once taken up by the body (via tablets, syrups, injections etc.), opioids are absorbed in the bloodstream and circulate around the body, where it binds to opioid receptors in your brain, spinal cord and nerves (think of this as the opioid "key" going into the receptor "lock"). This action, much like turning the key, produces a number of effects, including pain relief.

Opioid medications are commonly used when you need strong short term pain relief, such as after surgery or injury. When used in this manner they are reasonably safe and effective. **However, for chronic pain (pain that lasts for more than three months) there is scientific evidence that taking long term opioids provides limited pain relief, or improved quality of life.**

Which opioids are available?

There are multiple opioids available in Australia, including:

- Morphine (MS-contin, Kapanol, Ordine)
- Oxycodone (Endone, Oxycontin, Targin, Oxynorm)
- Fentanyl (Durogesic patch, Actiq lozenges)
- Hydromorphone (Jurnista, Dilaudid)
- Codeine (Panadeine, Panadeine forte, Codalgin)
- Pethidine
- Methadone (Physeptone)
- Tapentadol (Palexia)
- Tramadol (Tramal)
- Buprenorphine (Norspan patch, Temgesic, Suboxone, Subutex)

Problems with Opioids

With prolonged use of opioids the following are likely to happen:

1. Tolerance: **Your body becomes used to it** after taking them for a while, and you need to take more (higher doses) of the medication for the same pain relief effect. This happens to everyone who uses them
2. Dependence: Your body becomes used to having this medication in your bloodstream, and if you stop taking it abruptly, **your body reacts** causing a **withdrawal** effect. This can include agitation, vomiting, abdominal cramping, diarrhea etc. This also happens to everyone who uses them.
3. Addiction: This is when your brain changes so you **crave the substance** and attempt to **use it at all cost**. Not everyone who takes opioids become addicted, just like not everyone who drinks alcohol turns into an alcoholic. However, up to 1 in 8 people can develop some degree of addiction after using opioids for a while. This risk **goes up with higher amount, and longer duration**, of opioid use.

What else can happen when you take opioids?

Opioids can cause your breathing to slow down (and can worsen breathing conditions like sleep apnoea), constipation (very common), sedation, mental clouding, memory impairment, and affect your ability to drive or use heavy machinery.

Overdosing on opioids can kill you by stopping your breathing (like heroin overdose), and this risk increases with concurrent alcohol and sedative medication use. Often these deaths are unintentional. More Australians now die from prescription opioids than from car accidents!

Long term opioid use can also cause the following:

- Osteoporosis, meaning your bones get weaker – this increases the risk of your bones breaking either spontaneously or after an accident, causing more pain
- Depression
- Decreased sex hormones in body, causing sexual dysfunction and impotence
- Decreased immune function, putting yourself at risk of infections (studies showed that taking opioids increases your risk of chest infection, and the higher the dose, the more likely you will be admitted to the hospital, stay for longer, and need a breathing machine).
- Worsen pain (as strange as it may seem!), called opioid-induced hyperalgesia.

Are they all the same?

There are some opioids that are termed “atypical”. Like the other conventional opioids these medications bind to opioid receptors, but also have other pain relief actions:

- **Tramadol** (Tramal) boosts serotonin and noradrenaline, which decreases pain
- **Tapentadol** (Palexia) boosts noradrenaline, which decreases pain
- **Buprenorphine** (Norspan, Temgesic) works on many cousin receptors to opioid receptors

This means that, for the same amount of pain relief action, there is less opioid power involved; and because of this there is lower risk of some adverse events (such as addiction) with atypical opioids compared to other conventional opioids.

How do we best manage these medications?

Several factors influence the prescription of opioids, including:

- Your age. The younger you are, the longer you may end up taking these medications and have higher chances of bad effects happening
- The cause of your pain, as some kinds of pain are less responsive to opioids than others
- Type, amount, and duration of opioid therapy
- How the opioid medication affects you, including:
  - Amount of pain relief you get
  - **What it allows you to get out of your day-to-day life (function), which is arguably more important than just the pain relief**
  - What side effects you experience
- Risk of you becoming addicted to opioid medications

In general, **the stronger the opioid, the worse the side effects**. This, and the fact that tolerance to a particular opioid is common, means that we may suggest changing your current opioid to a different one, or to taper the dose (gradually reduce the amount of opioid you are taking). This is for **your** safety and wellbeing.

Please ask us if you have any questions about your medications, or are worried about taking them/side effects!

