Te Whatu Ora
Health New Zealand

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# AOTS 2. Facts about OST medications

Methadone and buprenorphine (with naloxone) are the medications most commonly used by the service to treat opioid dependence. Both are designed to stop withdrawals and reduce the craving to use so can help people change their use of opioids.

The usual methadone formulation used in Auckland is the 5mg/ml Biodone solution. Buprenorphine is currently available only in pill form and contains naloxone to deter people from injecting.

The nurse and doctor will talk with you about the medications and together with you will work out which medication they recommend.

Client opinion is divided over which medication is easier to withdraw from. Some people find a slow withdrawal with methadone to be a gentler option while others prefer buprenorphine (with naloxone).

Research has proven both safe and effective in keeping people in treatment and in preventing the use of illicit opiates. There are no significant differences in treatment outcomes for people using buprenorphine as compared to people using methadone.

## Potential risks of OST medications

There are risks with any medications especially if used with other substances; this includes alcohol which increases the risk of black outs and overdose as, like opioids, it depresses the central nervous system.

- Using other central nervous systems depressants such as benzos (diazepam, temazepam, clonazepam etc), tranquilisers, barbiturates and other opioids significantly increases the risk of sedation and overdose
- Both methadone and buprenorphine can interact with a number of medicines including some antibiotics, some antidepressants and some anti-epilepsy drugs. Make sure you tell the prescriber if you are taking any other medicines. (For info on prescribed drugs see *AOTS Information Sheet 14 Methadone and medication interactions*. Also available is a wallet sized card outlining medications which interact with methadone)
- Some herbal medications can affect the metabolism of methadone so use these with caution. Check with your pharmacist or doctor to see if there are any likely interactions before starting any herbal medications and make sure you tell the prescriber if you're already taking any.
- When stabilising or increasing your dose it's not advisable to operate heavy machinery or to drive because of the potential for increased sedation i.e. nodding off

Be careful in the first days of induction onto methadone: sometimes people think they need more because they're not experiencing the effects they're after - but methadone builds in your system and a larger dose early on can significantly increase the risk of overdose.

## Methadone and your teeth

When people stop using they can become aware of dental problems that have existed for some time but they had previously ignored or didn't notice. Methadone is often blamed for dental problems but research shows problems with teeth and gums are due to:

- Poor diet including a high sugar intake (more than the recommended max. of 3 teaspoons a day)
- Irregular or non-existent dental care and oral hygiene

- Dry mouth. All opioids inhibit saliva production. Saliva protects against plaque which causes decay. Most dentists have products available (tooth mousse, gum etc.) to help alleviate dry mouth and reduce plaque and decay

To prevent tooth decay it is important to maintain good oral hygiene (brush teeth regularly, use dental floss), minimise sugar intake and have regular dental check-ups.

## Possible side effects

Although most people dependent on opioids tolerate substitution meds well, some people experience side effects which may be mild or severe and may or may not last long

People taking methadone report experiencing increased sweating, dry mouth, eyes and nose, and constipation. (For more info see *OST and You* p.16)

Constipation is a common side effect of all opioids because they slow movement in the gut. You can help things along by:

- maintaining a high fibre diet and drinking lots of water and non-alcoholic fluids (alcohol dries you out)
- using a stimulant laxative which trigger the intestines to contract and push out the stool. Avoid laxatives which contain fibre because they soak up the water in your intestines and can make the problem worse
- Ask your doctor, nurse or pharmacist for advice in managing constipation associated with opioids

The side effects of buprenorphine tend to occur early in treatment, are mild and subside with time. Although these effects appear to be generally unrelated to dose, nausea is more common with doses over eight milligrams (8mgs) and dizziness occurs more commonly at high doses. The most commonly reported side effects are:

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| • Headaches | are very common early in treatment but usually settle down in a few days |
| • Tiredness or drowsiness (especially after a dose) | usually stops within days to weeks |
| • Nausea and vomiting | usually stop after a few days |
| • Abdominal pain (cramps) | usually settle down quickly |
| • Skin rashes, hives and itching | If this happens please tell the doctor, nurse or pharmacist. It may be nothing to worry about, but could also be a sign of something more serious like an allergy |

People experiencing significant side effects from buprenorphine may need to transfer to an alternative medication

Breathing difficulty and/or swelling of the face, lips, tongue, or throat require immediate medical attention

Less common (though no less significant) side effects of methadone and buprenorphine include difficulty passing urine and reduced sexual functioning due to a reduction in sex hormones which can also cause changes to women's menstrual cycle and increase the risk of osteoporosis in both men and women as we age.

# Facts about methadone

- Methadone hydrochloride is a synthetic opioid. It acts on the same opioid receptors as natural opiates and has many of the same effects. Its long duration of action, strong analgesic effect, and very low cost make it useful for the treatment of opioid dependence and relief of pain
- Methadone has an average half-life (how long it lasts in your body) of 25 hours (though it can range from 13-55 hours) which means most people are stable on one dose of methadone per day
- Methadone is absorbed and stored in various sites in the body and is gradually released into the bloodstream. It takes 4 hours for your methadone dose to 'peak' in your system
- It takes about 72 hours for methadone to build up in your system, to get the maximum effect of your first dosage. When starting daily dosing methadone levels build up very slowly in the bloodstream, much more slowly than other opiates. For this reason your dose can only be increased every few days
- Once you are on a regular daily dose of methadone the differences between peak (highest) and trough (lowest) blood levels are very small so you shouldn't experience any highs (sedation/nodding) or lows (withdrawals) over a 24 hour period when you're on the dose that is right for you
- People receiving methadone treatment become dependent on methadone in that they will experience withdrawal symptoms if they stop taking it; they need it to feel 'normal'. However, because of methadone's long half-life) the withdrawal symptoms take a bit longer to kick in compared to when you suddenly stop taking other opiates
- Methadone overdose is potentially fatal especially for people with no or little tolerance. Keep it away from children!

## Methadone in therapeutic doses is not known to cause:

- Damage to any of the major organs or systems of the body even in long-term 'high dose' use
- Congenital abnormalities in unborn children (abnormalities existing at and usually before birth)
- Decreased cognitive ability - thinking, perception, and remembering - except possibly during stabilisation or restabilisation on methadone. (Excessive alcohol use however is known to cause cognitive impairment)

All of this applies only if methadone is not being used in combination with other drugs that act on the nervous system (including some prescribed drugs)

## Other health issues

- If you have asthma, diabetes, epilepsy, hepatitis, liver disease, chronic pain or another medical condition it's important to tell your key worker and/ or doctor as this could affect your treatment and AOTS may need to liaise with your GP and/or specialist
- Methadone is metabolised in the liver so if your liver function changes abruptly (you may notice your urine gets darker or the whites of your eyes go yellow) tell your key worker or doctor. Entering OST is a good time to have your liver function checked out
- Kidney disease can also alter your body's ability to excrete methadone.

**If you have a date to enter hospital or you unexpectedly end up in hospital let AOTS know so there can be liaison with the medical staff to ensure your opioid treatment meds continue and that you receive adequate pain relief while in and after you leave hospital.**

# Facts about Buprenorphine with naloxone

Buprenorphine is different to methadone in a number of ways:

- People report feeling more clear-headed, less 'cloudy' than with methadone (though not everyone likes that clear-headed feeling)
- Starting on buprenorphine and finding the right dose is more rapid than starting on methadone
- Buprenorphine is less likely than methadone to cause overdose and possible death if it's the only thing you're taking. This is because of its 'ceiling effect': after a certain dose the drug produces no more effect, but the effect it does produce lasts longer.
  However if you try to override the blockade effect by using higher doses of opiates then the risk of overdose is significantly increased because when the buprenorphine wears off, the effects of the other drugs kick in and over you go
- As with methadone you do become dependent on buprenorphine. However, a missed dose of daily buprenorphine should not cause any substantial withdrawal symptoms because of the long lasting effect of the medication though people on low doses may experience discomfort

- The effects come on within 30 - 60 minutes and the full effects after 1 - 4 hours. The duration of effects varies according to the dose and the person taking it. In general, the higher the dose, the longer the effects
- Some CADS clients who have used buprenorphine to withdraw from opiates warn of post-withdrawal symptoms especially at day 3 of having no opiates in your system
- If you become pregnant whilst on buprenorphine the AOTS doctor and keyworker will work with you to find the best medication option for you and your baby. See *AOTS information sheet 12 Pregnancy and OST* for more information
- It is safer than methadone in accidental poisonings (e.g. if taken by a child, tho if a child does take buprenorphine this is an emergency and medical help should be sought).

## The risks of injecting buprenorphine

- Bup pills aren't designed for injecting which can be painful and can cause tissue and vein damage and blood clots and long term effects on the lungs due to particles getting into the lungs via veins.
- Injecting buprenorphine that's been in someone's mouth (even if it's your own) can result in fungal endophthalmitis – an infection forms INSIDE the eye. This is a big deal, as the internal eye is mostly filled with fluid and quickly turns into a giant abscess. Also the retina is a sensitive structure and is easily damaged.

## Pain management

- People taking bup can use non-opioid analgesics such as paracetamol, aspirin and NSAIDs/non-steroidal anti-inflammatory drugs like diclofenac and ibuprofen for mild to moderate pain relief. Speak to the doctor about other options for severe pain
- Just in case you are in an accident and require emergency medical assistance CADS will supply you with an information card you can keep in your wallet saying you are taking bup. This is to inform the emergency medical personnel that usual opioid pain-relief medications such as morphine may not give you the pain relief you need and you may need alternative pain medication or a different dose.

**Hospitals may not carry a stock of buprenorphine so if you have a planned hospital admission it is important to tell your nurse, doctor or key worker so they can help arrange your medication for you.**