

Methadone

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Brand name: Diskets®

Brand name: Dolophine®

Brand name: Methadose®

IUPAC: (RS)-6-(Dimethylamino)-4,4-diphenylheptan-3-one

FDA approval: Yes

[Manufacturer Link](#)

Usage:

Methadone is used medically as an analgesic or anti-addictive for use in patients on opioids. It is also used to manage chronic pain. Methadone can be given as a tablet, liquid or injection, usually several times daily.¹

- ¹Methadone. MedlinePlus. 2016. <https://medlineplus.gov/druginfo/meds/a682134.html>

Mechanism:

Methadone is a synthetic opiate that binds primarily to the mu opioid receptor to relieve pain, which changes the way that the brain responds to pain. Methadone is also used in the case of addiction to other opiates.¹

The molecular structure above shows the 3D conformer Methadone.

- ¹Methadone. MedlinePlus. 2016. <https://medlineplus.gov/druginfo/meds/a682134.html>

Side effects:

The most common effects include light-headedness and dizziness, drowsiness, nausea and vomiting, sweating, constipation. Methadone can be habit-forming. Psychological and physiological withdrawal symptoms can occur if the patient becomes drug-dependent. With prolonged use, tolerance may also become a problem, requiring higher dosages to achieve pain relief. Alcohol can intensify some of the mental and emotional side effects of methadone, such as drowsiness and changes in mood. Patients should avoid alcohol consumption while taking methadone. Methadone can cause respiratory depression. This may result in a potentially dangerous slowing of a patient's breathing rate.¹

- ¹Methadone. MedlinePlus. 2016. <https://medlineplus.gov/druginfo/meds/a682134.html>