



# Wisconsin Department of Justice

## Buprenorphine Monograph

### Buprenorphine and Norbuprenorphine - General Effects

**Buprenorphine** (Subutex, Buprenex) has both narcotic analgesic and opioid antagonist properties. As a narcotic analgesic it is a central nervous system (CNS) depressant.

1. Buprenorphine is used for the relief of moderate to severe pain and maintenance therapy for narcotic dependency.
  - a. As an analgesic, Buprenorphine is about 25-40 times more potent than morphine.
  - b. Buprenorphine has a half-life of 2-4 hours (parenteral) and 18-49 hours (sublingual).
  - c. Buprenorphine has a general therapeutic range, but experienced effects can vary based on an individual's prescription history.
    - i. Therapeutic range refers to the blood concentration expected to achieve the desired therapeutic effects. Due to many factors such as prescription history, dosage, tolerance, drug-drug interactions and use, an individual may exhibit signs of impairment even though blood concentrations fall within the therapeutic range.
  - d. Due to its agonist and antagonist effects, Buprenorphine not only has a wide therapeutic range, but also can have less depressant effects especially on respiratory or cardiac function.
2. Norbuprenorphine is a metabolite of Buprenorphine.
  - a. Norbuprenorphine is psychoactive.
3. General effects of buprenorphine include but are not limited to: confusion, dizziness, miosis, hallucinations, hypotension, respiratory difficulty, seizures, and coma.
4. The longer an individual uses a drug, the more they can build up a tolerance to its effects. Tolerance occurs when an individual no longer responds to the drug in the way that they initially responded. When an individual gains tolerance to a drug, a higher dose of the drug is necessary to achieve the same level or response initially achieved. As tolerance is gained, it may reduce some of the possible negative effects of a drug.
5. Drug metabolism (alcohol excluded) exhibits first order kinetics, or the elimination of a constant fraction of drug quantity per unit of time, which means that the amount eliminated is proportional to the drug concentration.
6. The use of more than one drug at a time may enhance the effects the drugs would otherwise have on their own, leading to greater impairment.

#### References

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\*\* The interpretive information provided is not exhaustive nor meant to encompass all scenarios where toxicological results are reported. Interpretive information is meant to serve as a general guide for the reader and that for any given case, consultation with a forensic toxicologist is recommended. \*\*

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