

# Naloxone Use in Children



Death from unintentional drug overdose in children is preventable.<sup>1</sup> Opioid overdose can occur in children who accidentally ingest prescribed or illegal opioid drugs such as methadone, morphine, oxycodone, fentanyl or heroin.<sup>2</sup> Naloxone administration can save the life of a child and is safe. This information sheet addresses concerns about giving children naloxone.

An opioid overdose causes depressed breathing and can lead to lack of oxygen to the brain (anoxia) and without intervention the pregnant person and fetus can die. Naloxone use is relatively safe in pregnancy and can save the lives of both the person who is pregnant and the fetus. Although naloxone crosses the placenta to the fetal blood, animal studies have not shown any physical malformation on the fetus. Naloxone is also likely safe for the infant when given to a breast/chest-feeding parent.

Children are prone to ingesting prescribed drugs that are not properly kept in tightly closed, child-resistant containers or in locked boxes. It is also important that adults ensure that street drugs are kept away from children as well.

Signs of an opioid overdose in children include slow and absent respirations, gurgling or snoring sounds, altered mental status or loss of consciousness, constricted or pinpoint pupils, slow or absent heart rate, vomiting, cold and clammy skin.<sup>2</sup> 911 should be called immediately and naloxone 0.4 mg IM given and then additional doses of 0.4 mg IM as necessary until the paramedics arrive or the child is able to breathe on his or her own.<sup>2</sup>

According to the American Academy of Pediatrics Committee on Drugs, the recommended dose of naloxone is 0.1 mg/kg for infants and children from birth to 5 years of age or 20 kg of body weight. Children older than 5 years of age or weighing more than 20kg may be given up to 2 mg.<sup>3</sup> These doses may be repeated as needed to maintain opioid reversal, though this is a rare occurrence in the pediatric age group. Therefore naloxone 0.4mg IM as contained in the take home naloxone kits is a safe dose.

A child who has an unintentional opioid overdose will not have developed tolerance to the opioid, and therefore will not have withdrawal symptoms.

The College of Physician and Surgeons of British Columbia have a written guideline on patients receiving doses of methadone/buprenorphine to be taken home for self-administration. <sup>3</sup> Adults with opioid use disorder on methadone may want to seek further guidance from their physicians if safe-keeping of methadone is becoming difficult.

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## References

1. Anderson M et al (2016). Severe and fatal pharmaceutical poisoning in young children in the UK. Archives of Disease in Childhood
2. Administration of Naloxone. Toward the Heart. Retrieved April 2017 from [http://towardtheheart.com/assets/naloxone/administering-naloxone-dst-final-december-2016\\_229.pdf](http://towardtheheart.com/assets/naloxone/administering-naloxone-dst-final-december-2016_229.pdf)
3. American Academy of Pediatrics, Committee on Drugs. Naloxone Dosage and Route of Administration for Infants and Children: Addendum to Emergency Drug Doses for Infants and Children. Paediatrics Sep 1990, 86 (3) 484-485
4. Methadone and Buprenorphine: Clinical Practice Guideline for Opioid Use Disorder. Retrieved April 2017 from <https://www.cpsbc.ca/new-guideline-prescribing-methadone-and-buprenorphine-released>