



# Poison HOTLINE

Partnership between UnityPoint Health and  
University of Iowa Hospitals and Clinics

February 2014



## Did you know .....

The Iowa Poison Control Center's website has been redesigned!

The new main page has a "News and Alerts" section and a special "\*\*\*\*Action Alert\*\*\*\*" regarding the IPCC's urgent need for sustainable and full funding.

The "Health Care Provider" section has past issues of the Poison Hotline, dates of toxicology lectures being given by IPCC staff, and a link to a Health Care Provider Satisfaction Survey.

The website also has poison prevention information, product recalls and the ability to order poison prevention materials.

Visit us at  
[www.iowapoisson.org](http://www.iowapoisson.org)

## Fentanyl

Fentanyl is a synthetic opiate analgesic similar to morphine but 50 to 100 times more potent. Fentanyl has been widely used for its analgesic and anesthetic properties in patients undergoing outpatient procedures and inpatient surgery, and is routinely used in ICU patients who are on the ventilator. Fentanyl is also used for the long-term management of chronic pain in persons who have developed opioid tolerance.

Fentanyl is available in many different forms. The fentanyl liquid injectable (Sublimaze<sup>®</sup>) is given IV or IM for analgesia and sedation in the operating room and the ICU. Fentanyl is also available as a transdermal patch (Duragesic<sup>®</sup>), sublingual tablets (Abstral<sup>®</sup>), buccal tablets (Fentora<sup>®</sup>), oral buccal film (Onsolis<sup>®</sup>) similar to breath freshening strips, a sublingual mouth spray (Subsys<sup>®</sup>), a nasal spray (Lazanda<sup>®</sup>) and lollipop-like lozenges (Actiq<sup>®</sup>).

Fentanyl's rapid onset of effects is due to its high lipid solubility which allows it to quickly concentrate in the brain and spinal cord where it produces analgesia, sedation and respiratory depression. Fentanyl also increases dopamine levels in the brain's reward areas, producing euphoria and relaxation. Other effects produced by fentanyl include constricted pupils (miosis) and decreased cough and gag reflexes. Chronic opioid users will develop a tolerance to fentanyl's analgesic and euphoric effects but not to its respiratory depressant effects.

Fentanyl's two main toxic effects are respiratory depression / respiratory arrest and sedation leading to airway compromise. Either of these conditions is a medical emergency and requires evaluation and treatment in an emergency department. Treatment includes securing the airway with endotracheal intubation, providing supplemental oxygen and appropriate ventilation. The opioid antagonist naloxone is an effective antidote to fentanyl's respiratory and CNS effects. Naloxone needs to be used with caution as it can precipitate opioid withdrawal in chronic opioid users and its duration of effects is shorter than that of fentanyl's duration of effects. Of note, fentanyl will continue to be absorbed from the skin and fat underneath a fentanyl patch for over 24 hours even after the fentanyl patch has been removed from the skin.

Should you have any questions about fentanyl or its treatment, contact the Iowa Poison Control Center at **1-800-222-1222**.

Clark Huntley, RN  
Specialist in Poison Information

**POISON**  
**Help**  
**1-800-222-1222**

Post and share this edition of **Poison Hotline** with your colleagues. Send comments or questions to Poison Hotline, 712-234-8775 (fax) or [Tammy.Noble@UnityPoint.org](mailto:Tammy.Noble@UnityPoint.org). To subscribe or unsubscribe from this distribution list, contact the IPCC education office at 712-279-3717. Read past issues of **Poison Hotline** at [www.iowapoisson.org](http://www.iowapoisson.org).