



# Poison HOTLINE

Partnership between Iowa Health System and  
University of Iowa Hospitals and Clinics

September 2011



## *Did you know .....*

In an aspirin or phenobarbital overdose, the body can better excrete the drug when the urine is alkaline. It is important to monitor the potassium level when performing urinary alkalization. In the hypokalemic patient, the kidney will recapture as much potassium from the urine as possible. The kidney does this by putting one hydrogen ion into the urine for each potassium ion it reabsorbs from the urine. The presence of hypokalemia causes the kidney to acidify the urine, making the pH go down instead of up, and prevents effective urinary alkalization. This is why the ISPCC recommends adding 40 mEq of KCl to each liter of fluids used for urinary alkalization.

## Hydrocarbons... They Can Take Your Breath Away

According to the American Association of Poison Control Centers, more than 43,000 cases of hydrocarbon poisoning were reported to U.S. poison centers in 2009, including nine deaths. Sixty-one percent of the people poisoned by hydrocarbons were younger than 20 years of age.

Hydrocarbons are common household chemicals widely used as solvents, degreasers, fuels and lubricants. Hydrocarbons can be divided into two groups, those with low viscosity and those with high viscosity. Low viscosity hydrocarbons are "thin" liquids that are very easy to aspirate into the lungs, and include gasoline, mineral spirits, turpentine, kerosene, lamp oil and tiki-torch oil. High viscosity hydrocarbons are "thick" liquids which are less likely to be aspirated, and include motor oil, mineral oil and petroleum jelly. Pulmonary toxicity most often occurs following ingestion and subsequent aspiration of a hydrocarbon.

With aspiration of a hydrocarbon, respiratory symptoms of coughing, gagging and choking frequently occur within minutes of the exposure. However, symptoms can be delayed hours. If persistent coughing occurs immediately following ingestion, aspiration should be suspected. Hydrocarbons aspiration can cause severe pneumonitis, and death has resulted from respiratory failure, secondary infections and ARDS.

The mainstay of treatment is good supportive care. Activated charcoal should NOT be used since it does not adsorb hydrocarbons well and increases the likelihood of vomiting and subsequent aspiration of the hydrocarbon. All symptomatic patients should have a chest x-ray performed, although chest x-ray findings may be delayed. Frequent monitoring of oxygen saturations and/or ABGs may be necessary. If aspiration is severe, patients may require intubation and positive pressure ventilation to maintain adequate oxygenation and ventilation.

For any questions about the treatment of hydrocarbon exposures or aspiration, call the Iowa Statewide Poison Control Center at **1-800-222-1222**.

*Tammy Noble, RN, BSN  
Certified 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 [nobletf@ihs.org](mailto:nobletf@ihs.org). To subscribe or unsubscribe from this distribution list, contact the Iowa Poison Center education office at 712-279-3717. Read past issues of **Poison Hotline** at [www.iowapoison.org](http://www.iowapoison.org).