

Hydrocarbon ingestions can cause early CNS depression and seizures, and delayed aspiration pneumonitis.

Categories/Examples

Aliphatic: essential oils (see separate *'Essential Oils'* guideline), petroleum distillates, turpentine

Aromatic: benzene, xylene, toluene

Halogenated: carbon tetrachloride, methylene chloride, chloroform

Alkane gases: propane, butane

Toxicity: *Most exposures are benign*

Oral: gastric irritation, risk of pulmonary aspiration

Inhalation: see separate *'Inhalants/Volatile Substance Use'* guideline

Dermal: dermatitis, defatting injury of skin or chemical burns

Clinical features:

Pulmonary: cough, tachypnoea, dyspnoea, wheeze, low SpO₂

can be delayed 6 hours. Prolonged inhalation can lead to asphyxia

CNS: euphoria, disinhibition, CNS depression, seizures. Usually rapid

onset within 1-2 hours

Renal toxicity: Acute toluene – high AG metabolic acidosis. Chronic toluene – renal tubular acidosis, hypokalaemia

Hepatotoxicity: particularly halogenated hydrocarbons

CO poisoning: unique to methylene chloride exposure

CVS: arrhythmias, Sudden Sniffing Death Syndrome (rare)

Management

Supportive care and attention to ABCs is the mainstay of management.

Intubation and ventilation may be required for significant CNS depression.

Decontamination:

Remove clothing and decontaminate skin as required. There is no role for activated charcoal.

Seizures:

Diazepam 5-10 mg IV every 5 min as necessary

Aspiration pneumonitis

Management is supportive

Oxygen and bronchodilators as required

Severe cases may require non-invasive or mechanical ventilation

There is no proven role for corticosteroids or antibiotics

Cardiotoxicity (More likely to occur in inhalational exposures)

- see separate *'Inhalants/Volatile Substance Use'* guideline

Hepatotoxicity (*Possible with clove oil, pennyroyal oil and halogenated hydrocarbons*)

- Use of NAC may be hepatoprotective (see separate *'Essential Oils'* guideline)

Disposition:

Ingestions with normal CXR and no symptoms can be discharged after 6 hours observation

pending mental health assessment (if indicated). Advise patients to seek medical review if they

develop any respiratory symptoms within 72 hours post ingestion