### Solvents, Anesthetics, Sedatives (SAS)

#### Affected Areas
- Central Nervous System (CNS)
- Peripheral Nervous System (PNS)
- Cardiac (secondary effects)
- Hematological
- Skin
- GI
- Hepatic
- Renal

#### Immediate Symptoms
- CNS agitation or (more commonly) depression
- Behavioral changes
- Slurred speech
- Nystagmus (abnormal eye movements)
- Ataxia (difficulty walking and balancing)
- Secondary cardiac arrest from release of catecholamines [solvents]
- Chemical dermatitis (chemical burns)
- Defatting from skin exposure to solvents

#### Ongoing Symptoms
- Possible initial agitation [solvents]
  
  **Progressing to:**
  - Confusion
  - Slurred speech
  - Ataxia
  - Loss of consciousness
  
  **Sometimes subsequently progressing to:**
  - Coma
  - Convulsions
  - Respiratory arrest
  - Cardiac dysrhythmias (irregular heartbeat)
  - Cardiac arrest

  Cardiac arrest may be the first sign with high inhaled doses of solvents

#### Examples
- Gasoline
- Benzene
- Toluene
- Xylene
- Carbon tetrachloride
- Methylene chloride
- Freon
- Nitrous oxide
- Benzodiazepines (e.g., diazepam, alprazolam, midazolam)
- Barbiturates (e.g., phenobarbital, pentobarbital)

#### Sensitive Populations
- No particularly sensitive populations

#### Concerns About This Syndrome
Because several different compounds form a part of this toxidrome, subtle differences among the clinical presentations may be missed; however, the signs and symptoms of exposure to each of these chemicals or drugs is similar enough to warrant inclusion in a combined toxidrome. It will be important to emphasize the difference between acute effects and delayed effects (primarily neurotoxicity from solvent exposure).

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**CHEMM**
Not meant to be a complete care guideline. Please refer to the CHEMM website for more information: [http://chemm.nlm.nih.gov/mmghome.htm](http://chemm.nlm.nih.gov/mmghome.htm)