

**Affected Areas**

- Central Nervous System (CNS)
- Smooth Muscle
- Exocrine Glands
- Skeletal Muscle

**Immediate Symptoms**

**SLUDGEMM:**

- Salivation
- Lacrimation
- Urination
- Defecation
- GI
- Emesis
- Miosis: Changed mental status
- Muscle: Respiratory distress (bronchospasm)

**SLOBBERED**

- Salivation
- Lacrimation
- Obtundation
- Bronchoconstriction/bronchorrhea
- Bradycardia
- Eye findings

**Immediate Symptoms (cont.)**

- Reduced vascular tone
- Emesis
- Diarrhea

**Ongoing Symptoms**

**Local Effects**

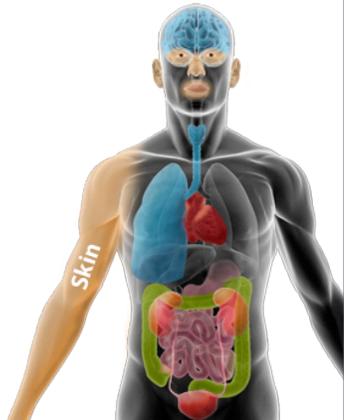
*Vapor to face:*

- Miosis
- Lacrimation
- Hypersalivation
- Wheezing

*Liquid to skin: Local sweating with fasciculations or twitching*

At increasing dose: Systematic effects (GI, CNS)

At high dose: All symptoms can occur suddenly; rapidly fatal if untreated



**Examples**

**Chemical Warfare Agents**

- Nerve agents\**
- GA (tabun)\*
- GB (sarin)\*
- GD (soman)\*
- VX\*

\*May be weaponized

**Toxic Industrial Chemicals/Toxic Industrial Materials**

*Carbamate insecticides*

- Aldicarb
- Methomyl

*Organophosphate insecticides*

- Chlorpyrifos
- Parathion

**Common Treatment Protocols**

- Atropine
- 2-PAM (oximes)
- Benzodiazepines
- Airway and breathing support
- Scopolamine (not FDA-approved)
- Ketamine (not FDA-approved)
- Decontamination

**Sensitive Populations**

No particularly sensitive populations

**Concerns About This Syndrome**

The toxidrome encompasses insecticides and nerve agents, which can differ radically in potency. Clinical onset varies by state of agent and route of exposure as well as in especially sensitive populations (including children). Management differs between insecticides and nerve agents. Chemical aging is a concern with GD and possibly with certain insecticides. There is a differing clinical presentation in children. Infants and young children in many instances present only with neurological signs and symptoms.