



- g. Shortness of breath
 - h. Chest tightness
 - i. Bronchospasm wheezing
 - j. Change in voice
 - k. Upper airway obstruction includes laryngospasm and laryngeal edema
 - l. Corneal burns or ulcers
 - m. Skin burns
 - n. Pharyngeal, tracheal, bronchial burns
 - o. Dyspnea/tachypnea
 - p. High concentrations and or protracted exposure may develop non-cardiac pulmonary edema
 - q. Esophageal burns
12. Chlorine
- a. All the above (ammonia)
 - b. Increased likelihood of the following
 - i. Bronchiole burns
 - ii. Bronchospasm wheezing
 - iii. Non-cardiac pulmonary edema develops within 6–24 hours of higher exposures
13. Phosgene
- a. Often have none of the above symptoms for first half hour to several hours then are much milder until more severe lower respiratory tract symptoms develop
 - i. Only warning is report of "fresh mowed hay" odor
 - ii. Mild airway irritation or drying
 - iii. Mild eye irritation
 - iv. Fatigue
 - v. Chest tightness
 - vi. Dyspnea/tachypnea
 - vii. Significant delay up to 24 hours for
 - 1. Exertional dyspnea
 - 2. Bronchospasm wheezing
 - 3. Hypoxia
 - 4. Severe non-cardiac pulmonary edema
 - 5. Cardiopulmonary arrest
14. Hydrogen sulfide — A direct neurotoxin and is rapidly absorbed through lung generating systemic effects
- a. Distinctive rotten egg smell which rapidly causes olfactory fatigue/loss of sense of smell
 - b. Cough
 - c. Shortness of breath
 - d. Rapid alternations in cognition or consciousness
 - e. Bronchiole and lung hemorrhage/hemoptysis
 - f. Non-cardiac pulmonary edema
 - g. Hydrogen sulfide is known as the "knock down" gas because of near immediate and sudden loss of consciousness with high concentrations
 - h. Asphyxia
 - i. Death
15. Nitrogen dioxide (also called Silo Filler's disease)