

SIGNS AND SYMPTOMS OF CHEMICAL EXPOSURES

Class of chemical exposure	Signs and symptoms	
CHEMICAL WARFARE AGENTS		
Nerve agents (e.g. Tabun, Sarin or VX)	Mild	Dizziness, anxiety, headache, weakness, chest tightness, rhinorrhoea, coughing, sweating, salivation, lacrimation, nausea, Mild bradycardia and hypotension
	Moderate	Restlessness, confusion, drowsiness, loss of consciousness, miosis/mydriasis*, eye pain, muscle twitching, fasciculation, abdominal pain, vomiting, diarrhoea, bradycardia/tachycardia*, hypotension / hypertension*, pallor, dyspnoea, bronchorrhoea, bronchospasm, respiratory depression
	Severe	Convulsions, flaccid paralysis, deep coma, involuntary micturition/defecation, respiratory failure, pulmonary oedema, cyanosis
	Fatal	Coma, convulsions, hypersecretions and apnoea within a few minutes of exposure

*Depending on whether the muscarinic or nicotinic syndrome is dominant, miosis or mydriasis, bradycardia or tachycardia, hypotension or hypertension may occur.

Blister agents (e.g. mustard gases, lewisite)	Lachrymation, eye irritation, conjunctivitis, corneal damage, transient blindness, hoarse voice, sore throat Delayed signs and symptoms (several hours): Redness and blisters of the skin with pain. Later on, detachment of the upper skin layers with impaired wound healing. Blister formation is typically delayed following exposure to sulfur mustard, but rapid following exposure to lewisite. Upper airway irritation Respiratory distress – usually a late complication Immune deficiency
Cyanide	Gasping for air, asphyxiation, mydriasis, seizures, tachycardia, arrhythmias, confusion, nausea, cherry-pink skin (cyanosis also possible)

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INCAPACITATING AGENTS	
Agent 15, BZ	Mydriasis, altered consciousness, delusions, hallucinations, dry mouth and skin, tachycardia, hyperthermia, ataxia
Opioids	Miosis, drowsiness, dizziness, ataxia, coma, respiratory depression, apnoea

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RIOT CONTROL AGENTS (RCA)	
Tear gas / riot control agents	Stinging and burning sensation to eyes and mucous membranes, lachrymation/salivation, runny nose, tight chest, headache, nausea

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OTHER TOXIC CHEMICALS	
Chlorine	Eye redness and lachrymation, upper airway irritation, cough (may be productive), suffocation or choking sensation, tight chest, shortness of breath/wheezing, hoarse voice, nausea and vomiting Delayed signs and symptoms (a few hours): pulmonary oedema
Phosgene	Eye redness and lachrymation, nausea and vomiting, tight chest, shortness of breath/wheezing, hypotension Delayed signs and symptoms (up to 72 hours): pulmonary oedema