Accommodation Adjustment or adaptation, especially that of the eye for

various distances resulting in pupil constriction or di-

lation

ACh Acetylcholine—a neurotransmitter secreted at synapses

of cholinergic nerves

AChE Acetylcholinesterase—an enzyme that hydrolyzes

acetylcholine into choline and acetic acid

ACTH Adrenocorticotropic hormone

Aerosol A suspension or dispersion of small solid or liquid parti-

cles in air or gas

 $\begin{array}{ll} AFB_1 & Aflatoxin \, B_1 \\ AFG_1 & Aflatoxin \, G_1 \end{array}$

AFIP Armed Forces Institute of Pathology
Agent L Lewisite: dichloro(2-chlorovinyl) arsine

Agent Q Sesquimustard, 1,2-bis-(2-chloroethylthio) ethane—a

potent vesicant

Agent T bis-(2-chloroethylthio ethyl) ether—an agent stockpiled

during World War II as a mustard agent additive:

Alopecia Absence of hair from skin areas where it normally is

present

Analog A chemical compound structurally similar to another

chemical compound and having the same effect on

body processes

Anticholinergic A substance that inhibits the ability of nerve fibers to lib-

erate ACh at a synapse when a nerve impulse passes

Anticholinesterase A substance that inhibits the action of the enzyme

cholinesterase

Aphonia Inability to produce speech sounds

Apoptosis Programmed cell death, signaled by the nuclei in nor-

mally functioning human and animal cells when age or state of cell health and condition dictates; an active process requiring metabolic activity by the dying cell

ATP Adenosine 5´ triphosphate—a nucleotide cofactor im-

portant in many biological reactions where energy is

transferred

Blepharospasm Twitching of an eyelid

Bronchiectasis Persistent and progressive dilation of bronchi or bron-

chioles as a consequence of inflammatory disease, obstruction or congenital abnormality; symptoms include fetid breath and paroxysmal coughing, with the

expectoration of mucopurulent matter

CAM Chemical Agent Monitor (a UK detection device)

Casualty An individual incapable of performing normal tasks; in-

cludes both those who are temporarily incapacitated

and those who are killed

Catabolism Any destructive metabolic process by which organisms

convert substances into excreted compounds

CCEP Comprehensive Clinical Evaluation Program

Centrilobular coagulative necrosis

A pathological change in the liver

Cerebral edema The presence of abnormally large amounts of fluid in

brain

ChE Cholinesterase

Chemical warfare

agent

A solid, liquid, or gas that, through its chemical properties, produces lethal or damaging effects on man, ani-

mals, plants, or materials

Chemotactic A response of motile cells or organisms in which the di-

rection of movement is affected by the gradient of a diffusible substance; differs from chemokinesis in that the gradient alters probability of motion in one direc-

tion only, rather than rate or frequency

Chiral A molecule that, in a given configuration, cannot be su-

perimposed on its mirror image; thus, a given chemical formula can have many different chiral forms, which may react differently in some biological processes

Chlorine gas A lung irritant extensively used during World War I,

generally in admixture with phosgene

Cholinergic Effects produced on the parasympathetic nervous sys-

tem similar to those ACh produces

CIA Central Intelligence Agency

Contamination The presence of a foreign or unwanted substance on ter-

rain, personnel, or equipment

CT Product of concentration (mg/m³) multiplied by time of

exposure (min) (see Appendix A)

CX Phosgene oxime; dichloroform oxime

Cyclosarin Cyclohexyl methylphosphonofluoridate—a nerve agent

also known as GF

DAS Diacetoxyscipenol

Decontamination The process of removing and destroying a contaminant

DEET Diethyl-*m*-toluamide, an insecticide

herpes virus type I; a characteristic finding on physical examination of the eye (cornea) is a dendritic

(crystalline or tree-like) pattern

DFP Diisopropyl fluorophosphate—a weak organophosphate

nerve agent, also known as agent PF3

DMSO Dimethylsulfoxide

DNA Deoxyribonucleic acid
DSB Defense Science Board

DTIC Defense Technical Information Center

EEG Electroencephalogram—detects abnormalities in the

electrical waves emanating from different areas of the

brain

Electroretinogram A graphic record of electrical activity of the retina, used

especially in the diagnosis of retinal conditions

ELISA Enzyme-linked immunoadsorbent assay

Enkephalin Either of two molecules found in the brain of some

mammals that have pain-killing properties and seem to be composed of two small peptides, but these may

be the breakdown products of larger molecules

Extrapyramidal syndromes

The extrapyramidal system of the nervous system is centered on the basal ganglia and influences motor control through pyramidal pathways, generally by means of input to the thalamus. When the extrapyramidal system is disturbed, motor control is affected, and patients suffer extrapyramidal syndromes. These are a combination of neurologic effects that include tremors, chorea, athetosis, and dystonia. This is a common side effect of neuroleptic agents (phenothiazines). Other medications known to cause these reactions include haloperidol; molindone; perphenazine and amitriptyline; loxapine; pimozide; and, rarely, benzodiazepines.

GA Tabun, O-ethyl N,N-dimethylphosphoroamido-

cyanidate—a nerve agent

GAO General Accounting Office

GB Sarin, O-isopropyl methylphosphonofluoridate—a

nerve agent

GD Soman, O-pinacolyl methylphosphonofluoridate—a

nerve agent

GF Cyclosarin, Cyclohexyl methylphosphonofluoridate—a

nerve agent

Granulation The formation in wounds of small, rounded masses of

tissue composed largely of capillaries and fibroblasts,

often with inflammatory cells

H Levinstein mustard, 2,2-dicholorodiethylsulfide

HD Distilled mustard Hematemesis The vomiting of blood

Hemoptysis The expectoration of blood or of bloodstained sputum

Hemorrhagic diathesis

A constitution or condition of the blood that makes the tissues react in special ways to certain extrinsic stimuli and thus tends to make the person more than usually

susceptible to certain diseases

HL A mixture of mustard and lewisite

HMT Hexamethylene tetramine

HT A mixture of distilled mustard and Agent T

HT-2 Hydrolyzed T-2

Hydrolysis The addition of the hydrogen and hydroxyl ions of water

to a molecule, with its consequent splitting into two or

more simpler molecules

Hypopion An eye condition in which there is pus in the anterior

chamber of the eye, usually resulting from a corneal

laceration or abrasion

Hypovolemia A condition of abnormally low intravascular volume

> with a decreased volume of circulating plasma in the body, which can be due to blood loss or dehydration

ICD International Classification of Diseases code

IEG Immediate early gene

IMPA isopropyl methylphosphonic acid

Incapacitating

agent

An agent that produces temporary physical or mental effects that will render individuals incapable of concerted effort in the performance of their assigned du-

ties

IOM Institute of Medicine

Keratitis Inflammation of the cornea—a noninflamatory dystro-

phy of the cornea

Keratopathy Disorder of the cornea

L Lewisite; chlorovinyldichloroarsine—a skin blistering

agent

 LC_{50} The concentration required to kill 50 percent of test in-

dividuals

 LCL_0 Lowest reported lethal concentration

 LCT_{50} Product of the concentration times time that causes

lethality in 50 percent of the exposed population.

 LD_{50} The dose required to kill 50 percent of test individuals

 LDL_0 Lowest reported lethal dose

Macrovesicular

steatosis

Fat deposits in tissue

Mediastinal lym-

phadenitis

Inflammation of lymph nodes in the space in the thoracic cavity behind the sternum and in between the

two pleural sacs

Methenamine An antibacterial agent, most commonly used in the

> treatment of urinary tract infections, whose antibacterial action derives from the slow release of formalde-

hyde by hydrolysis at acidic pH

Mimetic The symptomatic imitation of one organic disease by

another

Miosis Constriction of the pupils of the eye
MMWR Morbidity and Mortality Weekly Report

Motor end plate The structure in which motor nerve fibers terminate

with branching processes in a striated muscle fiber

Motor neuron Nerve cell concerned with carrying impulse away from

the central nervous system to an effector organ, such

as a muscle or gland

MPA Methylphosphonic acid

Mustard bis-(2-chloroethyl)sulfide; also known as agent H or

distilled mustard (HD)-a skin blister agent

MW Molecular weight

Myelosuppression The suppression of bone marrow activity, resulting in

reduction in the number of platelets, red cells and

white cells found in the circulation

N Normal (equivalents per liter, as applied to concentra-

tion); nitrogen (as in N-methylpyridine)

Na₂CO₃ Sodium carbonate NaCl Sodium chloride

NAD Nicotinamide adenine dinucleotide—a cofactor in-

volved in various metabolic pathways as a hydrogen

acceptor, forming NADH2

NADPH Nicotinamide adenine dinucleotide phosphate reduc-

tase-a cofactor similar to NAD

NaOH Sodium hydroxide

NAS National Academy of Science NATO North Atlantic Treaty Organization

Nettle gas An agent that causes stinging similar to that of nettles

Neuronolysis Breakdown of nerve cells

Neurotransmitter A chemical, such as ACh, that is secreted at a nerve

ending and allows the transmission of a nervous im-

pulse across a synapse

NH₂- Ammonium ion

NIH National Institutes of Health

Nonpersistent A CW agent that retains its toxicity for several hours or

Agent less under normal weather and terrain conditions

NRC National Research Council, part of the National

Academy of Science

NTE Neuropathy target esterase

Nystagmus An involuntary, rapid, rhythmic movement of the eye-

ball, which may be horizontal, vertical, rotatory or

mixed

ОН-Hydroxide ion

OPIDN Organophosphate-induced delayed neuropathy

Orthostatic hy-Low blood pressure when rising from a chair or bed; a potension

drop in blood pressure precipitated by changes in body

position

OSAGWI Office of the Special Assistant for Gulf War Illnesses **OSRD** Office of Scientific Research and Development

Oxidation Any process involving the addition of oxygen, loss of hy-

drogen, or loss of electrons from a compound

Oxime A cholinesterase reactivator used in the treatment of

organophosphate poisoning

P2S Pyridine-2-aldoxime methyl methanesulfonate—a

cholinesterase reactivator.

P³² Chemical symbol for the radioactive isotope of phos-

phorus of atomic mass 32

PAC Presidential advisory committee

PAM Pyridine-2-aldoxime methochloride, Pralidoxime chlo-

ride, 2-PAM chloride, Protopam—a cholinesterase re-

activator

Parasympathetic

nervous system

A network of nerves that controls such involuntary, unconscious, automatic bodily reactions as dilation of certain blood vessels, slowdown in heartbeat, narrowing of pupils, salivation, and increased nasal secretion; the sympathetic nervous system generally has opposite

effects

PB Pyridostigmine bromide—a pretreatment compound for

nerve agent, antidote-enhancing compound

PCO₂Symbol for carbon dioxide partial pressure (tension)

PEG Polyethylene glycol Percutaneous Penetration of the skin

Persistent agent A CW agent that retains its toxicity for one to several

days under normal weather and terrain conditions

Phosgene Also known as agent CG— a choking agent

Pretreatment An intervention that, if given before exposure, makes

subsequent therapy far more effective and that modifies the manifestations of exposure favorably; includes most interventions currently used prospectively

against military chemicals

Prophylaxis An intervention that, if given before exposure, prevents

> the development of casualties or adverse effects; for example, immunization against vellow fever, which completely protects persons exposed to infected

mosquitoes

PTSD Post-traumatic stress disorder

Q Sesquimustard; 1,2-bis (2-chloroethylthio) ethane R Alkyl, univalent hydrocarbon radical (or hydrogen)

Radiomimetic Having effects similar to those of radiation

RBC Red blood cells

Reduction Decreasing the oxygen content or increasing the pro-

portion of hydrogen in a chemical compound or

adding an electron to an atom or ion

RNA Ribonucleic acid

S4 gallop Fourth heart sound, generally a sign of a failing ventricle Sarin

Isopropyl methylphosphonofluoridate, also known as

Trilon 46 and GB—a nerve agent

SCE Sister chromatid exchange

Scleral Having to do with the sclera or white of the eye

SGOT Serum glutamic oxalacetic transaminase **SGPT** Serum glutamic pyruvic transaminase

SH Sulfhydryl group

Sign What the physician finds on examination; compare

symptom

SIPRI Stockholm International Peace Research Institute

1,2,2-Trimethylpropyl methylphosphonofluoridate; a Soman

nerve agent also known as GD

Stomatitis Inflammation of the oral mucosa due to local or sys-

> temic factors that may involve the buccal and labial mucosa, palate, tongue, floor of the mouth, and gingi-

vae

Sympathetic nervous system A net sels,

A network of nerves that trigger constricting blood vessels, making hair stand on end, raising "gooseflesh" on the skin, widening the pupils, contracting most sphincters, and speeding up the heartbeat; these stimulants add up to the "startle reaction" by which the body mobilizes for "flight or flight" in the face of sudden danger or surprise

sudden danger or surprise

Symptom What the patient complains of; the body's signal that

something is wrong; compare sign

Synapse The region of junction between processes of two adja-

cent neurons forming the place where a nerve impulse

is transmitted from one neuron to another

Syndrome A set of symptoms or signs that together characterize or

identify a specific disease or disorder

Synechia A disease of the eye, in which the iris adheres to the

cornea or to the capsule of the crystalline lens

T-2 One member of the trichothecene mycotoxin family; 4⁻,

15-diacetoxy-8a-3 methylbutyryloxy-12, 13-epoxytri-

chothec-9-en-3a-ol

Tabun Ethyl N, N-dimethylphosphoramidocyanidate; a nerve

agent also known as Trilon 83, Le 100, gelan, MCE, and

GA

TDLo Lowest reported toxic dose

TG Thiodiglycol

TGMTase Thioethermethyl transferase, an enzyme

Thickening agent A substance added to CW agents to increase their vis-

cosity

Thrombocyto

penia

A decrease in the number of platelets in the blood, resulting in the potential for increased bleeding and de-

creased ability for clotting

TMB-4 Trimethylene-di-(pyridine-4-aldoxim-) dibromide

TOCP Tri-o-cresyl phosphate, tri-o-tolyl phosphate

Toxic encephalopa- A toxic degenerative disease of the brain

thy

Toxin A poisonous substance generally of microbial, vegetable

or animal origin

UK United Kingdom
UN United Nations

UNSCOM United Nations Special Commission

Uriticant A substance that causes itching

USAF United States Air Force

USAMRIID U.S. Army Medical Institute of Infectious Disease

V-agents A family of nerve agents consisting of alkyl esters of S-

dialkylamino ethylmethylphosphonothiolic acids

V-agents A family of nerve agents consisting of alkyl esters of S-

dialkylamino ethylmethylphosphonothiolic acids

VA Veterans Administration

VE O-ethyl S-(2-diethylaminoethyl) ethylphosphonothio-

late, o-ethyl-s-(2-isopropylaminoethyl) methylphos-

phonothiolate

Vegetative asthenic European designation of illness with symptoms of

weakness, fatigue, and cardiovascular changes

Vesicant Causing blisters

VX ethyl-s-diisopropylaminoethyl methylthiophospho-

nate-a nerve agent

WHO World Health Organization

Yperite Mustard agent (also called Agent H, mustard gas)