

## GLOSSARY

**Acidosis**—an increase in the acidity of the blood caused by an increase in acid in the blood (*i.e.*, hydrogen ions) or a decrease in the alkaline reserve in the blood and body tissues (*i.e.*, bicarbonate), or by the buildup of carbon dioxide in the blood, which decreases the blood pH level below the normal range of 7.35 to 7.45.

**Adrenergic state**—a condition resulting from the release of epinephrine and/or norepinephrine (adrenaline) into the body, leading to a heightened state of awareness, anxiety, and/or agitated activity.

**Autonomic instability**—an instability in the nervous system causing symptoms which may include rapid breathing, sweating, increased heart rate, and unstable blood pressure. Autonomic instability is commonly exhibited by patients suffering delirium—a medical, physiological response to external insults (*i.e.*, changes in perception).

**Aneurysm**—a blood-filled bulge formed by a weakness or disease in the wall of an artery, a vein, or the heart.

**Agonal gasping reflex**—a brain stem reflex causing an individual to take strong gasps for air, sometimes a last gasp.

**Arrhythmia (or Dysrhythmia)** —variation from the normal rhythm or number of beats per minute of the heart.

**Bradycardia**—refers to a slow heartbeat and can result in lowered blood pressure.

**Bipolar**—a mood disorder that can shift between depression and intense activity.

**Cardiopulmonary resuscitation (CPR)**—a technique to restore breathing and heartbeat through external manipulation.

**Catecholamine**—a type of hormone or neurotransmitter that may be secreted from the adrenal glands, often associated with the “fight or flight” syndrome.

**CEW**—conducted energy weapon.

## GLOSSARY

***Commotio cordis***—a sudden disturbance to the heartbeat resulting from a sharp and strong non-penetrating blow to the chest area, occurring often in sports events.

**Conducted energy weapon**—an electrical device (weapon) that discharges a high voltage—low amperage current that causes extreme pain and/or neuromuscular incapacitation.

**Congestive heart failure**—a condition in which the heart cannot pump enough blood to supply the body's tissues with sufficient oxygen.

**Contralateral positioning**—positioning on the opposite sides.

**Defibrillation**—a treatment used to restore an arrhythmic (abnormally beating) heart to a normal cardiac rhythm, often by applying an electrical shock.

**Delirium tremens**—commonly known as the DTs, episodes of shaking following withdrawal from alcohol or drugs; also referred to as the “shakes.”

**Dopaminergic**—pertaining to the neurotransmitter dopamine.

**Electrocardiogram (ECG or EKG)**—a graphic illustration of the electrical activity of the heart.

**Electrolyte**—a substance (solid or liquid) that can conduct an electrical current.

**Excited delirium**—a controversial term used to describe a person who is highly agitated and often under the influence of stimulants/drugs or suffering from a mental condition.

**Homeostasis**—the maintenance of relatively stable and constant internal physiological conditions.

**Hyperthermia**—a condition of having an elevated temperature of the body.

**Hypertrophic cardiomyopathy**—a disease of the muscle of the heart, also a thickening of the heart muscles.

**Hypocalcemia**—a condition of having a shortage of calcium in the blood.

**Hypoxia**—a condition of having a shortage of oxygen in the blood.

**Intercostal muscles**—the muscles that run between and are connected to the ribs.

**IM/IM**—Incident Management/Intervention Model, graphic and criteria developed and adopted by the RCMP to guide officers in the use of force.

**Ipsilateral positioning**—positioning on the same side.

**Ischemia**—a lack of blood flow to a part of the body such as the heart.

**Joule**—a measurement of electrical energy. A joule is equivalent to one watt lasting one second.

**Lethal cover, lethal force overwatch**—the practice of a least one police officer having her/his firearm ready during an incident while another officer is using less lethal methods.

**Muscular tetany**—the involuntary contraction or spasm of muscles.

**Myocardial infarction**—commonly known as a heart attack, occurs when the blood supply to the heart or a part of the heart is interrupted.

**Myocardium**—a layer of muscles in the wall of the heart.

**Neuromuscular incapacitation**—the loss of muscle control caused by involuntary stimulation of the sensory and motor nerves.

**NUFF**—National Use of Force Framework, a graphic illustration and criteria developed and adopted by the Canadian Association of Chiefs of Police to guide officers in the use of force.

**P-wave**—represents the contraction of the upper chambers of the heart (atria) on an ECG.

**Petechia**—a small red or purple spot on the body containing blood, caused by a localized hemorrhage.

**Pepper spray**—a chemical spray irritating and painful to the eyes. Also known as oleoresin capsicum or OC spray.

**Probe mode**—refers to the application of electrical current through two “hook-like” probes that are fired from a conducted energy weapon such as the TASER X26.

**Push-stun mode**—refers to the direct application of electrical current by firmly applying the two terminals at the end of the conducted energy weapon against a subject.

## GLOSSARY

**QRS**—represents contraction of the ventricles on an ECG.

**T-wave**—represents the peak of the recovery period in one cycle of the heart rhythm.

**Taser**—commonly used to refer to a conducted energy weapon.

**Renal**—pertaining to the kidney(s).

**Rhabdomyolysis**—muscle damage that releases impurities to the blood and can lead to an overload of the kidneys and eventual kidney failure.

**Schizophrenia**—a mental disorder whereby the individual has a perceptual difficulty that can be expressed through hallucinations, paranoia, and delusions.

**Sinus rhythm**—the normal rhythm of the heart, as set by the sinoatrial node (the heart's natural pacemaker) of the heart.

**Systolic function**—the phase of blood circulation in which the heart's ventricles are actively pumping blood and the pressure against the arteries is at its highest.

**Transdiaphragmatic positioning**—positioning across the diaphragm.

**Ventricular capture**—contraction of the ventricles caused by an electrical impulse in the heart, or the control over the contraction of the ventricles.

**Ventricular fibrillation**—a condition in which there is uncoordinated and abnormal contraction of the muscles of the ventricles in the heart.

**Ventricular tachycardia**—the rapid beating of the ventricles of the heart causing an abnormally fast heart rate.