How to Recognize the Signs of Abnormal Breathing

"It's not fair, I'm telling you, it's not fair!" "Officer, calm down! Calm down!" said the Internal Affairs investigator in a loud voice. "How can I calm down when the department didn't train me about what to look for and you guys are now trying to hold me and my backup officers responsible for his death," replied the officer.

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Historically, many defensive tactics and/or restraint instructors have taught Law Enforcement Officers (LEOs) how to control and restrain a person (knee on the back of a proned suspect for control), but have often neglected to teach officers the signs and symptoms of abnormal breathing and how to identify them. This is changing. In the post-George Floyd culture, a few states, such as California, have passed legislation which can hold officers criminally liable for the failure to monitor for signs of asphyxia or, more accurately, abnormal breathing. To save lives and careers, it is critically important that LEOs get training on how to recognize the signs of abnormal breathing.

A few states (including California) have recently passed a statute by which LEOs can be held criminally liable when a suspect's death can be attributed to positional asphyxia and/or physical restraint.

In today's "cancel culture" and "anti-police" environments, opinions have replaced facts and logic. Lawsuits have been filed against governmental entities and first responders because the person with whom they had fought, arrested or tried to help died and, therefore, someone had to be held accountable . . . and pay! A recent multimillion dollar verdict to plaintiffs in a western city only feeds the frenzy of what some people have called the "litigation lottery."

Redirecting Resisting Subjects to the Ground

Struggling subjects pose a risk not only to themselves, but also to LEOs. Frequently, LEOs redirect struggling and resisting individuals to the ground for safety and stability. The ground or similar firm surface acts as a platform to help control the individual, preventing him (or her) from falling. (Lie on the floor in a prone or supine position and try to fall.) After the resisting subject is on the ground and, often, in a prone position, the LEO often places a knee across the person's shoulder blade area of the back for better physical control of the person. Handcuffs and/or other restraints are then applied before removing the subject from the ground to an awaiting vehicle. Regrettably, and rarely, the restrained individual suddenly becomes unresponsive and dies.

Criminal charges and/or civil litigation may be filed against the involved officer(s) claiming the person had asphyxiated because of positional asphyxia – failure to recognize and respond to abnormal breathing – even though the individual may have had drugs in his (or her) system, had heart or breathing issues, and/or other physical ailments. In far too many instances, the decedent said repeatedly, "I can't breathe," only to have his pleas ignored. Too often, it is discovered during the discovery phase of the litigation that the involved LEOs had training on how to appropriately restrain resisting subjects, but had no (or ineffective) training about how to recognize the signs of abnormal breathing.

Critical Thinking

Before teaching LEOs and other first responders the signs and symptoms of abnormal breathing, they must first be taught how to critically think about the situation involving them. In short, they must be trained to think and to recognize when the struggling person changes from being a sus-

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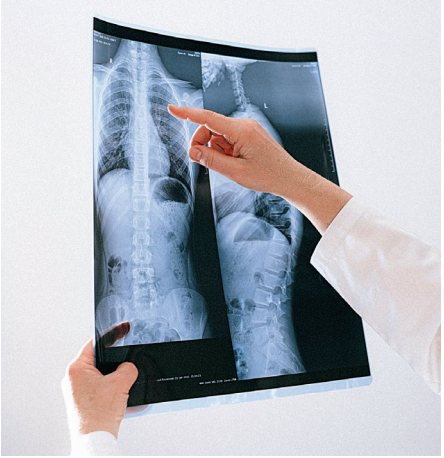

Asphyxia occurs when the human body is not getting enough oxygen because adequate gas exchange is not taking place.

pect to becoming a patient. Critical thinking involves evaluating the information one has received (e.g., noisy breathing), determining if the "claim" is true (err on the side of the person's claim), and then concluding the suspect is transitioning, or has transitioned, into a patient in need of immediate medical care. This is a necessary module of instruction, but it may not be sufficient unless scenario-based and competency-based training are used to quantitatively assess how LEOs apply what they see and hear to a hypothetical situation. Important definitions and behaviors must also be taught to LEOs.

Asphyxia

Definitions vary, but generally asphyxia means that the human body is not getting enough oxygen which can lead to passing out or death because adequate gas exchange is not taking place. In short, the oxygenation of blood cells by the oxygen which is inhaled is not being adequately "exchanged" in the blood stream enabling the person to release carbon dioxide into the atmosphere. Gas exchange occurs in the human body during the respiratory phase and cannot be seen with the naked eye. A lack of appropriate gas exchange in the lungs can cause changes in heart rate, skin signs and the level of consciousness. It will also cause the person who is in distress to tell you they cannot breathe. If left unrecognized and untreated, disability and/or death can occur.

Asphyxia Types

Medically, asphyxia can be grouped as follows: Mechanical (aka "physical"); positional/postural (a form of mechanical asphyxia); restraint; sexual or autoerotic; environmental (e.g., smoke); or traumatic (aka "compressional").

Positional and/or postural asphyxia is when the positioning of the human body interferes with adequate breathing (think sliding under side bed rails). Traumatic asphyxia is often referred to as "compressional asphyxia" when too much weight has been applied to the back or chest of an individual, interfering with adequate breathing (think knee on the back/chest).

Asphyxiation

"Asphyxiation" is a derivative of the word asphyxia and means without a pulse. It is a medical emergency. There are two categories of asphyxiation: external and internal. External asphyxiation includes gagging, drowning, asthma, neck compression, positional asphyxia, seizure, drug overdose, and mechanical or traumatic asphyxia.

In contrast, internal asphyxiation includes acidosis; aspiration of gastric contents; pre-swallowing, swallowing and post-swallowing aspiration; and hypoxia asphyxiation.

Airway Anatomy and Adequate Breathing

Adequate breathing is a subconscious act which can also be consciously controlled. The airway system is one part of the body's vital life functions. Breathing allows the body to inhale and exhale air which affords it the ability to exchange gasses to function normally. It extends from the mouth and nostrils, trachea, both lungs, and all the way to the smallest passages in the lungs. Normal breathing in adults consists of 12 to 20 breaths per minute. However, these numbers are based on healthy adults under nonstress conditions.

It is important to know about adequate breathing before discussing abnormal breathing. Breathing is simply the volume of air moving into and out of the lungs. It is coupled with a respiratory rate which is the number of times a person breathes in one minute. In short, the body's goal is to breathe in and exhale an adequate amount of air as often as possible for its current condition.

Abnormal Breathing

Prior to a person asphyxiating, there are often visual and/or auditory signs and symptoms which alert LEOs and other first responders that the person is experiencing

abnormal breathing. Abnormal breathing, also known as respiratory distress, dysfunctional breathing or breathing pattern disorder, can have many causes including foot pursuits, struggling with others, fighting, running, and a forceful bear hug. However, not all abnormal breathing will result in asphyxiation.

For example, LEOs chasing a suspect during a foot pursuit will probably notice heavy, abnormal breathing in the suspect and, possibly, in other officers at the end of the foot pursuit. At face value, the respiratory rate for all involved will have increased, as well as the volume of air exchanged. Once the event is over and none of the individuals involved is no longer stressed, this form of abnormal breathing will correct itself in a few minutes; however, if it does not or if it worsens, consider it a medical emergency.

Talking Does Not Equal Breathing, or Does It?

During Cardiopulmonary Resuscitation (CPR) training, instructors teach students that, if a patient is talking, they are breathing. This is a true statement as long as the teaching point is related to an obstructed airway from foreign matter obstructing the upper airway. During EMS calls related to patients in respiratory distress, it is not uncommon for patients to cry out, saying they "cannot breathe" or struggle to speak, saying they "are dying." In the examples noted, the patients can speak (air is passing over the vocal cords), but they may be experiencing abnormal breathing. First responders should critically examine the root cause of their complaint and should take appropriate lifesaving measures.

From an LEO centric perspective, too often the national or social media show a spokesperson for a law enforcement agency say, "If he was talking, he was breathing." This is simply not correct. One or two breaths do not confirm that the person is breathing adequately and may indicate agonal (agony) breathing, indicating that death is imminent. Similarly, lip movement does not prove adequate breathing. Talking is simply air passing over the vocal cords and may indicate ventilation, but not respiration. "Talking is breathing," but is it adequate to sustain life?

If a person says, "I can't breathe," it may indicate the individual cannot properly exchange gasses contained in air (respiration) and may actually be "suffocating" from the increase of carbon dioxide. This may be a verbal manifestation of inadequate gas exchange.

A subject's ability to speak is simply air passing over the vocal cords and may indicate ventilation, but not adequate respiration.

Abnormal Breathing Signs and Symptoms

There are many signs and symptoms of abnormal breathing; space neither permits a comprehensive listing nor discussing all of them. The following are common subjective and objective findings that a person is experiencing breathing difficulty:

- Tripoding: Sitting or standing, leaning over with their hands on their knees.

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There are many signs and symptoms of abnormal breathing.

- Accessory muscle use: Nasal flaring, or muscles retracting or sucking in around the neck and in between the ribs.
- Pursed lip breathing: Asthmatic and COPD patients often breathe this way when in distress. It is also known as "guppy breathing."
- One word or short, broken, or incomplete sentences: Patients are subconsciously trying to conserve valuable air.
- Noisy breathing: Gurgling, wheezing, or "wet, junky coughing" – the airway passage or passages are partially or fully occluded.
- Anxiety and irritability: Oxygen levels in the body are below normal.
- Changes in skin color, moisture and temperature: The body is stressed. Skin will begin changing color at the nail beds, lips and pink pigmentation of the eye. As oxygen level drops, these areas become blue. Because the body is fighting to survive, the skin will begin to perspire and become very sweaty. Depending on circumstances, the temperature will become cool, cold or hot.
- Confusion, inability to follow commands: Because of a lack of oxygen to the brain, the patient will become disoriented, irritable, unable to follow commands, and will become weak.

Think: Patient and Seek Medical Care

If one or more of the above signs and/or symptoms are seen by, heard by, or reported to LEOs and/or first responders, the LEO must think and recall, "Prisoner to Patient." This is also true if the LEO responds to a "person fell" call or similar event. After recognizing the person is becoming, or has become, a "patient," the LEO must request immediate medical attention. This is a medical emergency.

Until emergency medical providers arrive at the scene, LEOs should perform basic first aid, CPR and/or apply an Automatic External Defibrillator (AED), but only if qualified.

Emergency Medical Providers

During EMS calls, EMTs and paramedics will begin to assess and treat a patient according to local protocols. Not all-inclusive, but typically, in cases related to a patient's complaint of difficulty breathing, chest pain and altered mental status, the EMT or paramedic will attempt to obtain an EKG reading, check oxygen levels and may also attempt to determine the patient's end-tidal CO2 reading. These readings will reveal heart rate and rhythm, oxygen levels and carbon dioxide levels. Before LEOs write their reports about the incident, they must obtain and document this vital information because it will add value to their reports.

Summary

California recently passed a statute by which LEOs can be held criminally liable when a suspect's death can be attributed to positional asphyxia and/or physical restraint which impacts a person's breathing. Specifically, California Government Code Section 7286.5 reads:

" 'Positional asphyxia' means situating a person in a manner [which] compresses their airway and reduces the ability to sustain adequate breathing. This includes, without limitation, the use of any physical restraint [which] causes a person's respiratory airway to be compressed or impairs the person's breathing or respiratory capacity, including any action in which pressure or body weight is unreasonably applied against the restrained person's neck, torso, or back or positioning a restrained person without reasonable monitoring for signs of asphyxia."

The positive side of this statute is that it applies when a LEO acts "unreasonably." LEOs must always use reasonable force, restraint, etc. when interacting with individuals. More troubling is the language "reasonable monitoring for signs of asphyxia." LEOs cannot monitor for signs of asphyxia unless they have been trained about those visual and auditory signs and symptoms. After all, no officer wants to be in the position of the LEO in the beginning of this article where accountability is being attempted even though adequate training was not provided about the visual and auditory signs and symptoms of abnormal breathing.

Remember, fire, EMS, and law enforcement have the same goals: "to protect and serve," and to "save lives and property." The differences are the tactics, techniques and procedures they use to accomplish their mission. Despite the differences, each profession can work collaboratively.

Having difficulty breathing is not a comfortable feeling and watching somebody struggle to breathe is nearly as difficult. Identifying the signs and symptoms of respiratory distress are observed by looking at the patient's overall presentation and listening to what they are saying or not. Providing care to a patient in respiratory distress must not be taken lightly. The LEO must remain mindful that the patient in respiratory distress will not tolerate lying prone or supine. Along with this, EMS should be called so the patient can adequately be evaluated and treated by medical practitioners with modern technology. **P&SN**

Fire Captain Ray Casillas (ret.) has over 30 years of combined experience as a California firefighter/paramedic, SWAT team paramedic and fire officer. Educationally, Ray holds a bachelor's degree in fire science, a Master of Public Administration degree, and is pursuing a Ph.D. in Public Policy and National Security. As a thought leader, he has collaborated with senior staff from diverse disciplines and led grassroots initiatives updating first responder best practices in tactical EMS, first responder interoperability, and was one of the first to translate modern military medicine into a civilian format. Ray has also partnered with federal agencies and academia to increase the safety and security of public and private educational institutions.

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