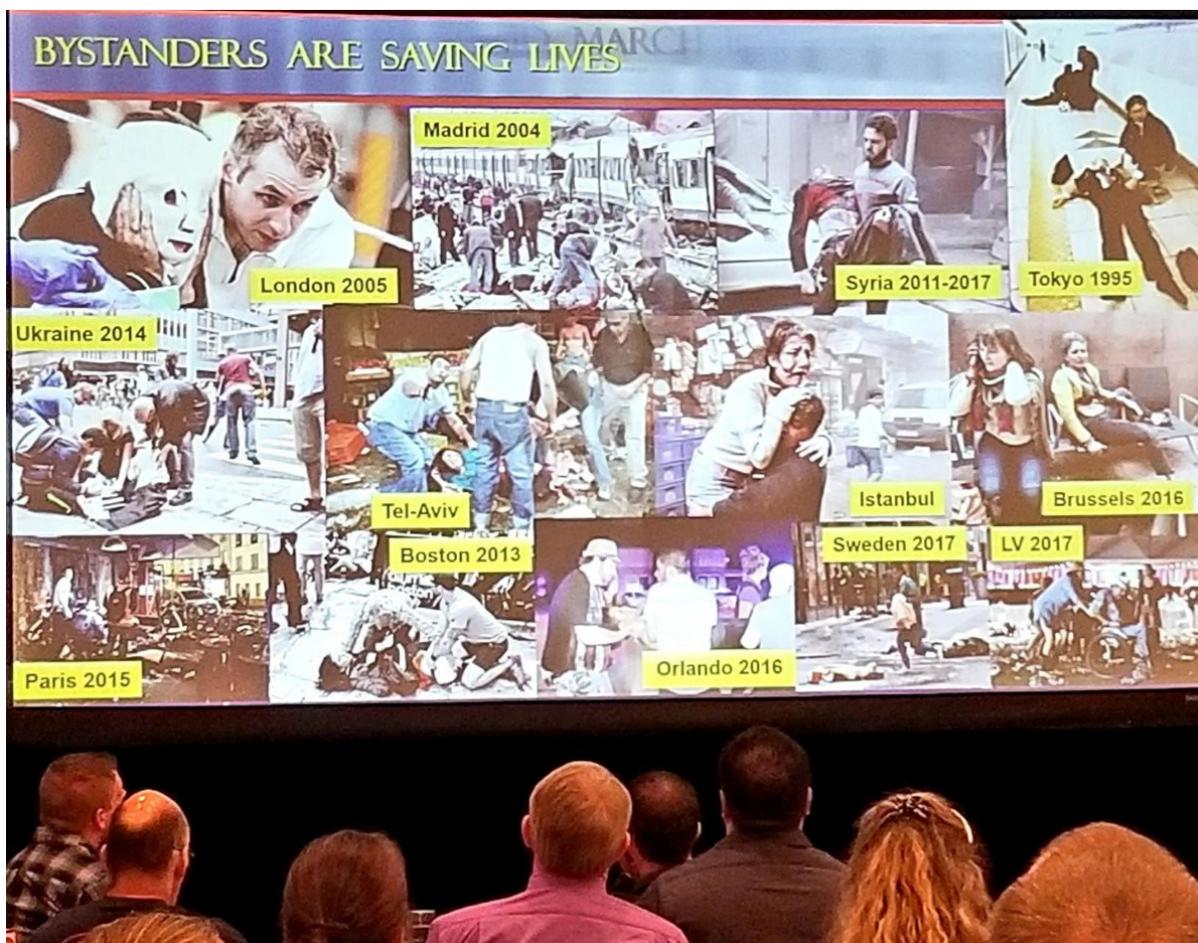


• Where in the World of EMS is A.J. Heightman?

At the 2019 National EMS Safety Summit

Sun, Mar 31, 2019

By [A.J. Heightman, MPA, EMT-P](#)



Attendees of the National EMS Safety Conference heard from a variety of speakers with multiple perspectives on active shooter incidents. Photos A.J. Heightman



JEMS Editor-in-Chief, A.J. Heightman, MPA, EMT-P, was on hand to attend and speak at the 2019 National EMS Safety Summit: A Focus on Personal, Patient and Community Safety, which was held March 27-29 at the Embassy Suites by Hilton Denver Downtown Convention Center.

The [annual conference](#) convened by the Mile-High Regional Emergency Medical and Trauma Advisory Council (Mile-High RETAC) since 2008, is described by attendees as one of the best small EMS conferences in the country. Organized by EMS Coordinator Shirley Terry and promoted with a limited marketing budget, this year's Safety Summit attracted attendees from a six-state region and is growing every year due to its stellar content and faculty.

Safety Considerations at Active Shooter and Mass Casualty Events

A.J. presented a fast-paced opening keynote on Wednesday, March 27, titled "Safety Considerations at Active Shooter and Mass Casualty Events."

Key points made during the presentation included:

- We must adapt our MCI plans as times change. What we did yesterday we'll do again tomorrow, but with enhancements or alternatives that weren't previously in our experience bank;
- Operational, tactical and medical priorities change with time, continual testing and new challenges, similar to the revised lessons in a lesson plan, or new chapters in a history book;
- Agencies have to make sure their crews and staff are drilled on meeting specific, prioritized scene objectives and able to adapt to the situations and circumstances they're confronted with;
- Triage during an active shooter incident is more than just the standard *sorting* we've been taught to perform. The active shooter acronym A.J. recommends is TRIAGE: **T**reat **R**ight Into an **A**mbulance (or other vehicle), **G**et basic patient info & destination, and account for **E**veryone.
- If you wear a ballistic vest, make sure to wear a ballistic helmet!
- The public will respond and transport patients because of internet apps and early alerting. Don't fight it; Adapt to it and implement processes to control or direct it as much as possible;
- Study what others are doing to track victims at the scene, leaving the scene and arriving at hospitals for complete accountability; and
- Implement privately owned vehicle transport slips, or use Seattle-type color-coded wrist bands to expedite movement of a large number of victims.

John Putt, EMT-P, of Operational Consulting Group and a National EMS Safety Conference Board Member introduced multiple speakers with varying perspectives on active shooter incidents.



Troy Tuke, RN, NRP, assistant fire chief for EMS in the, Clark County (Nev.) Fire Department.

One Purpose: 58 Reasons

D. Troy Tuke, RN, NRP, an assistant fire chief for EMS in the Clark County (Nev.) Fire Department (CCFD), presented “One Purpose: 58 Reasons,” a compelling talk that focused on unique aspects of the Route 91 Harvest Festival active shooter incident that involved one shooter who fired multiple pre-staged weapons (1,100 rifle rounds) across a 17.5 acre venue that created an EMS scene of 3.5 acres that had to be managed. There were 22,000 attendees attending the event held on Oct. 1, 2017.

Key points from Tuke’s presentation included:

- CCFD Engine 11, returning to their station after a run, observed large crowds fleeing the festival grounds and were thrust into the incident at that moment—minutes before most agencies became aware of its occurrence;
- There were no CCFD officers assigned to the festival that day, which was managed by Community Ambulance’s Special Events and Operations Division. Since this incident, CCFD assigns an officer, at least at the captain level, to be onsite for coordination with Community Ambulance or other agencies if necessary;
- CCFD had personnel in command and control operations for 9 hours and 27 minutes at the Route 91 Festival incident;
- Multiple responding CCFD engine crews had to stop and perform care while en route to the shooting scene;

- Example: Engine 32 was flagged down, initially to treat one gunshot wound (GSW) to the neck, in front of the Hooters Casino. That almost immediately escalated to six victims (including one deceased in a transporting car) as people carried critical victims away from the venue. The captain on E32 did a great job of area/"sub-command" and communications during this unexpected, chaotic encounter with unexpected critical patients.
- Responders and dispatch center staff had to commit valuable resources to field reports and prepare for multiple associated or false reports such as shots fired at other casinos (most of which were injured victims fleeing the scene and entering other casinos). Other callers reported shootings, explosions and multi-floor fires in other casinos;
- There were 800 total patients, but only 250 were seen and transported by EMS. Most left the scene on their own or in privately owned vehicles; 422 were shot and 58 were killed;
- Personal cellphone apps directed public/citizen transporters and victims to the hospitals closest to their cellphone location. University Medical Center, the Level 1 Trauma Center, was 6 miles away, but was not the closest hospital and therefore didn't get patients during the first hour of the incident. Sunrise Hospital, the closest to the incident, is not a trauma center, but saw 124 GSWs;
- Systems have to get all their separate "silos of excellence" to talk, train and work together to ensure optimal success during major incidents; and
- There's an ongoing analysis of all deaths, injuries and radio transmissions. There are [hours of audio and video clips](#) still being reviewed, including bystander and analysis videos.



Colonel Isaac Ashkenazi, MD, MSc, MPA, MNS, presenting on the Israeli experience to urban MCIs.

Preparedness for and Response to Urban Mass Casualty Incidents, Based on the Israeli Experience

Colonel (Res.) Professor Isaac Ashkenazi, MD, MSc, MPA, MNS, presented a compelling two-hour talk on “Preparedness for and Response to Urban Mass Casualty Incidents, Based on the Israeli Experience.”

Key points by Colonel Ashkenazi:

- Israel is a small geographical country (8,000 square miles) and inhabited by just 8 million people. Therefore, there’s the need for responders to get it right—quickly. The Israeli government is one of the most progressive in the world when it comes to EMS and response to terrorism;
- Israel sends a mission team of four experts to the countries/sites of a major incident within 48 hours to learn/retrieve lessons learned at that incident, bring them back to Israel and implement immediate changes and improvements. Commendably, Israel shares all that they learn with anyone who wants the information;
- Terrorism is a psychological tool that has its own “logic,” which must be understood to build resilience and not allow it to tear the spirit or the will of the general public down;
- He noted that “urban terrorism” is an asymmetric process; Terrorists always make the first move;
- Explosive devices are the weapons of choice of terrorists—with a second bomb often specifically placed to kill the responders;

- If you can reduce the “engagement time” (i.e., time of police arrival to the shooter site), it’s proven that you can reduce fatalities by more than 50%;
- The public will always outnumber the professional rescuers. Therefore, bystander involvement is critical. In 103 suicide attacks in Israel from 2000-2003, there were 40 experienced bystander involvements which resulted in > 70% reduction in the number of overall fatalities when compared to incidents without bystander involvement;
- In the prehospital arena, there has to be a rapid, flexible, synergistic and coordinated response,” a goal that initially seemed insurmountable to achieve. To achieve it, a system was developed to ensure everyone is prepared to take command and be a leader within five minutes; in 20 minutes the scene will be cleared of all victims; in 60 minutes all victims will be treated in hospitals; in 180 minutes the scene will be completely cleaned; and, in 2-4 days, the scene will be completely reconstructed. The quick performance and completion of these areas reduces the opportunity for terrorism to be “acknowledged and memorialized,” which is what the terrorists have as their primary objective in performing their acts of destruction and carnage;



The 5 min., 20 min., 60 min., 180 min. scene management model.

- Interestingly, in Israel, the government empowers the citizenry and supports them if they act during an emergency incident, particularly if they’re sued or injured. They’ll also pay for citizen medical testing or medical care bills, and repair or replace equipment or damaged vehicles;
- Public involvement and privately owned vehicle transport will always result in “spontaneous distribution of victims.” You must be prepared and plan for this. In reality, EMS performs “secondary distribution” of patients;

- Israel has the [ADAM patient tracking system](#), which involves an arm tag and a web address where photos of victims are securely uploaded;
- Five things you can count on: 1) Collapse of the nearest hospitals; 2) Partially attending duty; 3) Most casualties being “self-referred”; 4) Failure to communicate; and 5) An act of terrorism generates four incidents, including bystander response and reaction;
- In Israel, they keep their kids safe with armed school guards. All schools are fenced in. As a result, the children feel safe;
- It takes three months to get a gun in Israel; to apply, one must be age 27 and have a physician evaluation;
- The message in the USA is “run, escape—hide, fight.” In Israel, adults and children are taught to fight;
- There are gun jams in > 80 of automatic weapon attacks involving large-size (i.e., 40 bullet) magazines because they jam easier than smaller magazines. This is predictable, and it allows people to flee or act during the interruption as the shooter tries to clear the jam;
- In Paris, three cars and 10 terrorists hit eight sites in 55 minutes, but it took several hours to declare the scene secure and all patients cared for and transported; and
- He recommended that EMS systems give the new media something to use in their reports or they will find something on their own—often negative feedback about the responders!

Novel Wounding Patterns at Hostile Mass Violence Events and EMS Best Practice Response

Mike Clumpner, PhD, MBA, NRP, is the president and CEO of Threat Suppression Inc. presented: “Novel Wounding Patterns at Hostile Mass Violence Events and EMS Best Practice Response.”. Clumpner has been involved in public safety for 27 years, including 25 years as a paramedic, 10 years as a SWAT police officer, and 17 years with the Charlotte Fire Department, where he currently serves as a battalion chief. Since 2005, Clumpner’s company has spent more than 18,000 hours researching active shooter events. They’ve conducted more than 125 large-scale, integrated police/fire/EMS active shooter response exercises and have conducted more than 150 active shooter tabletop exercises for police, fire, EMS, school administrators and business executives. The staff has conducted numerous walkthroughs and interviews with responders and victims from active shooter events.

In 2015, Threat Suppression published a [doctoral dissertation research paper](#), authored by Clumpner, on integrated active shooter response, entitled “Analysis of Records that Demonstrate an Active Shooter Response Plan Utilizing 32 Large-Scale Exercises.” Key points made during Clumpner’s presentation included:

- Police will be in charge at all active assailant events, except for those where fire is involved, or “where fire has more equity”;
- A death or serious injury occurs every 15 seconds after an active shooter event starts, until the shooter is neutralized, flees, commits suicide, is subdued by armed or unarmed citizens, or is engaged by law enforcement officers;

- There are significant hazards created by fire bombs and chemical attacks (including weaponized fentanyl attacks). There have been 2,000 acid attacks in London over the past two years. London police officers now carry acid response kits; and
- Shooters and victims create “inorganic” casualty collection points (CCPs) often right where they were shot or where the victims were collected together. EMS and police can establish CCPs in a room near the shooting event; preferably using exterior rooms. The goal should be to get patients to ambulances ASAP, limit the use of CCPs, and limit changing the CCP locations when possible.



Ofer Lichtman discusses implementation of NFPA 3000.

Implementing NFPA 3000: How to Prepare Your Community and Agency to Better Respond to Active Shooter and Hostile Events

Ofer Lichtman, founder of High Threat Innovations, discussed “Implementing NFPA 3000: How to Prepare Your Community and Agency to Better Respond to Active Shooter and Hostile Events.”

Lichtman spoke about the three interrelated domains that need to be reviewed to comply with NFPA 3000:

1. Are all first responders passionate about Active Shooter Response? If not, what are they passionate about?

2. What are first responders the best in the world at? “No one does it better” is a common mantra we hear and should expect to hear; and
3. What does your community expect from you? Are you truly what you say you are?

NFPA 3000 involves:

- Whole community;
- Unified command;
- Planned recovery; and
- Integrated response.

The three-phase approach:

1. Before an attack: The #1 enemy is denial! “Normalcy bias” is when you think gunfire is a firecracker. “Social proof” is when you don’t want to seem stupid to others, so you pretend you don’t know what was occurring. For example, a San Bernardino survivor said, “I was convinced it was a drill even when the sprinklers were going off”;
2. During an attack: We must *empower* law enforcement (LE) to treat people. (Note: Most rescue task forces take seven minutes to arrive and begin treating, so early LE care is essential.) It’s been observed that fire/EMS personnel often ID things that police skip over because they’re focused on finding and reducing the “threat; and
3. After an attack.

What we need:

- Rapid point-of-wound care;
- People that are already there (i.e., bystanders) can make the difference; and
- Adaptability.



Carly Posey, mother of a Sandy Hook school shooting survivor.

Anticipating the Unthinkable

Mission Director of the I Love U Guys Foundation, Carly Posey, presented a very emotionally charged talk on “Anticipating the Unthinkable,” a discussion of what families go through during and after a school shooting.

Posey and her husband and four children moved to Newtown, Connecticut, due to a job change. They enrolled all four children in Sandy Hook Elementary School. But, despite being very active in school activities, they never thought to ask about school safety. Then, on Dec. 14, 2012, their lives were turned upside down when two of their young children were involved in the deadly Sandy Hook Elementary School Shooting and their two older twin daughters were held in lockdown for hours, huddled under their desks, in another school.

The Sandy Hook Elementary School shooting occurred on a day when Carly Posey was scheduled to bring candy to her son Reichen’s first grade classroom. The shooter, 20-year-old Adam Lanza, fatally shot 20 children between six and seven years old, and six adult staff members.

Before driving to the school, Lanza shot and killed his mother at their Newtown home. He committed suicide as first responders arrived at the school, but, by that time, was able to kill 26 people.

After killing the principal and shooting a few teachers and aides, Lanza entered one of the first-grade classrooms where Lauren Rousseau, a substitute teacher, had herded her first grade students to the back of the room and was trying to hide them in a bathroom, when Lanza forced his way into the classroom.

Rousseau, Rachel D'Avino (a behavioral therapist who had been employed for a week at the school to work with a special needs student), and 15 students in Rousseau's class were all killed; 14 were dead at the scene and one died soon after arrival at a hospital. One 6-year-old girl was found by police in the classroom following the shooting. She was hidden in one of the corners of the classroom's bathroom during the shooting. The girl's family pastor said that she survived the mass shooting "by remaining still and playing dead."

Lanza next went to Reichen's classroom where teacher Victoria Leigh Soto had concealed some of the students in a closet or bathroom, and some of the other students were hiding under desks. Soto was walking back to the classroom door to lock it when Lanza entered the classroom.

Soto had moved the children to the back of the classroom and had them seated on the floor when Lanza entered. Lanza stared at the people on the floor, pointed the gun at a boy seated there, but didn't fire at the boy, who ultimately survived. The boy got up and ran out of the classroom and was among the survivors.

Posey, scheduled to move to Colorado soon, was at lunch with friends in Sandy Hook when she was notified that their children's school was under attack by a gunman. Posey raced to the school but, unable to access the school road, hurriedly parked in the driveway of a fire station at the closest intersection. Inside, she almost immediately found her daughter Amyla safe, but her son Reichen wasn't there.

Soon, it was reported that Reichen was at a yellow house nearby, which is where Carly found him.

Reichen immediately told his Mom that he wanted to tell her and the police what had occurred in his first-grade classroom (as he has since repeated hundreds of times because of the trauma he witnessed).

Reichen reported, when his teacher heard gunfire (which was probably coming from the administrative office where the principal was shot and killed), she moved the class to the back of the classroom. (Note: She did that because, at that time, all of the school's classrooms had to be locked by a key from the outside.) She couldn't risk going out in the hallway, so she moved the first graders to the back of her classroom.

Reichen said the gunman entered his classroom in a calm manner and walked to the rear where he, his classmates and teacher were huddled against a wall. The gunman approached the teacher and killed her first. He then killed a child that went to the teacher's side.

Reichen said the gunman's gun jammed after he fired three shots, so, at that point, being familiar with gun jams because of training by his Dad, Reichen and eight other students seized the moment to flee the classroom.

He exited the school and ran several blocks along the sidewalk "as he was trained to do during fire drills" and made it to safety. He was encountered by a school bus driver who realized something was wrong at the school.

After retrieving Reichen from the home where he was being sheltered, Posey took him to the fire station because he insisted on telling the police what happened in his classroom.

Although hard to get a law enforcement official's attention because of all the commotion, she was finally able to convince a "wonderful, concerned female officer to take a few minutes to interview Reichen."

It turned out to be a valuable few minutes because, during the short interview, Reichen was able to remember and relay an incredible amount of valuable details, including: an accurate, quality description of the shooter; his approximate age; a detailed description of the shooter's shoes, clothing, eyes and even the number of shots he fired before his gun jammed.

When he cleared his gun, the gunman proceeded to the next classroom and executed all of the other first graders huddled in a closet.

According to the official report released by the state's attorney, nine children ran from Soto's classroom and survived, while two children were found by police hiding in a class bathroom. In all, 11 children from Soto's class survived. Five of Soto's students were killed.

Posey told the National EMS Safety Summit attendees about a "mental health triage" process that has occurred after several incidents which use the same red, yellow and green colors as appear on EMS triage tags: green if the student wasn't near the shooting area, yellow if the student heard or was nearby the chaos of the shooting; and red if the student witnessed the shooting/shooter.

She said she wished stress counselors were on hand at the fire station that awful day to start the mental health and treatment process, and she felt the mental health triage system could have helped sort the involved/impacted from the non-involved/non-impacted students and staff members.

She and her husband treated their son as though he has sustained a physical injury. He went to doctors, had MRIs, went to counseling and was made aware that he'd been impacted by the incident at Sandy Hook School.



Carly Posey's son Reichen survived the shooting at Sandy Hook Elementary School.

Posey also obtained a U.S. Department of Justice grant for a school counselor at her son's new school because she learned that the average student-to-counselor ratio was 1 to 450, which wasn't acceptable to her.

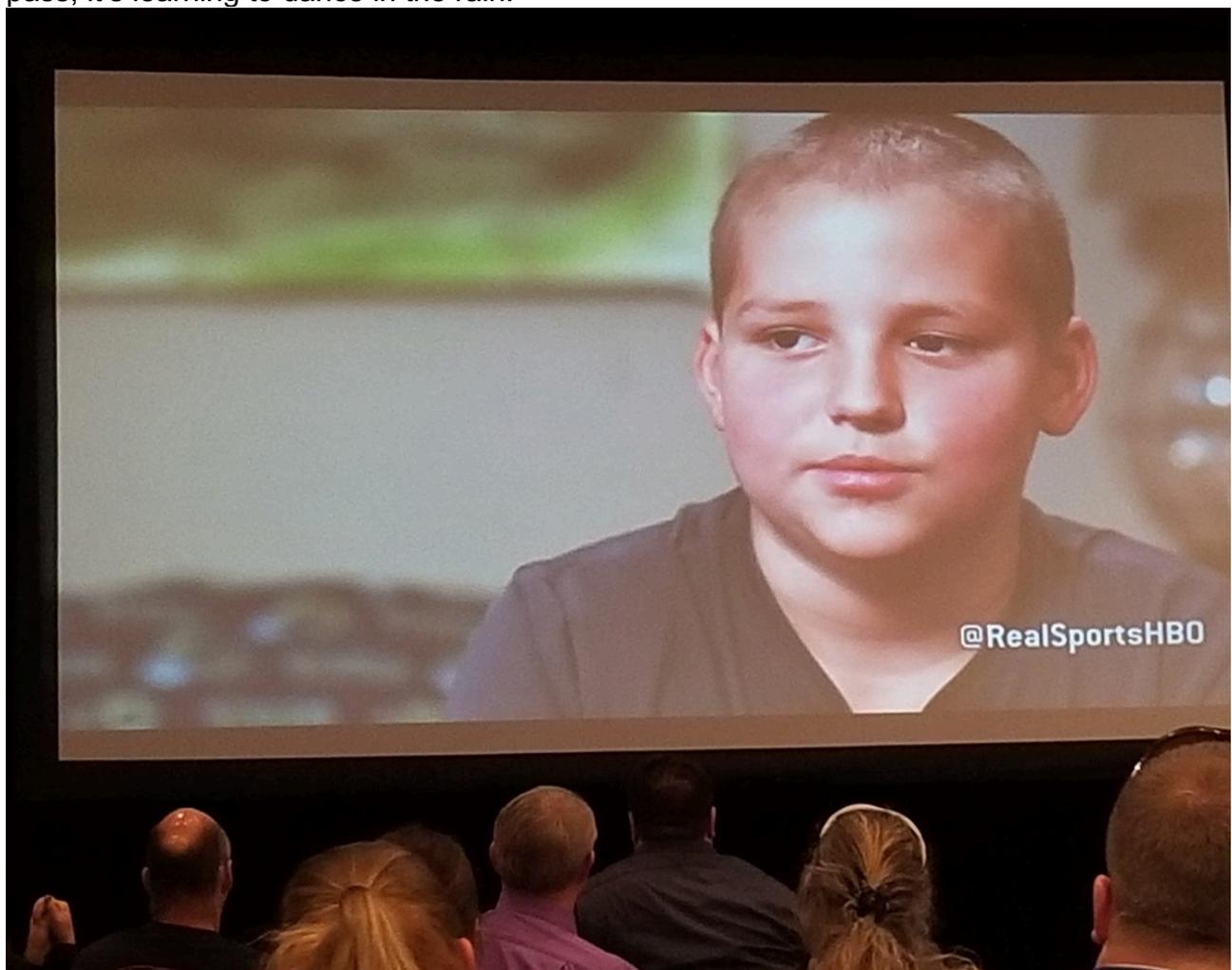
She and her husband next found that Reichen had a fear of going outside; was afraid of going back to school; and totally lost interest in playing with toys. Reichen became fixated on football to relieve his after-stress effects. He suddenly enjoyed tossing footballs with his dad every day. He loved football so much that he clutched one as he walked around the house. His Mom reported that they wore out several footballs in one year!

Then, soon after moving to Colorado, Carly learned that Jordon Murphy a former University of Colorado star football player and captain, now a coach who lived near Reichen, was suffering from post-traumatic stress after surviving the Aurora Theater shooting.

Posey contacted Murphy, told him about Reichen's involvement at the Sandy Hook School Shooting and her son's therapeutic love of football. The two survivors got together, they became fast friends, and Jordon began coaching Reichen on a daily basis. The two were [featured on an HBO TV special](#) about their special bond and collective recovery process.

Posey concluded her special presentation by showing a quote seen on a small monument at the Columbine Memorial that has stuck with her every day since reading it: "Everything that was normal changed that day."

She also read a profound quote she found on her daughter's bulletin board one day after the horrible Sandy Hook School tragedy: "Life is not about waiting for the storm to pass, it's learning to dance in the rain."



Carly Posey's son Reichen survived the shooting at Sandy Hook Elementary School.

What Makes Us Stronger Doesn't Kill Us: How Our Personal Responses to the Job Impact

David Wiklanski, MA, EMT, is a firefighter/EMT with the New Brunswick Fire Department and chaired an expert panel called "What Makes Us Stronger Doesn't Kill

Us: How Our Personal Responses to the Job Impact.” Wiklanski used a four-part illustration that showed how pilots and military personnel train to react to stress. Wiklanski’s seven tips and tricks to help people in great need:

1. Visualize a positive outcome;
2. Establish a dialogue and do not allow one-word answers from the affected individual;
3. Ensure safety;
4. Use “I” statements;’
5. Be mindful of tone (Mehrabian – the 55-38-7% rule);
6. Commit to a mutual purpose; and
7. Express gratitude (i.e., thank them for getting the help they need).

Rhonda Kelly, BS, RN, a firefighter/paramedic and founder/director of [ResponderStrong](#), an agency designed to offer mental health support to responders, focused on three key areas: 1) Changing cultures; 2) Educating and equipping responders with the tool; and 3) Improving the resources available to responders.

Beginning in 2016, representatives from the emergency agencies in Aurora, Colorado, teamed up with the National Mental Health Innovation Center at University of Colorado Anschutz Medical Campus in an effort to unite representatives across the state from law enforcement, EMS, fire and dispatch, as well as therapists and other experienced support professionals. They formed a core group motivated to address these issues. From 35 members in August 2016, the initiative has now grown to more than 500 members.

Kelly believes that mental resiliency is vital to the overall performance and well-being of emergency responders, from recruitment through retirement, as well as to their families and the people and communities they serve. Functioning as an umbrella entity, ResponderStrong is creating an accessible network of existing resources, identifying and filling the gaps, creatively leveraging and amplifying existing expertise, and brokering partnerships to address unmet needs.

She noted, as others have, that many psychologists do not really know our occupations and cultures and expose to trauma in the field and are, therefore, ill-equipped to help us.

Daniel Crampton, PsyD, EMT-P, a paramedic and chief operating officer of Status: Code 4, spoke on post-traumatic stress (PTS), depression and suicide, stressing that PTS is an injury to the psyche (i.e., the mind), and isn’t a disorder. He also stressed that isolation and rumination can lead to depression.

PTS symptoms:

- The person witnessed or experienced a traumatic event—this has been changed from the more stringent experiencing of a “hopeless event”;
- Hyperarousal (i.e., reactions triggered by car backfiring, etc.), hypervigilance, insomnia, angry outbursts;
- Avoidance of people or places that have affected them;

- Negative changes in thinking and mood;
- Intrusive thoughts, re-experiencing, flashbacks; and
- Lasts for more than one month.

Depression is:

- An insidious killer because it builds up so slowly—and unnoticed—due to constant work-related fatigue and other stressors;
- In some case, it's dismissed as just “feeling down” or “under the weather”; and
- Sufferers begin to withdraw from parties and friends.

Suicide contributors include:

- Stress;
- Anxiety;
- Depression;
- Frequent thoughts and memories of traumatic events;
- Helplessness;
- Hopelessness; and
- Overwhelms our coping mechanism and the person wants to escape the pain.

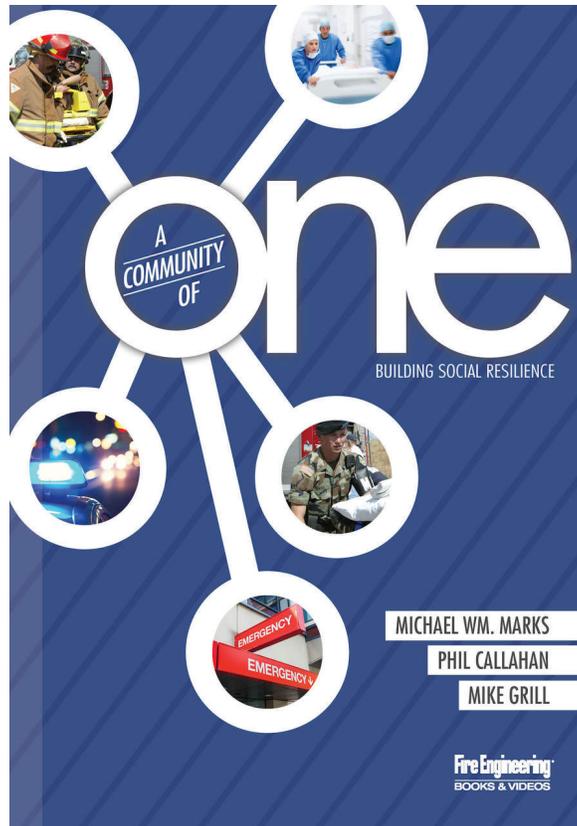
Reasons that people isolate include:

- Fear of appearing weak—although it actually is a weakness, in reality, that's caused by fatigue;
- Feelings of incompetence;
- Nobody understands; and
- Stigma (i.e., too weak on the job; character flaw; mindset is decreasing; still present).

Leaders must:

- Lead by example; and
- Stop perpetuating the stigma.

Lynn Garst, MEd, a pediatric disaster coordinator and responder health and safety specialist at the Healthcare Operations and Response Branch of the Colorado Department of Public Health and Environment, spoke about how his office is trying to help providers prepare to respond to the emotional impact of responses. He stressed the need to address the resilience of the workforce. He spoke about a formal resilience program and train-the-trainer program that was successfully implemented.



A Community of One: Building Social Resilience is available from [Fire Engineering Books and Video](#). A.J. Heightman, MPA, EMT-P, announced the recent publication of an exceptional resiliency textbook authored by Phil Callahan, Michael Marks and Mike Grill, available from Fire Engineering Books and Video, entitled: [A Community of One: Building Social Resilience](#). The book presents resiliency and addresses three key points: 1) What motivates the reader? 2) What passions move them into action? And 3) What external motivators push them?

Resiliency skills are defined as goal-setting, mental and physical fitness, relaxation, perspective, building beliefs, thriving, showing empathy and building social support. Skills presented in the book represent evidence-based research that supports both resilience and practices of effective learning.

Bryan Fass, ATC, LAT, CSCS, EMT-P (Ret.), founder and president of Fit Responder and well-respected author and lecturer, stressed the need for better fitness, diet, rest and uninterrupted sleep that prevents the body from fighting stress and keeping the person from being physically and emotionally fit.

Noting that responders are 10 times more depressed than the general public; at a 7 times higher risk for suicide and four times higher risk for PTS, Fass presented the “whole person concept” to create resiliency:

- Better “gut health”;
- Get control of your finances;

- Sleep hygiene (e.g., you can set a blue-light filter in your phone and computer to allow melatonin to work to allow you to sleep better); and
- Do “[light therapy](#),” which is a special procedure that utilizes special lights to treat regular and seasonal affective disorder (SAD)—a type of depression that occurs at a certain time each year, usually in the fall or winter—and other conditions by exposure to artificial light. During light therapy, you sit or work near a device called a light therapy box that gives off bright light that mimics natural outdoor light. Light therapy is thought to affect brain chemicals linked to mood and sleep, easing SAD symptoms. Using a light therapy box may also help with other types of depression, sleep disorders and other conditions. Light therapy is also known as bright light therapy or phototherapy.

By



[A.J. Heightman, MPA, EMT-P](#)

Editor-in-chief of *JEMS*, A.J. Heightman is a former EMS director and EMS operations director who has researched and specialized in MCI management training for 30 years.