AMERICAN SOCIETY OF SAFETY PROFESSIONALS
North Florida Chapter

ASSP NORTHEAST FLORIDA CHAPTER NEWSLETTER – JANUARY 2019

In This Issue

Improving Sudden Cardiac Arrest Survival Statistics Will Require a New Model

Sudden cardiac arrest (SCA) is the third-leading cause of death in the United States and, for many reasons, one of the most challenging public health issues for our nation. According to a recent National Academy of Sciences Institute of Medicine study, upwards of 395,000 people experience SCA outside of hospitals each year in the United States; this number is equivalent to the population of New Orleans.

But nationally, despite decades of awareness initiatives, preventative programs, and treatment innovations, less than six percent of these people survive; this is a frightening number that hasn't changed very much in 30 years. That's why it's time for an "SCA response squad" model.

If you are not already aware, sudden cardiac arrest is the abrupt loss of heart function that most often occurs when the electrical impulses in the heart become chaotic (known as ventricular fibrillation), causing it to suddenly stop beating normally. The condition is 100 percent fatal if not treated quickly.

Of note, SCA is very much a treatable condition. Two therapies, cardiopulmonary resuscitation (CPR) and defibrillation, delivered in the first few minutes after SCA occurs, can have a profound impact on survival. The faster CPR and AED use occur, the greater the chance of survival. Unfortunately, this help does not always arrive in time. Here are some of the reasons why:

Lack of public awareness and understanding of what SCA truly is—and what it isn't: Nearly 50 years after coming to public consciousness, both the media and the public still often confuse sudden cardiac arrest and heart attack. SCA is a cardiac electrical problem which can be helped by timely bystander CPR and AED use. A heart attack is a condition were one of more coronary arteries are blocked causing inadequate flow of oxygen-rich blood to the heart; this

condition requires the intervention of medical professionals. This confusion makes potential bystanders unclear on what can and should be done to assist.

Low bystander CPR rate: Over the past 30 years, billions of dollars have been spent formally training millions of people in CPR. Yet, only about 26 percent of SCA victims receive bystander CPR today. Factors contributing to persistently low CPR rates include lack of awareness about SCA and how to help, lack of confidence in the ability to help, fear that trying to help will make the person's condition worse, fear related to disease transfer, and concerns about legal liability. And while those billions spent have also aimed to alleviate these very fears, they persist.

Low AED use rate: Less than 4 percent of SCA victims are treated with a bystander-used AED before emergency medical services (EMS) arrives. One reason for this is the critical U.S. AED shortage. An estimated 4 to 5 million AEDs have been sold in the United States since the 1990s, which is great progress. But more than 30 million are needed to ensure an AED will be reasonably close to most people experiencing SCA in public settings. Other factors include lack of general bystander knowledge about what an AED is and what it is used for, inability of bystanders to quickly locate an AED in the event one is nearby, a low percentage of bystanders willing to use an AED, and, again, that bothersome fear of legal liability.

These factors are well known in the industry, and many people have written about them in books, journal articles, public relations materials, social media, and elsewhere for years. The real question is: If we know all this, why can't we save more than 6 percent of the people who experience SCA in public settings each year? The answer is complicated and requires thinking about the problem in new and different ways.

Clearly defining the requirements of an out-of-hospital SCA response system is the first step toward meaningfully improving SCA survival rates. The focus here is on workplace and community settings rather than the home or hospital. Let's start with the key characteristics of frequency, time, people, and equipment:

Frequency: In the aggregate, SCA happens often, striking thousands of people every year. However, predicting the precise locations where SCA will occur is impossible. On a per location basis (e.g., a health club, shopping mall, office, warehouse, manufacturing plant, school, place of worship, coffee shop, grocery store, etc.), a single SCA episode can be expected once every 10 to 40 years. So, while infrequent for any given location, not being equipped

with an AED when SCA strikes is a virtual death sentence for the victim. This means lots more locations still need to put SCA response systems in place.

Time: When SCA strikes, the clock starts ticking. CPR and defibrillation must happen in the first few minutes after SCA occurs to be effective. The chance of survival dwindles by seven to ten percent with each passing minute. That said, because SCA response systems rely on non-medical people, in settings not primarily focused on emergency medical services, there are limits on how quickly we can reasonably expect bystanders to react.

People: To improve the current situation, lots of SCA responders must be available to provide CPR and retrieve and use AEDs. But the people who choose to help in SCA emergencies are volunteers who have no legal obligation to act; conversely, professional emergency medical responders generally do. As a result, the general public must be trained, aware, empowered, and legally protected if we expect them to step into the breach.

Equipment: If SCA victims are to receive the benefits of defibrillation, AEDs must be nearby in the places SCA events can occur. How nearby? Because defibrillation must be delivered within the first few minutes to have a positive impact on survival, an AED has a maximum coverage area of 283,000 square feet—about the size of five football fields. Since we don't know where SCA will occur, we ideally need millions more AEDs than are found in workplace and community settings today.

Strategies Most Likely to Improve Survival Rates

With the previous information in mind, here are some strategies that are likely to improve aggregate SCA survival rates:

Rethink the notion of training: A volunteer "SCA responder squad" is needed to ensure someone is almost always nearby who feels ready and willing to help. Today's emphasis is on formal CPR and AED training, but less than 5 percent of the U.S. public is formally trained due to time and cost barriers. This leaves most SCA victims without the potentially life-saving interventions they need. Adding a large-scale informal training system, such as Hands-Only CPR, an empowerment model, reinforcing the fact that anyone can help, and leveraging online training tools and streaming media all have the potential to build the capacity for community response to meet what SCA demands. The CPR quality in this model admittedly won't be perfect; but it isn't now, even under the formal training approach. However, for the three out of four SCA victims who don’t get CPR

now, less-than-perfect CPR is much better than none.

Legally require AED placements: In the absence of legislative mandates, organizations generally have no obligation to buy and place AEDs. Only two states, Oregon and Rhode Island, currently require AEDs in many public locations. Targeted mandates requiring AEDs in places such as health clubs, schools, government buildings, and the like can be found in only a few states. As a result, most AEDs have been placed in public settings voluntarily, but in relatively low numbers.

One way to accelerate AED placements to the numbers needed is for legislatures to pass broad mandates. Yes, this has financial implications for organizations of all sizes, but they are far less than the cost of lawsuits filed as a result of not making AEDs available in the event of an SCA. And while structure fires are far less common than SCA, we long since abandoned the debate over whether fire extinguishers are a necessary expense. They are mandated and, therefore, universally available. We should learn from this.

Strengthen Good Samaritan immunity laws: Existing Good Samaritan immunity laws offer protection to the organizations and people involved in SCA response programs. However, legitimate fear of legal liability and the lack of solid legal protections are significant reasons why many organizations don't have AEDs; and so, few people are willing to help when SCA strikes. State legislators have the power to fix this. We need to encourage them to do so.

Recognize that SCA response is about logistics as much as medicine: Properly preparing for and responding to SCA emergencies is largely a logistics problem. The goal is to have enough people and equipment in place and deploy those resources quickly once SCA is recognized. This requires comprehensive operating policies that ensure an organization is prepared for and performs well when SCA strikes. EMS has made great strides in this effort, but they cannot solve this massive community challenge by themselves.

Putting these and other related strategies in place does not guarantee we'll improve SCA survival statistics; but they are well worth a try. After all, the average survival rate has stayed stubbornly immovable despite repeated efforts over the past 30 years.

Rapid Access to CPR and AEDs Makes SCA a Treatable Condition

People of all ages and ethnicities experience SCA without warning. Seventy percent of out-of-hospital SCA events occur in private homes. Among the remaining

thirty percent, it is not possible to predict who, where, or when SCA will strike. Moreover, some are surprised to learn that SCA strikes approximately 6,000 young people each year. Cardiopulmonary resuscitation (CPR) and defibrillation, if delivered in the first minutes after SCA occurs, can have a profound impact on survival from sudden cardiac arrest.

CPR involves compressing the chest, and, therefore, the heart, which helps keep oxygen in the blood and the heart primed for defibrillation. Automated external defibrillators (AEDs) are medical devices that send an electrical current through the heart muscle (defibrillation) to restore a normal heartbeat. AEDs, when used quickly and together with CPR, can help a person experiencing cardiac arrest regain a normal heartbeat and survive. The faster CPR and AED use happen, the higher the chances of survival.

For more information and resources on SCA, visit the Sudden Cardiac Arrest Foundation at www.sca-aware.org.

Occupational Health & Safety
Online Edition
October 1, 2018
OHS Online

The Reason You get Sick After a Flight Is Not Necessarily the Dirty Cabin Air

For many travelers, coming down with a cold after a long flight is all but inevitable. It's just part of the routine. But why is that? Why do we get sick after taking a long flight?

The easy answer is that there are a couple of hundred people trapped in close proximity to one another inside a pressurized metal tube for hours on end, making for a rich breeding ground for germs.

According to the International Air Transport Association, the risk of getting sick from flying is similar to that of other high-density activities like going to the movies or taking the train. IATA claims that in-cabin HEPA filters can get rid of 99.9995% of germs and microbes in the air. So, airplane cabin air isn't as dirty as we may think. Additionally, cabin air is only half made up of recirculated air. The other half is fresh air pumped in from the outside.

But that doesn't mean the cabin environment can't contribute to you getting sick. If, for example, someone is sitting next to you and has a cold, then all bets are off. And then there are the numerous germy surfaces on board an aircraft.

According to a study conducted by microbiologists hired by Travelmath, seat-back tray tables are a hotspot for bacteria. In the study, microbiologists found an average of 2,155 colony-forming units (CFU) per square inch on tray tables

collected from four different planes.

In contrast, the study found an average of only 265 CFU a square inch on the lavatory flush button, which itself is far from clean

Drexel Medicine, the healthcare system affiliated with Philadelphia's Drexel University College of Medicine, called airplane bathrooms or lavatories, "One of the germiest places on a plane and a breeding ground for bacteria like E. coli," Drexel Medicine wrote on its website. In fact, the healthcare professionals advise against flyers directly touching anything in the lavatories with their hands. Instead, they suggest the use of paper towels when touching the faucet or toilet seat lid.

According to Drexel, another area to avoid touching on planes is the seatback pockets. "From used tissues to fingernail clippings and dirty diapers, people stuff all kinds of germ-infested materials into airplane seat pockets," Drexel Medicine wrote.

That conclusion is backed up by an Auburn University study that found that bacteria can survive in seatback pockets for up to a week – a whole seven days.

This leads to the next area to avoid — in-flight magazines. "While it may be tempting to pick up that issue of SkyMall, think about how many people have thumbed through those pages," Drexel wrote. Their website reminds readers that the magazines are really only cleaned once every quarter; this occurs when they are replaced.

It's not the flight, it's you

However, putting germs aside, there are other reasons why travelers are susceptible to illness after a long flight. While one of the benefits of long-haul flying is that it can take you halfway around the world in a matter of hours, it takes our bodies much longer than the actual flight time to adjust to our new environments. Our inability to adjust results in a host of symptoms we refer to as jet lag.

"The fundamental basis of jet lag is the disruption of your body clock system," University of Sydney Professor Steve Simpson told Business Insider. "We have what's known as a circadian clock system that organizes everything about us." "It's a very sophisticated clock system which resides in every cell and organ in our bodies and is controlled by a master control clock in our brain." Each cycle of the circadian clock runs about 24 hours and is reset each day by a series of cues such as light, temperature cycles, and food.

According to Professor Simpson, who is the academic director of the University's interdisciplinary Charles Perkins Centre that is dedicated to improving global health, our circadian clock regulates a slew of body functions including sleep, alertness, activity periods,

metabolic cycles, and digestion.

A recent Cambridge University study has also shown that a disruption to a person's circadian rhythm can compromise their immune system, which can make people more susceptible to infections.

Since your internal body clock can adjust no more than one hour to perhaps an hour and a half every day, passengers on long-haul international flights will endure days of circadian rhythm disruption on every trip.

As a result, Professor Simpson recommends that passengers traveling on long flights begin shifting their circadian rhythm ahead of any planned travel. A few days before your trip, gradually shift your eating, sleeping, and activity patterns along with your light exposure to match that of your destination, Simpson said. And once you are on the plane, at all costs, avoid touching anything.

Business Insider
Online Edition
October 4, 2017
Business Insider

Ten Diseases that A Proper Eye Exam Can Detect

It is said that your eyes are the windows to your soul, but did you know your eyes can also be windows to the overall health of your body? An eye exam by a qualified medical professional can diagnose various diseases early.

Diagnosing illness through the eye, is nothing new, according to Dr. Marco Zarbin, chief of ophthalmology at the University of Medicine, Dentistry, New Jersey. "It happens all the time," he said, from rare conditions to diseases like multiple sclerosis, leukemia, brain tumors. "If you look at your brain, two-thirds of it is dedicated to some aspect of vision," said Zarbin. "It's a big deal."

Eye doctors emphasize that regular exams are important. Children often get their first eye screenings in public school, but after that, opthalmologists advise that teens get checked once every one or two years, depending on their health. After the age of 45, when adults start to lose reading vision, yearly visits are recommended.

According to Fisher-Swale-Nicholson Eye Center in Illinois, ophthalmologists are able to detect:

1. Diabetes:

An ophthalmologists can detect diabetes by looking at the blood vessels in the back of eyes to determine their health.

2. High Blood Pressure:

When looking into the back of the eyes, if an ophthalmologist notices that blood vessels have crossed or compressed, that could be a sign of high blood pressure.

3. Stroke:

There is no direct way to tell if a patient is going to have a stroke with an eye exam, but there are ways to detect symptoms that increase a patient's chances of having one.

4. Sickle Cell Disease:

An ophthalmologist can determine if a patient has sickle cell disease with a dilated fundus exam.

5. Thyroid Disorders:

According to Harold Stein, Raymond Stein, and Melvin Freeman, authors of "The Ophthalmic Assistant" an eye exam can determine if a patient has thyroid issues based on how much both eyes bulge from inflammation of the cells.

6. Cancer:

Ocular melanoma can be detected through a dilated examination of the eye with a combination of a bright light and a magnifying lens.

7. Arthritis:

There are several types of arthritis in the eye including Sjogren's syndrome (dry eyes) that can be detected with an exam.

8. Multiple Sclerosis:

An ophthalmologist can determine the health of the optic nerves by looking in the back of the eye with a dilated fundus exam.

9. High Cholesterol:

An ophthalmologists can detect potential signs of high cholesterol just by looking at the colorization of the corneas.

10. Tumors:

It is possible to develop a tumor in and on the eye. Ophthalmologists have the resources to detect them. It could be as simple as checking the response level of the pupil with a bright light.

In conclusion, we obviously only get one set of eyes. It's up to us to take care of them and ourselves.

ABC News
Online Edition
April 11, 2012
ABC News

OSHA NEWS

Every year, OSHA shares its top ten safety violations that have resulted in the most workplace citations. As 2019 is now a reality, it's important that we continue to push safety awareness efforts.

Accordingly, let's take a look at what made OSHA's top ten this year, how it compares to previous years, and what EHS managers and company leaders can do moving forward into 2019 to mitigate their risks.

1. Fall Protection (General Safety Requirements)

Ranking number one again in 2018, fall protection garnered over 7,200 citations. This is actually more than in 2017, which saw around 6,000 violations. The citations covered a variety of issues, including the failure to guard edges to prevent falls.

2. Hazard Communications

Also following a similar path to 2017, hazard communications continue to

be an issue. In 2018, this arena received more than 4,550 citations from OSHA, compared to 4,176 the previous year. Still, both years show a remarkable drop compared to previous years, where violations had reached over 5,500. This violation is an important one to recognize for EHS departments. A drop in citations year-over-year shows the effectiveness EHS improvement efforts have on their programs.

3. Scaffolding Hazards

Just like 2017, scaffolding hazards posed the number three threat to organizations. In 2018, the number of citations was almost identical to 2017, clocking in at 3,336 violations compared to 3,288. The reasons for citations included scaffolding construction, lack of guardrails or fall protection, and employee access to scaffolding surfaces.

4. Respiratory Protection

Another repeat from 2017, respiratory protection ranked number four on OSHA's list of top violations. In 2018, there were 3,118 incidents, compared to the previous year's 3,097. It's a marginal increase, but nonetheless, it's a move in the wrong direction. Violations for respiratory protection include the failure to have a written respiratory safety program and failing to conduct medical examinations for workers who wear a respirator.

5. Lockout/Tagout Programs

Lockout/tagout safety issues saw 2,991 citations in 2018, compared to the previous year's number of 2,877. Both ranked number five on OSHA lists, but like many of the other top violations in 2018, it seems to be moving in the wrong direction. Many of the lockout/tagout violations stem from not properly training employees on the program and not conducting routine inspections for lockout/tagout procedures.

6. Ladder Safety

It's no surprise that one of the biggest dangers in workplace safety is a mainstay on OSHA's top ten list of violations. In 2018, ladder safety issues accounted for 2,812 citations, compared to 2,241 for 2017. Unlike some of the other citations on the list, the number of 2018 violations also topped those of 2016, which saw just over 2,600 violations.

It will be interesting to see if there is a direct correlation between the number of OSHA violations in ladder safety to the number of ladder-related accidents or deaths for 2018, and how those numbers stack up to the past couple of years.

7. Powered Industrial Trucks

With 2,294 violations in 2018, powered industrial trucks remain a top safety concern for organizations. In 2017, this issue also ranked seventh in the top ten, with 2,162 violations. One of the biggest causes of violations in this category is training. All forklift drivers must be certified and properly trained to operate a forklift, as well as receive re-evaluation every three years to maintain their certification.

8. Fall Protection (Training-Related)

Wait a minute, fall protection issues made the list TWICE? If nothing else, this should indicate how serious fall safety and prevention are in the workplace. There were a reported 1,982 violations in this category in 2018. Unlike the number one violation that concerned general fall safety, this issue centers on training-related issues. Without proper training programs and enforcement, fall safety and prevention simply aren't attainable.

9. Machine Guarding

Though machine guarding moved from the eighth spot to the ninth in 2018 with 1,972 citations, the number of incidents still increased from the previous year's 1,933. This shift is because there was such a drastic increase in fall protection training citations that it displaced the increase in machine guarding violations.

10. Eye and Face Protection

Eye and face protection didn't make the list in 2017. However, in 2018 it did and there were 1,536 citations issued.

What To Do Next

The increase in almost every category in 2018 over 2017 shows that health and safety departments have plenty of work to do. This is, of course, what we routinely do – a lot with a little.

EHS is, as we all know, an ongoing effort that must be carefully executed to see the best results. Take this information with you into 2019 along with the resolution to contribute to decreasing these numbers next year.

EHS Insight
Online Edition
December 10, 2018
EHS Insight

Job Market Links

ASSP
BCSP General Safety Jobs
BCSP Construction Safety Jobs
BCSP Industrial Hygiene Jobs
EHS Careers

ASSP Chapter Links

Find us on the web at:
ASSP NFL

Find us on Facebook at:
ASSP NFL

Local Chapter Officers and Chairs

Elected Officers

- President - Steve Brown
- President Elect - Bob Dooley
- Secretary - Steve Wilson
- Treasurer - Yaniv Zagagi
- Delegate - Dave Bedsole

Appointed Chairs

- Membership Chair - Eric Gray
- Newsletter Chair – Bob Dooley
- Nominations Chair – Dan Hempsall
- Past President - Dan Hempsall
- Program Chair - Tom Drygas
- Social Chair – Ravyn Tyler
- Social Media Chair - Vernon Adams
- SPY Awards Chair – Open

AMERICAN SOCIETY OF SAFETY PROFESSIONALS
North Florida Chapter

Local Chapter Information

The North Florida Chapter of the American Society of Safety Professionals, formerly the American Society of Safety Engineers, was chartered in 1952 and currently has more than 165 members.

Professional meetings are held nine times per year in the Jacksonville area. Meeting notices are distributed and RSVP's are returned by email. If you are a member of ASSP and are not receiving notices by email, please email the Chapter Secretary.

Help Wanted – We Need Leadership Volunteers

Local Chapter elections are coming soon, and volunteers are needed to support the various functions of the chapter. If you are interested and able to devote time to the local chapter, please contact Dan Hempsall (Nominations Chair) or Steve Brown (President) for details. We believe that you will enjoy the experience and comradery and we most-certainly appreciate your help.

Local Chapter Meeting Schedule

- January 16, 2019
  Topic - Roundtable Discussion on Benchmarking
  Time: 11:30 Lunch & Networking
  12 Noon Meeting and Technical Session
  Location: Northeast Florida Safety Council
  1725 Art Museum Drive
  Building B, Classroom D
  Jacksonville, FL 32207

- February 20, 2019
  Topic - Fire Academy

- March 20, 2019
  Topic - Annual OSHA Update

- April 17, 2019
  Topic - KAMAN Aerospace Facility Tour

- April Date and Time TBA
  Topic – Worker's Memorial

- May 15, 2019
  Topic - Construction Safety

Additional details to be announced as meeting dates become closer.

To attend any meeting, please RSVP to the Chapter Secretary.