

## Empowering Bystanders

# Area Emergency Groups Champion Stop the Bleed

Five minutes or less is all it takes for someone to bleed out when they suffer major arterial bleeding. So it's no wonder that uncontrolled bleeding is the No. 1 preventable death due to trauma. Given these facts, why don't more people know how to stop bleeding?

That's the question being addressed head-on by Stop the Bleed. Launched by the federal government in October 2015, the campaign is a grassroots effort to train and equip bystanders so that they can control bleeding before professionals arrive on the scene. Stop the Bleed aims to raise national awareness and call citizens to action.

"The wheels were set in motion in April of 2013 after the tragic events at Sandy Hook Elementary School," notes Tod Baker, firefighter/paramedic, EMS coordinator for the Northeast Ohio Trauma System (NOTS). "The American College of Surgeons, U.S. Department of Homeland Security and Federal Bureau of

Investigation (FBI) met several times with the goal of preventing mass tragedies and saving lives."

Within a couple years, the above groups developed and rolled out a bleeding control (B-Con) course that eventually morphed into a broader campaign called Stop the Bleed. Across the State of Ohio, campaign activists include NOTS, Central Ohio Trauma System (COTS) and St. Elizabeth Youngstown Hospital. In Northeast Ohio, Cleveland Clinic has joined with MetroHealth Medical Center and NOTS to develop a regional Stop the Bleed campaign.

"We kicked off our efforts about a year ago," says Bill Sillasen, BSN, RN, EMSI, regional EMS director for Cleveland Clinic. "Besides Sandy Hook, the Boston Marathon bombings jumpstarted this whole thing. Fatalities were minimized in Boston because there were a number of healthcare professionals who

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## Area Emergency Groups Champion ‘Stop the Bleed’

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knew how to stop major bleeding. One of our main targets with Stop the Bleed will be schools. If this had been in place at Sandy Hook or Columbine, we could’ve saved more lives.”

The overall mission of Stop the Bleed is to:

- Train bystanders how to stop bleeding
- Train law enforcement officers how to stop bleeding in victims, fellow officers and themselves
- Conduct “Train the Trainer” classes for EMS providers and other healthcare professionals who can then teach lifesaving skills to their communities
- Position bleeding control kits in publicly accessible locations

### Empowering bystanders to help

Since bystanders are always first on scene, Stop the Bleed trains them on how to control bleeding until professionals arrive. The first thing they’re taught is to be aware of their surroundings and to move themselves and the injured person to safety, if necessary.

“Our young adults and children under 25 know to stop, drop and roll in case of fire,” says Baker. “Wouldn’t it be cool if they also knew how to stop bleeding? A lack of action results in worse outcomes.”

Sillasen agrees. “Significant arterial bleeding needs to be stopped as quickly as possible,” he says. “That’s why we want to give laypeople the tools to control bleeding. In the past, most people were taught not to touch victims; so this is really a whole new way of treating patients.”

In addition to training personnel, Stop the Bleed organizers want to supply public facilities with wall-mounted bleeding control kits that include:

- Z-fold combat gauze
- Compression bandages/dressings
- Mechanical tourniquets
- Gloves
- EMS shears

Bleeding control (as taught to bystanders) is as simple as following the ABCs:



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EMS coordinator, Northeast Ohio  
Trauma System



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regional EMS director,  
Cleveland Clinic

#### **A. Activate 911.**

**B. Bleeding identification.** Locate the bleeding site and apply firm, steady pressure to it with your hands.

**C. Compression.** Apply dressings and press them down. If bleeding doesn’t stop, place a tourniquet 2 to 3 inches closer to the torso from the bleeding. When direct pressure does not work and a tourniquet cannot be applied, pack the wound with z-fold combat gauze.

Stop the Bleed relies greatly on advances made in hemorrhage control by the U.S. military during wars in Iraq and Afghanistan. On U.S. soil, escalating gun violence and mass casualty incidents prompted creation of the campaign.

“We can thank the military for bringing us up to speed when it comes to bleeding control,” says Sillasen. “During conflicts in the Middle East, they developed better methods like tourniquet use. Now that we realize tourniquets don’t necessarily result in loss of limb, all soldiers and police departments carry tourniquets.”

NOTS rolled out Stop the Bleed training this past spring. “I picked areas in Lake, Cuyahoga and Ashtabula counties and conducted about eight classes,” Baker says. “This is like lighting a wildfire. We started it and are now standing back to watch how it spreads.”

**To schedule a B-Con course for your fire department or other organization, please contact Tod Baker at [tbaker4@metrohealth.org](mailto:tbaker4@metrohealth.org) or 216.778.7036.**

# Euclid Police Officer Saves a Life Heroic Rescue Underscores Value of ‘Stop the Bleed’ Campaign

When you find someone laying in a pool of blood, you just might assume they're badly injured. If you add gunfire to the mix, you're pretty sure you have a gunshot wound on your hands.

Such was the scenario encountered recently by Officer Nolan Ellis, a 24-year veteran of the Euclid Police Department. Thankfully, he carries a tourniquet on his body near his holster. And he knows how to use it.

The victim was a 17-year-old who was robbed, stripped of his clothing and shot in the right leg. "We got a call for a man who was bleeding and nude and knocking on doors," says Ellis. "Finally, some decent people brought him into their apartment building lobby and tried to help him. When we arrived, we found that the perpetrators had fired a round into the teen's leg.

"A bullet either hit or was near the teen's femoral artery," he adds. "You can bleed out real quickly from that kind of wound. Either I'd help him or he'd die."

So Officer Ellis quickly and skillfully applied the tourniquet to the victim's leg. "I was fortunate to have had training," says Officer Ellis, who claims he became proficient with tourniquets thanks to:

- His involvement with Eastside Departments Group Enforcement (EDGE) SWAT team, which includes medics who demonstrated how to use tourniquets
- The acquisition of tourniquets by the Euclid Police Department about a year ago



After making a heroic rescue in a dangerous situation, Nolan Ellis of the Euclid Police Department is happy to be with his wife and dog.

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Officer Nolan Ellis,  
Euclid Police Department

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- A full-day training class offered by Eleven 10, a Cleveland-based manufacturer of self-aid/buddy-aid gear. During the class, which emphasized response to ICD explosions, terrorist attacks and gun shots, students applied tourniquets on "bleeding" manikins

"The Eleven 10 training really drove it home," says Officer Ellis. "It was a good class considering it was just one day, and it helped me deal with the teen. He was losing consciousness and had suffered significant blood loss. An ambulance was on the way, but we needed to secure the scene before EMS could enter it. I was there with my tourniquet at the right time.

"The teen managed to give us his mother's phone number, and we called her," he adds. "By the time she arrived, he was on an ambulance heading to the hospital. I traced his blood trails, and they went for hundreds of yards."

Bleeding control, including the use of tourniquets, is the goal of the Stop the Bleed campaign, spearheaded locally by the Northeast Ohio Trauma System, with substantial assistance from Cleveland Clinic and MetroHealth Medical Center. The campaign (which is described in the article beginning on page 1) is a grassroots effort to train and equip bystanders so that they can control bleeding before professionals arrive on the scene.

For Officer Ellis, saving someone's life is all in a day's work. "As a police officer, taking on an emergency medical role may be one of a hundred different hats you have to wear every day," he says. "I talked briefly with the teen's mother, and she thanked me. Last I heard, he was kicking and screaming and breathing. That's a good thing."

## New Protocol App Available

Cleveland Clinic recently announced the release of its FREE EMS Protocol app for mobile phones. The app was specifically designed for fire departments functioning under Cleveland Clinic medical control.

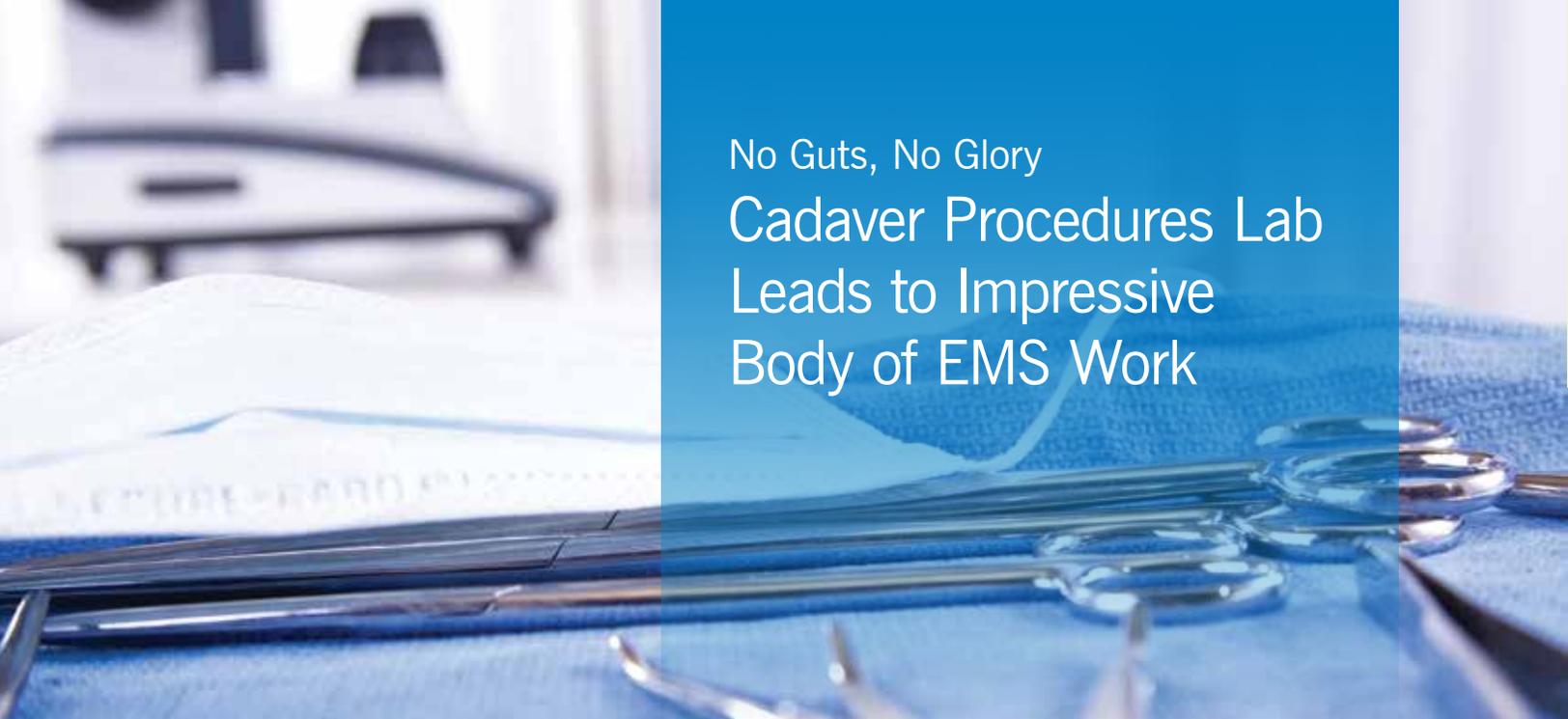
To download the app, go to the Apple App Store or Google Play and search

"Cleveland Clinic EMS Protocols" and download. You can also find the protocol and save it to your mobile device at [acidremap.com/sites/CCFEMS](http://acidremap.com/sites/CCFEMS).

Hard copies of protocols have been distributed to departments by Cleveland Clinic EMS coordinators, as well as

medication exchange and reconciliation. All Departments under Cleveland Clinic Medical Control began operating under the new protocol as of Aug. 31, 2017.





## No Guts, No Glory Cadaver Procedures Lab Leads to Impressive Body of EMS Work

Anyone who has participated in a cadaver laboratory session knows that death can bring education to life. While it's sad that someone had to die to create a cadaver, the ability to practice lifesaving skills on real bodies can result in happy outcomes for future patients.

"EMS providers who've attended our cadaver procedures lab say it's one of the best continuing education programs they've gone to," says James Sauto, MD, FACEP, co-director of Cleveland Clinic's Cadaver Procedure Lab (CPL). "Working on cadavers is much different from doing procedures on manikins. Once someone has done it, they gain a lot more confidence."

A simple joke underscores the value of using cadavers to practice skills. It goes like this:

Did you hear the one about the mechanic who was fixing his car engine in the hospital parking lot? He recognized a surgeon walking by and said, "Hey, Doc! You know, you and I do the same thing. I fix engines inside of cars, and you fix engines inside of people."

"You're right," said the doctor. "Except I fix the engine while it's still running."

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James Sauto, MD, FACEP, Co-Director,  
Cleveland Clinic Cadaver Procedure Lab

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All joking aside – it's true that no manikin – even the most sophisticated – can duplicate the human body. That's why Sean Roth, DO, DPM, FACEP, EMS manager at Cleveland Clinic main campus, created the CPL in 2010, with a focus on teaching advanced airway and other lifesaving procedures. Today, the lab is co-directed by Dr. Sauto and his colleague Achilles Bebos, MD. Tom Beers, EMT-P, EMSI, EMS coordinator, serves as an instructor.

Throughout the country, only a handful of medical facilities have cadaver procedures labs. "I'm only aware of similar labs in Baltimore, Boston, California – and here in Ohio – at Wright State University," says Dr. Sauto. "Since they're so scarce, people come from all over to take advantage of our lab here in Cleveland. We even had a medical student from Jamaica."

In Cleveland, the CPL is offered through the Cleveland Clinic Lerner College of Medicine, which is led by Richard Drake, PhD, director and head anatomist. Basic procedures include (but are not limited to):

- Intubation by direct laryngoscopy/LMA/Gum Elastic Bougie/ various supraglottic airways
- Needle and Surgical Cricothyrotomy
- Needle decompression of chest for tension pneumothorax
- Intra-osseous needle insertion
- Tibia and humerus placement
- Thoracostomy tube placement

Advanced procedures at some labs may include:

- Retrograde Intubation with jet ventilation/transtracheal ventilation
- Lateral canthotomy
- Arthrocentesis of knee, shoulder and ankle
- Open lateral thoracotomy

"We work closely with Dr. Matt Roehrs from MetroHealth's ED and feel fortunate that he serves as an instructor with us, along with third-year MetroHealth emergency medicine residents

or attending physicians from Cleveland Clinic EDs,” says Dr. Sauto. “Teleflex, maker of the very familiar EZ-IO, also offers an instructor at each lab.”

## Anatomy of a lab session

A week or so prior to each lab, course directors send an email to participants with information, directions, suggested websites to view on the procedures, and an updated PowerPoint. Interested EMS providers should sign up quickly because registration is limited to five prehospital participants.

Participants are provided with all personal protective equipment (PPE), such as goggles, gloves, gowns and masks. Before use, the non-embalmed cadavers are tested to make sure they are negative for communicable diseases like HIV and hepatitis B or C. Three stations (with four different bodies) offer an opportunity to practice hands-on skills, including:

- Chest tube insertion, needle decompression of tension pneumothorax, pneumo-dart catheter insertion
- Central line placement, intra-osseous insertion, including proximal tibia and humerus (as well as sternum at some labs)
- Airway insertion, including supraglottic airways, endotracheal tubes, direct and video laryngoscopy and gum bougie (with two bodies at this station)

“Once all three stations have been completed, we demonstrate surgical cricothyrotomy and allow participants to practice that procedure,” says Dr. Sauto. “During some labs, we may add open lateral thoracotomy (opening of the chest). Participants have the option to stay or leave at this point.”

## Students from Bainbridge to Jamaica

“Though the lab was originally designed to offer residents an opportunity to practice various procedures, it’s evolved to the point that most participants are not residents,” Dr. Sauto notes.

“In addition to MD and DO residents, classes commonly include physician assistants, PA students, paramedics, paramedic students, nurse practitioners, NP students, members of our Cleveland Clinic Critical Care Transport Team and Mobile Stroke Transfer Unit, respiratory therapists and house officers from our regional hospitals.

“Occasionally, we also have acting interns from MetroHealth Medical Center’s ED,” he adds. “Plus, during this past year, we had Navy corpsmen join us – thanks to coordination by Dr. Roy Seitz who recently attended one of our labs.” (See Dr. Seitz’s profile on pages 6 and 7.)

Participants have come from many area fire departments, including Bainbridge, Braceville, Broadview Heights, Cleveland EMS, Cleveland Heights, Fairview Park, Lakewood, Lyndhurst, Mayfield Heights, North Royalton, Parma, Perry Township, South Euclid, Twinsburg, University Heights and Warren, as well as the private ambulance companies of Tri-County and Donald Martens.

“We’ve had participants of varying medical specialties from Troy, Michigan; Catonsville, Maryland, and Jamaica,” says Dr. Sauto. “Our PA students come from programs from Connecticut to California.”

“We’re grateful for the people who selflessly donated their bodies to science so that we can enhance the understanding and skill levels of our students,” he adds. “We also appreciate the support we’ve had from the Cleveland Clinic Emergency Services Institute and its chairman, Dr. Brad Borden, and we acknowledge and appreciate the work Dr. Sean Roth did to start the lab.”

The rewards of the CPL are great. “I enjoy teaching, sharing new methods and seeing confidence building among our students,” Dr. Sauto shares. “Ultimately, it’s all about saving lives and giving patients the best outcomes possible.”

# Just the Stats on Cleveland Clinic’s Cadaver Procedures Lab

**CME credits:** 4 continuing medical education units for all medical fields, including EMS

**Dates offered:** 11 times a year, with class participants restricted to MetroHealth and Cleveland Clinic emergency medicine residents in April and October

**Upcoming 2017 labs open to EMS providers:** Nov. 30 and Dec. 21

**2018 labs open to EMS providers:** Jan. 18, Feb. 15, March 15, May 10 and June 7, with future dates to be announced

**Participants:** roughly 20 students with varying medical backgrounds, including paramedics, emergency department physicians, internal medicine and anesthesia residents, nurses, nurse practitioners and CCT transport team members

**Student slots reserved for paramedics:** 5

**Class length:** 3-1/2 hours (from 7 to 10:30 a.m.)

**Instructors:** emergency medicine staff physicians and senior emergency medicine residents who donate their time and expertise

**Class format:** A 45-minute PowerPoint presentation is followed by hands-on skills practice sessions performed on four non-embalmed bodies. Participants are divided into three groups and rotate from station to station.

**Cost:** free (similar courses can cost up to \$1,500 per participant)

**Location:** next to Cleveland Clinic’s main campus emergency department

**Parking:** available and free

**How to sign up:** Paramedics may either register online at [ccfems.org](http://ccfems.org) or by contacting Dr. Sauto directly at [sautoj@ccf.org](mailto:sautoj@ccf.org).



## From the Priesthood to the Brotherhood Emergency Medicine Physician Is on a Mission to Save Lives

If you were to suffer a traumatic injury, you'd thank your lucky stars if Roy Seitz, MD, took care of you.

A board-certified emergency medicine and family medicine physician, Dr. Seitz treated severely wounded soldiers in Kuwait and Afghanistan, where he was stationed with the U.S. Marines less than four minutes from the war's frontline.

"It was a great experience because the medical team was an extraordinarily skilled and dedicated group," he says. "They were all volunteers who gave up big chunks of their lives to provide phenomenal care. The intensity and energy were unbelievable, and I honestly believe that those marines and soldiers received the best care possible."

A former EMS coordinator and current and former EMS educator, Dr. Seitz now serves as an emergency medicine physician at Cleveland Clinic Avon Hospital. But originally, he planned to become a priest. "After two years in the seminary, I dropped out and went to Notre Dame," he says. "The medical field attracted me because it's intellectually challenging and opened up a lot of opportunities to travel, do mission work and help with the military."

Despite his change in vocations, Dr. Seitz has held true to performing mission work. He worked with a Catholic mission group at a hospital in Hong Kong and taught emergency medicine in China. Shortly after 9/11, he joined the U.S. Navy Reserves.

During his 39 years as a physician, Dr. Seitz served as director of an emergency department for 18 years and as a battalion surgeon with the Marine Corps for 10. A former advisor to the Surgeon General, he currently is a Navy Commander with top secret security clearance.

Prior to joining Avon Hospital, Dr. Seitz served as director of St. John Medical Center Emergency Department in Westlake and director of Rainbow Rapid Care at St. John Medical Center. From 1998 to 2002, he was a flight physician with Cleveland Metro Life Flight. He has also practiced as a physician at several

other hospitals throughout Ohio and was the medical officer for Norwegian Caribbean Cruise Line from 1986 to 1988.

"I love Avon Hospital," he says. "It's very organized and patient-oriented, and EMS is well respected there. I greatly enjoy working with EMS. These folks have a tremendous combination of medical knowledge, sensitivity, empathy and physical fitness – plus a big sense of humor.

"I enjoy taking care of the elderly, kids and patients' families and loved ones," he adds. "When people are scared or in pain, they appreciate it when someone shares a sense of humor. Older people are often neglected, and it's good to add credibility and attention to their lives while treating them – because they're special."

### Serving as battalion surgeon for the Marines

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*"I love Avon Hospital. It's very organized and patient-oriented, and EMS is well respected there. I greatly enjoy working with EMS. These folks have a tremendous combination of medical knowledge, sensitivity, empathy and physical fitness – plus a big sense of humor."*

Roy Seitz, MD, emergency medicine physician,  
Avon Hospital

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After receiving military medical training at the Naval Trauma Center in Los Angeles, Dr. Seitz served for a year as battalion surgeon for the U.S. Marine Corps in Afghanistan, where he was a combat medical officer in two military trauma centers dealing with severe casualty situations like IED blasts, amputations, severe burns and shrapnel and gunshot wounds.

According to the doctor, many of the military patients he saw required multiple amputations after encountering IED blasts. "We also took care of many people not involved in the war as

combatants – including lots of children,” he says. “Burns are common there because heating units occasionally explode and people fall into cooking fires. We even did some plastic surgery, such as cleft lip repairs.

“At times, there was only one physician, but we got it done with army medics or navy corpsmen,” he notes. “Tourniquet use was huge, and we went through lots of quick blood products. We saw a lot of hypothermia, acidosis and hypotension and found that it was best by far to get fluids – and especially blood products – into our patients as quickly as possible.”

While in Afghanistan, he also served as a medical instructor for Afghan Army personnel and trained Afghan National Army and Afghan Police in trauma care and resuscitation. In Kuwait, he trained U.S. Embassy personnel in Basic Disaster Life Support and Mass Casualty Training. Dr. Seitz has a basic knowledge of Russian, Chinese, Arabic, French and German, and was able to use some of these language skills while overseas.

During his military service, Dr. Seitz was awarded two Navy Commendation Medals for performance and leadership in Kuwait and Afghanistan, earned Navy marksmanship awards for 9mm pistol and M-16 rifle, and achieved top physical performance and outstanding physical fitness marks.

### Training, teaching and traveling

In 1974, Dr. Seitz graduated cum laude from the University of Notre Dame with a bachelor’s degree in science. After earning his medical doctor degree from the University of Cincinnati (UC) in 1978, he completed a residency in family medicine at the UC College of Medicine in 1981. He is a certified provider and former instructor for ACLS, ADLS, ATLS, BDLS and PALS.

Dr. Seitz has trained Cleveland SWAT and FBI members on Urban Trauma Care, presented lectures on trauma care and military combat trauma wound management to various audiences, and was a guest lecturer on EMS and emergency medicine in Shanghai and China. In addition, he has served as a professor at Case Western Reserve University, University of Cincinnati and Ohio University College of Medicine.

He resides in Sheffield Lake with his wife, Judy, a piano and voice musician who has sung at Carnegie Hall. The couple has six children and four grandchildren. “During both of my deployments, Judy took care of our children and home by herself,” Dr. Seitz says. “I appreciated that, and we’ve had a great 27-year marriage.”

During his rare free time, Dr. Seitz enjoys outdoor activities and traveling. “I also like building things,” he says. “We have a home on the lake, where we swim, garden and take care of the property. I enjoy travel, and years ago, had an adventure riding on the Trans-Siberian Express during the Cold War.”





# Trauma Centers: What's the Difference Between Levels I and II?

When you have a trauma patient, you want them to have the best possible trauma care. Trauma centers are ranked from I to IV with I being the highest level. But what really is the difference between the top two levels? Not much, as you can see by the listings below.

Trauma center verification is awarded by the American College of Surgeons to medical facilities based on the following resources that they offer.

## Level I trauma centers

Provide total care for every aspect of injury – from prevention through rehabilitation – and:

- Offer 24-hour in-house coverage by general surgeons, and prompt availability of on-call specialists, such as orthopedic surgeons and neurosurgeons
- Serve as referral resources for nearby communities and as leaders in prevention and public education programs
- Provide continuing education for trauma team members
- Have a quality assessment program in place
- Attempt to innovate trauma care through teaching and research efforts
- Offer substance abuse screening and patient intervention programs
- Meet the minimum requirement for annual volume of severely injured patients

## Level II trauma centers

Initiate definitive care for all injured patients and:

- Offer 24-hour in-house coverage by general surgeons and coverage by orthopedic surgery, neurosurgery, anesthesiology, emergency medicine, radiology and critical care
- Provide tertiary care needs, such as cardiac surgery, hemodialysis and microvascular surgery
- Provide trauma prevention and continuing education programs for staff
- Incorporate a comprehensive quality assessment program

## In Memoriam

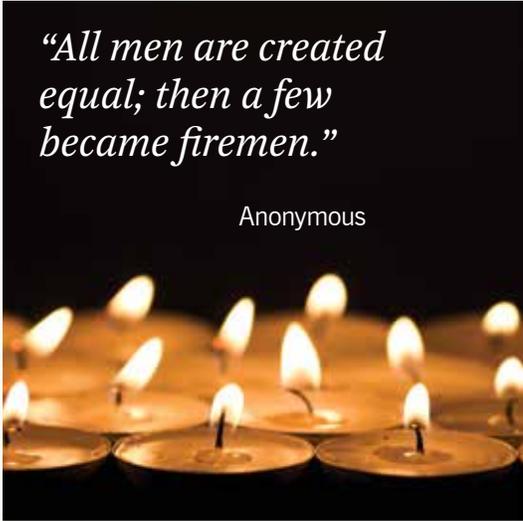
### Ohio Act Named for Deceased Fire Captain Michael Palumbo Jr.

The fire service brotherhood mourns the loss of Capt. Michael Palumbo Jr., who was the inspiration for Ohio's Michael Louis Palumbo Jr. Act, which is now a state law officially classifying cancer as an occupational disease for firefighters and enabling them to file for workers' compensation.

According to a 2013 study for the National Institute for Occupational Safety and Health, the cancer rate among firefighters is roughly 45 percent higher than that for the general public. About 68 percent of firefighters get cancer during their lifetime; so it's no wonder that the disease is referred to as an epidemic among firefighters.

Capt. Palumbo lost his own battle with occupational brain cancer in May. He spent the majority of his career with the Beachwood Fire Department, where he served as a SWAT medic and member of the honor guard and HazMat team. Prior to joining Beachwood he worked at his hometown fire department in Willowick.

In addition to leaving behind his wife of 23 years and five children aged 8 to 21, Capt. Palumbo leaves behind a legacy of championing for the rights of firefighters. He advocated for workers' compensation for firefighters with cancer – despite knowing that neither he nor his family would benefit from it.

A photograph of several lit tealight candles in a row, creating a warm, glowing effect.

*“All men are created equal; then a few became firemen.”*

Anonymous

## What's Your Story?

### NEO Siren welcomes your input

We always welcome your suggestions for newsletter articles. Please send them to Bill Sillasen, BSN, RN, EMS-I, Regional EMS Director, Cleveland Clinic, at [wisill@ccf.org](mailto:wisill@ccf.org).

### Check EMS website for educational offerings

Cleveland Clinic regional hospitals offer numerous events, continuing education classes and other opportunities for EMS providers. For a complete listing, visit [ccfems.org](http://ccfems.org).