



Chief's Corner

PHTLS — Looking Back

Hello everyone, and welcome to the April edition of the Chief's Corner. Hope you are doing well and looking forward to the nice weather that usually comes with the spring flowers of April. I am writing this "corner" on April Fool's Day, but the topic is not a joke. I recently finished the Pre-Hospital Trauma Life Support (PHTLS) course at the Community College and was struck by the many changes that have taken place over the years since I first took this course in Roanoke in the early 80's. It's interesting how "street medicine" has changed over the years and I thought it would be fun to discuss some of these changes. So, let's look back, shall we?

PHTLS was the brainchild of Dr. Norman McSwain, M.D., a trauma specialist and Professor of Surgery at Tulane University. He modeled the program after the Advanced Trauma Life Support course (ATLS) for physicians, but geared it for the pre-hospital care of patients. Dr. McSwain took the principles from ATLS and developed the course for use by paramedics and EMTs in the field. What makes this course so different is the fact that most of the treatments are based on research and are proven to make a difference in the patient's outcome. You don't just do it this way because that's the way you have always done it; you do it because it works and the research backs it up. This also means the course is updated regularly because "evidence-based medicine" changes as more research is done.

Here is one practice that has really changed; in the initial PHTLS class we spent a fair amount of time talking about the use of MAST (military/medical anti-shock trousers) and their benefit in patients who are in shock. We used to put MAST on a lot of patients to help raise their blood pressure and to stabilize lower extremity injuries. This seemed to work well and the patient's blood pressure would rise; so we thought it was helpful. However, as more research was done, it was revealed that there was no long-term benefit and patient survival rates were not improved. In fact, the increased blood pressure caused additional bleeding and the patients got worse. As you are aware, we no longer use or carry MAST.

We also spent time discussing the use of the Kendrick Extrication Device (KED) and how to apply it to patients with suspected spinal cord injury. We hardly ever use a KED now and we seldom fully immobilize patients like we did years ago. The KED has become something we carry, but seldom use (sorry Chief Bomar). More recent research on spinal immobilization and actual injury data has shown that it is not necessary in a lot of cases and is harder on the patient. The recent practice of "clearing" the patient for spinal cord injury and not placing them on a long board is certainly different, but is another example of how EMS constantly changes.

Another area where treatment has changed for the benefit of the patient is pain management. Not so long ago it was taboo to give pain medication to patients injured from trauma because it was thought the medications would "mask" underlying signs and symptoms. Now we regularly treat a patient's pain with the proper drugs and provide relief when possible. This increases patient comfort and helps to reduce anxiety during an often bad situation. In fact, pain management is becoming another "hot" topic and I expect EMS will be changing our approach to controlling pain in the near future. Again, research has shown that managing pain not only makes the patient more comfortable but helps to reduce injury as well.

Do you remember how we used to treat patients with a head injury? We used to hyperventilate them and drive off the carbon dioxide. This would cause vasoconstriction of the blood vessels in the brain and reduce swelling. Unfortunately, it also reduced the perfusion to the brain tissue and increased the insult. We didn't know this years ago and thought we were doing the best thing for the patient. Again, research has changed our approach and we have reduced the ventilatory rate to the point where we strike a balance between reducing swelling while maintaining cerebral perfusion. The patients do much better. One tool that has helped us with this is capnography. By ventilating the patient and keeping an eye on end tidal CO2, we can do a much better job of managing our patients. Just another example of a change in the way we treat patients based on research.

As you can see, there have been many changes to our treatment protocols over the years and we are actually taking better care of our patients. This trend will continue and we will change again as the research dictates. In the future we may look back and discover that something we currently think is "best practice" is actually not all that great. But we know EMS will continue to evolve and the research will drive our treatment.

Well, that's it for this month. I hope you get a chance to get outside and enjoy the springtime weather. Spring in the Hill City is beautiful and there are lots of activities taking place. Remember, your work helps make Lynchburg a great place to live, work and play.

Keep up the great work. Be careful and get involved, but never forget the most important rule: "Everyone goes home safe at the end of the shift!"

Chief

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60 Second Safety

By: Acting Captain Nathan Chapman
Heat Injury Prevention

As firefighters, we share many similar injuries to athletes, and the most common injury for athletes are heat injuries.

As temperatures increase and we move into the spring and summer months, we must recognize the signs and symptoms of heat injuries. Early signs and symptoms include: thirst, headache, nausea, and cramps. As heat injuries progress, you may experience dizziness, weakness, lack of energy, profuse sweating, and confusion. Some late signs include hot and dry skin, weak and rapid heart rate, low blood pressure, rapid breathing, and even unconsciousness.

As we experience the early warning signs, we must take the appropriate measures to ensure it does not become a life-threatening injury. To help prevent heat injuries, we should prepare ourselves by hydrating, eating correctly, using proper work-rest cycles, and limiting caffeine intake. Lastly, use a little bit of common sense and do not ignore the warning signs.

Certifications

Chemistry of Hazardous Materials

John Cruise

Fire Inspector I/II

Allen Marston

Fire and Rescue Management Institute

Mike Thomas

NFA – ICS 300

Todd Davis

Abbey Johnston

Colao Lombre

Lewis Thomas

Danny Williams

NFA – Incident Safety Officer

Robert Hamilton

Danny Williams

NFA – Strategies and Tactics for Initial Company Operations (STICO)

Tom Bartell

Smithfield Truck Operations Class

Steven Evans

Walter Sisk Memorial Truck School

Heather Bowen

APA Pyrotechnic Training and Safety

Thomas Goode

John Norman

Matt O'Daniel

2016 Relay For Life



“This is How We Turn Out”

By: LFD Relay For Life Team Captain, Natalie Darling

It's Relay Season...We are currently in the planning stages for our participation in the 2016 Relay For Life event. This year's event will be held on Friday, May 20, from 7:00 p.m. until 1:00 a.m., at City Stadium.

Once again, the Lynchburg Fire Department is organizing a team, and we have several fundraising activities planned. The funds raised from the event are vital in the fight against cancer through research, new treatment developments, and patient services. Active team members are a vital part of ensuring the success of our team, as well as the event as a whole; I hope you can lend some support. Below are some of the fundraising activities:

YETI Cooler Raffle

We are currently selling raffle tickets for a chance to win a Yeti Cooler (or \$250 cash). Tickets are \$5 each. To purchase, contact Natalie Darling (941-1899), Tammy Sage (455-6341), or Ann Jenkins (455-6357).



Bowling Tournament

We will have a Team Fundraiser Bowling Tournament, Saturday, April 30 at 1:00 p.m.. The cost is \$25 per player (four person teams). Awards will be given for First, Worst, and 7/10 split. The tournament is open to anyone wishing to participate. Call, text, or email Natalie at 941-1899 or gmsleditor@gmail.com for further information or to register.



T-Shirts and Ball Caps

T-shirts and ball caps are for sale. T-shirts are \$12 and hats are \$18. To order, contact Natalie Darling at 941-1899. Team members will receive a complimentary t-shirt.

Last year the LFD Relay team raised \$7,500. Lots of effort went into making this happen, and I am counting on support from all members of the LFD to help us reach this year's goal of \$10,000. Let's work together to make this our best Relay event to date!

Other fundraising activities will include "Fill the Bucket collections" and selling food items at the event.

Below are instructions on how to sign up as a team member:

1. Visit http://relay.acevents.org/site/TR/RelayForLife/RFLCY16SA?fr_id=71164&pg=entry
2. Click on "Sign Up"
3. Select "Join a Team"
4. Search for: This is How We Turn Out
5. Enter your registration information

Congratulations

- Congratulations to Jason and Katie Campbell on the birth of their daughter, Lillian Katherine (Lilly Kate). She was born March 13, 2016, and weighed 9 lbs., 3 ounces.
- Congratulations to Steven Davis and Hillary Greene who were married on March 26th.

Strive For 5 Challenge

Almost every year, as the weather warms and the days get longer, we are reminded of our New Year's resolutions to be healthier. If you've fallen behind on your healthy resolutions or are looking for help to stay motivated, then check out Live Healthy Lynchburg's Strive for Five Challenge! The challenge encourages participants to get active for at least 30 minutes a day, five days a week. With the Strive for Five Challenge, virtually any activity counts! You don't have to be an ultra-marathoner or a triathlete to be successful. Anyone can participate and succeed.

For more information on the Strive for Five Challenge and directions on how to register, visit www.livehealthylynchburg.com/the-challenges/2016-strive-for-5/



For more information on wellness resources available to City employees including groups, challenges, and league sports, check out the Wellness Champions website at www.lynchburgva.gov/wellness-champions.

National Traffic Incident Management (TIM's) Responder Training Program

By: Captain Ronnie Coleman

Throughout the month of April, the Training Division is partnering with the Virginia State Police, Virginia Department of Fire Programs, and the Virginia Department of Transportation to present the Traffic Incident Management (TIM's) training to all uniformed personnel, educating our responders of the dangers of operating on the highways.

Emergency responders are called daily to assist people in need and to mitigate dangerous situations on our roadways. The safety of firefighters, law enforcement officers, and tow/recovery operators must be the top priority of the responders at any incident on the roadways. Section 46.2-921.1 of the Code of Virginia states: "Drivers to yield right-of-way or reduce speed when approaching stationary emergency vehicles on highways." Unfortunately, drivers operating on the roadways are busy multi-tasking, texting, talking on the phone, or doing some other task that takes their primary attention of driving away and accidents or secondary incidents occur. Often times the secondary incident involves the injury or death of emergency responders working on the highway.

According to the National Law Enforcement Officers Memorial, over the past 24 years, an average of 12 police officers were killed each year in struck-by incidents. The National Fallen Firefighters Memorial indicated that about five firefighters are killed each year operating on the highways, and an alarming number of 60 tow operators are struck and killed each year. At the core of many responder deaths and injuries are drivers who are inattentive, impaired, or make poor driving decisions.

Below are several key points to remember from the TIMs training:

- Always wear your PPE/reflective vest
- Lane designation. When describing highway lanes, work left to right from the perspective of the traffic flow — left shoulder, left lane, right lane, right shoulder.
- Upstream = approaching traffic
- Downstream = departing traffic
- Traffic Queue (Q) = the backup of traffic from an incident
- The number of lanes to be blocked will be determined by the complexity of the incident. Lane + 1, linear blocking and multi-lane blocking should be used and determined by the first arriving responder.
- Create a buffer zone from oncoming traffic. Remember to use the largest apparatus on scene as the buffer vehicle, placing the pump panel, if equipped, away from oncoming traffic flow.
- Use caution when placing traffic cones or road flares on the highway. Always keep the traffic approaching visible.
- Proper use of emergency warning lights to warn drivers of the emergency ahead.
- Command responsibilities: single command, unified command.
- Each white skip line on the road is 10' long with 30' of space between each.

While each responder's assignment at the highway emergency is different, it's important that we understand each responder's role and work quickly and efficiently to clear the hazard on the roadway. The number of responders killed as a result of being struck by a vehicle as we work on the highway is disturbing and unacceptable. Please be safe in your highway operations and remember Chief Ferguson's motto, "Everyone goes home safe at the end of shift."

Training Center Gets New Props/Upgrades

By: Battalion Chief Jonathan Wright

The Fire Training Center will be receiving several updates this spring!

The first notable update is the main entrance gate will be relocated to accommodate a wider entrance. Some of the new training props that will begin to surface in the near future include: a roof/ventilation simulator, confined space simulator, electrical hazards simulator (pole, transformer, and meter base), and classroom updates. In addition, the Training Division hopes to receive favorable review from the Virginia Department of Fire Programs grants program to acquire a Flashover Simulator.

All of these new and exciting training props and upgrades should provide the department, and our regional partners, many excellent training opportunities into the future.

The Training Division would like to thank Master Firefighter Todd Styles and Firefighter Blue Morgan for agreeing to install the new fence and gate. Also, thanks to Master Firefighter Kent Ferguson and Station 1 "A" Shift for repairing the standpipe system in the training tower and for cleaning the trench simulator.

LYNCHBURG FIRE DEPARTMENT NIGHT AT LIBERTY BASEBALL


VS.


Friday, May 6 | 7 p.m. | Liberty Baseball Stadium

Mention LFD to receive a special ticket price of:

\$7

GENERAL ADMISSION TICKET AND FOOD VOUCHER
(Food voucher includes a hot dog, bag of chips, and drink at the concessions stand.)

FIREWORKS AFTER THE GAME!



To purchase tickets, call Ryan Kindt at (434) 592-5015 and mention LFD Night. Tickets must be purchased by May 2. Discount not available on game day.

LFD Firefighter Running for Freedom 4/24 in the Boston Marathon

By: Firefighter Patrick Madigan

Forty-six days after filling out all the required forms, 356 days after completing the Richmond Marathon, it finally came. My official entry confirmation for running in the 120th Boston Marathon arrived in the mail on November 3, 2015. I was in.

This marathon, which will be held on April 18, 2016, will be unlike any other. Besides the allure of being Boston, this race is not going to be about me. Over the past 11 years, I have ran 11 marathons, 10 half marathons, and more than 15 sprint, olympic, and half ironman distance triathlons. To me, running is liberating. It allows me a little alone time to pray, to recharge from the business of life, to gather my thoughts, to work on who I am and who I want to be. It has given me the joy of seeing beautiful sights, like a sunset over the Mississippi in New Orleans, the blue expanse of the Pacific Ocean in Manhattan Beach, the crowds of supporters through Georgetown during the Marine Corps Marathon, and the clear night sky in Virginia that brings to life every constellation. I ran for the pleasure I got from running, for the joy of competing against the person in front of me, and pushing myself to my limits. I always tried to get better and success was measured by finishing times. It is now time to give back.

freedom424

Freedom 4/24 is a nonprofit organization that exists to bring freedom and justice to victims of human trafficking, particularly the sexual exploitation of women and children. What I have learned over the past few years both scares and repulses me. UNICEF reported that at any time there are more than two million children being trafficked in the global sex trade. The U.S. State Department reports that between 600,000 and 800,000 people are trafficked across international borders, 80 percent being female and 50 percent being children. And it is not just in third world nations. In this \$32 billion dollar industry, \$15.5 billion dollars comes from industrialized nations, including America. In fact, Virginia is the sixth leading state in incidents reported and the number one state in reports per capita.

I have come to realize that the freedom that I enjoy while running, many of these young girls may never know. As I get to escape from my beautiful day-to-day, they are trapped in small, dirty rooms, dreading the near future when their door is opened. While I can think of how to better myself, they have lost their identity and hope for the future. I am able to travel and see the beautiful landscapes of our world, while they remained imprisoned.

Freedom 4/24 exists to combat this evil. I want to join in that fight. I want to bring freedom to these girls through my running. I have two goals for this upcoming race in Boston:

1. Run a sub-three hour marathon (6:52/mile for 26.2 miles)
2. Raise \$5,000 for Freedom 4/24 to help continue their fight for these women and children. (As of this writing, I am almost 60 percent there.)

To achieve these two goals, I need the support of many. The encouragement of others help push me through the tiring days when I don't feel like running. It will give me the strength to dig deeper when my legs don't want to move any faster. But most importantly, it will bring freedom to a little girl trapped in a terrible nightmare.

By supporting this endeavor, you are choosing to support those without a voice. The Lord has heard their prayers and has people at work today, bringing freedom and seeking justice. I have joined that fight. Please consider partnering with us by donating at this link: <https://www.crowdrise.com/424runsoston>

(Please note that every dollar raised goes directly to Freedom 4/24 and the work that they do. No funds will be used to cover the cost of race registration or travel expenses.)

Grilling Safety

By: Matt O'Daniel

As we move into the warmer months, it's time to get ready for the grilling season.

Here are a few helpful reminders to get you started safely:



Before you use your grill:

- Check the major connection points between the gas (propane) tank hose, the regulator and cylinder, and where the hose connects to the burners. Tighten if loose.
- Check the gas (propane) tank hose for potential (gas) leaks. To do that, apply a light soap and water solution to the hose using a brush or spray bottle. Turn the propane tank on. If there is a gas leak, the propane will release bubbles around the hose (big enough to see). If there are no bubbles, your grill is considered safe to use. If there are bubbles, turn off the tank and check connections, then have your grill serviced by a technician before using it again. If the leak doesn't stop, call the fire department immediately.

When the grill is on:

- As you are cooking, if you smell gas, turn off the gas tank and burners.
- If the leak stops immediately, get the grill serviced by a professional before using it again.
- If the smell continues, move away from the grill and call the fire department immediately. Do not move the grill.
- Propane and charcoal BBQ grills should only be used outdoors. (Yes this does have to be said!)
- The grill should be placed well away from the home, deck railings and out from under eaves and overhanging branches.
- Keep children and pets away from the grill area.
- Keep your grill clean by removing grease or fat buildup from the grills and in trays below the grill.
- Never leave your grill unattended!!!

Charcoal grills

There are several ways to get the charcoal ready to use. Charcoal chimney starters allow you to start the charcoal using newspaper as a fuel.

- If you use a starter fluid, use only charcoal starter fluid.
- Never add charcoal fluid or any other flammable liquids to the fire.
- Keep charcoal fluid out of the reach of children and away from heat sources.
- When you are finished grilling, let the coals completely cool before disposing in a metal container.

Enjoy the nice weather!