BACK STEP TALKS

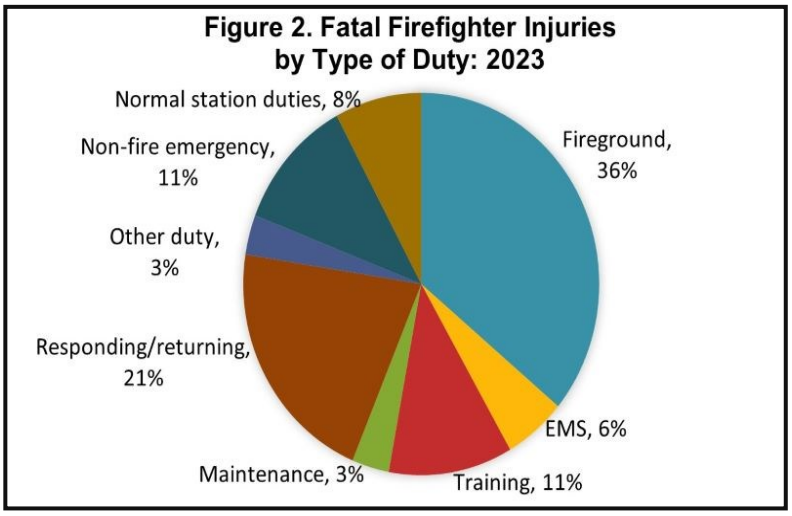
SERIES IV ISSUE 2 APRIL 2025

The Need for Safety During Live Fire Operations

According to the National Fire Protection Association (NFPA), 89 firefighters died on duty in 2023. Firefighter fatalities include death from traumatic injury, heart attacks, or strokes, as well as fatalities that occur within 24 hours of duty. NFPA reports also document 63,175 injuries to firefighters during 2023. The United States Fire Administration (USFA) and the National Fallen Firefighters Foundation (NFFF) also collect statistics on firefighter injuries and deaths. *(It should be noted that reporting typically lags one year behind to allow time for research and analysis of the causes of injuries and deaths.)*

While the numbers from these three organizations may differ due to the use of different criteria, the reports indicate that despite a reduction in the number of actual fires, advances in technology, and an increased emphasis on safety, we are still killing firefighters at a rate that should be judged unacceptable. The questions that must be asked are "Why are we still killing firefighters?", and "What else must we do to reduce the number of firefighter fatalities?"

At a recent training event I attended, it was asserted that the number 1 killer of firefighters is complacency. Approximately one -third of firefighter fatalities occur on the fireground. The fireground is our battleground and we must be trained, equipped, and staffed at a level to perform the job we were called out to do. We take shortcuts around accepted standard operating practices because we have done it before and nothing bad happened. We fail to acknowledge that each fire is different and that we must constantly be aware of what is happening to the fire, the building, and our actions. We fail to acknowledge the changes that have occurred in our fireground environment over the last ten, twenty, or fifty years. When we fail to acknowledge change, we are destined for failure. It is not a matter of if, but when, tragedy will occur. Unfortunately for 89 firefighters in 2023, the "when" for them was "now".



In this issue of Back Step Talks, we will look at some of the fireground challenges and what actions we must take to reduce firefighter injuries and deaths. Take the time to read the articles inside and take the time to evaluate your own department's operations and whether you are operating safely on every response. The time for action is now before your department experiences the next tragic event. Your community and your family are counting on you to do the job right and return home safely after each response.

David Lewis

Be Combat Ready – Understanding the Enemy

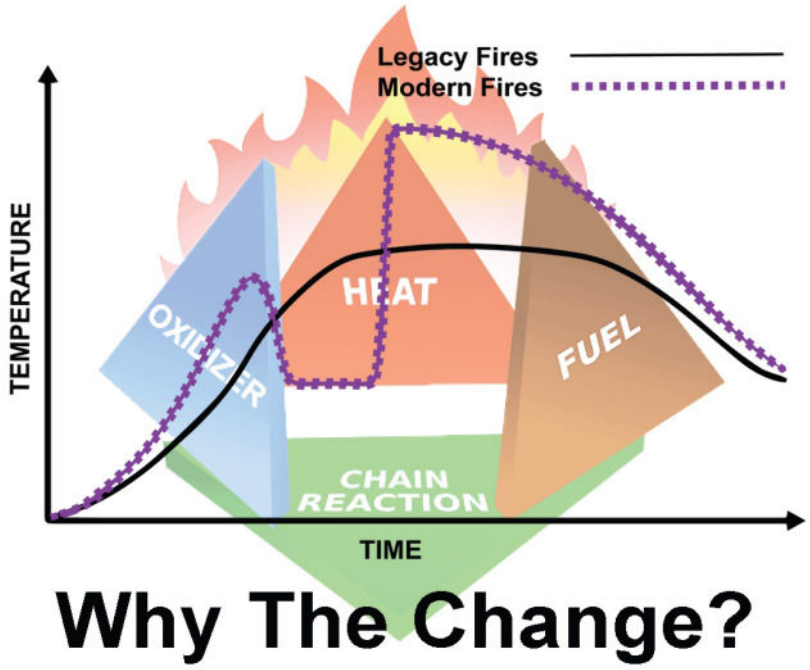
"Fortune favors the prepared mind." – Louis Pasteur

The concepts of fire dynamics and their effects on fire ground tactics have been in published firefighter texts since the late 1800s. In the past several years, however, there has been a drastic increase in the amount and detail of fire dynamics studies and their applicability to the modern fire ground. The fire service has started to embrace the scientific method with the goal to make smarter, more efficient firefighters and incident commanders. Fire service partners such as Underwriters Laboratory (UL) and the National Institute of Standards and Technology (NIST) have worked to provide quantitative data and findings to leaders of the fire service to accomplish that goal.

When new firefighters get to the 'Fire Dynamics' chapter in their textbook, it is easy to see how the information can be overwhelming. The level of detailed information on fire behavior and growth continues to expand with each edition of a firefighting textbook. The efforts of research entities such as UL and NIST have allowed the modern firefighter to have a more in-depth knowledge of fire behavior than ever before. Several topics that are covered in those texts are worth reinforcing for members at all levels and experiences of the fire service. They are: the fire tetrahedron, incomplete combustion, laws of pressure, and ventilation-limited fires.

The components of the fire tetrahedron are fuel, heat, oxygen or an oxidizing agent, and a chemical chain reaction. Suppression efforts are often focused on decreasing the level of heat, breaking the chain reaction, or limiting/eliminating the fuel source. Several training programs, such as *Nozzle Forward*, have looked at the data coming from fire dynamics studies that show flowing water ahead of the hose team but prior to reaching the seat of the fire will slow the progression of the fire to flashover. It will also allow the hose team to push further into the structure in a safer manner as their turnout gear will take longer to reach heat saturation. Getting water on the fire as fast as possible also breaks the chain reaction of the combustion process. There are other extinguishing agents available in the modern firefighting arsenal, such as foam and dry extinguishing agents, that will also assist in breaking the combustion chain reaction.

Smoke is the result of a fire that is undergoing inefficient combustion. This is also known as incomplete combustion. The smoke has fuel components in it, making it a potential source



Be Combat Ready – Understanding the Enemy *cont.*

of fuel should it find an ignition source and the correct conditions. A hose team that is flowing water as it is advancing will decrease the heat in the compartment and, therefore, decrease the likelihood the smoke will reach conditions where it can ignite. Personnel should also be aware of the byproducts of combustion in smoke, such as hydrogen cyanide and carbon monoxide, that can be fatal if inhaled. The widespread presence of petroleum-based products in modern homes and buildings also result in known carcinogens being in smoke. Firefighters should be utilizing their full PPE and SCBA while operating in IDLH environments and while conducting overhaul.

While there are several physics laws and equations associated with the behavior of gasses and pressure, fire service personnel should know one universal truth about them – pressure will always move from an area of high pressure to an area of low pressure to balance the pressure level in a given space. The combustion process results in creating a high-pressure environment as smoke and heat rises in a compartment. This is why personnel are able to observe a neutral plane of smoke during a fire behavior lab in their Firefighter I training. Whenever an opening is made to a building – vertical ventilation, horizontal ventilation, the fire self-ventilates, or forcible entry – the pressure will move to that opening as the pressure is lower outside of the building than inside of it. Fire personnel of all levels must have this basic concept in their minds as they are conducting fire ground activities because of the behavior of ventilation-limited fires.

A ventilation-limited fire occurs when there is plenty of heat, fuel, and chain reaction for a fire to continue growing, but there is not enough oxygen. Modern buildings are constructed to be very energy efficient. A side effect of that efficiency is that these buildings are very tight when it comes to outside air moving in and out the structure. When a fire begins in a modern building, like a bedroom in a lightweight construction home, the fire will grow until there is not enough oxygen in that room or on that floor to support it. The fire enters a decay stage until air is re-introduced into the environment. This occurs typically through forcible entry for a fire department to make access to the building. The influx of air will allow the fire to re-enter the growth stage and take advantage of the fuel it did not consume prior to becoming ventilation-limited. Rapid growth of a ventilation-limited fire can also occur during uncoordinated or spontaneous ventilation. If a crew breaks a window without the hose team being in place and applying water, the fire can grow unchecked. Additionally, the fire can cause ventilation to occur by burning through a ceiling and roof or by breaking a window from the amount of pressure and heat it is generating inside of the compartment.

Personnel in today's fire service have a level of detailed information on fire and its behavior that is unparalleled to previous generations of the fire service. That information will continue to increase in its quantity and detail as the lessons they teach are applied to modern fire grounds, allowing firefighters to extinguish fires more efficiently.

Jon T. Johnson,
BS, NRP, MICRB-II

Fire Safety Research Institute

We Can't Save You If We Can’t Get There

Driving Fire/EMS apparatus and other emergency vehicles is an honored position in most agencies. This noble task comes with responsibilities. Selection for this position demands the operator has the right training. Vehicles are often significantly larger, and heavier than the average vehicle on the roadway. This in itself should select the parameters and training for this position.

The intent on every response is for crews to arrive safely and mitigate the situation at hand. When crashes happen the agencies, purpose is diminished. This is why operators should maintain safety precautions.

Firefighting vehicles have ladders, cranes, and other machines that make them take more space than even an average truck. This means the driver has to pay attention to maneuver turns without colliding with other drivers. The driver also needs to understand center of gravity of the vehicle. This allows for proper navigation and at the right time.

Weight of apparatus varies**,** apart from its size; a fire fighter’s truck will weigh differently depending on what it carries. When the track has to bring water to its destination, it will weigh heavier than empty. The driver also needs to remain aware that a truck’s weight will dictate its safe speed and navigation techniques.

An advantage of driving a fire truck is that you can use sirens and lights to show that you respond to an emergency, thus exempting you from a few traffic laws. However, that does not mean that no traffic rule applies. In addition, different states have different emergency driving guidelines.

Just because a potential driver arrives at the fire department for a job does not mean they are well qualified for the position. There might be minimum requirements one has to meet, but the department should also have a qualifying process that ensures that any driver assigned to the field is fit for the job.

Aside from having a suitable program for selecting and training, driver/operators, every fire department also needs to update its programs frequently. This is because routes change, technology advances, and more innovations have been hitting the market. To ensure that a department has the proper guide for safe drivers, they have to answer a few questions.

- When and how to use signals, lights, and sirens.
- Working with an assigned spotter when making different turns.
- How to respond to traffic lights and stop signs.
- The maximum speed for any emergency vehicle
- Using an emergency vehicle in creating safe zones, especially at a crash scene.
- The use of seatbelts for an emergency vehicle driver and passengers.

A key element is the constant reviewing and training of all driver operator skills even for the most veteran staff.

Some skills are not often used. Especially for emergencies that happen occasionally. There should be documents, that assist drivers keep their knowledge in check. For example, even if it has been a while since one had an entrapment, do the drivers know how to participate in the rescue work?

Department heads have to work with their drivers to check which updates are necessary. During daily updates, such pieces of training need communicated as scheduled as soon as possible. New drivers have to go through a test program, no matter when they last worked at a fire department. This ensures that every team leader is at par with their member’s skill standing.

We Can't Save You If We Can't Get There *cont.*

Why Fire Department Driving Training Programs are Important

As already highlighted, it is not enough to meet the minimum qualifications to be a competent fire department driver. General driving guidelines demand that each driver is fit for the road and to run different machines on the fire truck. This is why further training drivers is essential. The programs are necessary because:

Pre-response routines

It takes a lot to be a fire department driver. The driver should follow all pre-response guidelines as missing one can put the entire team at risk. This involves understanding the district map, quickly suiting up, and carrying all the necessary tools.

Drivers also need to have proper training on traffic patterns. If such knowledge lacks, it takes longer for a driver to get to the scene, meaning the damage would have already gone too far.

Personal safety in the fire trucks

Besides being careful about the environment when one is getting to an emergency scene, fire truck drivers need to be just as cautious with how they carry themselves in their work trucks. Do they have proper seatbelts, and are they fastened? How dynamic are their decision-making processes without being too aggressive?

All trainees need to have all the necessary tips for handling hazardous circumstances. This means they need proper mentorship from those who have been on the job longer. Such mentorships ensure that drivers know how to do basic tasks such as coming to a stop at an intersection, watching traffic lights, when to push the brakes, and when to rush forward.

They also need to understand that high speed does not always mean getting to the scene fast enough, especially if they risk their safety in the process.

Technical know-how

Safe driving demands drivers continuously keep their eyes on every corner of the road. This means they have to know how to scan through corners, side mirrors and know what to do when an animal, pedestrian, or another car suddenly appears on their way.

Remember that a truck will not stop as fast as a personal vehicle in the event of an unforeseen obstacle. Therefore, drivers should mechanize their stops to ensure that crashes are avoided as much as possible.

From the few guidelines, one can already tell that navigating a heavy track is almost an art or a science. This means that specific laws need to be put in check at all times, else something will go amiss. This also involves having simple etiquette or good habits that need to be instilled in all drivers from the start.

What If an Crash Occurs?

Just like any other crash, all crashes caused by fire trucks and other emergency vehicles need investigation. Since such crashes involve heavy vehicles, a simple collision can cause more damages with higher impacts. They are also easier to lead to multiple crashes on the scene.

Even if an investigation may not start immediately, occupants of the vehicles involved have to give a statement as soon as they are in the right shape to do so. Legal counsel will also ensure that every operator is legally checked to determine who is to blame for the crash.

To reach an emergency scene Fire/EMS drivers need to have safety as their priority. If not as the article title indicated the crew won't be much help to those in need. With proper training and guidelines agencies can be successful in taking care of their communities.

Dave Black

Live Fire Training - Safety is Important

At the 2010 National Fallen Firefighter Memorial Weekend I escorted the families, and co-workers, of 2 firefighters killed during a training evolution in Texas. I saw firsthand the impact of these preventable deaths had on their families, co-workers, and the department. Training is supposed to be a planned and controlled event but each year an average of 8 firefighters are killed during training evolutions. Between 2001 and 2015, the National Institute for Occupational Safety and Health investigated 81 training-related fatalities. Of these deaths, 42 were during physical fitness activities, 23 related to apparatus/equipment drills, 10 during live-fire evolutions, and 6 due to other training related circumstances.

Fighting fires is dangerous and we should train like we work, but that training should not cost someone's life or result in any injuries. In response to the loss of 2 firefighters in a 1982 live-fire training accident, NFPA 1403: Standard on Live Fire Training Evolutions was developed to establish minimum requirements for LIVE-FIRE training evolutions. NFPA 1403 is not just a structural fire training standard, it includes non-structure live-fire evolutions. Completing training such as Conducting Live Fire Training Exercises (MFRI MGMT 226), utilizing the NFPA 1403 requirements/checklists, and requiring all instructors be Instructor I trained (minimum), will greatly reduce the risks associated with this type of training evolution.

Other recommendations to reduce training risks include; designating a safety officer(s) for the evolution, complete all pre-training checklists, complete a pre-training safety briefing with all participants, ensure all participants are properly wearing the required personal protective equipment (PPE) at all times, be prepared for a training emergency with a designated rapid intervention team, and an on-site EMS transport unit. Every participant should know that they have the power to stop an evolution if they see/experience something that is not safe, see something say something.

So, what happens if you do not follow the training standards? The obvious is that the risk of injury and/or death increases. The other risk that increases is that the training officer, the chief, and the department increase their exposure to criminal charges and civil litigation. There are many examples of both including; a Fire Chief spending time in jail for the death of a member during a live-fire evolution that did not follow NFPA 1403, the City of Baltimore settling a wrongful death case in a 2007 live-fire exercise death, and in 2002 a Utica NY trainee died while trapped on the second floor of an abandoned house with fire on the first floor. The Assistant Chief was found reckless by starting a fire on the first floor thus trapping the firefighters on the second floor. The Assistant Chief was indicted on manslaughter and assault charges.

The NFPA is currently developing NFPA 1400: Standard on Fire Service Training to consolidate the various training standards into one standard. This is part of NFPA's Emergency Response and Responder Safety Consolidation Project. This should make it easier for training officers to obtain requirements to reduce training related injuries and/or death.

Dave Reid

Emergency Incident Rehabilitation

REHAB – If one looks up the word "rehabilitation" in the dictionary, numerous variations of definitions will be noted. However, the variation that is most pertinent to the concept of caring for firefighters and other emergency responders during emergency and training operations reads "to restore or bring to a condition of health or useful and constructive activity." The formal term applied to caring for emergency responders during incident and training activities is emergency incident rehabilitation. In daily use this is shortened to simply rehab. The term rehab is used to describe the process of providing rest, rehydration, nourishment, and medical evaluation to responders who are involved in extended and/or extreme incident scene operations. The goal of rehab is to get firefighters either back into the action or back to the station in a safe and healthy condition. When rehab operations are implemented properly, they go a long way towards making sure that the physical and mental conditions of responders operating at the emergency scene do not deteriorate to a point that affects the safety of any responder or that jeopardizes the safety or effectiveness of incident operations.

It is only in the last quarter-century that a significant portion of the fire service began to realize that the fire service's historic role as being one of the most dangerous occupations needed to be addressed. Perhaps no event in the history of the fire service brought these safety issues to the forefront more than the release of the first edition of National Fire Protection Association (NFPA) 1500, Standard on Fire Department Occupational Safety and Health Program in 1987. This document recognized many of the issues that were injuring and killing firefighters and provided standard methods for correcting them.

Approximately one-half of all firefighter fatalities and a significant percentage of injuries and illnesses are as a result of stress and overexertion on firefighters involved in emergency scene operations and training exercises. There is no question that despite all the advantages brought about by modern technology, the delivery of fire department services remains largely a job that requires arduous manual labor. In many cases, it is labor at the maximum extremes of human physical endurance.

Though NFPA 1584 placed the requirement on fire departments to perform rehab, it provided little in the way of guidance in how to set up and operate a rehab area. It also did not establish much in the way of criteria for evaluating firefighters when they enter the rehab area. In fact, even though some organizations had been performing at least some aspects of a rehab operation for many years, there really was no definitive source of information on the topic available. Several articles had been written and fire departments shared Standard Operating Procedures (SOPs), but no single source of comprehensive information was available.

The U.S. Fire Administration Emergency Incident Rehabilitation February 2008 FA-134, provides comprehensive information on the topic of rehab. This document provided basic information on performing rehab operations at emergency scenes and also included a sample SOP. This document can be downloaded from the U.S. Fire Administration at: https://www.usfa.fema.gov/downloads/pdf/publications/fa_314.pdf

John Long, Jr.

Emergency Incident Rehabilitation

Be a Good Sport: Prepare Like an Athlete

During our daily checkouts, we ensure that our apparatus, gear, and equipment are ready for whatever we may encounter. The top priority on our checkout list should be that the first responder is ready and fit for duty. Nutrition and hydration are key components in fueling the first responder to exhibit peak physical and mental performance, reducing risk of injury.

Athletes are able to schedule when to fuel and hydrate in order to optimize performance and recovery. First responders (tactical athletes) often don't have that luxury as we never know what our shift will bring. Additionally, needs vary depending on how many, and what type of calls your station typically responds to.

There are general nutrition and hydration guidelines to prepare like an athlete. These guidelines include meeting daily calorie needs, eating a balanced diet from macronutrients, and adequately hydrating/ rehydrating. Micronutrients (vitamins and minerals) can be obtained by eating a balanced diet including a variety of macronutrients.

Macronutrients are essential for energy production, endurance, muscle building, strength, performance, recovery, and overall health. The three types of macronutrients are protein, carbohydrates, and fat. It is important to include a protein and complex carb with each meal and snack to achieve the maximum nutritional benefits.

Carbohydrates are the preferred source of energy for the body and brain. They provide immediate energy for physical activity, maintain strength, endurance, and prevent fatigue. There are two types of carbohydrates: simple and complex. Complex carbohydrates breakdown slowly promoting sustained energy, satiety, and weight loss/ management. Examples of complex carbohydrates (dietary fiber) include whole grains, fruits, vegetables, beans, legumes, oats, potatoes. Simple carbohydrates breakdown rapidly resulting in a quick burst of energy followed by a sudden decline in energy as blood sugar levels deplete. Simple carbohydrates are found in processed foods such as cake, cookies, white bread, pretzels, candy, and sugary drinks. Simple carbohydrates should be limited as they contain empty calories and are of little nutrient value.

Carbohydrates break down into glucose (sugar) which is the body's main source of energy. When your body doesn't immediately need the glucose for energy, it stores the glucose in your muscles and liver as glycogen for later use. The depletion of glycogen stores results in exhaustion, or "hitting the wall", increasing the risk of poor job performance, poor decision making, and injury. Therefore, it is essential to replenish glycogen stores. To do this, include a complex carbohydrate, with every meal and snack. It is recommended to consume a small meal or snack before a workout consisting of 30 -60 grams of carbohydrates. Examples include: a bagel with peanut butter, a turkey and cheese sandwich on whole grain bread, Greek yogurt and fruit, oatmeal with fruit, toast with peanut butter and banana, Fig Newton and applesauce, or energy bars high in carbohydrates such as the Clif Bar. It is also important to include carbohydrates in your meal/snack within 30-60 minutes after a workout or high intensity call. Protein is essential for building and repairing muscle, improving brain function, and supporting the immune system. Protein takes longer to digest creating a feeling of fullness which may assist in weight loss/ maintenance. Firefighting, training evolutions, drills, and working out break down muscle, making it imperative to include protein in the diet to help recovery and maintain strength and muscle mass. Protein is found in both plant and animal sources. Plant sources include nuts, seeds, beans, legumes, soy, tofu, quinoa, oats, buckwheat. Animal sources (high biological protein) include meat, fish, poultry, eggs. Dairy sources include milk, yogurt, cheese, and cottage cheese. To optimize muscle recovery, consume a minimum of 20-35 grams of protein within 30-60 minutes after a workout or high intensity call. Examples of post workout or high intensity call meals include: a chicken or fish wrap/taco/ sandwich, tuna or chicken packets with whole grain crackers, pasta with ground beef or turkey, hard boiled eggs (2-3) and fruit, hummus and whole grain crackers, protein smoothie

Be a Good Sport: Prepare Like an Athlete cont.

with fruit, chocolate milk, cottage cheese and fruit, protein bar and applesauce.

Fats are important in hormone production/regulation, cell structure and growth, absorption of the fat soluble vitamins A, D, E, and K, act as a cushion to protect organs, and provide a source of energy. Just like carbohydrates, some fat sources are better than others. Unsaturated fats are healthy sources of fats found in avocados, olive oil, flaxseeds, nuts, seeds, olives, eggs, fatty fish such as salmon, cod, and tuna. Saturated fats such as fried foods, processed baked goods, fatty meats, whole milk, and most fast foods should be limited as they are associated with heart disease, high cholesterol, and stroke. It is important to pay attention to the serving sizes of fats as they are more calorically dense. Distributing macronutrients throughout the shift helps to prevent dips in energy, replaces glycogen stores, preserves lean muscle mass, keeps you feeling full, and helps prevent bloating, nausea, and discomfort. It is encouraged to avoid consuming high fat foods and fiber before a workout as they break down more slowly, potentially causing discomfort, sluggishness, and gastrointestinal issues (flatulence, diarrhea, nausea, cramping).

Consuming adequate calories is crucial to sustain endurance and promote recovery. It is recommended to consume 2,000 -2,500 calories a day for maintenance. Caloric needs may significantly increase to 3,000 or more if a fire related, or a physically intense call occurs. Calories should be obtained primarily from nutritious foods. It is important to remember that food is not only for nutrition, allowing for occasional treats. Following the 80/20 rules helps maintain a healthy balance by eating nutritious food 80% of the time and not as nutritious food 20% of the time.

First responders are at a high risk for dehydration due to excessive fluid and electrolytes lost from running calls, participating in training exercises, and performing daily tasks. Firefighters can lose up to 40 ounces of sweat during 30 minutes of fire suppression activity. The recommended daily fluid intake is about 15.5 cups (3.7 liters, 125 ounces) of fluids a day for men and about 11.5 cups (2.7 liters, 91 ounces) of fluids a day for women. Warmer months and incidents with prolonged suppression such as wildland firefighting may need to increase fluid intake beyond 91-125 ounces. Electrolyte replacement needs to be a priority in warm and hot environments (calls, training/drills, workouts) due to increased sweat and metabolic losses. The electrolytes lost in sweat include sodium, potassium, chloride, magnesium and calcium, with sodium being the most abundant. When increased sweat loss occurs it is encouraged to consume oral rehydration solutions (ORS) over sports drinks. The extra sodium in ORS will help with the absorption of fluids and electrolytes into your bloodstream, increasing the rate of rehydration. Dripdrop and Liquid IV are recommended ORS. A small amount of sugar (12-15 grams) transports sodium more quickly into the cells to increase water absorption for more rapid rehydration. Therefore, when choosing a sports drink opt for the ones containing sugar.

If you are at a busy station a “Go Bag” is recommended to provide nourishment and hydration when running continuous calls. Include non-perishable foods that are high in protein and carbs, as well as hydration, and rehydration products. Ideas for items to include are: homemade trail mix with nuts/seeds and dried fruit, Fig Newton bars, protein bars, dried fruit, dry whole grain cereal (can buy individual boxes or separate into individual bags), applesauce, individual packs of tuna or chicken with crackers, peanut butter crackers, water, sports drinks containing sugar, Oral Rehydration Solution packets. Another option for first responders at busy stations is to eat six small meals a day instead of the traditional three meals to meet nutritional goals.

Recommendations vary depending on individual needs. The information provided is a general recommendation when planning your meals to prepare like an athlete. For specific nutrition related questions, or to figure out your specific nutrient needs please contact me at healthyheroesr2@gmail.com.

Summarized by MFF/EMT Rhonda Cohen MS, RDN, LDN, CSN

Save the Dates

Fire Department Instructors Conference (FDIC): April 8-12, 2025 Indianapolis, IN

Maryland Fire Chiefs Association annual membership meeting: Kent Island, April 19

Baltimore Regional Traffic Incident Management Symposium, Linthicum, MD, April 23

Maryland State Firefighters Association Executive Committee meeting, April 26-27, Midland, MD

NFFF Light Up the Night for Fallen Firefighters: April 27-May 4, 2025 across America

Maryland Highway Safety Summit, Linthicum, MD, April 29

National Fallen Firefighters Foundation Memorial Weekend, National Fire Academy, Emmitsburg May 3-4

NFFF Bells Across America for Fallen Firefighters: May 3-4, 2025 across America

National Volunteer Fire Council, Spring meeting, Alexandria, VA, May 8-10

Eastern Division IAFC Annual Conference: May 8-10, 2025 Lake George, NY

Lancaster Fire Expo, Harrisburg, PA, May 16-17

Cumberland Valley Volunteer Firefighters Association, Spring meeting, New Cumberland, PA, May 18

Maryland State Firefighters Association Convention and Conference, Ocean City, MD, June 15-18

National Volunteer Fire Council, Training Summit, Salt Lake City, UT, June 20-21

Contact Us!

Email: Safety@mdchief.org
Web Site: www.mdchiefs.org
Chairman: David Lewis
Editor: Dick DeVore
Contributing Authors:
David Reid
Dave Black
Rhonda Cohen
Jon Johnson
John Long

***Back Step Talks* Back Issues**

Maryland Fire Chiefs Association

Responder Safety Learning Network

Cumberland Valley Vol. Firefighters Association

Firefighter Close Calls

Maryland State Firefighters Association

First Responder Center for Excellence

National Volunteer Fire Council

19

The number of 1st responder suicides through March 31, 2025

Firefighter Behavioral Health Alliance

18

The number of fallen firefighters through March 31, 2025

US Fire Administration