September 2020

# Fire Line Newsletter


FOND DU LAC EST. 1848 FIRE / RESCUE

In This Issue:



## *From the Balcony:* ***Learning a Different Way***

It's hard not to watch the news these days without hearing something related to kids returning to school faced with mandatory online learning, or some type of hybrid teaching model. The struggle for teachers, students and parents are real and there doesn't seem to be a playbook that everyone will agree upon. One thing for sure is learning has to happen and each school has to find the model which sets students and teachers up for success.

My youngest son Thomas is a senior in college and will begin the fall semester of his senior year learning online. Needless to say, he is not thrilled and although I understand his wanting to be on campus with his buddies, I also know how dangerous COVID-19 can be, especially on a college campus. He realizes that too, but fears his professors won't understand technology in a way that will make his classes as enriching as they would be in a traditional classroom setting.

Student's adaption to an online learning environment has many pieces and can be tricky for students to grasp. Online learning needs a disciplined mind and commitment to put adequate time into the course material. Students learn differently and online learning has challenges which will test students and their instructors. A student who learns well in a traditional classroom may find online learning impossible! Parents may not be able to motivate their kids through online learning the way they might with traditional homework assignments.

This got me thinking about traditional learning methods and how much has changed since I first challenged the Illinois Firefighter II exam in 1981. I am sure the curriculum has changed quite a bit in the last 40 years and so have the delivery methods. The fire service has adapted to the changes that continue to modernize our learning environment. Many firefighters routinely utilize web-based learning to keep up on training requirements which have replaced much of the face-to-face student/instructor interaction. I have only taken a couple online learning classes and I found them difficult…now I teach them!

I like to challenge assumptions and status quo when I am presented with a problem to solve. How can we use our skills, technology, voice, emotion and drive to make sure we are opening windows and opportunities for others? Teachers today have the same problems to solve that they do in the traditional classroom. Their challenges center around adapting to the changing environment while figuring out a way to make sure their students are being developed for success and not failure. We can learn in many ways if we take time to understand the options we have and by utilizing our vast array of options, we can learn a new way.

*Until Next Month,*
*Be Safe and*
*Be Well*
***Fire Chief***
***Peter O'Leary***

# FOND DU LAC FIRE RESCUE OPERATIONS

By: Assistant Chief
Erick Gerritson

## *How firefighters can manage their anxiety and stay sharp as the COVID-19 pandemic continues*

There have been more than 10 million confirmed COVID-19 cases and more than a half-million deaths worldwide since the novel coronavirus was first identified late last year.

At a recent news conference, Tedros Adhanom Ghebreyesus, director-general of the World Health Organization, noted that the global pandemic isn't slowing down – it's speeding up. "We all want this to be over. We all want to get on with our lives. But the hard reality is this is not even close to being over," Ghebreyesus said.

That is a hard pill to swallow, especially for first responders as they continue to serve and take care of patients – even if that means they get exposed and fall ill in the process. It is important – now more than ever – for first responders to take care of their mental and physical health as this unprecedented pandemic continues. To help responders learn more about the necessary steps to achieving this goal, below are some strategies for coping with the ongoing fear and anxiety faced by responders, including stress management, fatigue and fear of bringing COVID-19 home.

***What are some of the unique stressors that firefighters, EMS providers and other first responders are facing as the COVID-19 pandemic continues?***

They have anxiety and fears that the general public would, but they're also being faced with fears and concerns of potentially being exposed to and contracting COVID-19 at an increased rate due to their interactions while they're on the job. They also have the added stress of possibly working extra hours if there are staffing shortages due to any kind of quarantine situation that their coworkers might be facing.

They are having fears of potentially bringing home the illness to their families. I have even heard that some have chosen to separate themselves from their families to avoid any kind of exposure. That means that they are losing that support that they would usually have from their primary support system.

We are seeing also just fatigue in general. First responders generally will respond to a situation that is short-term in duration, but this is not a short-term situation that we are all in together.

***What are some of the key mental health signs and symptoms associated with the COVID-19 crisis? How do these affect physical health and responder readiness?***

Some of the signs that would wave a red flag would be some unexplained physical symptoms, maybe some confused thinking, maybe an increase in feelings of anger or having some extreme highs and lows. Maybe you find that you are worrying a lot more than you ever did and it's really taking over your behaviors.

Extreme sadness and substance use are some things to be on the lookout for. We know just across the general population that substance use has really increased. Also, social withdrawal would be something that we would want to pay attention to. We know that if first responders aren't paying attention to these pieces, they're not taking care of themselves, and that could lead to slower reaction times on the job.

***How are stress and anxiety different? How can they affect a person?***

Oftentimes, stress and anxiety can be positive. Sometimes stress can motivate us to get things

# *How firefighters can manage their anxiety and stay sharp as the Covid-19 pandemic continues…*

done. It's important to know that "stress" is not always a negative term to use. There are positive pieces related to stress and anxiety. We might have anxiety over getting a new car, knowing that the car payment is more, but we can also have excitement knowing that we're not going to be in the repair shop every month. Stressors affect everyone differently, but it's really how we cope and respond that determines the outcome.

Anxiety is more characterized by fear or worry that we might have about an event or an outcome. For many, there was anxiety about contracting the virus, and there are some other symptoms that you could experience related to the pandemic. It's this roller coaster that we go in and out of. We could have apathy or numbness, anger, hopelessness, denial – even feelings about being calm.

The stress and anxiety could really affect everybody differently. It's just as important to be self-aware that this is a difficult time and to have compassion for these feelings and monitor them. And when you feel like you're feeling so overwhelmed that your behaviors are changing, then it might be time to reach out for help.

We are wired in a way that when we are experiencing high levels of stress, we're thinking about survival. When we think about this pandemic, oftentimes our responses are our body's way of trying to say, "How do I survive in this moment?" And our minds and bodies don't know how to survive in a pandemic, because we probably haven't experienced a pandemic before. That's why we might be seeing all of these roller coaster emotions and reactions, because our body is trying to figure out, "How can we be successful during this time?"

***Why is self-care and wellness important for first responders? And what can first responders do to prioritize their own mental and emotional well-being, as well as ensure they support one another?***

Certain self-care measures that are sometimes adopted during those normal stress times have been taken away from this population. Those social gatherings, sporting events, the gym, church, family celebrations – all those self-care pieces have been taken away. It's important for first responders to try to figure out things that they still can do so that they're not experiencing additional fatigue.

Most departments still have their peer support network in place. That is always a great place to start, as well as any kind of employee assistance program. This is something that's free to employees and any household members. There are also so many different virtual resources that are available. You don't even need to leave your home. There are podcasts, webinars and guided mindfulness meditations. There really are quite a few different pieces available out there. It's just putting forth that time and effort to make self-care a priority.

***"Mindfulness" and "self-care" are common terms, but what do those terms mean? What are some practical strategies to accomplish those on an individual level?***

If we were to rely on Jon Kabat-Zinn's definition of mindfulness, it's really that we're paying attention on purpose in the present moment, non-judgmentally, as if your life depends on it. Self-care is a practice of taking an active role in protecting your own well-being and happiness. And we talk about it during periods of stress.

Mindfulness can be a part of self-care, but self-care can include other activities that make you feel better, like healthy eating, getting good sleep, exercising, and expressing gratitude – whatever it is that is the good fit for you. Self-care is more of a broader umbrella, and mindfulness can be a piece of self-care, but really it's trying to be present.

***What resources are available to help? What can individuals and organizations do to promote stress relief?***

It's important that all agencies are sharing these resources in this stressful time. Whether it is an employee assistance program or other resources that might be available, it's important that the messaging is clear that these resources are there to be supportive to employees.

We know that everybody is having heightened levels of stress. That's one important piece, but when we talk about different resources that can be available, draw on EAP, peer support, some of the resources that were already in play, and make sure that there's an awareness about all these different virtual providers as well. Find what is going to be beneficial to individuals and encourage that as well.

We know that if you're taking care of your emotional health, then you're taking care of your physical health at the same time. We really want to make sure that we have this holistic approach to managing the whole person, and behavioral health is a huge component of that.

Back when we were flying, you started your flight with, "If something happens, make sure you put your mask on yourself before you put it on others or your children." That's really important to remember – that we can't care for others if we're not taking care of ourselves.

*Source; Sarah Calams for FireRescue1 and Laura Magnuson, a behavioral health expert*

***Until Next Month…***
***Be Safe!***

## Operations by the Numbers

| July, 2020 | By Month | | Year-To-Date | |
|---|---|---|---|---|
| **PREVENTION** | **Last Year** | **This Year** | **Last Year** | **This Year** |
| Total Inspections | 273 | 145 | 1855 | 1220 |
| Total Defects | 201 | 62 | 1123 | 684 |
| **SUPPRESSION** | | | | |
| Alarms Involving Fire | 14 | 15 | 65 | 80 |
| Fire Mutual Aid Given | 0 | 1 | 6 | 10 |
| Fire Mutual Aid Received | 0 | 2 | 0 | 3 |
| Service/Good Intent Calls | 46 | 46 | 301 | 349 |
| False Alarms/False Calls | 31 | 40 | 228 | 180 |
| Other Calls | 17 | 19 | 111 | 112 |
| Total Fire Alarms & Calls | 108 | 120 | 705 | 721 |
| **EMS** | | | | |
| Total Ambulance Calls | 558 | 585 | 3637 | 3500 |
| Total Fire/EMS Responses | 666 | 705 | 4342 | 4221 |
| Fire Property Loss | $4,000.00 | $133,100.00 | $309,838.00 | $574,200.00 |
| Fire Contents Loss | $56,080.00 | $42,500.00 | $129,181.00 | $265,501.00 |
| Engine Assisted EMS Calls | 262 | 252 | 1603 | 1490 |

***UPCOMING EVENTS***

***Salute the Troops Annual Race***
*September 5th*

***Labor Day***
*September 7th*

***Fondue Fest***
*September 12th*

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## Birthdays, Employment Milestones, Upcoming Events

# ~ Happy September Birthday ~

*Jim Wamser · Todd Janquart · Brian Westby*
*Matt Kissinger · Phil Seibel*

## *Congratulations Garth Schumacher!*

20 years at FDLFR

*Start date: September 5, 2000*


# The Code Summary

By: Assistant Chief Todd Janquart

## Back to Basics: Ventilation vs Respiration

You were taught from day one of taking vital signs to count ***respirations***. However, I am here to say that your stellar EMT instructor let you down because she/he was wrong. The same incorrect terminology is also written in numerous textbooks, on run reports, and spoken everyday between medical professionals. So now you're asking: Ok, smartypants, then what is the proper term? The appropriate term, my fellow professionals, is, you count – ***ventilations.***

Aren't these terms essentially the same? The easy answer is no. The harder question is: Well, why not? This installment of Back to the Basics discusses these physiological processes and how they differ. So please, read on.

Simply put, **ventilation** is breathing – the physical movement of air between the outside environment and the lungs. Air travels through the mouth and nasal passages, then down the pharynx. Upon reaching the vocal cords, air flows into the trachea, transitioning from the upper airway into the lower airway. Here, it continues distally to the carina, then through the primary bronchi, various branches of bronchioles, and eventually arriving in the alveoli. This is inhalation. Air movement in a reverse pathway from alveoli to mouth and nose, is exhalation. Inhalation, followed by exhalation, equals one ventilation. This is what you observe (chest rise and fall) when determining the breathing rate.

A ventilation can only take place if the brainstem, cranial, and associated peripheral nerves, the diaphragm, intercostal musculature, and lungs are all functional. Combining the function of all these structures, the pulmonary ventilation mechanism establishes two gas pressure gradients. One, in which the pressure within the alveoli is lower than atmospheric pressure – this produces inhalation. The other, in which the pressure in the alveoli is higher than atmospheric pressure – this produces exhalation. These necessary changes in intrapulmonary pressure occur because of changes in lung volume.

So, how does the lung volume change? Quite simply, it is a combination of muscle contractions stimulated by the central nervous system, and the movement of a serous membrane within the thorax called the pleura. The pleura is made of two layers: a parietal layer that lines the inside of the thorax and a visceral layer that covers the lungs and adjoining structures (blood vessels, bronchi, and nerves). Between the visceral and parietal layers is a small, fluid-filled space, called the pleural cavity.

The initiation of ventilation begins with the brainstem, where impulses (action potentials) generate within the medulla oblongata, then travel distally within the spinal cord. The impulse traverses individually through cervical nerves three, four, and five until just above the clavicle. Here, the three cervical nerves merge into one large nerve called the phrenic nerve, which attaches distally to the diaphragm. Imagine these two nerves resembling a pair of suspenders on the anterior chest. The delivered impulse from the phrenic nerve initiates diaphragm contraction.

The intercostal muscles are a group of intrinsic chest wall muscles occupying the intercostal spaces. They are arranged separately in three distinct layers (external intercostal muscles, internal intercostal

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*Here is a partial list of pathologies that impair ventilation:*

- ***Nervous system:*** brain stem injury/traumatic brain injury, cervical spinal injury, Myasthenia Gravis, ALS (Lou Gehrig's disease), Guillain-Barré syndrome
- ***Thorax:*** blunt chest trauma, rib fracture/flail chest, diaphragmatic tear/hernia, penetrating chest trauma/pneumothorax hemothorax, pleural effusion, compression of the chest
- ***Lungs:*** emphysema, chronic bronchitis, asthma, foreign body airway obstruction, cystic fibrosis, lung cancer/tumor

# Back to Basics: Ventilation vs Respiration Continued…

muscles, and innermost intercostal muscles). The intercostal nerves that stimulate these muscles originate from the spinal cord thoracic nerves 1-11.

Inhalation is initiated as the dome-shaped diaphragm is stimulated. As it contracts and flattens, the thorax expands inferiorly. The internal and innermost intercostal muscles relax, while the external intercostal muscles contract from stimulus by the thoracic nerves. This produces an upward and outward movement of the ribs (similar to the movement of a bucket handle), and the sternum (similar to when pulling upward on a handle of a water pump). The fluid in the pleural cavity acts like glue, adhering the thorax to the lungs. Hence, as the thorax expands vertically and laterally, the parietal layer drags the visceral layer along with it, causing the lungs to expand. Adequate expansion of the lungs results in a decreased pressure within the alveoli. Therefore, when the alveolar pressure drops below atmospheric pressure, air rushes into the lungs.

Remember, inhalation requires a stimulus initiated from the central nervous system. Think of it like turning on a light. The light stays unlit until you flip a switch (CNS), releasing electricity and stimulating components of the light bulb. As long as the switch is on and there is an impulse, the light stays lit. However, if you turn off the switch, the stimulus ceases, and the light shuts down. Exhalation is akin to turning off the switch, so to speak.

Thoracic stretch receptors constantly monitor chest expansion. Once an acceptable limit of expansion develops, they send a message to the central nervous system to "turn off the switch." All the nerves stimulating diaphragmatic and external intercostal muscle contraction temporarily stop conducting. Consequently, the diaphragm and the external intercostal muscles relax, decreasing the thoracic volume – like letting air out of a balloon. Assisting with this passive process, the internal and innermost intercostal muscles are stimulated. Their contraction pulls the ribcage and attached pleura further downward and inward, compressing the lungs and increasing the air pressure within the alveoli. Once the alveolar pressure exceeds the atmospheric pressure, air moves out of the lungs.

That is all there is to it – simple, right? Adults normally ventilate between 12 to 20 times per minute, thanks to the autonomic nervous system. We do not even have to think about it! Nonetheless, what becomes a problem (and why EMS gets a call) is when the nervous system, the thoracic musculature, or the lungs become diseased or disabled.

**Respiration**

Respiration is the movement of gas across a membrane. The gas exchange in the lungs is referred to as external respiration. The very thin membrane gas crosses is called the respiratory membrane, separating the air within the alveoli from the blood within pulmonary capillaries. Its structure consists of the alveolar wall, the capillary wall, and each's respective basement membrane. A basement membrane is a thin, fibrous structure that separates the lining of an internal or external body surface from underlying connective tissue. Think of it like Christmas wrapping paper around a box.

Recall that adequate ventilation enables air to reach the alveoli and establish a pressure gradient. The alveolar pressure of oxygen typically ranges from 80 to 100 mmHg, whereas the alveolar pressure of inspired carbon dioxide is very low (typically 40 mmHg). Oxygen-depleted blood, transported from the body's cells and back to the right side of the heart, is pumped into the pulmonary trunk and through the pulmonary arteries. Eventually, the blood makes its way through the distal pulmonary capillaries surrounding the alveoli. Oxygen within the pulmonary

*Additionally, here are some other common respiration pathologies:*

- **Pulmonary edema** – left-sided heart failure
- **Loss of surfactant** – drowning/aspiration
- **Pulmonary embolism** – lack of capillary blood flow
- **Internal/external hemorrhage** – lack of blood volume returning to the heart
- **Pulmonary contusion** – blood collection in alveoli
- **Atelectasis** – various diseases that increase the size of the respiratory membrane

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BREATHING RESPIRATION

# Back to Basics: Ventilation vs Respiration Continued…

This country has come to feel the same when Congress is in session as when the baby gets hold of a hammer.

Will Rogers

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bloodstream typically has a pressure of 40 mmHg, and carbon dioxide has a pressure of 45 mmHg. These differences in pressure allow for diffusion of oxygen from alveolar air, across the respiratory membrane and onto the hemoglobin of red blood cells. Carbon dioxide diffuses off hemoglobin, crosses the respiratory membrane, and enters the alveolar space.

The result of external respiration establishes a hemoglobin oxygen pressure in excess of 100 mmHg, and a decreased pressure of carbon dioxide of 40 mmHg. The exchange of oxygen and carbon dioxide continues across the respiratory membrane until the equilibrium of each gas is established. Oxygen-rich blood then flows from the lungs via the pulmonary veins back to the left side of the heart. Here, it is pumped out through the aorta to all body tissues.

Blood flows from the systemic circulation, down through arteries, arterioles, and eventually to the capillaries. Capillaries are only large enough to accommodate one red blood cell at a time, and blood flow at this level is very slow. This maximizes the time for the release of oxygen and reabsorption of carbon dioxide. Cells require high concentration oxygen to function correctly. Thus, another membrane exchange of gas must take place between individual body cells and the systemic capillaries. This transaction occurs with gas already within the body, so it is termed internal respiration. Organelles within a cell take oxygen and combine it with glucose, fat, or protein, and make energy (ATP) through a series of complex chemical reactions. The resultant waste product is a high concentration of carbon dioxide. So, as arterial blood flows into capillaries, an awaiting cell has low oxygen pressure (40 mmHg, typically) and a high carbon dioxide pressure (45 mmHg).

Oxygen that is attached to hemoglobin maintains a pressure of around 100 mmHg, and carbon dioxide a pressure of 40 mmHg. A diffusion gradient is established once again, only this time in the opposite direction that occurred in the lungs. At the cellular level, the exchange of oxygen and carbon dioxide commences across the cellular/capillary membrane until an equilibrium of each gas is established. Blood flow continues through the venules, veins, vena cava, heart, and back into the lungs with a hemoglobin oxygen pressure of 40 mmHg and a carbon dioxide pressure of 45 mmHg. Rinse and repeat, every minute, of every day, for life.

Unfortunately, external and internal respiration can also be negatively influenced and inhibited by various disease processes. At the time of this article, the most notable respiratory pathology is caused by COVID-19, the coronavirus. View the YouTube video from the Cleveland Clinic's Dr. Sanjay Mukhopadhyay (found in the reference listings) to get a first-hand view of what COVID-19 does to the alveolar-capillary membrane.

Hopefully, now you understand the difference between ventilation and respiration. Even though these are independent physiological processes, they are also mutually dependent to ensure the survival of the human body. So, the next time someone misuses one of these terms set them straight with a smile. Tell 'em Chris told you.

*About the Author:*
*Chris Ebright, NRP, is an EMS education specialist with ProMedica Air and Mobile in Toledo, Ohio, managing all aspects of internal continuing EMS education as well as for numerous EMS systems in northwest Ohio and southeast Michigan. He has been a Nationally Registered paramedic for 25 years, providing primary EMS response, land, and air critical care transportation. Chris has educated hundreds of first responders, EMTs, paramedics, and nurses for 24 years with his trademark whiteboard artistry sessions, including natives from the Cayman Islands and Australia. He can be contacted via email at c.ebrightnremtp@gmail.com or through his website www.christopherebright.com*

# News from the Station

FDFLR welcomed Bailey Miller accompanied by Mrs. Wisconsin Galaxy 2020's Autumn Kastein. Bailey brought books to be added to our book library which are located outside each of our fire stations for the public to access anytime.
Thank you Bailey and Autumn.


Crews gave a hearty "*Good Day Wisconsin*" when Fox 11 stopped at the station for live segments on their morning show.

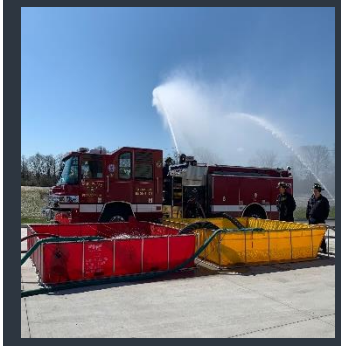
We were thrilled to host Fox 11 Good Day Wisconsin's Maggie LeMere recently to talk about paramedic life during the Covid-19 pandemic.




*Well-trained people are the best defense against fire.*

By: Assistant Chief of Training/Safety
James Knowles III

# *If It Were Easy, It Wouldn't Be Called Training*



In the movie A League of Our Own, Tom Hanks plays the role of a baseball coach yet speaks words that are directly applicable to today's fire service trainers: "If it were easy everyone would do it. The hard … is what makes it great." These words resonate with the training officer, and all fire service officers who take training seriously. The job of fire service training requires analysis, synthesis, and evaluation skills. Its no coincidence these skills occupy the highest, and most difficult level of a foundational keystone of education theory, Bloom's Taxonomy.

Every Fire Instructor I has learned about the taxonomy in their methodology coursework. Yet like so many gems we study early in our careers, the memories of Bloom fade to an obscure memory of a test question, rather than a keystone of learning. Simply stated, Bloom reminds us it is relatively simple to 'recall' or 'list' items, whereas it is infinitely more difficult to analyze, synthesize and evaluate a subject.

**For Example**
Take a fire service ground ladder, for instance. The easy solution to teaching and assessing your recruits is simply to have them list the parts of the ladder. This could include some comprehension skills such as labeling a diagram, or citing facts about the 1¼" diameter of the rungs at 14″ on center. An easy lesson is put together or borrowed from the textbook in a matter of minutes. The test is easy to grade, and feedback is as simple as a percentage of items labeled correctly. That, in a word, is easy.

But the hard … is what makes it great.

Take those same recruits and put them on the fire our own department faced last week: a three-story, 24-unit multiple dwelling. A breezeway fire, believed to be arson, blocked the only means of egress for residents. Fire consumed the breezeway on floors 2 and 3 and rapidly extended into the roof. The scene was complicated by access problems including a retention pond and 15′ retaining wall on the Charlie side.

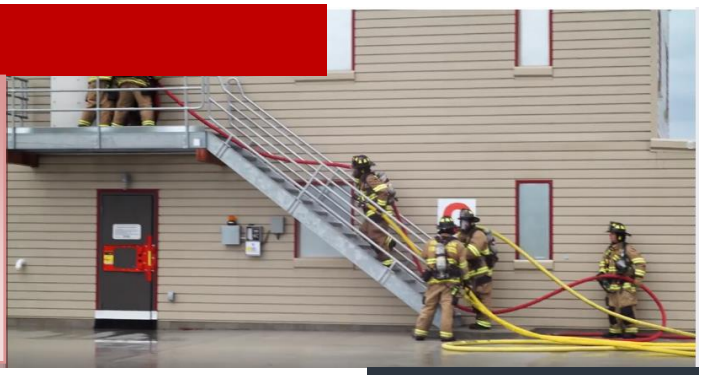
It is clear that easy, or low-level knowledge, such as being able to identify the halyard, has limited value when citizens are climbing down sheets tied to balconies and jumping from windows. What we needed right then, and now, was firefighters with high order thinking skills. They needed to quickly analyze the rescue problem, synthesize the capabilities of the available resources, evaluate the options, then select and execute the best solution. Our firefighters performed brilliantly because our training officers chose "the hard" in training for this worst case scenario.

**Because It Matters**
So why do exceptional fire service trainers choose "the hard" over "the easy" every time? This selfless question is at the core of this article. The simple answer is: because it matters. Great fire service trainers don't see instruction as a series of check boxes and skill sheets. They take the time to dig much deeper than knowledge and comprehension. They strive to develop high-level cognitive skills backed up by flawless muscle memory in the basics. This combination doesn't come easy.

But you can use "the easy" to unlock and plan "the hard." The recipe requires

# *If It Were Easy, It Wouldn't Be Called Training*

***continued…***



you to first take a look at your subject matter and list out the knowledge and comprehension items.

Using a process of elimination, boil the lower-level knowledge and comprehension down to the "must-know" elements. In our ground ladder example this could be the anatomy and physiology of a ladder—what are the parts and how does it work. Now create some skills and drills to support this learning. For example you could have recruits draw a 24′ extension ladder from memory labeling all the parts they can recall. This can grow into a hands-on exercise asking small groups to tag and label all parts of the ladder complement carried on the engine.

**Raising the Stakes**

Now jump directly to the higher level: evaluation. Define exactly what your firefighters need to evaluate and choose between options. With the ladders at our multiple dwelling fire, cite what information is necessary to evaluate: 1) what rescues need to be made, 2) what ladders are appropriate, 3) what carries and raises would work best for the situation and 4) exactly how the limited resources on scene will be deployed to do the greatest good.

In this example, students must know the capabilities and limitations of each available ladder. They must know how many personnel are needed to deploy each, and what skills are required to successfully execute a rescue. This becomes the task list for developing your objectives. These objectives will eventually build on the lower-level skills to create a comprehensive and complete training episode.

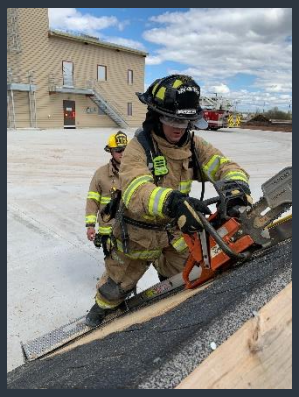
Write each objective on a piece of paper, or page of a Word document. Now brainstorm two or three drills to support learning this objective alone. At this point, don't worry about the context of the skill. For example, if you identify the need to secure the tip of the ladder to a balcony, write the objective simply for that task alone. Don't worry about what comes before or after. Simply identify how you would evaluate if the firefighters were proficient at completing this objective. To finish the page, list one or two resources and add a link to a diagram or YouTube video you believe clearly demonstrates the objective. These resources will prove invaluable when assembling learning materials.

Now group the objectives according to Bloom from simple to complex (knowledge, comprehension, application, analysis, synthesis). Wordsmith the objectives by adding the action verbs, and work to make each objective a standalone document, with clarity that matches the level of the taxonomy for which it is written.

Now build the learning episode from simple to complex. You may want to utilize online or pre-course learning to address the lower-level skills of knowledge and comprehension. Consider the audience and match the level of the taxonomy to the audience. For example, a ladders class for a new recruit is much different than one for an experienced truck company. Strive to push firefighters to higher levels in the taxonomy no matter what skill level you are teaching. Create a lesson that builds from the simple to the complex, and culminates with firefighters making high-level evaluation. For example, guide a discussion that asks the truck captain to defend his ladder selection for a specific objective. Follow up with comparing and contrasting two ladder types for a specific task.

**In Sum**

You must not only teach "the easy" or "the hard." You need a combination of brains and the brawn to do the job. Always remember: "The hard … is what makes it great."



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Source: Milan, M. & Reeder, F. (2014). If it were easy, it wouldn't be called training. Fire Rescue. Retrieved From: https://firerescuemagazine.firefighternation.com/2014/11/01/if-it-were-easy-it-wouldn-t-be-called-training/?topic=20091

## Current Status of New Construction

- Tavern on the Avenue at 725 Fond du Lac Ave. – Building is under construction.
- Moraine Park Technical College at 235 N. National Ave. – Building is under construction.
- Carew Concrete at 244 W. Pioneer Rd. – Building is under construction.
- Fairfield Inn at 925 S. Rolling Meadows Drive – Building is under construction.
- Ducharme cottages at 100-400 Ducharme Parkway – Building 100, 200, 300 are complete and 400 is under construction.
- River Hills Mixed Use Development on S. Main St. – Buildings 1, 2, 3, 4, 5, 6 & 8 are complete and 7 & 9 are under construction.
- Demolition beginning at Forest Mall.
- Badger Liquor – Warehouse is under construction.

## Safety for Kids – Playground Safety

Never use playground equipment that's wet because moisture makes the surfaces slippery.


**Playgrounds and outdoor play equipment offer kids fresh air, friends, fun, and exercise. Teaching kids how to play safely is important: if they know the rules of the playground, they're less likely to get hurt. Kids should know to:**

- **Never push or roughhouse while on jungle gyms, slides, seesaws, sings, and other equipment.**
- **Use equipment properly – slide feet-first, don't climb outside guardrails, no standing on swings, etc.**
- **Always check to make sure no other kids are in the way if they're going to jump off equipment or slide, and land on both feet with their knees slightly bent.**
- **Leave bikes, backpacks, and bags away from the equipment and play area so that no one trips over them.**
- **Wear cloths without drawstrings or cords. Drawstrings, purses, and necklaces could get caught on equipment and accidentally strangle a child.**

# Fire Prevention

*The Bureau Never Sleeps*

By: Division Chief
Garth Schumacher


## *Electrical Safety for Dorms & Off Campus Living*

Choosing listed products for students living away at college demonstrates a proactive approach to fire and life safety, whether you are purchasing mattresses by the 100s for a dorm or several smoke and CO alarms for your student's first apartment. UL (Underwriters Laboratories, Inc.) is probably the most well-known of all the testing and listing organizations and their approval labels appear on all products that have undergone and passed their rigid testing. Teaching the importance of product testing and standards add to the list of life-long lessons of fire and life safety we strive to instill.

***Safe Products + Safe Practices = Safe Environments.***

- **Do not overload** extension cords, power strips or outlets: Extension cords, power cords and outlets can overheat. When cords overheat, they can also deteriorate quickly and cause a potential shock/fire hazard. Also, older buildings may not have modernized electrical systems, the wiring in walls may not be sufficient to handle the amount of electricity needed when multiple power strips are used.
- Use a **power strip with an overcurrent protector**: A power strip with an over current protector shuts off power automatically if there is too much current being drawn.
- **Know how much is too much**: All appliances indicate how much wattage is consumed when operated; that rating can be found on the appliance itself and often within the use and care booklet that accompanies the product. Other appliances will indicate power usage in amps, rather than watts.
- **Be wary of electrical outlets** that get too hot to touch: If an electrical outlet becomes so hot you cannot leave your hand on it, you have a potential fire hazard. Unplug all appliances and notify landlord or resident assistant immediately.
- **Do not connect multiple extension cords** together: The more plugs and receptacles you have connecting an appliance to a wall outlet, the more chance you have for dangerous arcing and sparking. Make sure that any extension cord you intend to use is rated adequately for the current that will be drawn by the appliance. For instance, an iron will draw significantly more current than a table lamp.
- Extension cords are for temporary situations: Contrary to popular belief, **extension cords should not be used as a long-term solution** when you need another outlet. The longer an extension cord is, the more chance it can be damaged over time.
- **Do not route cords under doors or carpets:** Extension cords can short circuit, overheat and ignite if they are buried under carpet subject to foot traffic, if they have furniture resting on and pinching them, or if they become bunched up behind hot appliances or equipment.

***Electrical Safety for Dorms & Off-Campus***

- **Look for the UL Mark** on any electrical product you use: The UL Mark on extension cords, lamps and anything electrical you are going to plug into a wall outlet tells you that representative samples meet UL's rigorous safety requirements.
- **Never cut off grounding pin**: Never bend, file or cut a grounding pin from a three-pronged cord to plug an appliance into a wall outlet. This disarms the protection meant to keep you safe and presents the potential of a shock hazard.
- **Don't use cheater plugs**: Cheater plugs are adapters that allow a three prong plug to be plugged into a two pronged wall outlet. As a general practice, refrain from using cheater plugs. But cheater plugs with a special screw tab that can be attached to a wall outlet are sometimes acceptable.
- **Use light bulbs with correct wattage for lamps:** All UL-Listed lamps have wattage specifications near the bulb socket to tell you what size bulb is the maximum recommended. If no indication is on the product, do not use a bulb with more than 60 watts.
- **Halogen lamps:** If your living situation permits you to own one, make sure the halogen lamp meets updated requirements. All halogen lamps must be designed with a mesh guard that prevents contact with the bulb and must also have an automatic tip-over switch.

Source: The Center for Campus Fire Safety, "**Electrical Safety for Dorms & Off Campus Living**", Web August 7, 2019.

THE CENTER FOR Campus Fire Safety®

# Fire Safe College Housing

## What you need to look for.

**Here are some good questions for college students and parents to ask before moving into a dormitory or signing an apartment lease.**

- Are there working smoke alarms in each bedroom, outside of sleeping areas, and on each level of the building?
- Are there at least two ways out of each room and the building?
- Do the upper levels of the building have at least two sets of stairs inside and/or a fire escape?
- Are there exit signs in the hallways to show the way out?
- Are there enough electrical outlets for all appliances, computers, printers and electronics — without using an extension cord?
- Has the building's heating system been inspected recently (in the last year)?
- Does the building have a sprinkler system?
- Does the building have a fire alarm system?
- Does the sprinkler or fire alarm system send a signal to the local fire department and/or campus security?
- Is the building address clearly posted so emergency services can find it quickly if they need to?


For more information and free resources, visit
**www.usfa.fema.gov**

FEMA | U.S. Fire Administration

FOND DU LAC FIRE / RESCUE

Fire is Everyone's Fight

# PEER FITNESS TIPS

By: Peer Fitness Trainer
Jack Prall

## THE BEST FITNESS APPS FOR 2020

*Five Factors for Fitness Apps*

1. Price
2. Usability
3. Goal Setting
4. Social Sharing
5. Science-based

*More info on fitness apps:*

*FitOn* app is a video-based workout app. The video quality is excellent, the design easy to use.

The *Calm* app is very transparent with the science behind the *Calm* app (see their website) and offer many free resources.

The *Headspace* app provides guided mediation, can be connected to Alexa or Google Assistant and includes a webpage dedicated to the science of the app.

If you are like me, Covid-19 has added some additional challenges when it comes to getting in a good workout. Lucky for us, many fitness apps can help guide us along our path toward better health and wellness.

So, how do you find the app that is right for you? In addition to checking valid resources like the ACE Healthy Living blog, you can also use the same checklist I use when evaluating apps as part of my job as the Senior Advisor for Fitness Technology at ACE.

The last thing you need is another excuse to *not* exercise, so if the cost is too high, if it is too confusing to use, doesn't help you with goal setting or connect you with your social networks for those very important virtual "high fives" (socially distanced-approved of course) or is not based in sound exercise science, my suggestion is to find something else.

With the challenges of Covid-19 in mind, the three categories for this review are Music, Move, and Mindful.

***MUSIC***

Music can be a vital motivator during exercise for many.

For my beach walks, I like to multitask and listen to a podcast. I've used the Apple podcast player, but have recently used both *Stitcher* and *Overdrive*. I like being able to listen to the podcast in 2x speed, meaning I can listen to a 30-minute podcast in 15 minutes. At 2x speed, I can still understand what is being said.

When I want something more active, I like to use a fitness music app. Some of the free apps like *SoleSonic* and *WorkoutMusic* use generic tracks (not the real artists) and include ads. Others, like *RockMyWorld* and *FitRadio*, offer reasonable monthly subscriptions with the actual songs and no ads. They also have an audio coaching feature; think of it as your coach in your ear, motivating you and suggesting changes in speed and movement during your exercise session. This is well worth the subscription, particularly when your coach happens to be an ACE Certified Professional.

**MOVE**

Finding a quality fitness app to temporarily replace your usual gym workout can be a daunting task. While it seems every week a new Hollywood star or former Athlete is launching the latest and greatest workout app, I fear some may not follow the proper exercise science when suggesting how to work out. I would much reather follow the qualified advice from an ACE Certified Professional.

That said, the ones I've evaluated include the *7 Minute Workout*, a cost effective ($2.99 per month), easy-to-use fitness app that connects with Apple Health. The app also allows the user to create a custom workout, or you could have an ACE Certified Personal Trainer create one for you; it does, however lack the option for social sharing for the virtual high five.

**MINDFUL**

If nothing else, Covid-19 reminded me of the importance of taking time out of my busy and stressful day to focus on the mindful side of my overall wellness. My go-to apps are *Calm* and *Headspace*.

So there you have it, my review on fitness apps that you can try today to help with the challenges of Covid-19 in the summer of 2020. Have you tried any others that I should know about? Let me know on Twitter @tedvickey.

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