



THE FIRE LINE

Fond du Lac Fire/Rescue Monthly Newsletter

November, 2019 Edition

FROM THE BALCONY

A message from Chief Peter O'Leary



Continuing The Fight

The morning of September 19th will forever be etched in the history of our fire rescue department and our city. On that morning we will remember the three innocent lives taken during an intense inferno which gave the second floor occupants no legitimate chance of survival. The intensity of the fire witnessed by citizens provided us all what our first in engines saw upon arrival which put our rescue efforts to the test. Our crews had little time to decide what to do and they acted with certainty and determination giving those victims a chance, but despite their best efforts, we lost three adults who were already facing adversity in their daily lives. To die in a fire is true horror and I know you all grieve for them, like I do.



In October each year our country promotes Fire Prevention Week; this year it will have a new and much deeper meaning for our department and the people we protect. As I write this column there is little we know about those who perished, did they hear a smoke alarm, did they know what to do in case of a fire and did they suffer. What I do know is we can and will continue to fight to provide the very best fire safety programs and education to all age groups. As we saw with this fire on South Military, fire can be fierce, indiscriminating and can erase away everything in its path.

For me the very best way I can honor the memory of the three special people we lost is to rededicate myself to making fire prevention and safety education top on my priority list. It doesn't matter where you are; it could be at your child's school, maybe your son's fraternity house; if you see something that is a fire hazard, make it known and have it fixed! Educate anyone in your path and let them know how critically important it is for them to practice fire safety. When you are out conducting fire inspections know the work you do truly matters and can be the difference between life and death. What you teach them is more than identifying violations, it's about making their environment safe from the devastation and destruction fire can bring.

I am sure that many of you have fielded text message, phone calls and emails lending support and praise for you during a most difficult time. Please know this, the citizens admire, honor and are with all of us. Take comfort in knowing that what you do makes others rest better at night. Thank you for your dedication, commitment and love for our profession. Let's continue to fight!

*Until next month,
Be Safe And Be Well.*

INSIDE THIS ISSUE:

From the Balcony	1
How Safe is Firefighting Foam	2 - 3
Operations by the Numbers	4
Loading Patients on Stretchers	5 - 6
News from the Station	7
Engine Company Operations	8 - 9
Fire Prevention Week	10
Fire! The Other Fatal Risk of Smoking	12 - 13
New Construction	14
Peer Fitness Tips	16-17

UPCOMING EVENTS

- Veterans Day
November 11
- Thanksgiving Day
November 28
- Holiday Lights Parade
Saturday, December 7
4:15pm



Set your clocks back
one hour at 2am
Sunday, November 3rd

FOND DU LAC FIRE RESCUE OPERATIONS

By: Assistant Chief Erick Gerritson



How Safe is Firefighting Foam?

Recently I have been asked some questions about our Class B foam firefighting operations and the fact that the use of Class B foam has been prohibited at the Public Safety Training Center. The reason for the prohibited use is that Class B foam contains "forever chemicals" that can have negative environmental impacts, especially on the drinking water supply. Due to a City well within a close proximity of the PSTC, the rule was created to keep these chemicals from entering the water system. Below is an article about these "forever chemicals" and AFFF foam (Class B).

With recent attention focused on firefighting foam contaminating groundwater, here is a closer look at the foam, the risks and the preventions.

Firefighters use Aqueous Film Forming Foams to help extinguish difficult-to-fight fires, particularly fires that involve petroleum or other flammable liquids, known as Class B fires. However, not all firefighting foams are classified as AFFF.

Some AFFF formulations contain a class of chemicals known as perfluorochemicals (PFCs) and this has raised concerns about the potential for contamination of groundwater sources from the use of AFFF agents that contain PFCs.

Recently, the 3M Company said it would no longer produce PFOS (perfluorooctanesulphonate)-based fluorsurfactants using the electrochemical fluorination process. Prior to this, the most common PFCs used in firefighting foams were PFOS and its derivatives. During the last few years, the firefighting foam industry has moved away from PFOS and its derivatives as a result of legislative pressure. Those manufacturers have developed and brought to market firefighting foams that do not use fluorochemicals, that is, that are fluorine-free. Manufacturers of fluorine-free foams say these foams have less impact on the environment and meet international approvals for firefighting requirements and end-user expectations. Nonetheless, there continues to be environmental concerns about firefighting foams and research on the subject continues.



CONCERNS OVER AFFF USE?

The concerns center around the potential negative impact on the environment from the discharge of foam solutions (the combination of water and foam concentrate). The primary issues are the toxicity, biodegradability, persistence, treatability in wastewater treatment plants and nutrient loading of soils. All of these are cause for concern when foam solutions reach natural or domestic water systems.

When PFC-containing AFFF are repeatedly used in one location over a long period of time, the PFCs can move from the foam into soil and then into groundwater. The amount of PFCs that enter the groundwater depends on the type and amount of AFFF used, where it was used, the type of soil and other factors. If private or public wells are located nearby, they could potentially be affected by PFCs from the place where AFFF was used.

Here's a look at what Minnesota's Department of Health published; it is one of several states testing for contamination. "In 2008-2011, the Minnesota Pollution Control Agency (MPCA) tested the soil, surface water, groundwater, and sediments at and near 13 AFFF sites around the state. They detected high levels of PFCs at some of the sites, but in most cases the contamination did not affect a large area or pose a risk to humans or the environment. Three sites — Duluth Air National Guard Base, Bemidji Airport, and Western Area Fire Training Academy, were identified where PFCs had spread far enough that the Minnesota Department of Health and MPCA decided to test nearby residential wells. "This is more likely to occur near places where PFC-containing AFFF has been used repeatedly, such as a fire training areas, airports, refineries, and chemical plants.

FOND DU LAC FIRE RESCUE OPERATIONS

By: Assistant Chief Erick Gerritson



How Safe is Firefighting Foam?, continued...

It is less likely to occur from the one-time use of AFFF to fight a fire, unless large volumes of AFFF are used. Although some portable fire extinguishers may use PFC-containing AFFF, one time use of such a small amount would be unlikely to pose a hazard to groundwater."

FOAM DISCHARGES

A discharge of foam/water solution would most likely be the result of one or more of the following scenarios:

- Manual firefighting or fuel-blanketing operations;
- Training exercises where foam is being used in the scenarios;
- Foam equipment system and vehicle tests;
- or Fixed system releases.

Locations where one or more of these events would most likely occur include aircraft facilities and firefighter training facilities. Special hazard facilities, such as flammable/hazardous material warehouses, bulk flammable liquid storage facilities and hazardous waste storage facilities, also make the list.

Surely the developments in induction systems for Class A foam (and perhaps the agent chemistry) will continue to advance as it has over the past decade. But as for Class B foam concentrates, agent chemistry development efforts seem to have been frozen in time with reliance on existing base technologies. Only since the introduction of environmental regulations during the past decade or so on fluorine-based AFFFs have the firefighting foam manufacturers taken the development challenge seriously. Some of these fluorine-free products are first generation and others second or third generation. They will continue to evolve in both agent chemistry and firefighting performance with the goal of achieving high performance on flammable and combustible liquids, improved burn-back resistance for firefighter safety and provide for many additional years of shelf life over foams derived from protein.

Source; FireRescue1.com, Robert P. Avsec

Until next month...Stay Safe!!!

OPERATIONS BY THE NUMBERS

SEPTEMBER, 2019	THIS MONTH		YEAR-TO-DATE	
PREVENTION	Last Year	This Year	Last Year	This Year
Total Inspections	243	276	2,291	2,408
Total Defects	155	135	1,571	1,469
SUPPRESSION				
Alarms Involving Fire	11	12	109	89
Fire Mutual Aid Given	0	2	11	9
Fire Mutual Aid Received	0	1	0	1
Service/Good Intent Calls	57	50	433	396
False Alarms & False Calls	31	39	231	298
Other Calls	11	14	124	135
Total Fire Alarms & Calls	110	115	897	918
EMS				
Total Ambulance Calls	505	520	4,552	4,697
Total Fire & Ems Responses	614	635	5,449	5,615
Fire Property Loss	\$34,000.00	\$92,780.00	\$349,165.00	\$406,318.00
Fire Contents Loss	\$8,000.00	\$55,500.00	\$144,260.00	\$193,696.00
Engine Assisted EMS Calls	203	235	1,924	2,053



at City of
 Fond du Lac Fire/Rescue



at fdlfire



The Code Summary

By: *Todd Janquart*
Assistant Chief of EMS

Why Do We Load Patients on Stretchers Headfirst?

Recently on Twitter someone asked if anyone knew why patients are loaded headfirst into ambulances. I looked into the history of EMS stretcher transport for an answer.

The earliest recorded stretchers were noted on paintings in Egypt, where patients were carried on panniers on the sides of horses, typically on their sides. During the Roman Empire wounded centurions were carried off battlefields on their own shields. Based on the paintings it seems as if patient direction had no bearing. Native Americans used travois—sticks with a sling in the middle hooked up to a horse or dog to be dragged along. In most of these images the patient’s head is located closer to the animal, and their feet are closer to the ground, similar to what might be found in an ambulance.



During the Napoleonic era Dominique Jean Larrey, a medical doctor of the time, designed horse-drawn customized covered wagons with double wheels that contained hanging canvas hammocks supported by poles to transport the wounded. Patient direction is not noted.

The earliest stretchers used in wagon ambulances were the Army cot-type canvas and wooden stretchers. As ambulances moved from horse-drawn to motorized, wheeled stretchers began to evolve. As recently as 1965, 50% of the ambulance service in the United States was provided by funeral homes. Many modern American ambulances started out as converted hearses or station wagons. Funeral homes’ large, fast vehicles could accommodate supine patients.

In these earlier ambulances, there wasn’t a bench seat next to the patient. Vehicles that functioned as hearses had no need for one. The “action wall” that evolved starting in the 1940s with oxygen and suction (if equipped) was located toward the front end of the ambulance. If the patient’s head was in the back, the masks and catheters couldn’t reach, leading providers to load patients headfirst. In the Cadillac ambulances there was typically a provider chair located toward the front to tend to the patient.



Congress of Motor Hotels TRAVEL GUIDE
by BILL ROAMER

—TALLAHASSEE, FLA.—

What time you wish here stay at the AVALON MOTEL. A wonderfully sunny atmosphere and true hospitality, offered by Dorothy and Walter—Bessie—Lindner. A brick hotel on beautiful landscaped grounds with all four facilities and such delightful skates as free coffee and Continental breakfasts. Rates are reasonable. Credit cards honored.

AVALON MOTEL
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FREE! Write in this motel for your free copy of the 1959 edition of Congress TRAVEL GUIDE. Lists over 700 fine motels.

COAST-TO-COAST INSPECTED AND APPROVED

Mar. 1959 THE SOUTHERN FUNERAL DIRECTOR 37

FERNO ALL-LEVEL COT

One cot for all levels

Here's the one ambulance cot for every patient handling job. Adjusts quickly to exact height of torso or shoulder, head, opening or 3-way table. Patient transfer is easy—effortless. And a safety lock completely eliminates chance of accidental loosening of sliding three tubular aluminum, bakelite wood without wobble. Full-range tilting back adjustment, optional stainless. See your jobber.

Ferno Model 30 All-Level Cot... \$149.00
(Low in the line—\$27.95 cot to cot base for maximum headroom)

Another GOOD IDEA from **FERNO**
Dept., G-39, Ferno Manufacturing Company, Greenfield, Ohio

After seeing the mechanism for an ironing board, Richard “Dick” Ferneau and El Bourgraf developed a stretcher that worked with a similar lever. The first elevated cot was manufactured in 1952 and called the X Frame, and the later version became the Model 30. Both were designed for head-first loading into the ambulance.

Research from 30 years ago shows no medical reason for feet-first or headfirst loading. According to a British Medical Journal study from 1979, 11 patients with chronic respiratory failure were studied with electrocardiography and blood gas estimations during a journey in both feet-first and headfirst stretcher positions, with frequent hard stops. The study showed no significant change in blood gases or cardiac rhythms in either direction. The study concluded there is no physiological reason to prefer a headfirst or feet-first position.



The Code Summary

By: *Todd Janquart*
Assistant Chief of EMS

Why Do We Load Patients on Stretchers Headfirst?, continued...

Over the last decade battery-operated power stretchers have become the norm for most EMS services, and with the included loading function, stretchers are designed to enter ambulances headfirst. While head- or feet-first loading may not matter to the patient, power stretchers have been shown to significantly improve the health and well-being of EMS providers. A 2017 study showed powered stretchers can reduce peak biomechanical and psychophysical exposures associated with the development of musculoskeletal disorders during routine stretcher-handling activities with minimal increases in cumulative exposures. Since power stretchers are configured for headfirst loading, this practice will continue for EMS for the future.

Resources

Cole G. *The Influence of Manual and Hydraulic Stretchers on Recruitment, Retention, and Turnover in the Emergency Medical Services Workforce*. University of Southern Mississippi, Aquila Digital Community, <http://pdfs.semanticscholar.org/aec0/440d9f618cba779b4ef3a3012bf9b5c2ec3b.pdf>.

Heightman AJ. *He Gave Us All a Lift: Remembering EMS Pioneer Richard Ferneau*. *J Emerg Med Serv*, 2009; 34(11).

Hills EA, Jayasekera DC, Meadway J, Benson WH, Birchinall PD. *Ambulance travel—head first or feet first?* *Br J Clin Pract*, 1979 Aug; 33(8): 220–2.

Prairie J, Plamondon A, Larouche D, Hegg-Deloye S, Corbeil P. *Paramedics' working strategies while loading a stretcher into an ambulance*. *Appl Ergon*, 2017 Nov; 65: 112–22.

Robbins VD. *A history of emergency medical services and medical transportation systems in America*. Thesis: American College of Healthcare Executives, 2005; www.researchgate.net/publication/36143449_A_history_of_emergency_medical_services_and_medical_transportation_systems_in_America.

Author Barry Bachenheimer from October 11th, 2019 online edition of EMSWorld.com.

*Creating problems is easy. We do it all the time.
Finding solutions, ones that last and produce good results, requires guts and care.*

Henry Rollins

News from the Station

Welcome to Fond du Lac Fire/Rescue!

Dusten Hilgendorf and Nate Wilson recently completed the Recruit Academy and have begun their work as a Firefighter/Paramedic for FDL Fire/Rescue.



Dusten Hilgendorf

My name is Dusten Hilgendorf and I grew up in the Horicon area. I lived in Ashland, WI for the past 5 years working as a Firefighter/Paramedic there. I am married to my wife Jessica. We are proud parents of two children, Annabelle (13) and Logan (11). I enjoy duck hunting, bow hunting and many other outdoor activities. We enjoy watching our children play sports. I like to watch the Packers play but prefer to watch hockey with my favorite hockey team being the Chicago BlackHawks. I am happy to be back home closer to family and look forward to serving the citizens of Fond du Lac .



Nate Wilson

My name is Nate Wilson. I am originally from Kent, Ohio. My girlfriend Brittany and I moved here a little over a year ago for her Professorship at Ripon College. I served 5 1/2 years in the Ohio Army National Guard with one tour overseas to Afghanistan. We both enjoy the outdoors and like to be on the water as much as we can. I am excited to begin my career as a firefighter/paramedic here in Fond du Lac and am grateful for the opportunity to serve the department and community.



FDL Fire/Rescue in partnership with IAFF Local 400 presented two checks to #MDA for this year's *Fill The Boot* campaign. Firefighters raised \$21,310.61 and received a match of \$10,000 from Magic Car Wash of Fond du Lac for a total of \$31, 310.61! Thank you Fond du Lac for your generosity and continued support.



FDL Fire/Rescue had a very busy Saturday morning recently. Crews spent time at the Festival Foods Pumpkin Blowout showing children the engine and handing out fire hats and badges while Sparky ran with the kids and the crew gave out hat and badges at the 4th Annual Scary Scurry 5K held at Lakeside Park.



FDLFR's own Laura Ketelhut was live on Living With Amy (Fox 11) cooking up her outstanding firehouse chili recipe. Thanks to Fox 11 for having Laura on the show.

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

By: James Knowles III
Assistant Chief Training/Safety

Engine Company Operations: Solving Problems by Addressing the Basics

Benjamin Franklin's first organized volunteer fire department in Philadelphia in 1736 had many commonalities to our fire service today, with one underlying component that may be the most important factor - water delivery. Many things have changed since the first fire department, but the vital component of water delivery may be one thing that has changed the least. Water delivery to the fire area is the heart of the fire service and we must perfect every aspect of it.

NIOSH reports on line of duty deaths are filled with investigations, interviews, and recommendations. Far too often the "contributing factors" section is filled with phrases such as "failure to deploy hose line," "inadequate water supply," "engine tactics," "line coordination," or "delay in getting water."

Why do we continue to see this? Why is water application such a common difficulty? What are we doing wrong, and how do we make sure we are getting water to the seat of the fire?

We are not recreating the wheel. We are all here to do what the fire service does best: pass on the information we have been taught to our peers and the next generation. We will focus on engine company basics and our mission: water delivery, application, and extinguishment.

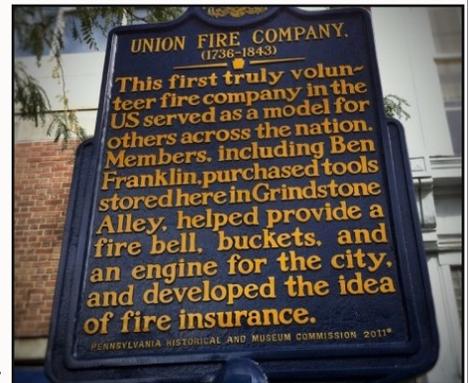
Preparing for the response

It has been said that the size-up starts at the receipt of the alarm. We believe otherwise. Size-up is an ongoing process as you go on your "nuisance" runs - alarms, bells, smells, and EMS responses. You may have the advantage of living where you work and being familiar with layouts, occupancy types, storage/clutter conditions, and hydrant locations. We know the types of buildings we are responding to and how our water supply is delivered.

Are we located in an urban setting with fire hydrants every few hundred feet?

Do we live in a rural area where we need to draft or relay water via tankers? Or, perhaps we have a mix of both.

Identifying our water source is vital so we can prepare our hose beds. Hose beds in your department should be uniform for ease of use by any member, but must also be tailored to your community's needs (building types, topography, and hydrant locations).



What are your department's guidelines on stretching? Are we prepared to backstretch (fire to hydrant), estimating and controlling a stretch of a dead bed or static bed? Is it procedure to in-line stretch (hydrant to fire) securing a water source and stretching supply line to the vicinity of the fire building? Some apparatus may be set up to stretch a multitude of ways. If this is the case, do we know when and how to deploy each?

The Backstretch (Fire to Hydrant): With this system, the first arriving engine apparatus stops in the front of the fire building. With the backstep in line, or just past the entrance, the hand stretch will begin. Firefighters estimate the amount of hose needed to reach the fire. Generally, pre-connected attack lines are not used when performing a back stretch. The hose will come from the back step, either from a static or dead bed. The nozzle firefighter takes a sufficient amount of hose, either one or two lengths (this will be discussed in a later post) then takes a few steps and stops.

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

By: James Knowles III
Assistant Chief Training/Safety

Engine Company Operations: Solving Problems by Addressing the Basics, continued...

Next the back-up firefighter will take their folds. If staffing provides for more firefighters beyond this point, they would do the same. If not, the last firefighter will estimate and remove the remaining amount of hose needed for the stretch to reach the main body of fire and lay it along the curb line or on the sidewalk if possible. It's important not to place it in the street. This will delay and or impede positioning of later arriving aerial apparatus. Once enough hose is in the street the nozzle firefighter can advance through the building as the engineer is signaled to proceed to the hydrant. This allows the apparatus to stretch the remaining hose. Upon arrival at the hydrant, the chauffeur can now test and hook up the supply line. In an instance where a time consuming stretch is anticipated i.e. upper floors, or long hallways, the chauffeur can also break the line or control the stretch himself and connect to a discharge.

Experience has shown that doing this prior to completing the hook up of a supply line allows for the chauffeur to give tank water at the moment it is called for. Then he can concentrate the efforts of getting a supply line connected to the water source. ****If implemented in this order the engineer MUST ENSURE ALL OPERATING UNITS ARE AWARE THE ATTACK LINE IS ON TANK WATER ONLY.** Once hydrant water is introduced, a like communication must take place. In a time where the fire service is strapped for manpower, whether its recruitment and retention on the volunteer side or battling city hall for sufficient staffing on the career side, significant consideration must be taken on how we are prepared to quickly deploy our initial attack lines. Using the backstretch takes the least amount of personnel and with regular practice can be successfully implemented thus getting water to the seat of the fire quickly.



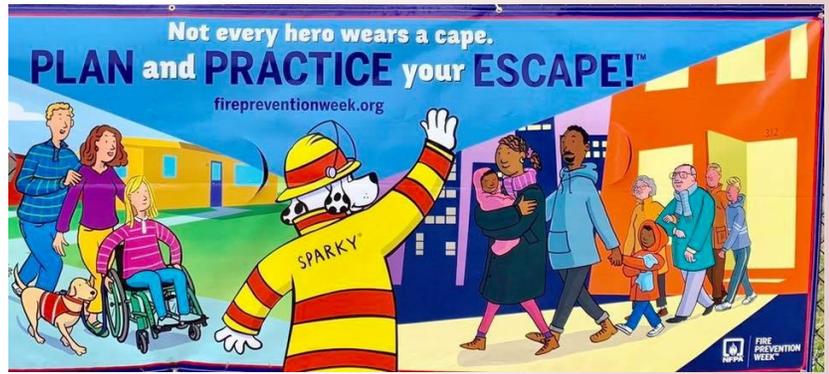
With this system, a minimum of three firefighters can stretch, flake out, chase kinks, and possibly begin the initial attack. Members on the stretch, with the exception of the nozzle position, must remember to be fluid throughout the operation. These members must continue to move up and down the line to ensure that hose does not get caught on tires, under doors, banisters, stairs, or any other obstructions in the path of the line. The nozzle firefighter does not need anyone to "back them up" while stretching or flaking out the line.

The back stretch is a great option when manpower is short if hydrant distances are not extreme and the hose beds are prepared accordingly. Stretching in this fashion also allows for the front of the building to be left open for later arriving aerial apparatus, whether it be first or second due or for RIT.

Source: *Firefighter Proving Grounds. (2019). Engine company operations: solving problems by addressing the basics. Retrieved from:*

<https://www.ffprovinggrounds.com/articles/engine-company-operations-solving-problems-by-addressing-the-basics>

Not every hero wears a cape - Plan and practice your escape! was the theme for this years Fire Prevention Week. Many people came out to watch the live burns, tour the station/vehicles, play water games, and to see all of the outside agencies who were at the station to help promote **Fire Prevention Week!**



BE HALLOWEEN Safe

Halloween is a fun, and spooky, time of year for kids. Make trick-or-treating safe for your little monsters with a few easy safety tips.



Sparky® is a trademark of the NFPA.

Halloween Fire Safety Tips

When choosing a costume, stay away from long trailing fabric. If your child is wearing a mask, make sure the eye holes are large enough so he or she can see out.

Provide children with flashlights to carry for lighting or glow sticks as part of their costume.

Dried flowers, cornstalks and crepe paper catch fire easily. **Keep all decorations** away from open flames and other heat sources like light bulbs and heaters.

Use a battery-operated candle or glow-stick in jack-o-lanterns. If you use a real candle, use extreme caution. Make sure children are watched at all times when candles are lit. When lighting candles inside jack-o-lanterns, use long, fireplace-style matches or a utility lighter. Be sure to place lit pumpkins well away from anything that can burn and far enough out of the way of trick-or-treaters, doorsteps, walkways and yards.

Remember to keep exits clear of decorations, so nothing blocks escape routes.

Make sure all smoke alarms in the home are working.

Tell children to stay away from open flames including jack-o-lanterns with candles in them. Be sure they know how to stop, drop and roll if their clothing catches fire. (Have them practice, stopping immediately, dropping to the ground, covering their face with hands, and rolling over and over to put the flames out.)

If your children are going to **Halloween parties** at others' homes, have them look for ways out of the home and plan how they would get out in an emergency.

Did you know?



Decorations are the first thing to ignite in **900** reported home fires each year. Two of every five of these fires were started by a candle.



Your Source for **SAFETY** Information

NFPA Public Education Division • 1 Batterymarch Park, Quincy, MA 02169



FIRE PREVENTION

That's what it's all about!

**By: Troy Haase
Division Chief of Fire Prevention**



Fire! The Other Fatal Risk of Smoking

Cigarette and smoking related fires are among the top causes of fire related fatalities. These fires often involve the ignition of mattresses, bedding, upholstered furniture or trash by improperly discarded cigarettes, ashes or matches. Understanding what makes smoking fires so dangerous and what you can do to help prevent them can help you keep your home and family safe.

Why are Smoking Fires So Dangerous?

Several factors contribute to the high fatality rates of cigarette and smoking fires. Smoking materials are often in close proximity to people. In fact, a leading cause of smoking fire fatalities involves the person falling asleep or passing out with a lit cigarette. The lit cigarette ignites the mattress, couch or upholstered furniture where the person is sleeping and because the fire is so close to the person upon igniting, it is difficult to escape harm.

Top factors contributing to the lethality of smoking fires are:

- ◆ People are often slowed by alcohol or medication when a cigarette fire starts.
- ◆ Materials in upholstered furniture ignite quickly, consume a great deal of oxygen and release toxins.
- ◆ People are often asleep when the fire ignites.

Matches, Lighters and Children

According to the National Fire Protection Association (NFPA), more than two out of three home fires were started by children under the age of six. It is believed that one reason for this is that many children are fascinated by matches and lighters. Children often see their parents or other adults using matches and lighters and try to emulate their behavior.

To ensure their safety and help prevent house fires, adults should teach children that:

- ◆ Matches and lighters are not toys and children should never play with them because they may accidentally start a fire.
- ◆ If they do start a fire, they will not be in trouble and should tell an adult immediately.
- ◆ If there are no adults in the house when a fire starts, they should leave immediately and go to a neighbor's house where they can call 911.



Adults can set a good example by not fidgeting with or using lighters in a playful fashion while children are present. Also, children may be drawn to more colorful and decorative lighters so consider purchasing less conspicuous models.

FIRE PREVENTION

That's what it's all about!

By: Troy Haase
Division Chief of Fire Prevention



Fire! The Other Fatal Risk of Smoking, continued...

Prevent Smoking Fires in Your Home

Smoking in your home puts everyone at risk – not only from secondhand smoke but also by increasing the risk of a smoking related fire. Taking the following steps can help prevent cigarette and smoking related fires in your home:

- ◆ Never smoke in bed, when you're tired, or when taking medication that may make you drowsy.
- ◆ Never smoke in a house after consuming alcohol.
- ◆ Use large, heavy, non-tip ashtrays and always place them on flat stable surfaces; never use your lap or a couch cushion.
- ◆ Use child resistant lighters and matches and keep them out of the reach of children.
- ◆ Douse smoking materials with water when you're done smoking.
- ◆ Refrain from smoking in your house altogether and do not allow others to smoke in your home. Best of all, consider quitting smoking to decrease the risk of fire and improve your health.



Keep Yourself and Loved Ones Safe from Smoking Fires

There are many costs and risks associated with smoking and many can be easily avoided. By following the information provided, you can help prevent smoking related fire deaths, injuries and property damage.

Source: The Hartford, "Fire! The Other Fatal Risk of Smoking", October 11, 2019.



FIRE PREVENTION

That's what it's all about!

**By: Troy Haase
Division Chief of Fire Prevention**



Current Status of New Construction

- Fond du Lac County Garage at 1820 S. Hickory Street- Building is under construction.
- VGM Storage Units at 450-456 West Arndt St.- Buildings are under construction.
- Mercury Marine Plant 17 at 545 W. Pioneer Road- Building is under construction.
- Mercury Marine Plant 98 Addition at 545 W. Pioneer Road- Building is under construction.
- Lenz Truck Center at 536 Seymour Street- Building is under construction.
- Eilertson Electric at 920 Willow Lawn Road- Buildings are under construction.
- Fairfield Inn at 935 S. Rolling Meadows Drive- Building is under construction.
- Riviera Maya at 609 West Johnson Street- Building is under construction.
- Ducharme Cottages at 100-400 Ducharme Parkway- Buildings are under construction.
- River Hills Mixed Use Development on S. Main Street- Buildings 1, 2, 3, 4, 5 & 8 are complete and 6 & 7 are under construction.



Heating Fire Safety



Follow these heating tips to help maintain a fire-safe home this winter.



Space Heater

- Keep anything that can burn, such as bedding, clothing and curtains, at least 3 feet away from the heater.
- **Make sure the heater has an automatic shut-off, so if it tips over, it shuts off.**
- **Turn heaters off when you go to bed or leave the room.**
- Plug portable heaters directly into outlets and never into an extension cord or power strip.
- **Only use portable heaters from a recognized testing laboratory.**



Fireplace

- Keep a glass or metal screen in front of the fireplace to prevent embers or sparks jumping out.
- **Do not burn paper in your fireplace.**
- Put the fire out before you go to sleep or leave your home.
- Put ashes in a metal container with a lid, outside, at least 3 feet from your home.



Wood Stove

- Make sure your wood stove is 3 feet from anything that can burn.
- **Do not burn paper in your wood stove.**
- Put the fire out before you go to sleep or leave your home.
- Have your chimney inspected and cleaned each year by a professional.



Furnace

- Have your furnace inspected each year.
- **Keep anything that can burn away from the furnace.**



Kerosene Heater

- Only use kerosene heaters from a recognized testing laboratory.
- **Make sure the heater has an automatic shut-off, so if it tips over, it shuts off.**
- Refuel your cooled heater outside.

For more information and free resources, visit www.usfa.fema.gov/prevention/outreach.

PEER FITNESS TIPS

By: Peer Fitness Trainer
Jack Prall

Study: Meal-timing Strategies May Lower Appetite and Enhance Fat Burning

Researchers have discovered that meal-timing strategies such as intermittent fasting or eating earlier in the daytime appear to help people lose weight by lowering appetite rather than burning more calories, according to a study published in the August issue of the journal *Obesity*. The study is the first to show how meal timing affects 24-hour energy metabolism when food intake and meal frequency are matched.

“Coordinating meals with circadian rhythms, or your body’s internal clock, may be a powerful strategy for reducing appetite and improving metabolic health,” asserts Eric Ravussin, PhD, one of the study’s authors and associate executive director for clinical science at Louisiana State University’s Pennington Biomedical Research Center in Baton Rouge.

“We suspect that a majority of people may find meal-timing strategies helpful for losing weight or maintaining their weight, since these strategies appear to naturally curb appetite, which may help people eat less,” explains Courtney M. Peterson, PhD, lead author of the study and an assistant professor in the Department of Nutrition Sciences at the University of Alabama at Birmingham.

Peterson and her colleagues also report that meal-timing strategies may help people burn more fat on average during a 24-hour period. Early time-restricted feeding (eTRF)—a form of daily intermittent fasting where dinner is eaten in the afternoon—helped to improve people’s ability to switch between burning carbohydrates for energy to burning fat for energy, an aspect of metabolism known as metabolic flexibility. The study’s authors are quick to point out, however, that the results on fat-burning are preliminary. “Whether these strategies help people lose body fat needs to be tested and confirmed in a much longer study,” said Peterson.



The Study

For the study, researchers enrolled 11 adult men and women, ages 20 to 45 years, who had excess weight and were in general good health. Specifically, participants were eligible to participate if they had a body mass index between 25 and 35 kg/m² (inclusive), body weight between 150 to 220 lb (68 and 100 kg), a regular bedtime between 9:30 p.m. and 12 a.m., and for women, a regular menstrual cycle.

Participants tried two different meal-timing strategies in random order: a control schedule where participants ate three meals during a 12-hour period between 8:00 a.m. and 8:00 p.m. and an eTRF schedule where participants ate three meals over a six-hour period between 8:00 a.m. and 2:00 p.m. The same amounts and types of foods were consumed on both schedules. Fasting periods for the control schedule included 12 hours per day, while the eTRF schedule involved fasting for 18 hours per day.

Study participants followed the different schedules for four days in a row. On the fourth day, their metabolism was measured by placing them in a respiratory chamber where researchers measured how many calories, carbohydrates, fat and protein were burned. Researchers also assessed the appetite levels of participants every three hours while they were awake and measured hunger hormones in the morning and evening.

PEER FITNESS TIPS

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Study: Meal-timing Strategies May Lower Appetite and Enhance Fat Burning, continued...

The Results

Although eTRF did not significantly affect how many calories participants burned, the researchers found that eTRF did lower levels of the hunger hormone ghrelin and improved some aspects of appetite. It also increased fat-burning over the 24-hour day.

“By testing eTRF, we were able to kill two birds with one stone,” says Peterson, adding that the researchers were able to gain some insight into daily intermittent fasting (time restricted-feeding), as well as meal-timing strategies that involve eating earlier in the daytime to be in sync with circadian rhythms. The researchers believe that these two broader classes of meal-timing strategies may have similar benefits to eTRF.

Nutrition expert Hollie Raynor, PhD, RD, LDN, who was not associated with the research, finds this research promising, particularly for those who are trying to lose weight. “This study helps provide more information about how patterns of eating—and not just what you eat—may be important for achieving a healthy weight,” she says. Raynor is a professor and interim dean of research in the Department of Nutrition, College of Education, Health, and Human Sciences at The University of Tennessee, Knoxville.

Peterson and colleagues say that prior research was inconsistent on whether meal-timing strategies help with weight loss by helping people burn more calories or by lowering appetite. Studies in rodents suggest such strategies burn more calories, but data from human studies were conflicting—some studies suggested meal-timing strategies increase calories burned, but other reports showed no difference. However, the authors of the current study assert that previous research did not directly measure how many calories people burned or had other methodological problems.



What Does the Research Mean to Health and Exercise Professionals?

While it is outside your scope of practice to recommend specific meal-timing strategies or to urge your clients to try intermittent fasting, you can provide them with the information and sources of research they need to make informed decisions about things that affect their health and well-being. Knowledge is power, particularly when it comes to making choices about what to eat and when. Of course, even the most effective meal-timing strategies won't work for weight loss if an individual is consistently overconsuming calories. Encourage your clients to thoughtfully consider what they consume and when, and to identify which patterns and habits help them feel most healthy and energetic. Ultimately, these are the strategies that will prevail and produce the greatest benefits over time.

The Author: American Council on Exercise, Contributor