



Health & Fitness

VOLUME 1, ISSUE 2

JUNE 2011

Upcoming Events within the county,

- Blood Drive
Paradise Veterans Hall
6/1
- Live Fire Burn, Palermo
6/2
- Co. 25 BBQ
Clear Creek Store 6/4
- Farewell BBQ
French Fire Students
St. 64 6/7
- Fill-The-Boot Drive
Throughout County
7/9

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IS EVERYONE TRULY A SAFETY OFFICER?

By: Mike Waters, Unit Safety Officer

We are told from day one of our training that everyone of us is a "Safety Officer" and it is our ultimate underlying responsibility to identify and correct recognized safety deficiencies that we see. That being said, is that something that our supervisors put out there just to check a box on their briefing list? Or is it meant to empower each and every one of us to actively look for hazards and mitigations, prior to something going wrong? I say that the answer is actually a combination of both points.

Early on during my first enlistment with the U.S. Army, it was always thrown out there during platoon and company briefings, that we were all responsible for our safety and back then they would pass out little green stickers that you would put on your watch, or your earplug case, or whatever else part of your uniform, but that green dot was meant to remind you of safety whenever you saw it. I was 18 at the time and most of us pretty much thought it was a joke because we were all in that mindset that we were invincible and bad things

only happened to other people. During my time with both the Army and CAL FIRE, I have seen people (including groups of soldiers and/or firefighters) perform unsafe acts with the intent of "Completing the Mission" and it was accepted because once again "Bad things don't happen to us, just other people." I think that the junior people present believed that the more experienced people performed some type of informal risk vs. benefit process prior to implementing the plan but because they were junior, they didn't speak up to confirm that but rather just went along with the plan. Most of the time the "Plan" works and whether it was because of the experience levels of the senior people or just dumb luck, a very bad thing happens; we file that experience away in that often referenced slide tray in our heads and before we know it that experience is now reinforced as a behavior that we will reference in the future, given a similar set of circumstances. Unfortunately if we were not the ones making the deci-

sions or involved in that process, we don't have the whole picture in regards to the variables and when we decide to reference that slide, we are actually using incomplete information in our decision making process. By now, you might be asking yourself, "Self, what the heck is he talking about and where is this going?" Well, simply put, just telling people that they are Safety Officers on an incident isn't enough from a safety perspective for junior firefighters. What we need to actively do is instill a knowledge base into our newer members and reinforce that with both training and experiences relevant to the information we're expecting them to be responsible for. All calls should be critiqued afterwards with an emphasis on how the crew can improve, and though difficult, that requires critical self evaluation by all, with the goal of open communication and individual knowledge development and then we can truly call all personnel "Safety Officers" on an incident.



What is Cholesterol?



Reprint from: Crossfitimpulse.com
By: Jeff Barnett

Cholesterol. It's a word that strikes fear in the heart of anyone who's watched daytime television commercials. Countless foods and drugs promise to reduce it, but do you really know what it is or why you would want to reduce it? This article is a quick and dirty primer on cholesterol and how a diet that replicates that of our Paleolithic ancestors supports healthy cholesterol levels.

First, what is cholesterol? Cholesterol is necessary for human life. It facilitates a host of physiologi-

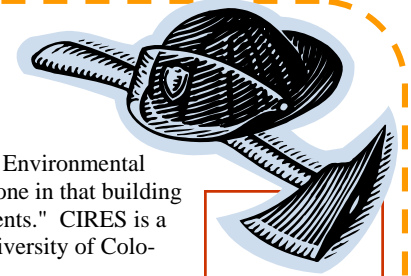
cal processes in our nervous, endocrine, and digestive systems. It even facilitates the repair of cell membranes. The term "total cholesterol" actually refers to a lot of different chemicals that are used to shuttle cholesterol around the body. And total cholesterol, taken alone, is not very descriptive of your health. To really understand your body and how your diet affects it, we have to examine the components of total cholesterol.



But before we go there I want to dispel a common fallacy: Despite thousands of scientists and dieticians trying to find a connection, science has failed to establish a link between cholesterol in the food you eat and cholesterol in your blood. The classic example is Shrimp. Shrimp contain high levels of cholesterol. However, when consumed appropriately they appear to improve your cholesterol numbers. So commercials that advertise their foods are low in cholesterol are selling you on an advantage that doesn't exist. Furthermore, the foods

Boulder researchers: Chemical in wildfire smoke harmful to humans

By: Laura Snider
Daily Camera Staff Writer



Smoke from forest fires contains an acid that can be harmful to human health, according to new research by Boulder scientists that was conducted, in part, during last year's devastating Fourmile Fire.

The researchers, led by Jim Roberts of the National Oceanic and Atmospheric Administration, first discovered the presence of isocyanic acid while burning brush, tree branches and other vegetation at the U.S. Forest Service's Missoula Fire Science Laboratory in Montana.

The scientists were measuring the components of the smoke with a new instrument they had built, which was designed specifically to gauge the acids released into the atmosphere during a burn.

Roberts said the team was not surprised to find acids -- which are known to play a role in how aerosols form in the atmosphere -- but the presence of isocyanic acid, in particular, was unexpected.

"We had gone up (to Missoula) to measure acids with this instrument,"

said Roberts, a chemist at NOAA's Earth System Research Laboratory in Boulder. "We completely stumbled upon this one. We had no idea it was there."

Isocyanic acid easily dissolves in water, which makes it possible for the acid to also dissolve into moist tissues in the body, including the lungs. The full health effects of exposure to isocyanic acid in the air aren't fully understood, but the chemical has been linked to cataracts, cardiovascular disease and rheumatoid arthritis.

Last September, the researchers had the opportunity to measure the presence of the acid in a real wildfire. On Labor Day, the Fourmile Fire began burning in the foothills west of Boulder, just a few miles upwind of the state-of-the-art atmospheric instruments housed at NOAA's campus on Broadway.

"Boulder has a world-class atmospheric chemistry building and only once in its lifetime is it going to have a full-on hit from a wildfire," said Joost de Gouw, a co-author of the study and a researcher at the Cooperative Insti-

tute for Research in the Environmental Science. "So just everyone in that building turned on their instruments." CIRES is a joint institute of the University of Colorado and NOAA.

The sensitive new spectrometer used in Missoula also picked up the isocyanic acid in the plume of smoke from the Fourmile Fire. The researchers also used the spectrometer to detect the acid in cigarette smoke and in the air lingering above downtown Los Angeles.

The new research is published in the Proceedings of the National Academy of Sciences, and Roberts said he hopes it sparks the interest of people who specialize in studying the impacts of such chemicals in the body.

"That's the part we don't do," said Roberts of his team of atmospheric chemists. "We'd like to get that out into the community, so people can actually look at that specific biochemistry."



"Those that fail to learn from history are doomed to repeat it" - Winston Churchill



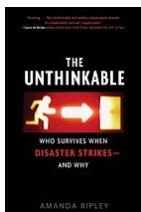
Book Review: Emergency Management Institute Book Club - Reading List

The Emergency Management Institute's book club meets 6 - 7 times annually to discuss books about specific disasters such as floods, fires, hurricanes, influenza outbreaks, terrorism and tornadoes along with professional development readings. Here are a couple of books on the current list that will be read and discussed thru 2011 and into 2012. The link to the club list is: <http://netc.worldcat.org/profiles/netcrlc/lists/coversonly/2561303>



Young men & fire By: Norman Maclean

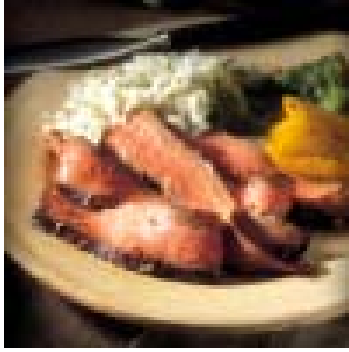
On August 5, 1949, a crew of 15 of the U.S. Forest Service's elite airborne firefighters, the Smokejumpers, stepped into the sky above a remote forest fire in Montana wilderness. Less than an hour later, all but three were dead or fatally burned in a "blowup," an explosive 2,000 degree firestorm 300 feet deep and 200 feet tall. Winner of a 1992 National Book Critic Award, Young men & fire consumed 14 years of Norman Maclean's life. He sifted through grief and controversy in search of the truth about the Mann Gulch tragedy, then wrote about it in excruciating detail. The sobering story of the worst disaster in the history of the Forest Service also embraces the themes of honor, death, compassion, rebirth, and the human spirit.



The unthinkable : who survives when disaster strikes and why By: Amanda Ripley

Nine out of ten Americans live in places at significant risk of earthquakes, hurricanes, tornadoes, terrorism, or other disasters. Tomorrow, some of us will have to make split-second choices to save ourselves and our families. How will we react? What will it feel like? Will we be heroes or victims? Will our upbringing, our gender, our personality--anything we've ever learned, thought, or dreamed of--ultimately matter? Journalist Amanda Ripley set out to discover what lies beyond fear and speculation, retracing the human response to some of history's epic disasters. She comes back with wisdom about the surprising humanity of crowds, the elegance of the brain's fear circuits, and the stunning inadequacy of many of our evolutionary responses. Most unexpectedly, she discovers the brain's ability to do much, much better, with just a little help.--From publisher description.

The military studies history extensively and emphasizes that all leaders should be well educated in past battles so that they can maximize their tactics and exploit their enemies' weaknesses in future engagements. This same mindset is important for the fire service as well, whether it be going on a staff ride at the location of a fatal fire or reading and talking about the blue/green sheets that we put out on accidents or near-misses, all are meant to improve your awareness, and ultimately your safety, during future operations.



Southwest Marinated Beef Steak with Grilled Peppers

Tasty, Colorful & Easy! Serves 6

Ingredients:

- 1 1/2 lb lean beef flank steak or top round steak, trimmed, cut 1-inch thick
- 3 red, yellow, and/or green bell peppers, seeded and quartered
- 1 dash of salt
- 1/2 cup prepared fat-free Italian dressing (for marinade)
- 1/4 cup fresh lime juice (for marinade)
- 1 Tbsp honey (for marinade)
- 1 1/2 tsp ground cumin (optional) (for marinade)

Directions:

MARINADE: Combine Italian dressing, lime juice, honey, and cumin in a small bowl.
STEAK: Place beef steak and 1/3 cup marinade in food-safe plastic bag; turn to coat. Close bag securely and marinate in refrigerator 6 hours or as long as overnight, turning occasionally. Refrigerate remaining marinade for the peppers. Remove steak; discard beef-soaked marinade. Brush bell peppers with some of remaining set aside marinade. Place steak and peppers on grid over medium, ash-covered coals, or on grill. Grill flank steak, uncovered, 17 to 21 minutes for medium rare to medium doneness (top round steak 16 to 18 minutes for medium rare),

turning occasionally. Grill peppers 12 to 15 minutes or until tender, turning occasionally. Brush steak and peppers occasionally with remaining marinade; do not brush during last 5 minutes. Carve steak across the grain into thin slices. Season with salt. Serve with grilled bell peppers.



Recipe courtesy of:



Nutritional Info (per serving)

Calories	184 c
Kilojoules	771 kj
Fat	4.1 g
Sat Fat	1.4 g
Cholesterol	53 mg
Sodium	292 mg
Carbs	9.1 g
Fiber	1.1 g
Total Sugars	6.1 g
Protein	27.1 g
Calcium	39 mg

What is Cholesterol (Cont from pg 1)

that generally advertise this way (cereals and other refined grains) will probably take your cholesterol in the wrong direction. It would be hilarious if it wasn't tragic. As you'll see, the best way to ensure healthy cholesterol levels is to eat lean meat, fruits and vegetables, plenty of fat, and shun processed grains like bread, cereal, oats, wheat, corn, and barley.

Total Cholesterol

Total cholesterol is comprised of several metrics, the most important of which are high-density lipoproteins (HDL), low-density lipoproteins (LDL), and triglycerides. Your total cholesterol is much less important than how it is comprised by these constituent parts. Total cholesterol tells you no more about your health than the final score in a football game tells you about the two teams that played. Sure, sometimes it turns out to be an accurate comparison, but most often a much larger story hides behind the numbers. I want you to focus more on the parts of total cholesterol than the whole.

HDL

HDL is generally referred to as "good cholesterol." It moves fat from the extremities of the body back to the liver for processing. It also helps keep our arteries clean. With HDL, more is better. Less than 40 mg/dl puts you at risk for heart disease. Greater than 60 mg/dl substantially guards you against heart disease. Exercise and consuming adequate monounsaturated fat are two ways to raise HDL levels.

LDL

LDL distributes important materials from our organs to the rest of our body: the energy that fuels our muscles, fats, omega-3 fatty acids like those found in fish oil, and material for repairing cell membranes. LDL is generally referred to as "bad cholesterol." However, LDL can be made of large, non-reactive Type A particles or small, dense Type B particles. The small Type B particles tend to get lodged in arteries and cause heart disease like atherosclerosis. Type A doesn't appear to do this. Therefore, you should be more concerned with the type of particles comprising your LDL level than the



Cont on Pg 4

Recent "Tail Gate Safety Topics" sent out to the Unit

All TGSTs can be accessed via Outlook, under Butte: Training Bureau: Health & Safety: TGST

- TGST, May 22, 2011, Projectile Hazards
- TGST, May 15, 2011, EMS PPE
- TGST, May 11, 2011, Hazard Trees
- TGST, April 28, 2011, Poison Oak
- TGST, April 20, 2011, Driving w/ Distractions
- TGST, April 13, 2011, Rhabdomyolysis

CE Article: Dementia Is Not Mental Illness

By Frena Gray-Davidson

As a caregiver of people with dementia, I just hate to hear people applying the language of psychiatry to dementia. It simply serves to create barriers to relationships and understanding. It doesn't help at all.

Instead it encourages family members, who may well not understand the differences, to think of their Mom or Dad or Grandpa as being mentally ill. Given the huge amount of prejudice against the mentally ill in our society, we really don't want to bring that into the way we look at elders with dementia.

I blame Hollywood for part of this. Using the word dementia and demented to describe people way out of control has only tended to confuse everyone even more.

Five Words Not To Use About Dementia:

1. Paranoia:

People with dementia are not paranoid. They are scared because they are losing their short-term memory and can't keep track of life. You'd feel just the same;

2. Combative:

They are not violent because of dementia. They hit you when you are an unskillful, invasive, bossy caregiver;

3. Perseveration:

Repeating the same words, phrases or questions over and over. That's actually not due to anything psychiatric. It's due to short-

term memory issues and long-term emotional needs which possibly are not being addressed;

4. Delusion:

Thinking they are living in a different time zone from this is not properly classified as a delusion when two things are at work -- short-term memory fragmentation, combined with memory intensification of long-ago experiences;

5. Hallucination: If it's dead people coming to visit, sorry but that's a normal part of old age and dying life. It's very rude to classify a universal phenomenon found in every culture as mental illness in one of them. Who's to say the dead can't visit? Certainly not a psychiatrist of no faith at all. In hospice work, the visits of the dead to living are recognized as very comforting and not otherwise classified.

Let me just remind you WHY we should not easily allow the language of psychiatry into the world of dementia. Because it tends to nullify communication between the person with dementia and their caregivers.

Caregivers who allow psychiatric jargon to describe the life of a person with dementia lose meaningful relationship with their person. They tend to dismiss any possibility of either admitting there is real meaning to many of the communications. They often resort to psychiatric medications, which are merely chemical restraints and often quite harmful to the person with dementia. There are many reports now from both

Cont. on Pg. 5

What is Cholesterol (Cont from pg 3)

measurement itself. The nasty Type B LDLs are caused by high insulin levels. What causes high insulin levels? An over-carbed diet full of processed grains. To get the right LDL particles we need to eat a relatively low-carb diet rich in fruits and vegetables like our hunter-gatherer ancestors, not Captain Crunch and Fritos like our obese cousins. That being said, healthy LDL levels are somewhere between 40-70 mg/dl.

Triglycerides

Triglycerides are an indicator of circulating blood fat. However, high triglycerides are not caused by high fat intake, but by excess insulin. Excess insulin and the resulting insulin resistance are a product of high glycemic carbohydrates, especially refined grains. That's right, Type B LDL, triglycerides, and poor blood chemistry in general are caused by excess carbs, not red meat like you may have been told. Once again, we see the connection between eating healthy carbohydrates (fruits and vegetables) and having healthy blood chemistry. As a general rule, if your triglycerides are above 100, you're probably headed for obesity, a heart attack, or both. You want to shoot for triglyceride

levels between 30-50 mg/dl.

The Big Picture

HDL, LDL, and triglycerides are the primary constituents of total cholesterol. There's more to the story, but those are the biggest players. As you can see, cholesterol is more complex than a single number to shoot for. Hopefully you can also see that some things you've been led to believe are crucial in maintaining your cholesterol (a low fat, high carb diet rich in whole grains) are actually helping dig your grave. Finally, don't discount the fact that you may have a genetic roll of the dice that tweaks your cholesterol numbers outside the norm, despite a healthy diet. However, you're probably not the genetic exception, so look to your dietary compliance before you deem yourself an outlier. While we don't fully understand everything about cholesterol, we do understand that healthy cholesterol levels have everything to do with a diet that mimics our Paleolithic ancestors and absolutely nothing to do with Raisin Bran.



Saved Outbuilding



Photos from a recent structure fire in Brush Creek.



CE Article: Dementia (cont.)

Britain and Canada, as well as the United States, demonstrating a high death rate among elders with dementia being wrongly medicated with anti-psychotic drugs.

It is not unheard of for an elder to have what is usually referred to as dual-diagnosis conditions. That is, to both have dementia and also to be mentally ill. As an observer, I see that too often mentally ill elders are thrown willy-nilly into the dementia population where they may actually cause a lot of trouble due to their mental illness.

It also encourages inattentive and ignorant caregivers to blame things on dementia which strictly belong to the realms of mental illness. Families of such elders are usually only too happy to have their parent put into a dementia unit because care is better and caregivers more sympathetic than in a geriatric psych unit.

However, to actually do that is a form of medical mal-

practice which puts everyone at risk. It should always be challenged by care staff in dementia or memory care units and can always be reported anonymously to the state licensing authority.

Frena Gray-Davidson is a long term Alzheimer's caregiver and her latest book is "Alzheimer's 911: Hope, Help and Healing for Caregivers", available from <http://www.amazon.com>. Frena presents dementia seminars nationally and internationally. Go to her website at <http://www.alzguide.com/> and sign up for her free



CE Answer Sheet:

Complete this answer sheet from the previous CE article and forward it to the Training Office for grading and credit. (1 CE hours Credit for successful completion)

Name:

Station:

- | | |
|--|--|
| <p>1. The medical diagnosis of Dementia is considered a psychiatric diagnosis.</p> <p><input type="checkbox"/> True</p> <p><input type="checkbox"/> False</p> | <p>6. What is the purpose of psychiatric medications?</p> <p><input type="checkbox"/> Improve moods</p> <p><input type="checkbox"/> Chemical restraints</p> |
| <p>2. The short term memory loss component is generally responsible for the paranoia behavior in dementia patients?</p> <p><input type="checkbox"/> True</p> <p><input type="checkbox"/> False</p> | <p>7. Can anti psychotic meds cause fatalities in elderly patients if wrongly prescribed?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |
| <p>3. Repeating the same words, phrases, or questions over and over again is called:</p> <p><input type="checkbox"/> Annoying</p> <p><input type="checkbox"/> Autorepetition</p> <p><input type="checkbox"/> Perseveration</p> | <p>8. Can dementia mask an underlying psychiatric condition?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |
| <p>4. Hallucination is considered a universal phenomenon.</p> <p><input type="checkbox"/> True</p> <p><input type="checkbox"/> False</p> | <p>9. Psychiatric medications can cure all conditions?.</p> <p><input type="checkbox"/> True</p> <p><input type="checkbox"/> False</p> <p><input type="checkbox"/> Absolutely True</p> |
| <p>5. Is it possible to have meaningful communication with a patient that has dementia?</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Only with medication</p> | <p>10. Will this article help you understand dementia patients behavior on an EMS call?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |

Comments: _____



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"Let No Man's Ghost Say His Training Let Him Down!" -Unknown Author