



Health & Fitness

A UH-60L from the CA National Guard during recent water rescue training in Butte

VOLUME 3, ISSUE 5

MAY 2013



Current Events In The North State:

- Feather Fiesta Days
Events throughout Oroville
May 4th—May 12th
- 8th Annual Beerfest
Veterans Memorial Park, Oroville
May 4th
- Vintage Tractor Days
Oregon House
May 4th—May 5th 9-2
- Bidwell Bar Days
Lake Oroville Rec Area
May 4th, 12-4
- Mudskippers Race (Bike & Run)
Meadowbrook Ranch, Magalia
June 15th 8-12



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One Persons Journey Towards Better Health

By: Mike Waters, Unit Safety Officer

I titled this article as one's *JOURNEY* towards better health and not the goal because changing one's lifestyle is really about the process more than the result. One of the things that hit me like an "ah ha" moment while reading the latest book by Jason Seib, "Paleo Coach" is that life is not about losing the next 10 or 20 pounds but rather it's about changing ones mindset and adapting to a healthier lifestyle, in terms of eating and exercising.

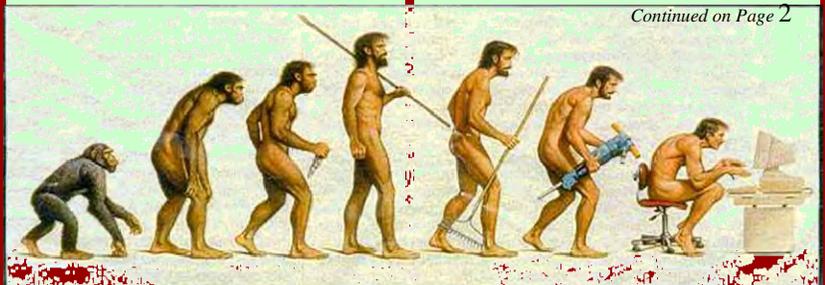
Once you get your lifestyle on board with the plan, the optimal weight loss and improved visual aesthetics come about on their own.

So let me step back a moment because I know some people reading this caught that magical word, "Paleo" and immediately became suspect. I have even seen someone write that they just don't get the whole paleo thing because their parents or their grandparents never heard of the term and if that's the case, how can it be an original way of eating. While I am quite certain that my parents or grandparents have never heard of the term paleo, that doesn't take away from the intent of what the paleolithic eating guidelines are. The fact it didn't

have a name when our predecessor "paleolithic era" ancestors were eating the way they were eating is really irrelevant.

So how did they eat? Well, for starters it wasn't by going down to the grocery store or fast food restaurant. It was mainly opportunistic feeding and by that which was only available at the time: (Relax, I am not trying to make this a history lesson so I will keep this part brief). Meats from recent animal kills, local seasonal fruits or wild vegetables (though the natural foods that existed back then resembled nothing as we know of current fruits or vegetables of today) and other misc. foods such as nuts or other foraged small foods. Another often overlooked component of their lifestyle was their nomadic nature included lots of walking and short intense periods of physical activity like running for their life from a larger predator animal or while trying to hunt a smaller prey animal. And though it is generally agreed that they had shorter lifespans (because of the rough living conditions) paleopathology is really conjectural about whether a lot of the modern diseases and disorders that we now experience were present in those times at all.

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Sausage, Egg and Sweet Potato Breakfast

Ingredients

5 cups sweet potato, grated
 1 cup yellow onion, chopped
 1 clove garlic, crushed
 1 pound ground pork breakfast sausage
 Sea salt and fresh ground pepper to taste
 6 egg
 2 Tbsp. coconut oil

Sliced avocado (optional)



Recipe courtesy of:

EverydayPaleo .com

Paleo (cont. from Pg. 1)

Okay, now fast forward to now and let me get this article back on track, I had always been fairly healthy in my mind and had received annual flight physicals with EKG's and blood work while I was on flight status with the US Army and nothing abnormal was ever noted. Over the years I had gained a bit of a belly though, but I attributed that to my 10 years working on an ambulance and the propensity at eating poorly but I wasn't convinced of the need to change my "evil" ways until about 5 years ago. I went in for a routine DMV physical to my personal PA and was told my BP was too high and that I needed to come back in to get it rechecked before they would sign off on the DMV form. I attributed it to work stress because let's all be honest, we all have it and some more than others. I went back for

Preparation

1. Preheat oven to 350 degrees
2. Turn stove on medium high heat and melt 2 Tbsp. coconut oil in a cast iron skillet.
3. When oil is hot add onion and cook onion until soft and translucent. Add garlic and cook for another minute.
4. Add sausage to onion in skillet and cook until the sausage is cooked through and crumbly.
5. Add grated sweet potato, salt and pepper to onion and sausage mixture, continue cooking until sweet potato is soft and just cooked through, 3-4 minutes. Stir frequently. Sweet potato should still hold its grated appearance and not get mushy. Be sure not to overcook as the mixture will have more cook time in the oven.
6. When mixture is cooked through, turn off heat.
7. With a spoon create 6 wells in sweet potato and sausage mixture. Crack 1 egg in each well.
8. Place skillet in oven for approximately 5-8 minutes depending on desired firmness of your egg.

To serve, scoop onto a plate and garnish with sliced avocado.



a couple of rechecks and it was still high, generally 144/100 or so with a resting pulse around 90 and the only real symptom that I can say that I had was that when I put my head on a pillow, I could feel my heart-beat in my ears and it was quite annoying. My blood work also had shown borderline high cholesterol but not enough to warrant medication. My PA decided that I should take BP medication and that once I started it, I had to be on it for 1 year before they would reevaluate to see if I could stop taking it. So that fire season came and I quickly realized that I did not like having to keep a supply of pills and remembering to take one every day. After about 9 months, I decided that I was going to get off the medication so I increased my PT and started to try to eat better (for those of you that know me, that meant I cut my trips to Taco Bell in half—but didn't stop). At 10

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Quick Shots



Water Rescue Training



An early season K Line Fire in SPI Land



MCD: Disaster Resources within the County



IAPS Data from April 2013

Reportable Injuries: 2
Record Only Injuries: 3
Injury by Activity:
PT:
Incident: 2
Training: 2
Station Duties: 1
Injury by Body Part:
Head:
Torso/Back: 3
Extremities: 1
Heat Illness:
Exposure: 1

"SAFETY CORNER"

- 4/6/13, Near Miss Green Sheet, 13CABTU004618, Tree Felling Inc.
- 4/17/13, Safety Communication 2013-01, CDF Air to Ground tone protection changes
- 4/20/13, Near Miss Blue Sheet, 13CARRU04058, Structure Fire Inc.

Stop Cooling Those Burns

Do you ever get the feeling that everything you learned in EMT class was wrong? If you haven't yet developed that feeling, then you probably haven't been around long enough. Stick around. Sooner or later (depending on whether or not you are paying attention) you'll start to feel that every treatment guideline you ever learned was somehow flawed. I've been in EMS education long enough now to start to feel that everything I ever taught was wrong. Such is medicine.

And now I'm going to throw another curve ball at you. Do you remember when we told you to aggressively flush burns with copious amounts of sterile water? Yeah, well...um, stop doing that too. I'm sorry. We were apparently wrong about that.

I know. It runs counter to everything we taught you, right? I agree. I learned about aggressively cooling burns over two decades ago in my EMT class. Stop the burning process and then cool the burn by flushing it with copious amounts of water. Keep flushing until you arrive at the hospital.

Years later the treatment guideline backed off a bit on the flushing. We started emphasizing stopping the burning process and also warned students to guard the burn patient against hypothermia. It seemed that our aggressive cooling techniques were delivering a ridiculous percentage of burn patients to the hospital mildly hypothermic. Hypothermia is apparently not conducive to healing in the burn patient population.

I was just as guilty as anyone of pouring massive amounts of saline on significant burns until it ran out the back door of the medic unit and the patient shivered like they were having a seizure. So we put away our garden hoses and buckets of cold saline and transitioned to more localized cooling. Patient warm, burn cool. Got it.

Apparently that is incorrect as well.

As it turns out, burns seem to heal better when they remain warm. Our burn centers are now recognizing that burns that are cooled seem to have more extensive tissue damage and heal slower than burns that are allowed to remain at or slightly above body temperature.

The theory behind the delayed healing of excessively cooled burns is that excessive cooling may promote vasoconstriction in the region of the burn that limits the circulation of lipids, white blood cells and proteins that are essential to the healing and reconstruction of damaged tissue. Maintaining a healthy blood supply to the effected region is apparently more important than cooling the wound.

This doesn't mean to stop putting water on burns. You still need to halt the burning process. But after the burning is stopped, further application of cool water, while it may be soothing to the patient, does not promote healing. Wrap the wound. Keep them warm. Protect the airway and transport to an appropriate facility.

Source: Advanced Burn Life Support

Types of burns

There are three different kinds of burns. They are classified by how severely the skin is burned. The three types of burns are:



First degree or superficial burn

A superficial burn is usually red and turns white if you press on it. Only the top layer of skin is damaged.



Partial thickness burn

These burns involve the top layer of skin and a portion of the second layer of skin. Partial thickness burns are often broken down into two types, superficial partial-thickness burns and deep partial-thickness burns.

No reference to cooling in current SSV protocols.

<http://theemtspot.com>

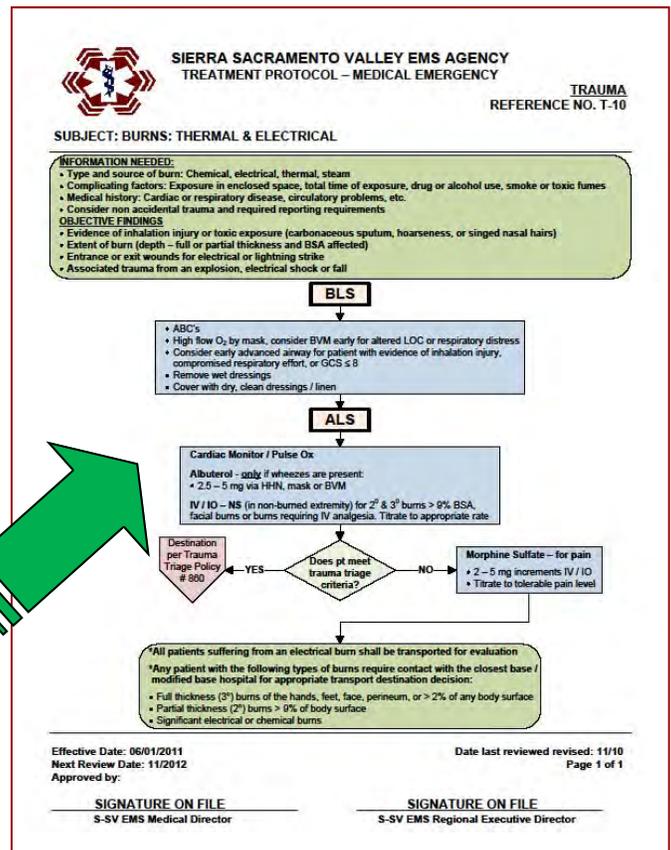


- **Superficial partial-thickness burns** cause blistering and are painful. They typically heal within three weeks with minimal scarring.
- **Deep partial-thickness burns** are dry and may appear ivory or pearly white. They take longer to heal and usually produce some scarring. Skin grafts are usually recommended for these types of burns.



Full thickness burns

Full thickness burns destroy the first and second layers of the skin. They are dry, with a dark brown appearance. Most full thickness burns are best treated with early removal of the dead tissue, skin grafting and long-term use of compression therapy to minimize scarring.



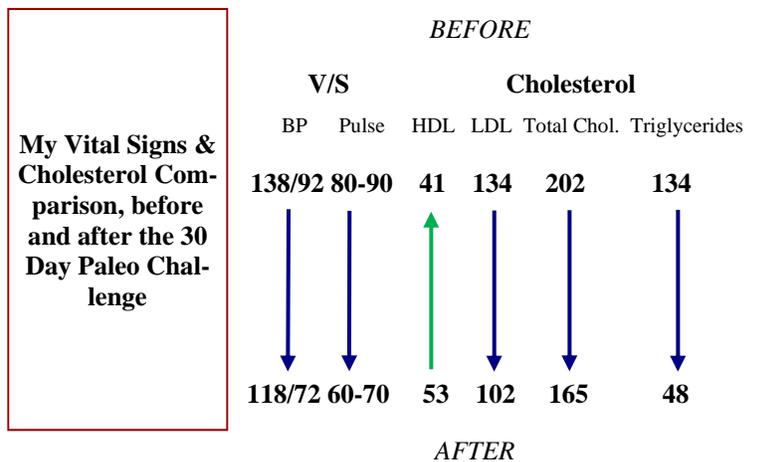
months, I went back to my PA and told him that I had titrated down my dosage and that I was finished taking the BP meds, he checked my BP and it was lower but it was still borderline “high” at about 138/90. He agreed that I could stop taking the meds but that I needed to work on getting it lower still because it wouldn’t take much to raise it higher and need the meds again. I agreed and figured that the changes that I had already made would continue to improve my values. During the next few years, I went on with life and tried to focus on better PT and a lot of the credit for my changing ways goes to my wife, Amanda, who got introduced to the Paleo way of eating (notice I don’t like to use the word “diet” even though the dictionary definition of diet is nothing more than the way you eat, but I feel people put a negative connotation when you’re eating on a diet—especially because the paleo “diet” is really just a guideline for eating and not about restricting calories or counting anything). Amanda did a 30 day paleo challenge, which is a strict adherence to what foods you can and can’t eat—mainly eliminating all processed foods, sugars, grains, and dairy items, and she felt pretty good but I didn’t join her and rather just kept eating my old ways, much to her dismay. Now fast forward a year and this last December I was due for my routine physical again so I went to my PA and once again my BP was unbudgeted at the borderline high range and my cholesterol was high (and we’re not talking the good part). I was a little deflated because I had been trying to eat better and spend more consistent time doing PT and my hiking was even feeling better over the last summer but ultimately the numbers don’t lie and I had to do something different. This was my state when Amanda bought “Paleo Coach” and after she read it, with her strong urging, I decided to peruse it as well. I was pretty quickly hooked on reading it and it’s written in such a way that it explains the science behind the “diet” without glossing

over your eyes and it keeps the reader very interested and engaged. I quickly made the decision (quickly but not easily because I have been a diet dr. pepper steady drinker for some time and now I truly believe that I had an addiction to them) to do the 30 day paleo challenge and give up all the things that I hold dear (in terms of food that is) like breads, sugars (including sodas), pastas, milk and cheese. I will tell you it was rough going the first week with the sugar withdrawals and then the whole process of getting your body to change over from burning carbs for energy to burning protein and fats instead (I made the mistake of deciding to go for a hike early during this transitional period and I didn’t think that I wasn’t going to make it back up the hill because I was so exhausted and I had to keep stopping to rest). That all being said, those rough parts did pass and they were rough, exactly how rough they are correlates to how long you have been eating crappily according to the experts. Once the 30 days was up, I felt significantly better and after a couple more hikes, I felt quite a bit better than that first time. Timing wise was perfect because I was due to go back to my PA and have some repeat blood work and I figured it would be good to have a before and after comparison because after all, the numbers don’t lie. Even with my feeling better, I never would have guessed how the “numbers” would have improved. But before we get to that, my heartbeat feeling in my ears was gone, people were asking me how much weight I had lost because I looked thinner (though I couldn’t give them an answer because as I eluded to at the beginning, it’s about the mindset and not the goal so we haven’t had a scale in our house for over a year) but my clothes were fitting looser, my sleep is consistently longer and more refreshing. With all that being said, my initial cholesterol was 202, with my HDL being 41 and my LDL being 134 and my follow up cholesterol is now 165,

Table Of Cholesterol Values

	mg/dL:	mmol/L:
Total cholesterol		
desirable	< 200	< 5.1
borderline high	200 - 239	5.1 - 6.1
high	> 239	> 6.1
LDL cholesterol - the “bad” cholesterol		
optimal	< 100	< 2.6
near/above optimum	100 - 129	2.6 - 3.3
borderline high	130 - 159	3.3 - 4.1
high	160 - 189	4.1 - 4.8
very high	> 189	4.8
HDL cholesterol - the “good” cholesterol		
low (undesirable)*	< 40	< 1.0
high (desirable)	> 60	> 1.5
Serum triglycerides		
normal	< 150	1.7
borderline high	150 - 199	1.7 - 2.2
high	200 - 499	2.2 - 5.6
very high	> 499	> 5.6

* The American Heart Association sets different thresholds for HDL cholesterol in men (< 40 mg/dL = low) and women (< 50mg/dL = low), a discrimination that the National Cholesterol Education Program no longer makes.



with my HDL being 53 and my LDL being 102. My vitals before were 138/92 and resting HR of 80 and now they are consistently 118/72 and resting HR of 66. During this time frame I actually decreased my PT because of my lack of energy due to the metabolic transition I was putting my body through and the only other change was my diet to account for these significant changes. There is a common phrase in CrossFit of “Eat to Perform” and I don’t think I really got it until after experiencing this change first hand what that phrase means. We truly are the product of what we put into our bodies and some of you might write this all off as just a fluke but even if just one person decides that they are going to look a little more into this way of eating then my purpose here will have been served. If anyone has any questions for me or wants more resources then

feel free to call or email me and I will be happy to help out in anyway possible because I truly believe that we as a society have to get away from the highly processed foods and the preprogrammed USDA food pyramid and back to a more primitive way of subsistence and only then will we see all these emerging disorders, such as lactose intolerance, gluten sensitivities, IBS, Celiac disease, and a whole host of auto-immunity issues begin to reverse their surge in our modern society. At the absolute worse, what do you have to lose? What is a mere 30 days? After 30 days, if you don’t see a positive change, simply switch back to your old ways, but I’m pretty confident you won’t want to. There is no gimmick plan to buy or subscribe to and the only judge is yourself.

-Mike

“An Ounce Of Prevention Is Worth A Pound Of Cure”

I am quite sure everyone has heard this saying at least a dozen times in their life. Well, maybe the reason is because it is true! I try to focus a lot of my job efforts on the prevention side of “Health & Safety” simply for this reason. I would much rather research and write the articles for this newsletter than to compile Blue and Green Sheets, after an accident has happened. The other component that is often overlooked, is the cost savings, and that is what we are hoping to prove with the FMS implementation, coming soon to a fire station near you.

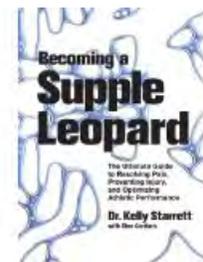
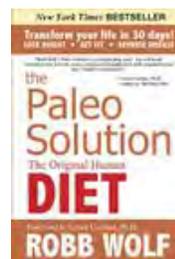
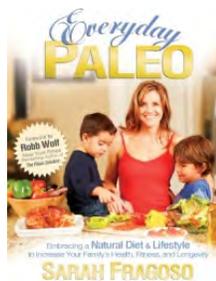
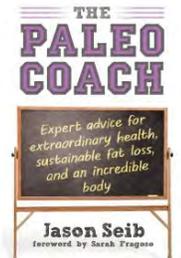
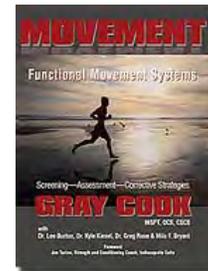
A new resource that we are starting in the Training and Safety Bureau, is a “Wellness Library” for all employees to be able to check out material at their leisure and for their personal benefit. My vision is to allow people to educate themselves on current topics and decide what is going to work with their lifestyles because we all know what works for one person is not necessarily good for everyone. Currently we have a small list of

titles, that I foresee growing as the program receives minimal funding or donations.

Current Titles:

- Movement, Grey Cook
- The Paleo Coach, Jason Seib
- Everyday Paleo, Sarah Fragoso
- Becoming a Supple Leopard, Kelly Starrett
- Power, Speed, & Endurance, Brian Mackenzie
- Paleo Solution, Robb Wolf
- It Starts With Food, Hartwig

If anyone has suggested titles, feel free to let me know and we will add them to our list to acquire, as we are able to do so.



CE Answer Sheet: Burns

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

- | | |
|--|---|
| <p>1. A first degree burn usually has blistering.</p> <p><input type="checkbox"/> True</p> <p><input type="checkbox"/> False</p> | <p>6. Stopping the burning process is the same as cooling a burn.</p> <p><input type="checkbox"/> True</p> <p><input type="checkbox"/> False</p> |
| <p>2. First Degree burn and Superficial burn are synonymous.</p> <p><input type="checkbox"/> True</p> <p><input type="checkbox"/> False</p> | <p>7. Current SSV policy, allows for cooling of burns <10% BSA</p> <p><input type="checkbox"/> True</p> <p><input type="checkbox"/> False</p> |
| <p>3. Partial thickness burns generally aren't painful.</p> <p><input type="checkbox"/> True</p> <p><input type="checkbox"/> False</p> | <p>8. BSA, Extent of burns, and mechanism of burns are all important info to gather.</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> |
| <p>4. Full thickness burns typically require extended stays at the burn center,</p> <p><input type="checkbox"/> True</p> <p><input type="checkbox"/> False</p> | <p>9. Pt's with 2nd degree burns will always go to a burn center.</p> <p><input type="checkbox"/> True</p> <p><input type="checkbox"/> False</p> |
| <p>5. Cooling of burns can actually complicate the normal healing process.</p> <p><input type="checkbox"/> True</p> <p><input type="checkbox"/> False</p> | <p>10. If both a present, which has a higher precedent, Major Burns or Major Trauma?</p> <p><input type="checkbox"/> Burns</p> <p><input type="checkbox"/> Trauma</p> |

Name: _____

Station: _____

Comments: _____

Feather Falls Trail Rescue w/ H-2



For Suggestions or Comments:

CAL FIRE / Butte County FD

176 Nelson Ave

Phone: 530-966-8682

Fax: 530-879-3433

E-mail: Mike.Waters@Fire.Ca.Gov

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