



# Health & Fitness

"H Line" VMP Burn

VOLUME 1, ISSUE 7

NOVEMBER 2011

## Another fire season over, and a busy month to boot....

### Upcoming Events within the county

- Co. 33 Holiday Craft Fair  
Nov 5th –6th  
Sta. 31, Magalia
- Paradise Volunteer Firefighters  
Spaghetti Dinner  
Nov. 5th, 4-8 pm  
6500 Clark Rd, Paradise
- 37th Annual Almond Bowl  
5k, 1/2 & full marathon  
November 6th  
Bidwell Park
- Veterans Day  
November 11th
- Thanksgiving Day  
November 24th
- Annual Crab Feed  
January 28, 2012  
Location TBD

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Most of us can't say that we were busy at fires this season, at least not for very long. But with that being said, there were a lot of going-on's throughout the unit this last month or two that kept most of us busy.

First off, a big congrats to the first annual Ignite the Fight 5k Run, and the event organizer Kim Fleming, which ended up seeing 389 runners and raised a whopping \$21,000 for the Firefighter Cancer Support Network. It truly was great to see all of the department employees and other agencies that came out and had a good time for a great cause.

As far as the Training and Safety Bureau goes, the last couple of months can be summed up in one word "Openshaw". In case you haven't had a chance to visit our newest training grounds, drop by sometime during some upcoming training and you might be surprised by the work performed by Chad, Tony, and Garrett. Also, special thanks goes out to the CAAB personnel, Sta. 36 person-

nel, and a few key retirees that just can't stay away, for all their time as well. A lot of unit training is being scheduled at Openshaw because it truly is the most centralized location, which makes engine movement a little easier and it seems like every week it has more to offer due to the work being performed behind the scenes. Currently the training site offers the following training: 2 story burn building/rescue prop, 2 vent props, confined space prop, USAR building, rubble pile, & RS1 heavy objects props. On the way is a water supply system with standpipe training props, vent over fire prop, and auto extrication areas as well as other key infrastructure items.

More recently, the unit is completing several cooperative VMP burns with SPI that has more than one person saying, "boy, that's more fire than I saw all summer" and they are allowing us to build good partnerships with our cooperators and help work on much needed ICS qualifications.

By: Mike Waters, Unit Safety Officer

Also a kudos to the often seemingly secretive Prevention Bureau for their thorough work up on the ridge.

Lets see what the next month has in store for us, I think the unpredictability is what most of us love



Recent BIRG Training at the Forebay.

## THE BEST "STRETCH" THAT YOUR NOT DOING!

Can you do a "real" squat? By real, we mean that you can lower your body until the tops of your thighs are at least parallel to the floor. (And lower is better.) If your answer is no, you're not alone. Because we spend much of our time sitting, many people have tight hip muscles. This limits your range of motion and prevents you from being able to perform a good, deep squat. The upshot: You work less muscle with every rep, and your athletic performance suffers.

Ever seen a toddler squat? Most are able to lower themselves until their butt touches the backs of their ankles—and they're able to do it with ease. Unfortunately, as we age, many of us lose this ability. But you can start to regain your mobility with an exercise called "squat with prying." Try it before every workout, as part of your warmup. You'll be amazed at how good it will make you feel—and how effective it can be for helping you squat correctly.

EXCERPTS BY: DR. MARK CHENG  
SANTA MONICA, CA.



In many groups, there's always someone who complains that he/she can't squat down

# Vitamin B12 Deficiency

By Mary Jane Dittmar  
Senior Associate Editor of Fire Engineering

We are all familiar with the usual laboratory tests prescribed when we are undergoing our regular physical check-ups. There are checks on our cholesterol, high- and low-density lipid proteins, vital organs, and so forth. Sometimes, however, when we experience symptoms, our body could be telling us that our body's store of a specific nutrient is too low. The need for more vitamin B-12, for example, is a fairly common problem.

The body uses vitamin B12 to form red blood cells that carry oxygen throughout our bodies; for neurological functions; to synthesize DNA; and for multiple other conversions, reactions, and syntheses.

Among the many symptoms of an inadequate supply of vitamin B12 are chest pain or shortness of breath; fatigue or unexplained weakness; dizziness, trouble with balance, fainting; confusion, memory loss, or dementia; coldness, numbness or tingling in the hands and feet; slow reflexes or diminished nervous system function; pale skin or yellowing of the skin; and sore mouth and tongue.

As you undoubtedly noticed, these conditions may also be indications

## Squats (cont. from Pg 1)

because of being "too stiff" or "too tight" in the back, the legs, or wherever. They'll try to squat down, and it'll take an act of God to get their hips down anywhere near their knees.

But if you put those people on their backs and all of the sudden they can bring their knees within a fist distance of their chest, then the root problem ISN'T stiffness. It's WEAKNESS.

When prime movers are allowed to get weak, the stabilizing muscles have to create movement in their place. So the kinetic chain

of numerous other medical conditions. If you are experiencing any of them, consult with your medical practitioner. If your doctor doesn't recommend a vitamin B12 level test, you may want to ask whether it should be included. It makes sense to look for the simplest causes of symptoms before searching for more complex problems.

Vitamin B12 exists in several forms and contains the mineral cobalt. Methylcobalamin and 5-deoxyadenosylcobalamin are the forms of vitamin B12 that are active in human metabolism.

Vitamin B-12 can be absorbed only in the small intestine. Problems in the digestive tract and less than optimal absorption in the small intestine could prevent or slow absorption of the vitamin. The lack of acid in the digestive system of elderly adults may also interfere with the absorption of vitamin B12. Diabetes and intestinal parasites also may affect absorption.

## Interactions with Medications

Vitamin B12 has the potential to interact with certain medications, and some types of medications

gets flip-flopped.

What does that mean for the squatter?

Simple, instead of using the proper postural muscles to stabilize during the squat, the "stiff" squatter doesn't have the hip strength to pull him/herself down into the squat, trying to achieve the depth by bending forward from the lumbar spine instead... or in some cases by coming forward onto the tiptoes.

There are plenty of ways to rectify this, but perhaps the sim-

plest and quickest way is to practice an assisted squat while working to develop the strength needed for the 3 Prys.

might adversely affect vitamin B12 levels. If you are taking any of these medications on a regular basis, discuss the matter with your healthcare provider. These medications include chloramphenicol (Chloromycetin®), a bacteriostatic antibiotic; proton pump inhibitors, such as omeprazole (Prilosec®) and lansoprazole (Prevacid®), used to treat gastroesophageal reflux and peptic ulcer disease; histamine H2 receptor antagonists, used to treat peptic ulcer disease, such as cimetidine (Tagamet®), famotidine (Pepcid®), and ranitidine (Zantac®); and Metformin, used to treat diabetes.

## Daily Intake

The U.S. Food and Drug Administration recommends a Daily Value (DV) of 6.0 mcg of vitamin B12. However, according to analyses of data from the 1988–1994 National Health and Nutrition Examination Survey (NHANES III) and the 1994–1996 Continuing Survey of Food Intakes by Individuals Data from the 1999–2000 NHANES, the median daily intake of vitamin B12 for the U.S. population is 3.4 mcg.

*Continued on Page 3*

**A man is not old until regrets take the place of dreams.**

**-John Barrymore**

**Foods**

Vitamin B12 is naturally found in animal products, fish, meat, poultry, eggs, milk, and milk products. It generally is not present in plant foods, but many breakfast cereals are fortified with a readily available source of vitamin B12. Some nutritional yeast products also contain vitamin B12. As is stressed often in this column, it is important to read product labels to determine which added nutrients they contain. The U.S. Department of Agriculture's Nutrient Database Web site lists the nutrient content of many foods and provides a comprehensive list of foods containing vitamin B12, <http://www.ars.usda.gov/nutrientdata>



is largely limited by the capacity of intrinsic factor--for example, only about 10 mcg of a 500 mcg oral supplement is actually absorbed in healthy people.

**Treatments**

The most common treatments for vitamin B-12 deficiency are intramuscular injections; this method bypasses the digestive tract and makes the nutrient immediately to the bloodstream. There are also sublingual lozenges and tablets, intranasal gels, and skin patches. Many people take supplements. Although researchers say there is no evidence that suggests there are any differences among treatment forms with respect to absorption or bioavailability, they point out that the body's ability to absorb vitamin B12 from dietary supplements



**Over the Edge rescue on Centerville Rd.**



**Squats (cont. from Pg 2)**

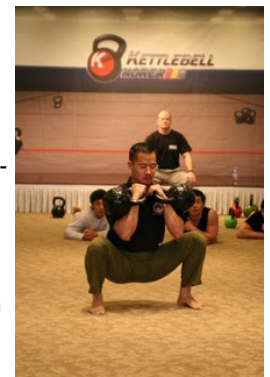
- 1. Pry the knees apart and pick your toes up off the ground.** That forces you to load your heels properly while you push your knees outward until they're tracking in the same vertical plane as your feet.
- 2. Pry your butt backwards & downwards.** That, too, forces you to load your heels and engage

your posterior chain instead of wallowing in quadricep dominant movement patterns. It also strengthens your lumbar muscles by forcing them to engage in a strong extension pattern.

- 3. Pry your chest open vertically.** Keeping your head pulled upward and your eyes looking forward, squat down with the feeling of lengthening your neck and prying your chest forward. That

helps create thoracic spine mobility that you may have lost, as well as adding to the stability in the lumbar region.

If you can't go down very far without losing form, DON'T go any further. Work back & forth in the region in which you get stuck to create the simultaneous mobility and stability needed to re-pattern your squatting movement..



**IAPS Data from October 2011**

Reportable Injuries:	2
Record Only Injuries:	2
Injury by Activity:	
PT	0
Incident:	1
Training:	1
Station Duties:	2
Injury by Body Part:	
Head:	1
Torso/Back:	0
Extremities:	2
Heat Illness:	0
Exposure:	1

**"SAFETY CORNER"**

Recent topics sent out to the Unit

All TGST's and Blue/Green Sheets can be accessed via Outlook, under Butte: Training Bureau: Health & Safety: then either TGST or Alerts, Blue & Green Sheets, etc.

- CAL FIRE Green Sheet, October 2nd, CAHUU005184-Chainsaw Accid.
- CAL FIRE Blue Sheet, October 4th, CAMVU011073-Med Emergency
- CAL FIRE Green Sheet, October 6th, CAMVU011073-Med Emergency
- TGST, October 8th, Ankle injuries
- TGST, October 20th, Communicable Disease Prevention
- TGST, October 31st, Department Chainsaw Safety Communication



## Buffalo Chicken Wrap

Serves 4

### Directions:

1. Whisk hot pepper sauce, 2 tablespoons vinegar and cayenne pepper in a medium bowl.

2. Heat oil in a large nonstick skillet over medium-high heat. Add chicken tenders; cook until cooked through and no longer pink in the middle, 3 to 4 minutes per side. Add to the bowl with the hot sauce; toss to coat well.

3. Whisk mayonnaise, yogurt, pepper and the remaining 1 tablespoon vinegar in a small bowl. Stir in blue cheese.

4. To assemble wraps: Lay a tortilla on a work surface or plate. Spread with 1 tablespoon blue cheese sauce and top with one-fourth of the chicken, lettuce, celery and tomato. Drizzle with some of the hot sauce remaining in the bowl and roll into a wrap sandwich. Repeat with the remaining tortillas.

### Ingredients:

- 2 tablespoons hot pepper sauce, such as Frank's RedHot
- 3 tablespoons white vinegar, divided
- 1/4 teaspoon cayenne pepper
- 2 teaspoons extra-virgin olive oil
- 1 pound chicken tenders
- 2 tablespoons reduced-fat mayonnaise
- 2 tablespoons nonfat plain yogurt
- **Freshly ground pepper, to taste**
- 1/4 cup crumbled blue cheese
- 4 8-inch whole-wheat tortillas
- 1 cup shredded romaine lettuce
- 1 cup sliced celery
- 1 large tomato, diced

### NUTRITION FACTS

Calories 275, Total Fat 8 g, Saturated Fat 2 g, Monounsaturated Fat 2 g, Cholesterol 55 mg, Sodium 756 mg, Carbohydrate 29 g, Fiber 3 g, Protein 24 g, Potassium 266 mg. Daily Values: Vitamin A 35%, Vitamin C 20%. Exchanges: Starch 1.5, Vegetable 1, Lean Meat 3, Fat 0.5.

Percent Daily Values are based on a 2,000 calorie diet

Recipe courtesy of:

[EatingWell.com](http://EatingWell.com)

## The National Institute of Standards and Technology (or NIST) and their current research in the area of PPE

### TURNOUT GEAR

Fire fighters' protective clothing (pants and jacket) is a three-component ensemble intended to protect the fire fighter from radiant and thermal exposure, unexpected flashover conditions, and puncture and abrasion hazards while still maintaining an adequate level of dexterity and comfort. The performance requirements for the individual components (moisture barrier, thermal liner, and outer shell) and the ensemble are described in NFPA 1971, whereas the selection, care, and maintenance of the "turnout gear" is described in NFPA 1851. Considerable research has been devoted to the development and testing of turnout gear. However, little information is available as to how environmental stresses on the turnout gear during routine activities and storage deteriorate its performance and service life.

This research focuses on developing performance metrics and standard testing protocols for assessing the aging performance of fire fighter protective gear. Under-

standing the aging performance of in-service turnout gear gives the fire service community measurement protocols to use as a basis for defining a minimum performance regulation to provide fire fighters with adequate protection to perform their duty and for defining a performance regulation for retiring turnout gear from service. In addition to developing performance-based regulations, understanding the failure mechanisms allows the development of new and/or utilization of existing technologies that will improve and extend the performance life of turnout gear.



### WHY IS THIS IMPORTANT?

Structural fire fighters' protective clothing is designed to protect its wearer from the thermal environments experienced during fire fighting. Fire fighters may receive serious burn injuries from each of these modes of heat transfer or a combination of them even though they are wearing protective cloth-

ing. In addition, fire fighters' protective clothing is often wet when it becomes heated by the fire fighting environment. Hot vapors and steam are generated inside protective clothing systems that also produce serious burn injuries. Fire fighters' protective clothing has definite physical limits associated with its ability to protect the wearer. These safe use limits are poorly understood and are not addressed in current fire service protective clothing standards. The Fire Fighting Technology Group is studying these physical safe use limits for thermal performance of fire fighters' protective clothing, and it is developing new test apparatus and predictive tools that will provide insight into the causes of burn injuries. This effort is helping to develop a better understanding and define the safe use limits of fire service protective clothing. As a result, this research effort will assist in reducing the number of serious fire fighter injuries.

Check out their website for great research information at:

<http://www.nist.gov/fire/ppe.cfm>

# Health and Safety Committee Current Working Items

Last month was the quarterly meeting for the Butte Unit Health & Safety Committee. Below are a majority of the items discussed:

- PPE Cleaning / Extractors
- Firefighter Drivers w/ other passengers
- Energy Bars for Incidents
- Routing of IIPP-8's
- IAPS Statistics
- Traffic vests & liability & possible individual issue

either contact myself directly or talk with you battalion representatives.

Of course if you don't know who your battalion representatives are then you can't ask them so give me a call or take a look inside the IIPP binder (and I'm not going to tell you the page number so you have to look for it) for the committee list. On top of the battalions, there are also representatives for each functional area, such as the shops, ECC, or the Service Center as well.

The next scheduled meeting is tentatively scheduled for January 16th and all are welcome to attend.

To find out the status of these issues or to have any new issues brought forward to the committee,

## The potential for a long day....



### 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 hour Credit for successful completion)

- |  |  |
|--|--|
| 1. <input type="checkbox"/> True<br><input type="checkbox"/> False | 6. <input type="checkbox"/> Yes<br><input type="checkbox"/> No                                       |
| 2. <input type="checkbox"/> True<br><input type="checkbox"/> False | 7. <input type="checkbox"/> True<br><input type="checkbox"/> False                                   |
| 3. <input type="checkbox"/> True<br><input type="checkbox"/> False | 8. <input type="checkbox"/> True<br><input type="checkbox"/> False<br><input type="checkbox"/> Maybe |
| 4. <input type="checkbox"/> True<br><input type="checkbox"/> False | 9. <input type="checkbox"/> True<br><input type="checkbox"/> False                                   |
| 5. <input type="checkbox"/> True<br><input type="checkbox"/> False | 10. <input type="checkbox"/> 850<br><input type="checkbox"/> 820<br><input type="checkbox"/> 837     |

Station: \_\_\_\_\_  
Name: \_\_\_\_\_

**Be Back Next Month.....**

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### The HAZARDS of Openshaw during the wet season!



For Suggestions or Comments:

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