



# Health & Fitness

The "Dixie" Fire

Volume I, Issue 5

September, 2011

## Upcoming Events within the county,

- **Co. 55 Tri-Tip Dinner**  
Bangor Park  
September 2nd
- **9/11 Memorial Events**  
Throughout County
- **1st Annual Poker Run**  
Butte County  
Benefiting MDA  
October 1st
- **Ignite the Fight 5K**  
Bidwell Park  
October 22nd
- **Fall Strength Challenge**  
Level 10 CrossFit, Oroville  
November 19  
(All proceeds benefit Co 64 member Shawn Hayse's Wife Amy)

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## A Decade of Change

By: Mike Waters



This month marks the 10 year anniversary of that fateful day when so many people were killed, in multiple locations of the United States. For most of us, we all remember vividly what we were doing that day and hour. I had heard the references from my grandparents that they will always remember when they heard about Pearl Harbor, and I never quite understood why. But after 9/11, I understood clearly. There are only a

few major moments in my life that I remember almost every detail, and those were always because they involved me. September 11, 2001 had nothing to do with me but it was such a horrendous day that it lives with all of us that were aware of it, probably till we die, just like our grandparents and Pearl Harbor. We read firefighter fatality reports in



order to learn from them and not make the same mistakes, but 9/11 was nothing that could have been prevented, from the firefighting side of things. I personally made a radical decision after 9/11, upon my return from my honeymoon (yes, I got married only 11 days after 9/11),

I got back into the military because I knew that something was going to happen and I wanted to be a part of it. One thing I don't recommend though, is reenlisting in the military without talking to your newly married wife (a little tension there). I will never regret having deployed overseas and to this day I always contemplate how I can do more for those that either are currently serving in harms way or for those that paid the ultimate price for their nation and left loved ones behind. Some of you might remember the P.T. challenge that I helped coordinate this last Memorial Day to pay tribute to Lt. Michael Murphy, who was killed in action in Afghanistan in 2005. I will probably try to coordinate another event this next

(Cont. on Page 5)

## How do YOU clean your CamelBak resevoir? Or more importantly, DO you clean it?

With the transition from carrying single use water bottles in the old style web gear to the new **Wolf-pack** with the **Camelbak**

Reservoir, additional maintenance is required, to keep the reservoir clean and sanitary. Regularly changing the water and rinsing

out the reservoir and tube plus cleaning the bite valve is a great start.

**CamelBak** recommends to clean and dry after every use. While that might not be feasible, it is necessary to periodically clean and sanitize.

**CamelBak** recommends the following cleaning procedure:

By: Genevieve Antognazzi, FFII St. 73

- Use hot water and 2 tbs of baking soda OR bleach. Mix the solution inside the reservoir and hold above your head while pinching the bite valve. Allowing the solution to run through the tube.

- Let the reservoir and cleaning solution sit for about 30 minutes.

(Cont. on Pg 3)

Copter 106 Crew, Courtesy of Wolfpack



# STRETCHING PRINCIPLES AND GUIDELINES

BY: Chad Tackett, Cert. Personal Trainer

Flexibility is one of the key components of a balanced fitness program. Without flexibility training (stretching), you are missing an important part of overall health. Flexibility prevents injury, increases your range of motion, promotes relaxation, improves performance and posture, reduces stress and keeps your body feeling loose and agile. Although there is still some controversy over which flexibility exercises are the best and how often one should stretch. Most fitness professionals agree that the principles and guidelines of flexibility training that are about to be discussed are the safest and most effective.

## Use Static Stretching

Static stretching involves a slow, gradual and controlled elongation of the muscle though the full range of motion and held for 15-30 seconds in the furthest comfortable position (without pain). This is the first and most impor-

tant stretching principle. In our opinion, all stretches for each muscle group should be done by using this static form of stretching.

How often you should stretch is still not fully understood. Most professionals would agree however, that daily stretching is best, during and after exercise sessions. Frequent stretching will help you avoid muscular imbalances, knots, tightness, and muscle soreness created by daily activities and exercise.

## Always Warm-Up Before Stretching

A warm muscle is much more easily stretched than a cold muscle. Never stretch a cold muscle, always warm-up first to get blood circulating throughout the body and into the muscles. A warm-up should be a slow, rhythmic exercise of larger muscle groups done before an activity. Riding a bicycle or walking works well. This provides the body with a period

of adjustment between rest and the activity. The warm-up should last about 5-10 minutes and should be similar to the activity that you are about to do, but at a much lower intensity. Once you have warmed up at a low intensity for about 5-10 minutes and have gotten your muscles warm, you can now stretch.

## Stretch Before and After Exercise

I recommend stretching both before and after exercise, each for different reasons. Stretching before an activity (after the warm-up) improves dynamic flexibility and reduces the chance of injury. Stretching after exercise ensures muscle relaxation, facilitating normal resting length, circulation to joint and tissue structures, and removal of unwanted waste products, thus reducing muscle soreness and stiffness. Body temperature is highest right after the cardiovascular exercise pro-

**"Stretch your feet according to your blanket."**

**-Turkish Proverb**



(Cont. on Page 3)

## Crews in Action



## IAPS Data from August 2011

Reportable Injuries: 7  
Record Only Injuries: 3

### Injury by Activity:

|                 |   |
|-----------------|---|
| PT              | 3 |
| Incident        | 6 |
| Training        | 1 |
| Station Duties: | 0 |

### Injury by Body Part:

|             |   |
|-------------|---|
| Head        | 0 |
| Torso       | 3 |
| Extremities | 4 |
| Exposure    | 3 |



## FIREFIT Program

### FireFit Program (Part 3)

Fire -Season Fitness Module: (24 weeks total during fire season)

**Objective:** Provides continuous training during fire season to sustain the fitness levels established during the pre-season module. Fitness levels should be optimal at this point in order to maximize job performance, provide fatigue countermeasures, and provide injury prevention and mitigation. This module will focus on continued cardiovascular training to utilize aerobic and anaerobic capacity, maintain muscle strength and endurance, and emphasize continued flexibility training. Due to the nature of fire season, it is important for crews to consider improvisation methods when out on incidents in order to maintain their fitness levels. Other items of importance during this module include:

- Crew cohesion/team building fitness methods
- Fitness Assessments
- Cross Training
- Muscle Balance
- Adjust for fatigue (fatigue countermeasures)
- Improvisation for field environment

- Minimize overuse injuries
- Promotion of continued wellness (nutrition, hydrations, stress relief, sleep)

Mental Fitness/Preparation continues to be a key component during this phase. Being FireFit requires a commitment to adhering to fitness which enhances both health and safety of teams and individuals. Team building exercises/activities should also be incorporated as part of the program.

Each exercise component will be broken down using the **F.I.T.** Principal.

*F* = frequency

*I* = intensity

*T* = time.

**Cardiovascular:** during the course of the module, cardiovascular capacity will be maintained through the continued use of both moderate and vigorous intensity conditioning (cross training) to minimize injuries and avoid boredom. Cardiovascular training should be done 5-6 days a week (*frequency*) with a duration of 45-60 minutes of activity (*time*) at an intensity of 80%-90% (*intensity*) of the established Tar-

get Heart Rate (THR).

Cross-training is encouraged in order to mitigate overuse injuries and boredom and support muscle balance. Anaerobic activities should include work specific activities such as pack hiking and activities that promote team building and crew cohesion. A minimum of 1 day of rest is still recommended.

**Muscle Strength:** Muscle strength and endurance should already be established at this point and exercises continued to maintain those levels. It will be important to minimize the muscle strength exercises as not to add added bulk and weight. Once an individual has obtained the muscle strength needed to accomplish work related tasks, training should focus on muscle endurance and include calisthenics. Muscle endurance will be important especially for digging handline and other activities requiring long duration. When implementing muscle strength exercises, they should be done a minimum of 3



(Cont. on Pg. 6)

#### CamelBak (cont from Pg 1)

- Wash the reservoir with hot water and mild soap (i.e. Dish soap) If available use the **CamelBak** brushes to scrub the reservoir and tube.
- Be sure to completely rinse away the cleaning solution before using again.

Once the reservoir is clean, be sure to let it air dry so that no moisture is trapped inside, which can cause mold to grow.

Note from **CamelBak** – if you do get mold growth, clean as recommended but if you still have spots left from the mold, they may never come all the way out, because the reservoir is permanently stained, but is still safe and usable.



#### Stretching (cont from Pg 2)

gram and/or after strength training. In order to achieve maximum results in range of motion and to receive other benefits, it is highly recommended that you do static stretching at this point in your workout, just after your cardiovascular program and during or after your strength-training program.

#### Stretch Between Weightlifting Sets

Both strength training and flexibility training are so important for everyone. Those of you who have a hard time finding time to incorporate a strength training program into your lifestyle, can combine your stretching with your strength training programs. If you have had any experience in strength training, you know that for each exercise for each muscle group you train, you have a certain number of sets, usually between one and four. Be-

Cont on Pg 4



**Not the Cal-OSHA approved way of obtaining a shade structure for employees working in the sun.**

## Stretching (cont from Pg 2)

tween each set, you need to rest and let your muscle recover before going on to the next set. Well, what better use of your resting time than to stretch that specific muscle that you're currently training? Think about it, you've just done a set of 10 reps on the Bench Press. Now you have to rest, usually about one to two minutes before doing the next set. This is a great time to stretch your chest-- your chest is warm and you have time before you start your next set.

How often do you see people who neglect to warm up before their cardiovascular exercise or strength-training sessions? They begin going through their stretching routine before their muscles are even warm. It makes more sense to stretch each specific muscle between sets of strength training exercises. For example, if you are on a strength-training program where you do one exercise of three sets of 10 reps for each major muscle group in the body, you will want to work each muscle group one at a time starting with larger muscle groups and proceeding to smaller groups. Do your first set with relatively light weight to warm-up, then rest for a minute or so and then increase the weight and go onto the next set of 10 reps (or whatever your goal reps happens to be).

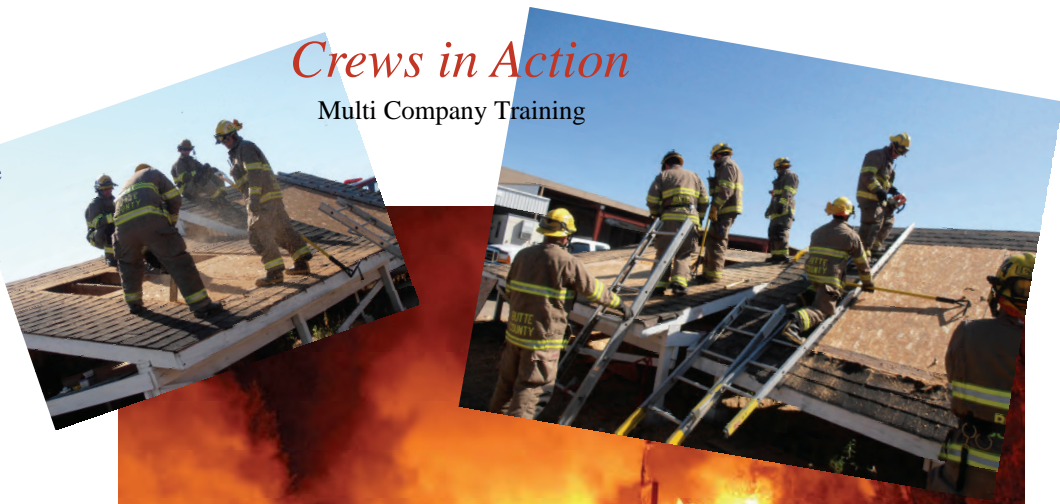
After the second set, your muscles should be warm and ready to be stretched. While resting before your third set, stretch the muscle that you have just trained, remembering the important principles of a static stretch, then proceed to your third and final set. Stretch the muscle one more time, even a little further. Go on to the next exercise for the next muscle group and after it is warm, do your stretch for that muscle, and so on. When you have gone through each of your strength-training exercises, you will have stretched each muscle without taking-up any more time.

### Stretch Before and After Cardiovascular Exercise

If it is your day off from strength training and you are just doing your cardiovascular exercise routine, first warm-up for 5-10 minutes at a low intensity (50-60 percent of your maximum heart rate ) and stretch the muscles used. Proceed doing a cardiovascular exercise for at least 20 minutes at a intensity of 50-85 percent of your maximum heart rate (refer to the Global Health and Fitness Cardiovascular Exercise Program). Then cool down for 5-10 minutes at a low intensity (50-60 percent of your maximum heart rate). Now, because your muscles are very warm you should stretch each of the major muscle groups involved

## Crews in Action

Multi Company Training



DeSabra Market Fire



in the exercise, using the static stretching techniques we explained previously. For example, if you walked on the treadmill, you should stretch your quadriceps, hamstrings, calves, and lower back. Proper technique for each stretch is absolutely critical for achieving maximum effectiveness in any one specific muscle group. In addition to stretching those muscles used in the exercise, now is also a good time to go through a full body stretching routine--since blood has circulated throughout your body and warmed-up your muscles.

I hope you have found the information in this article helpful. You now have the knowledge to achieve the results you desire and the benefits your body deserves. Your greatest

challenge, however, is not learning new stretching exercises or the proper technique; it's not learning how long to hold the stretch or the best time to stretch. Nor is it deciding when to try new stretching exercises. The greatest challenge facing you at this moment is deciding whether you are willing to take action and make time for yourself and make flexibility training a priority.

When you begin achieving great results, the excitement and fun you experience will make the change well worth the effort. Action creates motivation! Good luck: I hope you enjoy all the wonderful benefits of an effective flexibility training program.



## Grilled Hawaiian Beef Kebobs, Serves 6

Get a taste of the Aloha spirit with these meaty kebobs.

### Ingredients:

- 1 1/2 lb Certified Angus Beef® ball-tip, tri-tip or round-tip roast, cut into 1 1/4 inch cubes
- 1 medium fresh pineapple, cut into 1 1/4 inch cubes, or 1 (20 oz.) can pineapple spears, drained
- 2 large red bell peppers, cut into 1 1/4 inch pieces
- 1 (12 oz.) can frozen orange juice concentrate, thawed
- 1/2 cup soy sauce, low-sodium
- 1/2 cup light molasses or sorghum
- 2 tsp ground ginger
- 3 cups cooked wild rice

**Directions:** Alternate beef, pineapple, and red pepper on six skewers. Place kebobs in a large shallow glass baking dish.

Combine orange juice concentrate, soy sauce, molasses, and ginger. Pour over beef and marinate for 25 to 30 minutes.

Remove kebobs from marinade and grill 4 to 5 inches away from moderately hot coals (or broil) for 4 to 8 minutes (depending on heat) for medium-rare, turning frequently. Brush with marinade during grilling process.

Serve over wild rice.

### Tips:

RICE COOKING GUIDE, YIELDS 8 SERVINGS (1 QT.) COOKED:  
Medium or short grain white: 1-1/2 cups (10 oz) rice to 2 cups liquid  
Long grain white: 1-1/3 cups (9 oz) rice

to 2-1/3 cups liquid  
Brown: 1-1/4 cups (8 oz) rice to 2-1/2 cups liquid

### TIPS FOR PERFECT RICE

- Carefully measure the amounts of rice and liquid.
- Keep the lid on tightly during cooking to prevent steam from escaping.
- At the end of cooking, remove the lid and test for doneness. If rice is not quite tender and no water remains, add a little water and cook 2 to 4 minutes longer. If rice is fully cooked and liquid remains, drain excess liquid. Place back on low heat for about a minute.
- Be accurate with cooking time. Base time on cooking method.

Important: Using too much liquid and overcooking are two common mistakes. California rice tastes best when the grains have a little bounce. The goal is clingy and sticky, not mushy!

Recipe courtesy of:



www.calorieking.com

### Nutritional Info

|                     |            |
|---------------------|------------|
| <b>Calories</b>     | <b>347</b> |
| <b>Kilojoules</b>   | 1,453      |
| <b>Fat</b>          | 7.0 g      |
| <b>Sat Fat</b>      | 2.0 g      |
| <b>Cholesterol</b>  | 69 mg      |
| <b>Sodium</b>       | 480 mg     |
| <b>Carbs</b>        | 51.0 g     |
| <b>Fiber</b>        | 3.0 g      |
| <b>Total Sugars</b> | 31.0 g     |
| <b>Protein</b>      | 20.0 g     |
| <b>Calcium</b>      | 57 mg      |

## P.T. Hike Competition

The results are in and it was good times going out and hiking with companies from throughout the unit. In the end I ended up having to add one more category to my rating scheme because it became apparent that there were two major types of hikes; short but steep hikes, and long endurance hikes and there had to be a way to bring them onto a somewhat even scoring criteria. So I came up with a 4th category of average % of grade for the hike. So the top 5 hikes for the unit are as follows:

| Rank | Station | Hike                 | Distance | Elevation Gain | Average % Grade | Difficulty |
|------|---------|----------------------|----------|----------------|-----------------|------------|
| 1    | 11      | Cherry Hill          | 0.51     | 742            | 28              | 8          |
| 2    | 33/35   | Miocene Gate (Trail) | 0.62     | 740            | 23              | 8          |
| 3    | 33/35   | Miocene Gate (Road)  | 1.84     | 740            | 8               | 7          |
| 4    | 51      | 7 Falls Trail        | 0.7      | 693            | 19              | 8          |
| 5    | 54      | Sunset Lookout       | 2.03     | 713            | 7               | 5          |

I would have to say that I prefer Miocene Gate the most because of its versatility. Early in the season you can hike the road to build yourself up to the trail. Cherry hill though has a double whammy because not only does the elevation climb get you but by the time you get to the top, your at over 5600 ft elevation and that is a change from hiking at the 2-3000 foot range. Thanks to all those that participated!

### Recent SAFETY topics sent out to the Unit

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

- TGST, August 25th, 2011, Employee Assistance Program (EAP)
- CAL FIRE Green Sheet, August 19th, 2011, CAMEU005340
- TGST, August 11th, 2011, Driving Safety
- CAL FIRE Blue Sheet, August 10th, 2011, CANEU017787
- USFS Safety Alert, August 3rd, 2011, One Pot Meth Production

### **FireFit** (Cont. from Pg. 2)

days a week (*frequency*) and in combination with muscle endurance exercises. Each exercise should be done with 8-12 repetitions using 70-90% of maximum weight (*intensity*) for 2-3 sets (*time*) with a 1-2 minute rest interval between sets. **Be sure to allow for 48 hours between strength workouts to allow for recuperation of muscles.**

**Muscle Endurance:** Muscle endurance will continue to be important during fire season and more easily maintained, especially in a field environment. Muscle endurance exercises should still be done 3-4 days a week (*frequency*) and can be combined with muscle strength exercises, completing 12-20 reps using 50-70% of maximum weight (*intensity*) for 2-3 sets (*time*) with 1 minute intervals between sets. Circuit training and calisthenics can also be considered for this phase.

During the Fire-season phase, activities such as calisthenics (push ups, chin ups, tricep dips) are highly recommended along

with the muscle strength and muscle endurance exercises as long as caution is taken as not to 'overuse' the muscle groups and still allow for adequate recovery time. **Be sure to allow for 48 hours between strength workouts to allow for recuperation of muscles.**

**Flexibility:** Stretching will always be one of the most important components of any exercise program. Flexibility includes a good pre-exercise warm up and post exercise stretching regime and cool down. An appropriate warm up should consist of a slow activity such as jogging to warm up the muscles and large, limbering stretches to further prepare the muscles for activity. After the workout is complete, the body should slow and cool down allowing the heart rate to recover and end with slow, static stretches of each muscle group used during exercise. Each stretch should be held for 20-30 seconds using good breathing techniques and no bouncing. (See Stretching article on Pg. 2).

**Rest:** The body needs 1-2 days of rest dur-

ing the Fire-Season Module with light or no activity to be done other than something fun and enjoyable. This will allow the muscles to recuperate and help mitigate overuse injuries.

*(Stay tuned for next month's Part 4)*



# **FIREFIT**

### **9/11** (cont from Pg 1)

Memorial Day and I encourage all to participate (even if it seems like a very overwhelming workout) because it is a good way to take time out of our day and remember what Memorial Day is truly all about and the funds raised went to some great causes.

We all have seen the changes that resulted after 9/11, everything from travel to the way most of us stay informed on world events, much more than we did before. One thing that hasn't changed, is our ability to forget things; such as why we were attacked and the fact that it can happen again.

Americans as a whole have short term memory loss and unless things are in the news every night they get forgotten about. I urge all of you to remember not only what happened on 9/11 but also all of the men and women of our nation that continue to put themselves in harms way. And not only those that are deployed, but also the family members of those deployed who are trying to carry on normal lives in the absence of their loved ones. This months calendar of events has a couple of great functions that are

coming up such as the Ignite the Fight 5K, which our own Kevin Fleming's wife, Kim, is helping to coordinate and the proceeds go to the Firefighter Cancer Support Network. Also coming up is the Fall Strength Challenge at Level 10 CrossFit in Oroville, with the proceeds from that event going to Co. 64 member Shawn Hayse's wife, Amy, to help cover some of the medical bills from her recent medical issues.

One good thing that can come from 9/11 is a resurgence of our sense of community and not only the desire, but the actual drive to seek out those that are in need and to try to find ways to help in any way we can. For each of us that means something a little different and I encourage all to take a look at their own lives and how they can help others in any way at all. If we do that little deed then the last decade of tragic events will not have been for nothing.



### *Copter 205 on the Wood Fire*



**For Suggestions or Comments:**  
CAL FIRE / Butte County FD  
Training and Safety Bureau  
176 Nelson Ave

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