

2007 Wellness & Fitness Report

Phoenix Health, Fitness and Safety Symposium June 25th – 28th, 2007

Members Lt. Robertson, FF Briner, FF Peterson, FF Bahr, FF Wuebel

Tuesday

Medical Fitness for Duty

Dr. Cedric Bryant

Chief Science Officer- ACE

Fit for duty... There are impacts on muscular strength and flexibility when in full gear. 55% of on duty disabilities are cardiovascular related. A major contributor is ff's with diabetes and high BP. Be aware of the meds reaction to on the job blood pressure and hydration control. Cardio Metabolic Disease is caused by inactivity, high fat and sugar intake, and stress; this leads to insulin receptor dysfunction and insulin resistance.

Metabolic Syndrome is defined as 3 of the 5 following- Low HDL, triglycerides 150+, waist at belly button 34.5+, BP greater than 130/85, and fasting glucose above 100. To fight off Metabolic Syndrome eat 50% of food from low glycemic carbs, 15-20% lean meats, 30-35% mono and polyunsaturated fats. Eat ample amounts of fiber. Exercise 5-7 days, at 40-60% intensity for 20-60 minutes. * be cautions on ace inhibitors and satin drugs and their affect on the exercising body. *Also be aware of the affects of beta-blockers and diuretics on the exercising body.

Sleep Disorders

Dr. Steven Marks

It is best to have individual rooms with good sound and temperature control to promote a good night's sleep. 7-9 hours of sleep is important to help the body combat disease and recover from the previous day's insults. Short mid-day naps are good for promoting alertness and increases energy to those who had lack sleep from the previous night. Sleep apnea affects 25 to 30% of males over the age of 40. If you feel tired all the time and your sleeping partner says you are a noisy and irregular breather you may have sleep apnea.

Kettlebell Training

Bob Ross and Tom Corrigan

Awkward shape and one arm movements promote balance, coordination, flexibility and strength. There are many exercises one can perform with one or two Kettlebells. Kettlebells have been shown to promote back and shoulder strength and health.

Injury Prevention

Jo Ellen Caldwell and Bob Finn

Functional Movement Screen. Age, injury and mechanics are contributing factors to dysfunction. Focus on preventing injury. Phoenix has 20 exercises. Knowledge of body function and dysfunction will prevent injuries.

Cardiovascular Fitness

Matt Byers

It's good to have a good aerobic base if you are in the fire service. Training in the aerobic range will increase you aerobic capacity.

Performance Suppliments
Joe Marsit

Safety-RIT

Steve Kreis

Assistant Chief Phoenix

After RIT training 200 times in a grocery store with 7,500 sq. ft. the quote was established “don’t get off the line or you are probably going to die” The average time to make the rescue was 22 minutes. The average time to find the ff was 8:28. We are talking about a space of 75’ by 100’. If you can’t reach the fire or search area because it’s more than 150 feet you are attacking it from the wrong opening.

Open burning fire will collapse a roof in 16-18 minutes. It takes 12 ff to rescue 1. Of those 12 statistics say 2 will themselves call a mayday. There is a huge difference between Residential and commercial. You can fit 64 average size houses in an average size commercial warehouse; think about the size of your attack line. Sometimes the best way to control safety is to put the fire out.

Wednesday

Nutrition

Melissa Spooner

½ body weight in oz of water per day if you are at rest. Add 20+ ounces per 60 minutes of exercise. Eat whole foods. If you can see where it came from you can eat it. Processed foods have lots of salt, sugar and fat. Food life is about 5 days. If it’s been in the fridge for more than 5 days throw it out. www.endurnacehealthandfitness.com Hemp is the new flax oil, same good qualities and it tastes better. You do not get addicted and you won’t show positive in a drug test.

Firefighter physical fitness

Dr. Cedric Bryant

ACE

High intensity vs. low intensity

Calorie deficiency equals weight loss

High intensity you burn more calories in less time. The increase in work out intensity increases the calories burned after exercise from 10 to 15 calories per hour. Daily calories-67% is your resting metabolic rate, 23% is from the thermal effect of exercise, and 10% is from the thermal affect of food.

Exercise Science

Ian Crosby

Annual firefighter testing changing

Functional Strength

Andy Arredondo

Safety- hazard zone ops

Todd Harms

Heart and Lund Disease

Dr. Gerkin

The CO monitor is not a good measure for removing the SCBA. Smoke is very complex. There are many harmful chemicals that we can not monitor their levels. Cartridge respirators are not the answer, in a phoenix study all five markers changed in a negative direction. Firefighters that do not wear SCBA’s during fire suppression, overhaul, and

investigation are the guinea pigs; we will find out in 15-20 years what cancers they were exposing themselves to.

Occupational Cancer

Dr. Burgess

Firefighters have an increase risk to many cancers.

Testes 2.02, multiple myeloma 1.53, non-hodgkins 1.51, skin 1.39, brain 1.32, rectum 1.29, prostate 1.28 and so on. Benzene is present during fire growth and overhaul and is a known carcinogen. Benzene contributes to Multi-myeloma and non-Hodgkins. Particulate matter that is invisible during the overhaul phase will damage your lungs. Some of the carcinogens that ff's are exposed to are PAHs, Aldehydes, benzene, sulfuric acid, and metals. Diesel exhaust is a known to cause respiratory problems and is a carcinogen. If you have an inflammation response you increase your risk for cancer.

Seattle Fire has a policy that all ff's will wear full SCBA from start of fire attack to the end of overhaul if they are in the hot zone.

Work injury/illness management

Dr. Fleming

1.2 million Firefighters, 25% are career-75% volunteer, 81,000 injuries in 2002, 54% call related, 25% training related, 73 of 1,000 ff get injured. 50% or annual deaths are cardiac arrest-typical age range is 40-80 years old. 4% are asphyxiation.

Phoenix Fire- 35-40% injuries are back, 20% knee, 20% shoulder, 2% burns- ears and wrists. Contributing factors are clothing is restrictive and there is no warm-up.

Fireground Health

Dr. Fleming

Phoenix fire currently has 80 members on light-duty. Most light-duty is for less than 3 weeks. Average number of members on light-duty is 50. In the last 5 years Phoenix had 9 members on long term disability of greater than 6 months. 99% injuries return to full duty. With the Phoenix health center model many ff start rehab the day of the injury and get their MRI within a few days. The rehab center has to clear all ff's that miss more than 10 shifts. Phoenix sends a dr. on all level 2 fires and they are assigned to rehab.

Peter Briner

June 28, 2007