

Friday, August 20: Strength for Life – Nutrition & P

Practicing good fitness and nutrition are key factors in achieving a healthy heart, body, and mind. These two components of a healthy lifestyle go hand-in-hand, lessening your risk of high cholesterol, high blood pressure, heart disease, and diabetes; helping you to maintain your strength and energy so you can perform your duties as a first responder; and keeping you mentally prepared for the challenges you face. During National Firefighter Health Week, start building strong lifestyle habits that include healthy eating and fitness. Keep the momentum going all year long so that you remain strong for your own sake as well as for your family, department, and community. Make the commitment to take care of yourself and practice healthy behaviors for life.

NUTRITION AND FITNESS TOOLBOX

Health and Wellness Advocate Workshop: This free two-day workshop mixes classroom components with hands-on learning to equip participants with the tools and knowledge they need to succeed as a health and wellness advocate for their department. For a schedule of upcoming workshops nationwide, visit www.healthy-firefighter.org/workshops.

Fired Up For Fitness Challenge: This interactive fitness program allows firefighters and emergency personnel to log their hours of activity and receive rewards as they reach certain benchmark goals. Use this tool to challenge yourself and your department members. Sign up at www.healthy-firefighter.org/atp.

Heart-Healthy Firefighter Cookbook: The National Volunteer Fire Council's *Heart-Healthy Firefighter Cookbook* features over 60 recipes that prove eating healthy can taste great. The Cookbook is available on Amazon.com.

THE CHALLENGE IS ON: FITNESS AND NUTRITION VS. HEART DISEASE

By Michelle Detwiler

Beep. Beep. Beep. Your heart begins to race and the first thought that comes to mind is, "This better be a good one." This thought happens every time your pager goes off and you heroically answer the call. However, this beep is coming from the treadmill that has just started under your feet, your heart is racing from the anticipation of the exercise in your immediate future, and the only burn happening right now is the calories needed to get you through this workout.

Why the stress response to exercise? Because we are not getting enough of it! Forty-seven percent of firefighters die annually from heart attacks within the 24 hour call period. Is this statistic preventable? Yes! The simplest tools to maintain heart health are regular exercise and healthier nutrition. But is it really that simple?

The usual questions come to mind: how much, how often, and

what type exercise? The American College of Sports Medicine states that a minimum of 150 minutes a week of exercise is needed to maintain a baseline for health behaviors. That means that five days per week you should challenge yourself to exercise for at least 30 minutes, minimally performing three days of cardiovascular exercise and two days of strength training.

As a firefighter your body will demand close to maximal capacity from your cardiovascular and muscular systems. Your muscles will need oxygen at a higher demand and it is up to your cardiovascular system to deliver. How can you train these systems efficiently? Functional training.

Functional training emphasizes the training principles of specificity and overload. Exercise specificity means the body's systems are being trained using exercises that mimic the exact actions the systems perform in the line of duty. Overload addresses the need to tax the systems (cardiorespiratory or muscular) beyond what they are accustomed to, therefore overloading the system.

Performing exercises that target balance, isolateral (one-sided) movements, isometric strength (held contractions), and core stability all increase functional capacity for performance. Exercise examples include:

Exercise	Functional Application Example
Stair Climbing (Step-ups)	Standing, balance, reaction time, isometric strength
Hurdle Step (Step-overs)	Stepping over an obstacle during rescue
Shoulder Mobility	Putting on SCBA, ladder raise
Lunges and Squats	Forcible entry
Stability Push-ups	Reaching through or around obstruction during fire/rescue

A lack of physical activity and exercise in addition to poor nutritional habits often hold us back from achieving optimal heart-health. The four main factors to consider in maintaining heart-health is limiting fat and cholesterol, limiting sodium, increasing fiber, and lowering caloric intake for weight loss.

Fat intake should not exceed 30 percent of the total daily caloric intake, and cholesterol should not exceed 300mg per day, which is about the amount found in a 5oz. steak and 1 cup of ice cream. All animal products and byproducts have fat and cholesterol. Some sources such as poultry and fish are much lower than beef and pork, and lower-fat options such as one-percent and skim milk help cut the fat and cholesterol as well.

Sodium is found in most processed foods, and we add salt to taste on freshly cooked items. The recommended daily allowance of salt is 2300 mg, which is about a teaspoon. Cutting back on canned items, sodas, and the salt shaker can help lower blood pressure and reduce the risk of heart disease.

The recommended daily allowance of fiber is 30 grams per day based on a 2,000 calorie/day diet. Fiber is the non-digestible part of the plant and is found in whole grains, fruits and vegetables, and beans. Increased fiber in the diet helps to increase motility in the digestive system. This increase in motility inhibits the absorption of fats and cholesterol in the gut, therefore assisting in the body in lowering its cholesterol levels.

The average caloric intake is 2000 calories/day, and this is the standard that the FDA uses when referencing servings on food labels. Keeping your caloric intake (food consumed) less than your caloric output (total calories expended) will aid in weight loss. Weight loss can be achieved through healthier food choices containing fewer calories but more nutrients; for example, having fresh fruit as a snack instead of chips. Achieving and maintaining a healthy weight will help lower blood pressure and cholesterol, therefore also lowering the risk of heart disease. Please seek the advice of a registered dietitian or physician prior to extreme nutritional changes or caloric cuts.

Currently, Michelle is the health promotion coordinator for the U.S. HQ INSCOM soldiers and civilians wellness program in Alexandria, VA and presents the NVFC Health and Wellness Advocate workshop. Michelle maintains several professional certifications including: ACE Personal Trainer, Lifestyle Weight Management Consultant; American Academy of Health and Fitness Senior Fitness; and American Heart Association's CPR/AED, Advanced First Aid & Safety, and Advanced Cardiac life Support (ACLS).



RECIPE: Cocoa-Spiced Beef Tenderloin With Pineapple Salsa **Courtesy of the National Heart Lung, and Blood Institute**

Latin American flavors come alive in this festive beef dish with fruity salsa. Find more recipes at <http://hp2010.nhlbihin.net/healthyeating>.

Ingredients:

- 1/2 Tbsp vegetable oil
- 1 beef tenderloin roast (16 oz.)

For Salsa:

- 1/2 cup canned diced pineapple, in fruit juice, chopped into small pieces
- 1/4 cup red onion, minced
- 2 tsp fresh cilantro, rinsed, dried, and chopped (or substitute 1/4 tsp dried coriander)
- 1 Tbsp lemon juice

For Seasoning:

- 1 tsp ground black pepper
- 1 tsp ground coriander
- 1 Tbsp ground cinnamon
- 1/4 tsp ground allspice
- 1 Tbsp cocoa powder (unsweetened)
- 2 tsp chili powder
- 1/4 tsp salt

Cooking Instructions:

1. Preheat oven to 375°F.
2. For the salsa, combine all ingredients and toss well. Let sit for 10-15 minutes to marinate while preparing the seasoning and cooking the meat.
3. For the beef tenderloin seasoning, combine all ingredients. Lightly oil the tenderloin and spread an even layer of the dry seasoning over the entire roast.
4. Place the seasoned roast on a roasting or broiling pan and roast 10-15 minutes (to a minimum internal temperature of 145°F). Let cool for 5 minutes before carving into 16 slices (1 oz. each).
5. Serve four slices of the tenderloin with 1/4 cup salsa on the side.



PREP TIME: 20 minutes

COOK TIME: 20 minutes

NUMBER OF SERVINGS: 4 (Serving size: 4 oz. tenderloin roast with 1/4 cup salsa)

NUTRITIONAL INFORMATION:

215 calories | 9g fat | 3g saturated fat | 67mg cholesterol | 226mg sodium | 2g fiber
25g protein | 9g carbohydrates | 451mg potassium