



# What's New from APFRI

National Recovery Month, Training tips for runners, Protect yourself from the sun, Great new brownie recipe, "My Plate" replaces "My Pyramid" and more ...



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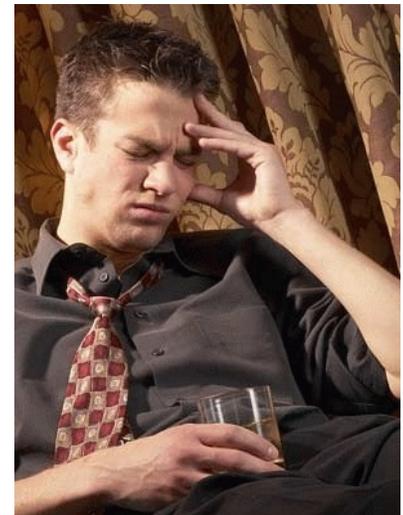
August/September 2011

## Recovery 10 Years After 9/11

Army Physical Fitness Research Institute - August/September Newsletter 2011

September 2011 marks 10 years of war and strain on the US Military. Coincidentally, September is also National Recovery Month. The convergence of these two significant dates provides an opportunity to examine one of the ways the strain of the past 10 years has impacted the force, an upswing in substance abuse and dependence.

The 2010 Health Promotion, Risk Reduction, Suicide Prevention report noted that in the year before its release the Army saw 16,997 alcohol and drug related criminal offenses, a number that does not include disciplinary infractions handled through AR 15-6 investigations. This suggests the number of incidents, and thus the scope of the problem, is actually much larger. A further cautionary note is that 58,687 soldiers tested positive for an illegal substance between FY 2001 to FY 2009, and 38% of those had been tested positively more than once.



These statistics apply to soldiers, but the National Institute of Health (NIH) reports one out of six Americans has a drinking problem, too. Given these numbers, it seems probable that many Service Members and Family Members will encounter someone who is struggling with substance abuse or dependence. Those who abuse substances may not be dependent, but they use alcohol and/or drugs in a way that creates problems. Those who suffer from dependence find it difficult to function without alcohol and/or drugs.

What are some principles to follow if you know somebody who is struggling with alcohol or drug abuse? First, it is important to recognize the signs and to be observant of others. Typically someone struggling with abuse or dependence won't recognize they have a problem until something goes terribly wrong. APFRI recommends a maximum of one alcoholic beverage per day for women and no more than two per day for men. You will likely recognize the warning signs before they do. According to the NIH, signs to watch for include:

- drinking alone
- drinking that negatively impacts on health or other parts of a person's life
- becoming angry when confronted about drinking or being unable to stop
- becoming violent when drinking
- making excuses to drink
- trying to hide drinking

If you are a leader and one of your subordinates is showing one of these signs or regularly drinking more than these amounts, the easy choice would be to ignore it or hope the situation will resolve on its own. Unfortunately this is the choice most likely to result in your

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## Recovery 10 years after 9/11 Cont.

Soldier becoming one of the statistics listed above. The correct action is to refer that Soldier to the Army Substance Abuse Program (ASAP) for evaluation. Be sure to explain why you think alcohol is causing a problem, and emphasize that your motivation is to help that Soldier maximize their effectiveness at home and as a valued member of your team. It is better to intervene early before you are confronted with a disciplinary problem, than to wait.

What if the struggling person isn't a Soldier that you lead, but a friend, colleague, or family member? The first step is the same. Show you are concerned and explain why. According to the NIH, people are more likely to seek treatment if you convey that you care and explain how alcohol is preventing them from obtaining important goals. Try to align yourself with the person who is struggling.

Once someone has decided that they want to address the way they drink or use substances, where can they turn? Besides ASAP, many have benefited from Alcoholics Anonymous. For those looking for more options, a good resource listing a wide variety of options can be found at [www.samhsa.gov/treatment](http://www.samhsa.gov/treatment).

September 2011 offers an opportunity to reflect on this great nation's experiences during the past 10 years and the impact on our military members and their families. However, it offers more than just an opportunity to look back. It also offers an opportunity to look to the future, and consider whether alcohol and/or other substances are keeping us from reaching our personal and professional goals. If they are, National Recovery Month is a perfect time to make a positive change.

## Training Tips to Improve the Run

### TIP#1

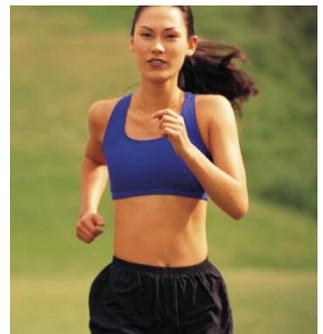
Not seeing improvements in your run time? Very often, athletes and runners develop a habit and don't always change their program appropriately to see improvements. Instead of running the same route, duration, or intensity, try performing a specific run every 1-2 weeks that is longer or shorter than you normally run, or the opposite intensity than what you normally run (easy vs. hard, steady state vs. intervals). Try finding a trail to run, challenging terrain such as hills, or making a weekly interval run a "recovery" run for a couple weeks.

### TIP#2

How much oxygen your body can use maximally (**VO<sub>2</sub>Max**) during exercise is a good predictor of fitness and overall health risk. However, VO<sub>2</sub>max is only one factor of run performance. Athletes should additionally develop **running economy** (how well the body uses oxygen at a given speed) and **submaximal efforts** of sustained performance (the greatest speed at a given distance). Together these three factors will fully develop athletes for running performance. Try adding in a sustained run of 85% VO<sub>2</sub>Max, shorter repetitions of 20-30 seconds with 10-15 seconds of recovery, or 4-minute intervals of higher-intensity with equal recovery, 1-3 times per week.

### TIP#3

The natural ability to run comes easily to most. Because of this, many will overlook run form as a way to improve. Try to increase your stride frequency (aim for 90 strides/minute/side), relaxing your upper body, and not overstriding, or "striding it out" to run faster. So stay consistent, train effectively, try new workouts, and relax— speed will soon follow!



# “My Plate” Replaces “My Pyramid”

The 2010 Dietary Guidelines for Americans is the most recent set of federal recommendations based on current evidence-based scientific research. The guidelines advise Americans how to eat for good health while decreasing the risk (or reality) of obesity and nutrition-related chronic diseases such as diabetes. The new MyPlate graphic representation of the Dietary Guidelines uses a much simpler plate approach to meal planning and food choices than the now passé Food Guide Pyramid. It is a more teachable graphic and so simple even school-age children can follow it. The impetus behind the change was a report released by the White House Childhood Obesity Task Force of May 2010. It recommended the federal government use simple messages that are easily put into practice to convey the information contained in the Dietary Guidelines.

The plate’s design is 4 colorful wedges, each representing a separate food group, with a blue circle off to the right side depicting a dairy food or calcium source. Half of the plate is comprised of the fruit and vegetable groups, one wedge stands for grains and the remaining wedge for protein foods. An example of a meal is provided below.

More detailed information is available at [www.choosemyplate.gov](http://www.choosemyplate.gov). The website offers personalized meal plans based on gender, age, height, weight, and activity level. One can track their food intake and compare it to the Dietary Guidelines and actual nutrient content of food choices. Activity can also be tracked.

In addition, seven recommendations supplement the basic plate information. They are:

## Balancing Calories:

- Enjoy your food, but eat less
- Avoid oversized portions

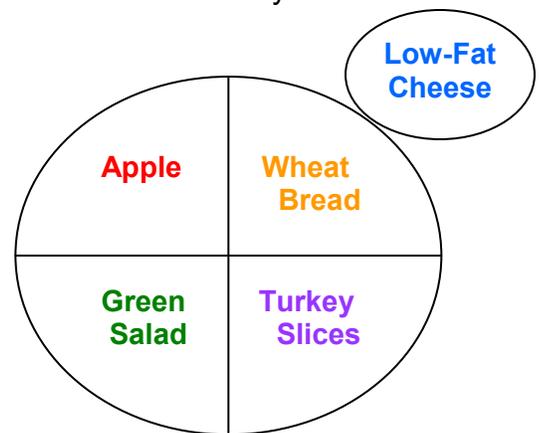
## Foods to Increase:

- Make half your plate fruits and vegetables
- Make at least half your grains whole grains
- Switch to fat-free or low-fat (1%) milk

## Foods to Reduce:

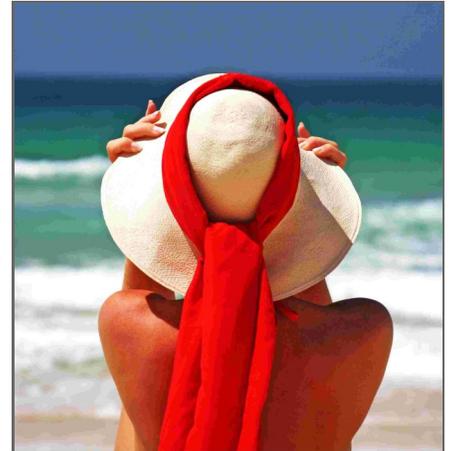
- Compare the sodium in foods like soup, bread and frozen meals– and choose the food with lower numbers
- Drink water instead of sugary drinks

Put MyPlate into practice at your next meal!



# Protect Yourself from the Sun

During the summer months, many people spend more time in the sunshine. We might have a summer gathering out in the backyard for fun without any regard for the intense heat that is blasting down on our faces and body. Summer sun can damage the skin, hair, and even the eyes. Researchers found that too much sun exposure leads to dry skin, early wrinkles, and even cancer. Enjoy the summer sun and fun, but use the following tips to stay safe in the sun and protect your health.



There are three types of invisible ultraviolet (UV) rays that the sun radiates to the earth. These include UVA, UVB and UVC rays. When these rays reach our skin, they can cause tanning, burning and other types of skin damage which can lead to skin cancer.

UVA rays cause the skin to age and wrinkle, and they can contribute to skin cancer. UVB rays are also very dangerous. They cause sunburns, cataracts in the eyes, and damage to the immune system which can also lead to skin cancer. UVC rays are the most dangerous rays from the sun. These rays are blocked by the ozone layer and do not reach earth.

UV rays react with melanin, a chemical found in your skin. Melanin is your first defense against the sun. It helps to absorb dangerous UV rays before they can do serious damage. Sunburn develops when the amount of UV exposure is greater than your melanin protection. The two main recommendations to prevent sunburn are to avoid sun exposure and cover up your skin. When adequate clothing and shade are not available, apply sunscreen with at least 15 to 30 SPF (Sun Protection Factor) to all exposed areas, such as your face, neck, and the back of your hands. Reapply sunscreen every two hours and after swimming or sweating.

There are many other ways to protect yourself. Stay in the shade whenever possible, and limit sun exposure during the peak intensity hours of 1000 to 1600. Wear a hat with a three-inch brim that shades your neck. Wear sunglasses that provide 97%-100% protection against both UVA and UVB rays. Dress in light-colored, lightweight long pants, long-sleeved shirts, and cotton clothing with a tight weave. Limit clothes to one layer of absorbent material to facilitate evaporation of sweat and replace sweat-saturated shirts with dry clothing. Too much sun exposure causes hair to dry out, so cover up your hair to avoid damage and drying out. Moisturize your hair and skin when not in the sun. Use extra caution near water and sand, since they reflect UV rays and may result in sunburn more quickly.

The intensity of activities that last 15 minutes or more should be reduced in extremely high heat. Before prolonged physical activity, you should be well-hydrated and should not feel thirsty. Drink every 20 minutes while exercising in the heat. For the first hour of exercise, water is fine but you should always have water and sports drinks available. After an hour of exercise, you may need to drink a carbohydrate-electrolyte beverage to replace electrolytes lost in sweat and to provide carbohydrates for energy. You should substantially increase your fluid intake in excessively hot weather, during prolonged strenuous exercise, and after copious sweating.

Outside activities played in the heat should be shortened and more frequent water/hydration breaks should be instituted. You should seek cooler environments if you feel excessively hot or fatigued.

Have fun this summer, but be sure to protect yourself from the sun's harmful rays by avoiding prolonged exposure to the sun when possible. Wear protective clothing, reapply sunscreen often, and rehydrate frequently when exposure to the sun is unavoidable.

# CGSC Staff Spotlight

## Kay L. Lehman, MS, LD, Registered Dietitian



Kay Lynn is a Registered Dietitian and the newest member of the APFRI staff. She graduated from James Madison University in Harrisonburg, VA with a Master's degree in Physical Activity and Nutrition in 2009. Prior to bringing her talents to APFRI, Kay Lynn worked as a Research Dietitian in the fields of weight management and human performance.

In addition to being an RD, Kay Lynn also holds a degree in Culinary Arts. Kay Lynn is a firm believer that *MOST* foods should be enjoyed in moderation (except for trans fats). She loves to cook and explore new foods, especially ethnic foods! Her advice to everyone is to try a new recipe at least once a week!

Kay Lynn enjoys riding and racing her mountain bike. Recently, she qualified to compete at Mountain Bike Nationals and took 2<sup>nd</sup> place in the 2011 Arkansas Marathon Mountain Bike Race Series. Her future goals are to ride and race her bike as much as possible! She and her

husband especially enjoy endurance mountain bike events, which consist of 6 or more hours on the bike! She resides in Lawrence, KS with her husband, Roger and beagle dog named Bailey.

**CGSC Women's Health Symposium, 29 September 2011**  
**Special Guest Speaker — Petra Kolber, Fitness Expert**

## Black Bean Brownies

These are flourless brownies made with pureed black beans. You won't believe it! You can substitute spices for the vanilla, i.e. 1 tsp Penzey's Apple Pie Spice. If the ingredients for this brownie recipe are carefully selected with low sodium canned beans, omega-3 rich eggs, canola oil, and non-alkalized unsweetened cocoa, then this treat can actually supply an impressive amount of nutrients and they taste marvelous too!

- 1 (15 1/2 ounce) can black beans (rinsed and drained)
- 3 eggs
- 3 tablespoons oil
- 4 tablespoons cocoa powder
- 1 pinch salt
- 1 teaspoon vanilla extract
- 3/4 cup sugar

### Cooking Instructions

1. Mix ingredients together in a blender/ food processor until pureed.
2. Pour into a 8x8 inch cake pan sprayed with oil.
3. Stir in some chocolate chips and nuts, or leave plain.
4. Bake in 350°F app. 30 minutes.
5. Let cool completely before cutting into 2 x 2 inch servings.

Servings: 16 pieces

**Nutrition Facts:** 100 calories, 3g Protein, 14g Carbohydrates, 1.5g Fiber, 11g Sugar, 3.5g Fat, and 53mg Sodium



## ***USASMA Staff Spotlight Mr. Manu Peeni, Health Fitness Specialist***



Manu Peeni has been with APFRI since the summer of 2008 when he made the switch from the collegiate athletic world to ours. He holds a Master's in exercise science with an emphasis in exercise physiology.

Prior to working with APFRI Mr. Peeni was a Rugby coach and worked as a strength and conditioning coach at Brigham Young University and the University of Texas at El Paso. During his prior affiliation with the two universities he had the opportunity to work with and coach professional and Olympic level athletes.

Manu is married to Bridget Peeni and they have three children together.

## ***Running Shoe Class "What You Need To Know!"***

***Monday, 22 Aug, 0800 - 0845 USASMA, East Auditorium***



# USAWC Important Dates

## Lectures

### *APFRI Health Day*

4 August 2011 @ 0800 - 1130  
Bliss Hall

### *Restorative Sleep: Retaking the Night*

29 August 2011 @ 1145 - 1245  
Wil Washcoe

### *Durable Athletic Performance and Military Physical Training*

31 August 2011 @ 1145 - 1245  
Wil Washcoe

### *Hypertension: The Silent Killer*

7 September 2011 @ 1145 - 1245  
Wil Washcoe

### *Essentials of Strength Training*

12 September 2011 @ 1145 - 1245  
Wil Washcoe

### *Cholesterol: The Good, Bad, & Ugly*

19 September 2011 @ 1145 - 1245  
Wil Washcoe

## Hands-On Fitness Classes

### *Teen-Parent Strength Training*

2 August 2011 @ 1600 - 1700  
Thorpe Hall Gym — Second Floor

### *Strength Training*

9, 18, 25, 30 August 2011 @ 1145 - 1245  
8Thorpe Hall Gym – Second Floor

### *Flexibility: Hands-On*

23 August 2011 @ 1145 - 1245  
Thorpe Hall Gym — Third Floor

## USAWC Staff Spotlight

### Chris Kusmiesz, Health Fitness Specialist



Chris Kusmiesz joined APFRI in July of 2005 and has thoroughly enjoyed his time working with and helping the students, faculty and staff at the War College, USASMA and CGSC. His favorite thing about his job is being able to teach students various ways to stay in shape and live healthier lives.

Chris has a Bachelor's Degree in Health Exercise Science from Rowan University and a Master's Degree in Clinical Exercise Physiology from East Stroudsburg University.

Prior to coming to APFRI, Chris spent four years working in cardiac and pulmonary rehabilitation in Cape May County, New Jersey. In his free time, Chris enjoys spending time with his family and renovating his home. He also enjoys watching football and baseball.

# Resources

## Recovery 10 Years After 9/11

<sup>1</sup> *National Recovery Month 2011 Homepage*, [www.Recoverymonth.gov](http://www.Recoverymonth.gov) (accessed July 27, 2011).

<sup>2</sup> Army Health Promotion, Risk Reduction, Suicide Prevention Report, 2010, pages ii, 51. “Alcoholism and Alcohol Abuse,” [www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov) (accessed July 27, 2011).

## Training Tips for Runners

<sup>1</sup> George A. Brooks, Thomas D. Fahey, and Kenneth M. Baldwin, “Exercise Physiology: Human Bioenergetics and Its Applications” (New York, NY: McGraw Hill, 2005), 495-497.

<sup>2</sup> Bill Foran, ed., *High-Performance Sports Conditioning* (Champaign, IL: Human Kinetics, 2001).

## “My Plate” Replaces “My Pyramid”

<sup>1</sup> USDA, Center for Nutrition Policy and Promotion, “Development of 2010 Dietary Guidelines for Americans Consumer Messages and New Food Icon,” Executive Summary of Formative Research, [www.choosemyplate.gov](http://www.choosemyplate.gov) (accessed June 28, 2011).

## Protect Yourself from the Sun

<sup>1</sup> “FDA Ruling on Sunscreen Helps Consumers Choose Sun Protection,” [http://news.yahoo.com/s/prweb/20110615/bs\\_prweb/prweb8574405](http://news.yahoo.com/s/prweb/20110615/bs_prweb/prweb8574405) (accessed July 20, 2011).

<sup>2</sup> *Prevention Home Page*, “Why High SPF Doesn’t Always Mean Better Protection,” <http://www.prevention.com/health/beauty/skin-care/spf-sun-protection-factor-tips/article/b30bd08f88803110VgnVCM20000012281eac> (accessed July 19, 2011).

<sup>3</sup> *MedicineNet.com Home Page*, “Sun Protection and Sunscreens,” [http://www.medicinenet.com/sun\\_protection\\_and\\_sunscreens/article.htm](http://www.medicinenet.com/sun_protection_and_sunscreens/article.htm) (accessed July 28, 2011).

# Contributors/Authors

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## Training Tips for Runners

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## Protect Yourself from the Sun

Troy Redford, APFRI USASMA, RN, BSN

## Black Bean Brownies

Kay Lynn Lehman, APFRI CGSC, MS, RD, LD