Chief’s Corner

Spring is finally here and along with it National Nutrition Month and National Sports and Physical Fitness Month. What a great way to get the winter cobwebs out by evaluating our health habits to include eating, sleeping, and exercise. Included in this quarter’s newsletter, we have some information on how to “Go Further with Food,” benefits of foam rolling, importance of exercise in decreasing mortality and improving health outcomes, and how to assess for and combat fatigue.

Let us know how we can help you Spring into Health!

LTC Lisa Konitzer

Chief, Physical Therapy and Fit To Win
Pentagon DiLorenzo TRICARE Health Clinic (DTHC)

Inside this issue:

- Foam Rolling. What are They Good For? 2
- Be Fit and Live Well! 3
- Continued-What’s National Nutrition... 3
- Continued-Tired of Being Tired? 4
- Fit To Win Events & Classes 4
- How To Enroll in Fit To Win 4

Tired of Being Tired?

LtCol Chad G. Kahl MD, SFS, FAAFP
Chief, Pentagon Flight Medicine Clinic

As a flight surgeon, one of the most common questions I get from my patients, and aircrews is, “how can I obtain higher and more sustainable energy levels?” Unfortunately, DOD personnel are often tasked with unusual shift work schedules, extensive travel, and inordinate levels of daily stress. All of these lifestyle factors can lead to poor dietary habits, disrupted circadian rhythms, and difficulty with maintenance of regular sleep patterns resulting in persistent fatigue.

Fatigue can affect you in several ways. You may have less energy to exercise. You may have trouble concentrating, staying alert, and remembering things or just feel more run down in general.

If fatigue appears suddenly or becomes more frequent, it could be related to several common medical conditions that you can discuss with your doctor:

**Anemia** - This occurs when your blood has too few red blood cells or those cells have too little hemoglobin, a protein that transports oxygen through the bloodstream. The result is a drop in energy levels, this can be from low Iron levels as a result of poor dietary intake of Iron, Folate or vitamin B-12.

**Hypothyroidism** - An underactive thyroid gland can cause fatigue along with other symptoms such as weight gain, weakness, dry skin, feeling cold, and changes in bowel habits, particularly constipation.

**Sleep problems** - Sleep disorders are very common among adults, especially among military personnel. Avoiding the glow of hand-held devices and other screens and monitors just before bedtime can be very helpful to prevent the light emitting screen from disrupting sleep. Exposure to the blue light emitted from these devices reduces your body’s endogenous melatonin production. Daytime use of (happy lights,) near your desk or office can improve circadian rhythms by emitting light frequencies that hit our retinas and regulates the brain’s release of neuro-hormones that facilitate our natural sleep cycles.

**Medication** - Certain medications can make you feel tired, such as blood pressure drugs, antidepressants, anti-anxiety drugs, and antihistamines. Always review new medications with your physician, some may worsen fatigue or cause changes to electrolyte levels that may lead to tiredness.

What’s National Nutrition Month®?

Sonja L. Cooke, MS-MPH, RD, LDN
Dietitian, Pentagon Fit To Win

Week” became a month-long observance in 1980 in response to growing public interest in nutrition. The campaign focuses attention on the importance of making informed food choices and developing sound eating and physical activity habits. Registered Dietitian Nutritionist Day, celebrated on March 14th (the second Wednesday in March), increases awareness of registered dietitian nutritionists as the indispensable providers of food and nutrition services and recognizes RDNs for their commitment to helping people enjoy healthy lives. National Nutrition Month® promotes the Academy and its members to the public and the media as the most valuable and credible source of timely, scientifically-based food and nutrition information.

The theme for 2018 is "Go Further with Food", which encourages us all to benefit from healthy eating habits while urging us to find ways to cut back on food waste. You may choose to start every day with a heart healthy breakfast or set yourself up for success by preparing and packing protein filled snacks at home. The campaign is intended to help you realize that the foods you choose make a difference and can have a positive impact on your life. Learning how to "Go Further with Food", can help you manage food resources at home while saving both nutrients and money.
Foam Rollers, What are They Good For?
Christopher Fall, LMT, EP-C, CSCS
Corrective Exercise Specialist
Pentagon Fit To Win

What was once only used in a physical therapy setting, or as a core stability tool has found its way into most fitness facilities. Are you already using a foam roller? Or do you wonder what in the world those folks are doing on the floor?

The outcome goal for foam rolling will vary from individual to individual. However, the general global goals of foam rolling are to relax contracted muscles, improve blood and lymphatic circulation and stimulate the stretch reflex in muscles, according to An Osteopathic Approach to Diagnosis and Treatment (3rd Edition) Chapter 12.

In layman’s terms the goals of foam rolling are to decrease muscle stiffness/tension, improve recovery of the muscle via improved blood/lymph flow in stiff/tight/contracted muscles, and improve flexibility by creating a neurological relaxation to achieve muscle length.

Current research shows that foam rolling can:

- Increased joint range of motion, especially when coupled with static stretching.
- Increased joint range of motion without loss in strength and/or power of muscle.
- Decreased delayed onset muscle soreness and enhance recovery from exercise.

As an exercise professional, the questions I am most asked are:

- Can I hurt myself?
- When should I roll?
- How long should I roll?
- How often should I roll?

Yes, you can hurt yourself. However, if you keep the pain/discomfort in a range of 0-6 on a scale of 10 you should be fine. If you have a high pain tolerance and you find yourself holding your breath and unable to relax the focus muscle, you are more than likely applying too much pressure. As for the other three questions it depends on your body and your goal.

If your goal is to improve flexibility and performance of your workout then you should foam roll first, then move into static/dynamic stretching and then continue with your workout. Foam rolling post workout session will help to decrease soreness as a result of the prior training session and allow you to be fresher for your next workout. If your goal is to decrease “pain” and make long term flexibility gains, try incorporating foam rolling into your daily routine such as during your “tv time” or “me time”.

The general consensus is that you need to perform three sets of foam rolling per muscle lasting 30-60 seconds each to maximize effectiveness. However, I have found for most individuals a pre-workout foam rolling session of 5 minutes can have an impact. That 5 minute window will address your trouble areas. If you focus 30 seconds per muscle group, you should have minimal discomfort, and the rolls should be quick and stimulating. When you finish you should feel a bit lighter and looser. At home, or post training, follow the 3-5 days per week of 3 sets of 30-60 second recommendation.

#MOVE IN MAY
FOR NATIONAL PHYSICAL FITNESS & SPORTS MONTH

Get fitnessgov’s tips to movemay & everyday at www.fitness.gov

Fit To Win can help guide you on the right path with all these important factors when starting or changing your health and fitness goals. For individuals assigned to the Pentagon who are eligible (Active Duty, Retirees, Federal Employees), Fit To Win can help you achieve your health and fitness goals!

Please call 703-692-8898 for more information.
By increasing activity and moving towards a healthier lifestyle, research in the field of health promotion has shown a decrease in sick leave and burden on the medical community (health care costs go down), an increase in employee productivity, and an increase in morale through better self and body image.

**Aerobic exercise** is proven to decrease risk of disease and increase life span. Sadly, individuals who are the least fit have 4.5 times the risk of mortality compared to someone who is very fit (Figure 1). Maximal volume of oxygen consumption (VO2max) is a measure of the body's ability to process oxygen, which is the single best measure of a person's aerobic fitness. A higher VO2max indicates a more aerobically fit person. VO2max is increased by aerobic exercise. Aerobic exercise modalities include walking, running, cycling, elliptical trainer, swimming, and rowing.

Increasing activity levels by **strength training** is important to maintain lean muscle mass, which will normally decrease as a result of inactivity and aging. Lean muscle mass is also an important component contributing to the body's metabolism. As we age or become less fit, our metabolism decreases, increasing the likelihood for an increase in body fat. Other strength training benefits include increasing the body's blood sugar sensitivity (i.e., reducing the risk of Type 2 diabetes) and bone density. Studies have shown that maintaining strength with progressive age, increases quality of life. Additionally, modifying what you eat with a well balanced diet will facilitate desired physiologic changes.

### Center for Disease Control and Prevention Recommends:

- **All adults should avoid inactivity.** Some physical activity is better than none, and adults who participate in any amount of physical activity gain some health benefits.
- **For substantial health benefits,** adults should do at least 150 minutes (2 hours and 30 minutes) a week of moderate-intensity, or 75 minutes (1 hour and 15 minutes) a week of vigorous-intensity aerobic activity, or an equivalent combination of moderate- and vigorous-intensity aerobic activity. Aerobic activity should be performed in episodes of at least 10 minutes, and preferably, it should be spread throughout the week.
- **For additional and more extensive health benefits,** adults should increase their aerobic physical activity to 300 minutes (5 hours) a week of moderate-intensity, or 150 minutes a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity activity. Additional health benefits are gained by engaging in physical activity beyond this amount.
- **Adults also should do muscle-strengthening activities** that are moderate- or high-intensity and involve all major muscle groups on 2 or more days a week, as these activities provide additional health benefits.

---

**Figure 1**

<table>
<thead>
<tr>
<th>Fitness Level</th>
<th>Relative Risk of Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5-21</td>
<td>4.5</td>
</tr>
<tr>
<td>21-28</td>
<td>2.5</td>
</tr>
<tr>
<td>28-35</td>
<td>1.75</td>
</tr>
<tr>
<td>35-45.5</td>
<td>1.5</td>
</tr>
<tr>
<td>&gt;45.5</td>
<td>1</td>
</tr>
</tbody>
</table>

Maximum Volume of Oxygen Consumption (VO2max ml/kg/min) **

---

**What’s National Nutrition Month®? (Continued from page 1)**

**Key Messages for the 2018 campaign include:**

- Including a variety of healthful foods from all of the food groups on a regular basis.
- Considering the foods you have on hand before buying more at the store.
- Buying only the amount that can be eaten or frozen within a few days and plan ways to use leftovers later in the week.
- Be mindful of portion sizes. Eat and drink the amount that’s right for you, as MyPlate encourages us to do.
- Continue to use good food safety practices.
- Find activities that you enjoy and be physically active most days of the week.
- Realize the benefits of healthy eating by consulting with a registered dietitian nutritionist. RDNs can provide sound, easy-to-follow personalized nutrition advice to meet your lifestyle, preferences and health-related needs.

---

Fit To Win offers a variety of nutrition classes monthly for a Healthy Heart, Weight Loss, Diabetes Management, Sports Nutrition, and Meal Planning. Please give us a call for times and dates @ 703-692-8898.
Tired of Being Tired? (Continued from page 1)

So what can be done to mitigate fatigue?

There are a few proven ways to improve energy levels throughout the day.

1. Drink a cup of coffee. Multiple studies have been conducted to prove the cognitive enhancing and substantial health benefits of a good cup of Joe. Avoid artificial sweeteners if possible, and add cinnamon, nutmeg and cocoa to boost the already potent anti-oxidant properties inherent to the tannins in coffee. Most of the research shows individuals limited to 3-5 cups of coffee a day, can benefit from the overall health benefits of coffee, without having unwanted health side effects. One recent large study of 33,731 men and 18,784 women showed men and women who drank 6 or more cups of coffee per day had a 10% and 15% lower risk of death overall respectively than non-coffee drinkers. Similar associations were observed whether participants drank predominantly caffeinated or decaffeinated coffee. Consultation with your physician is imperative; however, if you are breast feeding, pregnant or have underlying cardiac conditions.

2. Engage in short bursts of exercise. Go for quick walk, hit some of the Pentagon stairs, or do some quick pushups in your office. Periodic exercising throughout the day has been shown to increase cognition and improve alertness, as well as help to stabilize blood sugar levels.

3. Take a nap. Power midday naps can help overcome tiredness later in the day. Keep naps to about 20 to 30 minutes, as studies have suggested that napping for 40 minutes or longer can have the opposite effect and leave you feeling groggy rather than refreshed. Also, don't nap too late in the day.

4. Check your D – Individuals working indoors, especially in the winter months, are susceptible to insufficient or deficient levels of Vitamin D. Vitamin D is a fat soluble, essential vitamin. Studies have demonstrated that In the USA, 41% of men and 53% of women have low vitamin D levels. The only way to get vitamin D, outside of Sunlight and UV rays, is through supplementation or fortified food sources. Most multivitamins contain 800-1000 international units of Vitamin D daily, which is a good start. However, if you are found to be deficient your doctor may start you on a prescription strength dose.

5. Diet – Remember to fuel up wisely. A sugary doughnut or cupcake is ok from time to time; but, your body will metabolize these substrates quickly, and then you can end up with sinking blood sugar — and fatigue. You will maintain a steadier energy level by eating lean protein and unrefined carbohydrates. Try low-fat yogurt with a sprinkling of nuts, raisins, and honey. Your body will take in the carbohydrates, proteins, and lipids slowly, and benefit from the anti-inflammatory and probiotic nature inherent to this power food.

Overall, the real key to having a more sustainably energetic day is to incorporate activities and practices you can stick with. Maintaining continuity in diet, exercise and supplementation programs takes dedication. There is no pill that can magically improve our energy overnight; however, sticking with the proven methods to mitigate fatigue can offer sustainable improvements in our health and provide us with enhanced energy levels throughout the day.

References:
