What's New from APFRI

Inside this edition: National Cancer Control Month, Cooking Tips, Health Tips, Classes, Dynamic vs. Static Stretching, Recipes, Sudoku Brain Fitness and more...

APFRI
No.12
2010

Publication
April/May

Steering Clear of Cancer

Cancer is a scary word, even worse when used in reference to oneself or a loved one. It is the second leading cause of death in the US and the leading cause among those under 75 [1]. Is it possible to cheat fate and escape the grasp of this terrible disease? It most certainly is and YOU have the power to reduce YOUR risk. April is National Cancer Control Month. Let's look at some ways to reduce your risk of getting cancer.

Some things you can't change: your age, your gender, and your genes and family history. Some things you can control to minimize your risk of cancer: your exposure to toxins—especially tobacco and alcohol, your weight, your activity level, and your diet. Regular screening examinations by a health care professional can detect risk factors and precancerous conditions and diagnose early stage cancers when treatment is most effective.

Smoking is the cause of at least 30% of all cancer deaths and 87% of lung cancer deaths. Light or low tar products are not any safer. Smoking is associated with increased risk of at least 15 kinds of cancer from cancers of the nose and mouth to lung, esophageal, stomach, and pancreatic cancers to cancers of the cervix, kidney, and bladder, as well as leukemia. Smokeless tobacco products and cigars are no safer than cigarettes. Second hand smoke is a killer as well. Save yourself and those around you by quitting tobacco use!

Drinking alcohol can cause cancer. Studies have shown a link between excessive alcohol consumption and cancer however cause has not been established. Cancers of the mouth, esophagus, throat, breast, and liver are more common in those who drink. Smoking and drinking compounds the risk. If you must drink, do so in moderation (two drinks per day for men and one per day for women) [2].

Sun exposure helps the body produce vitamin D and is thought to positively influence one's mood [3]. However, too much of anything isn't good. Excessive or intense sun exposure predisposes you to skin cancer. Protect yourself by using a sunscreen with an SPF of at least 30, wear sunglasses, and avoid sunbathing, tanning beds, and sun lamps.

Maintain a healthy weight throughout your life by balancing caloric intake with physical activity. Obesity increases your risk of many cancers. Fat is not a blob that just sits there. It is an active tissue that secretes hormones and can cause inflammation [4].

Engage in regular physical activity, minimum of 30 minutes of moderate to vigorous activity at least five days a week, helps to maintain a healthy weight. It can also reduce the exposure of the body's organs to potential carcinogens.

Eat a healthy diet. Emphasize fruits, vegetables, and whole grains in your diet. There is no one super-food or nutrient that is a panacea. Nature provides a bounty of good foods that we must choose and eat in moderation.

Talk with your health care provider about your personal risk for cancer. This should include getting recommended periodic screening examinations such as mammograms and Pap smears for women, PSA testing for men, skin examinations, and colorectal exams.

It is your body and you control much of what affects it. Making wise choices for a healthy lifestyle and being alert to risk factors and screening for them regularly puts you in control of your risk for getting cancer. You are in the driver's seat. Which road will you follow?

Sudoku Puzzle Brain Fitness

Directions: The rules of Sudoku are simple. Place a digit from 1 to 9 in each empty cell so every row, every column, and every 3 x 3 box contains the digits 1 to 9.

	7					8		
			2		4			
		6					3	
			5					6
9		8			2		4	
	5			3		9		
		2		8			6	
	6		9			7		1
4					3			

Answer Key pg.8

Why Brain Fitness?

There are many reasons to boost your brain fitness. First, we are holistic beings, whose makeup of mind, body, and spirit are integrally connected. By enhancing your brain fitness, you can set the conditions to positively impact your physical health and wellbeing. Recent research by Dr. Blumenthal and others through the American Heart Association has documented the positive relationship between healthy diet, fitness and improved cognitive function[1]. It stands to reason that by adding intentionality, increased cognitive function can positively correlate with enhanced health and wellbeing through better clarity, focus, and reasoning.

Second, when we think of fitness, the brain responds to exercise just as the body does. One of the concepts in the cognitive and neurological literature is *plasticity*, which indicates that the brain continues to develop even into adulthood and older age, albeit not with the same speed as a young person. When we learn new things, the brain establishes neural pathways that grow stronger with repeated use. Staying mentally fit is relevant to every one of us. In addition, an exciting research area is how plasticity relates to cognitive regeneration to aid recovery from head injury [2,3], which, could play a vital role in the recovery of our troops who have experienced concussive injuries.

Third, we should continue to push ourselves to achieve brain fitness, because it forces us to actively engage

our environment. Though, just as with physical fitness, it is initially hard to do. One worthwhile exercise is to mentally calculate your change at the grocery store *before* it shows on the clerk's screen. The person who practices brain fitness is in better shape to adapt to changing conditions and successfully meet life's continuing challenges than someone who is not in shape. In a word, brain fitness increases our odds. Louis Pasteur once mused that "In the fields of observation, chance favors only the prepared mind."

Three Myth-Busters about Cancer

Test yourself: Which of these three cancer myths is a fact?

Cancer is not contagious -- myth or fact? Some cancer is caused by contagious viruses, like HIV. So in a way, you can catch cancer. You can't directly swap cancer through bloodstream, saliva, or germs, but you can pass along some of the organisms that could cause cancer in a roundabout way. This is especially true for cervical and liver cancers, as well as some lymphomas.

Benign tumors should always be left alone -- myth or fact? Benign tumors don't have cancer cells, but they can still be dangerous. That's because tumors can grow large enough to block the pathway of important nutrients, or put pressure on critical organs. For example, even though many brain tumors will never spread, they are still removed.

If you're diagnosed with cancer, you need treatment right away -- myth or fact? Even though some cancers spread quickly, it's always smart to get a second opinion. Good doctors will encourage you to get one to confirm that the diagnosis is correct. The best second opinion comes from a doctor at a different institution than where the first doctor practices, and one that is well regarded in cancer treatment. After that, see someone that specializes in the type of cancer involved, because he or she will have a better handle on the different courses of treatment.

Protect Your Pancreas

Studies have shown flavonol-rich diets could reduce your risk of pancreatic cancer by up to 23 percent. You can utilize this information by adding more broccoli to your diet because broccoli is loaded with flavonol.

Fill Up on Flavonols

Flavonols are substances found not only in broccoli but in other fruits and veggies, like apples, onions, and kale. These compounds help fight cancer on many fronts. They ramp up your body's detox machinery, purging dangerous carcinogens from your system; flavonols help prevent cancer cells from growing and dividing and flavonols encourage cancer cells to self-destruct.

All in the Family

Quercetin is one of the best known flavonols, but there are many others. Together they are part of the bigger flavonoids family, a mighty clan of antioxidants with potent anticancer powers. Pack more cancer-fighting flavonols into your diet by incorporating 7-12 servings of fruits and vegetables every day.

CGSC Annex Noon-Time Interactive Lectures 1245

April

1~Intermediate Strength
5~ Capitalizing on Growth in Combat*
7~Cholesterol-Gearing Up for a Change
13~Increasing Aerobic Power Roundtable*
21~Running Shoe Workshop

***Special Effort classes allow students to receive Strategic Engagement Credit for Blogging**

May

3~Weight Control *
5~Deployment Fitness *
19~Restorative Sleep

CGSC Annex Fitness Classes 1500 Gruber Gym

April

1~Peak Performance Triathlon Training
7~Physioball
13~Golf Conditioning
29~Spinal Stabilization
30~Flexibility

Please call 758-3421 for NTL locations. All NTL start at 1245 to accommodate CGSC Students.

May

14~Flexibility
17~Lumbar Stabilization
19~Strength Program Design
21~Injury Prevention
25~Physioball

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http://usacac.army.mil/cac2/cgsc/Events/APFRI/index.asp

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RELAY FOR LIFE
American Cancer Society

Leavenworth Kansas
June 4th, 2010
6:30pm
Abeles Field
To find out how you can help, contact the American Cancer Society

http://www.relayforlife.org/relay/node/2678

CGSC STAFF Highlight

Ms. Cindi Raihl

Cindi Raihl is a NCO in the USAR. She is a combat Medic/EMT and re-enlisted 2 years ago after a 20 year break in service.
Cindi began her career with APFRI as a Medical Technician when she was put on active duty orders in October 2008. She was then hired on as a full time APFRI Staff member in March 2009. Cindi is one of the first people you meet when you come for an APFRI assessment.
Cindi has a BA in Psychology and in Music. She has her own Photography business and enjoys spending time with her four teenage boys.

Preparing for an Activity
The Warm Up and Flexibility Components

An effective warm-up and flexibility routine should be an important part of any physical training program. Your warm-up should prepare the body for progressive activity by using a general warm-up (ex: walking for 5 minutes), followed by a specific warm-up, dictated by the type of activity (ex: controlled arm circles before playing volleyball). Following the warm-up, a form of flexibility and preparation referred to as a *dynamic movement*, should be completed prior to the specific activity.

Due to current research in physical activity preparation, some participants may be confused as to when and what type of stretching should be used as part of the warm-up. Traditionally, static stretching (controlled movements held at a position for a recommended time, such as 30 seconds) has been a prominent feature of the warm-up. Although not harmful, static stretching in many situations may not be ideal because previously available research was not able to distinguish between the various types of stretching. Recently, a greater emphasis has been placed on the use of *dynamic movements* (low-intensity, controlled movements that bring a joint through a full range of motion) as a component of the warm-up routine. Examples of *dynamic movements* are: arm and leg swings, hip and trunk twists, and bodyweight squats and lunges, all completed with gradual increase in speed while emphasizing range of motion. Typically, *dynamic movements* are "task specific" and are utilized to simultaneously stretch muscles and increase healthy joint function.

Previous guidance from various organizations justified the use of pre-activity static stretching in order to "reduce the risk of injury." However, much of the current research suggests that static stretching prior to exercise is inconclusive to prevent injury (1). Muscle stiffness is believed to increase the likelihood of future muscle tears, and performing *dynamic movements* appeared to have a positive impact for reducing muscle stiffness (2). Also, performing *dynamic movements* appeared to improve performance parameters such as sprinting when compared to either no stretching or static stretching (3). For this reason, many fitness professionals now favor *dynamic movements* over static stretches as part of the pre-activity warm-up.

Many studies have suggested that performing static stretching as a pre-activity warm-up can diminish sprint performance (4), reduce vertical jump height (5) and slightly reduce strength measures (6), which may negatively impact occupational tasks (such as those required by military, law enforcement, or emergency services). However, research does support the use of static stretching post-activity on a regular, long term basis, to improve performance tasks (7).

Current research does not advocate the use of static stretching prior to exercise due to the decreases in performance tasks such as sprinting or jumping, and inconclusive evidence for reducing injury. APFRI recommends performing a pre-activity warm-up that includes dynamic movements and static stretching as a post-activity to maximize benefits. If you have any question regarding what types of stretching will benefit you the most, consider consulting with APFRI Health and Fitness Specialist to provide assistance.

Restaurant Health Tips

Here are a few healthy eating tips when out and about in restaurants.

1. Most restaurants have a "best" choice option. We have a tendency to get caught up in the mentality of "there is nothing good to eat here" so "I might as well order the burger and fries." No matter where you are, find the best nutritional value on the menu. Consider ordering a few sides instead of a meal, or order the main entrée with two vegetables instead of the traditional fried or top heavy starches. If you visit the same restaurants frequently, research your best options on-line by searching for "nutrition analysis" and the restaurant name that you have in mind. It is NOT a good deal to get an abundance of cheap calories.

2. Stay away from the buffet. Research has shown, when people are offered a variety or large amounts of food at one time, they eat more. Order a meal from the menu instead of getting the "all you can eat" buffet.

3. Try staying away from foods that are described as "fried," "creamy," "cheesy," or "rich." These foods may sound appetizing, but they are filled with "FAT." Marketing professionals get paid a lot of money to know what sounds best on a menu. Don't fall for it!

4. If you don't see it on the menu, dare asking for substitutions. For example, most well known restaurants specializing in pasta meals, i.e. Olive Garden, will actually substitute with whole wheat pasta if you ask.

5. Ask for the dressing on the side and dip the fork in the dressing before loading the salad on the fork. Every bite will have the taste of your favorite creamy dressing, yet you will cut hundreds of calories off your meal. This is really worth trying!

Cancer-Fighting Recipe

Black Bean and Edamame Avocado Salad

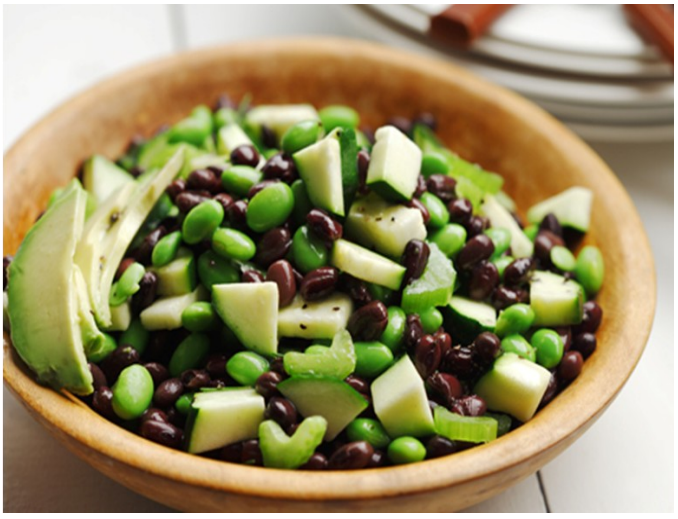
Try this protein and fiber rich salad as a vegetarian lunch option. Consider eating it with mango slices and whole wheat bread or crackers to make a complete meal. Beans, soy, whole grain, and mangos are all excellent sources of cancer fighting nutrients.
(Serves 4)

Directions

In a medium bowl combine black beans, edamame, squash, celery, lime juice, canola oil, rosemary, salt and black pepper. Toss gently, yet thoroughly until well coated.

Ingredients:

1/2 of a 15oz can black beans, rinsed and drained
1 cup fresh or frozen shelled edamame, thawed
1 medium yellow squash, diced
1 medium celery stalk, thinly sliced
2 Tbsp limed juice
1 Tbsp canola oil
1/2 tsp chopped fresh rosemary or 1/4 tsp dried
1/4 tsp salt
1/4 tsp coarsely ground black pepper
1 ripe medium avocado, peeled, seeded and chopped



Nutritional Facts per serving
Based on 1 cup serving

Calories	200	Total Fat	10g
Saturated Fat	0g	Cholesterol	0mg
Carbohydrates	22g	Sodium	160mg
Fiber	8g	Protein	10g

Courtesy : http://www.canolainfo.org/recipes/recipes.php?detail=233

High Fructose Corn Syrup: Villain or Maligned Research Victim?

This commonly used sweetener found in sugary foods and beverages has received voluminous media coverage in recent years, condemning it as the cause of obesity, diabetes, elevated triglyceride levels and metabolic syndrome.

High-fructose corn syrup (HFCS) is a low cost liquid sweetener alternative to sucrose (common table sugar) first introduced to the food and beverage industry in the 1970s. HFCS is made by modifying corn syrup with enzymes to convert its glucose to fructose (two types of simple sugars). The converted substance is then blended with regular corn syrup to produce two frequently used standardized blends: HFCS 42 (42% fructose, 58% glucose) used in baked goods, and HFCS 55 (55% fructose, 45% glucose) used in soft drinks. It is important to note that HFCS is not pure fructose; it is similar in fructose/glucose composition to traditional sugars such as sucrose, honey, and fruit juice.

Reviews of the current research found that HFCS may contribute to excess weight gain, simply by virtue of its abundance in the food supply during years of increasing obesity. Eating a very large amount of fructose may reduce the release of leptin and suppress ghrelin, two important endocrine hormones that effect satiety and hunger. When HFCS is compared with traditional sweeteners in research, there are no metabolic differences and the same applies to appetite and energy when comparing HFCS versus other sweeteners.

Longer-term studies on the connections between HFCS, body weight and metabolism are needed and they may lead to more definitive recommendations for HFCS in the future. The American Heart Association's (AHA) concern with the relation of excess consumption of sugar on health problems led to a release in August 2009 of specific recommendations for sugar intake. In general, the AHA says that "most American women should consume no more than 100 calories a day from added sugar, and that most American men should consume no more than 150 calories a day from added sugar — and that even less is better." This amount of calories translates to about one 12-oz can of soda per day for men and 8 oz for women or 16 oz Gatorade for men and 10 oz for women, which are volumes much smaller than commonly consumed per day.

For now, APFRI recommends limiting all highly sweetened foods and beverages whether they contain HFCS or more traditional sweeteners. A healthier option is to fuel up on nutrient dense fruits, vegetables, lean meats, low fat dairy products, whole grains and plant sources of protein (beans and nuts).

Soduko Puzzle Answers

2	7	9	3	1	6	8	5	4
3	8	5	2	7	4	6	1	9
1	4	6	8	5	9	2	3	7
7	2	4	5	9	1	3	8	6
9	3	8	7	6	2	1	4	5
6	5	1	4	3	8	9	7	2
5	9	2	1	8	7	4	6	3
8	6	3	9	4	5	7	2	1
4	1	7	6	2	3	5	9	8

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Restaurant Eating Tips

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Why Brain Fitness

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Preparing for an Activity / The Warm Up and Flexibility Components

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Restaurant Eating Tips

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High Fructose Corn Syrup: Villain or Maligned Research Victim?

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