



Health & Fitness Newsletter

PREMIUM PERFORMANCE TRAINING INC.

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PREFACE

This is a bi-monthly publication of Premium Performance Training Inc. aimed at providing general information regarding current health and fitness trends.

Quote to Remember:

"There maybe people that have more talent than you, but there's no excuse for anyone to work harder than you do"

- Derek Jeter

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Healthy Nutrition For Cardiovascular Disease - Prevention & Treatment



Cardiovascular disease, or heart disease as it is commonly referred to, is a leading cause of morbidity and mortality in Barbados as according to The World Health Organization County Profile from 2014 it accounts for 28% of deaths in the island. Cardiovascular disease encompasses multiple issues

that occur in the heart and/or blood vessels that are often linked to atherosclerosis (a condition that results from the accumulation of plaque in the artery walls, ultimately narrowing those arteries and restricting blood flow in the body, which can result in a heart attack or stroke, permanent damage to the cardiac muscle or brain cells, or even death). Survivors of myocardial infarctions and strokes, as well as individuals diagnosed with cardiovascular diseases, or conditions linked to cardiovascular diseases (e.g. hypertension, diabetes) are usually advised by their health care professionals to make immediate lifestyle changes and to maintain these changes in order to minimize future risk of a cardiac event. Dietary lifestyle changes are a significant part of this and there are usually some major dietary culprits that are focused on, with the aim of reducing their intake in your diet, as when these culprits are appropriately managed, reductions in cardiovascular disease and cardiovascular disease risk often follow.

◆ Culprit: SODIUM

Sodium is an essential nutrient, however most individuals only need a small quantity of it. Research has shown that as sodium intakes increases, blood pressure increases. Sodium is found in large quantities in processed and preserved foods (e.g. canned items and frozen meals) and with a general increase in the consumption of such foods it is not surprising that most persons consume an excess of sodium. Studies have shown that a reduction in sodium intake can both prevent hypertension and assist in blood pressure control, as well as



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Ballistic Strength Training

Overview

Each strength exercise has a natural biomechanical sticking point that occurs at a spot in the range of motion where primary muscle groups are changing. For examples in the bench press the sticking point for many lifters is where the primary force is being changed from the pectoralis major to the deltoids and triceps. Ballistic training uses explosive movements that power you through these sticking points and subsequently is a training method that develops power, which can increase strength. The major benefit of ballistic training has to do with acceleration as the weight is accelerated through the whole range of motion which allows you to develop much more power through the rep compared to traditional reps where the weight is typically accelerated on the concentric portion only (the first third of the range of motion) and is decelerated during the other two-thirds.

Ballistic training trains your fast-twitch fibers to produce a great amount of force in a very short period and forces these muscles to adapt to contracting very quickly. Ballistic training is most commonly performed with bench press throws and squat jumps, often using a Smith Machines, but can be done for almost any muscle group.

Training Rules

- ◆ Ballistic training should be done with a weight that is about 30% - 50% of your one rep max for that exercise
- ◆ 3 - 5 reps should be performed per set, never any more
- ◆ Rest should be ample (at least 3 minutes) between sets

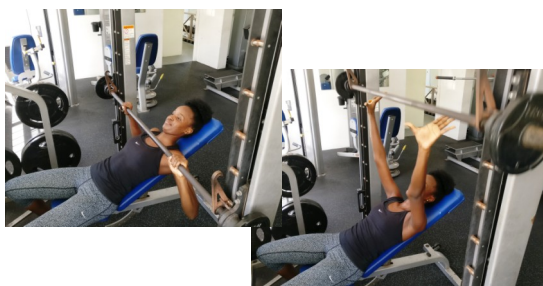
Table 1: Examples of Ballistic Strength Exercises Per Muscle Group

Muscle Group	Exercise
Chest	Smith Machine Bench Press Throw
Shoulders	Overhead Press Throw
Back	One-arm Pull Row
Legs	Dumbbell Jump Squat
Triceps	Close-Grip Bench Press Throw
Biceps	Biceps Curl Throw

Table 2: Ratings of the Ballistic Strength Training Method

Rating					
Time	1	2	3	4	5
Length	1	2	3	4	5
Difficulty	1	2	3	4	5
Results	1	2	3	4	5

*Highlighted numbers represent the rating given to the method on a scale of 1 to 5 whereby:
 1 = shorter/easier/least effective 5 = longer/harder/more effective



Smith Machine Bench Press Throw



Dumbbell Jump Squat

Ask Yourself Answers

1. True
2. False - Your ideal body composition is not only dependent on your sex, age and genetics, but also the sport in which you are competing
3. True
4. False - It is advised to consume carbohydrates during prolonged endurance events
5. True

Secrets of Long-Term Weight Control



Only about 5% of persons who lose a significant amount of weight keep it off for more than a year. The National Weight Control Registry in the USA keeps track of persons who successfully lost more than 30 pounds and kept it off for a year or more. These people shared one characteristic in common - they burn an extra 3000 calories weekly (they exercise approximately one hour daily). Successful weight-losers also restricted calories moderately. Good strategies for long-term weight control include:

1. *Exercise every day* - Try to accumulate a total of at least 45 to 90 minutes of additional physical activity daily
2. *Lift weights two to three times weekly* - Resistance training increases lean muscle size, boosting the number of tissue insulin receptors
3. *Lose weight* - Studies show that losing 10 to 15 pounds improves insulin resistance, which then makes it easier to lose abdominal fat
4. *Follow the Mediterranean diet* - high in fish, fresh fruits and vegetables, lean meats, olive oil and other monounsaturated and polyunsaturated fats and whole grains

(American Journal Clinical Nutrition, 82: 222S - 225S, 2005)

Long-Term Multivitamin Use Linked To Reduced Risk of Heart Attack & Stroke

According to researchers from Brigham and the Women's Hospital in Boston and Karolinska Institute in Stockholm, Sweden physicians consuming multivitamins for 20 years or more had a 44% lower risk of heart attack and stroke. The study also showed that vitamin consumption reduced the risk of cancer by 8%. These results were a follow-up to an earlier examination of 18,000 male physicians in the Physicians' Health Study that showed no relationship between vitamin supplementation and heart disease after 12 years of taking vitamin supplements.

(Journal of Nutrition, published online April 27, 2016)

Fish Consumption Linked To Lower Blood Pressure

According to researchers from Ecuador and the United States, each serving of fish consumed per week reduces blood pressure by 2.3 points (mmHg). The study included 677 people living in rural areas of Ecuador, and showed that blood pressure decreased progressively with up to five servings of fish per week. Consuming six or more servings had no further effect on blood pressure. The US Department of Agriculture recommends one to two servings of fish per week. This study shows that increasing fish intake above these levels might have added cardiovascular benefits. This study did not examine the effects of fish oil supplements, however other studies have found that fish oil is good for the heart and circulation.



(Journal of Clinical Hypertension, 18: 337 - 341, 2016)

'Sleep-Low' Carb Diet Boosts Endurance

According to a study led by Laurie-Anne Marquet and Christophe Hausswirth from the French National Institute of Sport in Paris, nighttime carbohydrate restriction ('sleep-low') following an intense workout improved endurance performance during a 10K run, compared to a group with free access to carbohydrates (control). In the study, the sleep-low group trained vigorously in the afternoon four days per week during the three-week trial, restricted carbohydrate intake at night, exercised moderately in the morning and then consumed a high-carbohydrate breakfast. The control group followed the same workout, but could eat carbs in the evening. Both groups consumed the same amount of carbohydrates in the 24 hour period. The sleep-low group improved their 10K race time by 3%, while the control group did not change. Restricting carbohydrate intake at night several times a week, while maintaining total carbohydrate intake, might improve performance by improving fat use during exercise or enhancing carbohydrate storage in the muscles and liver.

(Medicine Science Sports Exercise, 48: 663 - 672, 2016)

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(as well as) in the reduction of myocardial infarctions, strokes, and the annual number of deaths from any cause. The United States Departments of Agriculture and Health and Human Services recommend 2,300 mg/day of sodium (the amount found in one teaspoon of table salt) as the tolerable upper intake level for adults, with 1,500 mg/day considered the adequate intake.

◆ **Helper: DASH DIET**

The Dietary Approaches to Stop Hypertension (DASH) diet is a well-established eating plan that emphasizes the abundant consumption of fresh fruits, fresh vegetables, whole grains, and low-fat dairy products as a way to naturally reduce sodium and total fat consumption without specific restrictions. The DASH eating pattern is often the go-to line to dietary defense against hypertension, because adherence to the DASH diet has been linked to decreases in systolic and diastolic blood pressure and lower cardiovascular disease and stroke. The guidelines to utilize the DASH diet are that persons should consume the following:

- 2 - 3 servings/day of low-fat/nonfat milk or dairy products
- 4 - 5 servings/day of fruit (preferably fresh)
- 4 - 5 servings/day of vegetables (preferably fresh and seasoned without salt)
- 7 - 8 servings/day of whole grains (e.g. whole wheat breads and pastas, brown rice)
- 2 servings/day or less of lean meat, fish, or poultry (3oz of cooked meat is one serving)
- 4 - 5 servings/week of nuts, seeds, and dried beans

◆ **Helper: FIBER**

Dietary fiber is a non-digestible form of carbohydrate that is found naturally in plants. Dietary fiber intake is important because it has been associated with lower risk of cardiovascular disease and more favorable cardiovascular disease-related health issues (e.g. abdominal obesity, hypertension, blood lipids, metabolic syndrome). Both forms of dietary fiber (soluble and insoluble) play a role in overall health, but soluble fiber is particularly important when considering the health of the heart and blood vessels. It forms a thick gel during digestion and reduces the rise of blood lipids and slows the emptying of the stomach, which encourages a feeling of fullness and can have a positive effect on weight control. Insoluble fiber is considered dietary ‘roughage’ and promotes regularity in the gastrointestinal system. The Dietary Guidelines for Americans recommends a dietary fiber consumption of 25g/day for women and 38g/day for men. Great sources of dietary fiber are; beans, peas, lentils, fresh fruit, vegetables, whole grains, bran products, nuts and cereals.



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ASK YOURSELF ACSM Sports Nutrition Guidelines - True or False ?

Score: _____ out of 5

1. Active athletes should consume 1.2 to 2.0 grams of protein per kilogram of bodyweight	TRUE	FALSE
2. Your ideal body composition is dependent solely on your sex, age and genetics	TRUE	FALSE
3. Active athletes should consume 20% - 35% of calories from fats	TRUE	FALSE
4. During prolonged endurance events it is not advisable to consume carbohydrates	TRUE	FALSE
5. Restoration between intense training sessions requires appropriate intake of fluids, electrolytes, calories and carbohydrates	TRUE	FALSE

[Answers can be found on the bottom of page 2](#)

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◆ **Culprit: SATURATED & TRANS FATS**

Dietary fat is present in many animal and plant sources. Fat does have positive physiological effects, such as the fact that it assists with the absorption of fat-soluble vitamins, is a concentrated source of energy and helps with internal insulation. It is recommended that adults consume approximately 20% - 35% of their total daily calories from fat sources. However, high intakes of saturated and trans fats are associated with elevated blood lipids, including total cholesterol, and low-density lipoproteins, both of which are risk factors for cardiovascular disease. These type of fats can be identified by their solid structure at room temperature (e.g. butter, some types of margarine, the visible fat on meats). To reduce cardiovascular disease risk the American Heart Association suggests that less than 7% of total caloric intake come from saturated fat, less than 1% from trans fat, and less than 300mg of cholesterol be consumed daily.

◆ **Helper: OMEGA-3 FATS**



Fats on the opposite end of the spectrum are omega-3 fats which have been linked to a reduction in cardiac deaths in individuals with, and without cardiovascular disease. Incorporating food sources of omega-3 fats and other unsaturated fats like vegetable oils may also help displace some of the more harmful fat sources in the diet mentioned above. Approximately 8oz/week of a seafood species high in omega-3 fats is the recommendation for cardiac benefit. Some seafood varieties that are high in omega-3 fats include; salmon, anchovies, sardines, tuna, trout and oysters.

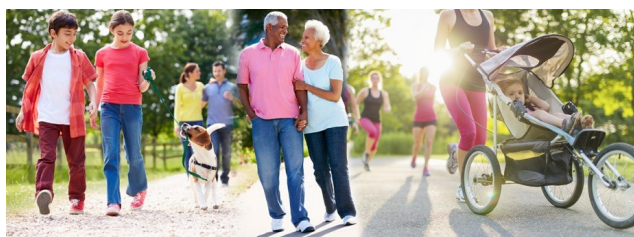
◆ **Culprit: ALCOHOL**



According to data collected by Quandl (a Toronto-based platform for financial, economic, and alternative data) in 2014, on average, a citizen of Barbados can be expected to drink 7.60 litres (approximately 256 oz) of pure alcohol each year. Although moderate alcohol intake has been linked to a reduced risk of cardiovascular disease and a lower number of cardiovascular events, drinking in excess has no benefit, and in fact increases the risk of hypertension, stroke, and type 2 diabetes. For this reason the American Heart Association recommends no more one drink per day for women or two drinks per day for men (one drink is defined as 1.5 fluid ounces of 80 proof liquor, 4 fluid ounces of wine, or 12 fluid ounces of beer).

CONCLUSION

A general balance of caloric intake and physical activity should be the main focus as it relates to achieving or maintaining an appropriate body weight, which would reduce cardiovascular disease risk. However, the dietary suggestions presented above can be a helpful and essential tool in formulating prevention tactics in cardiovascular disease prevention.



Eating healthier does not have to mean eating boring. In our 'Healthy & Great' recipe section we will introduce you to some incredible recipes which are lower in sugar, fat and calories compared to their 'traditional' counterparts but are still full of flavour.



Sweet Sesame Broccoli

Method

1. Place the broccoli florets and water in a large microwavable dish. Cover with plastic wrap.
2. Steam the broccoli in the microwave for 2½ to 3 minutes, or until crisp tender. Drain the broccoli in a colander. Return the broccoli to the dish, and set aside.
3. Prepare the dressing in a small bowl. Whisk together the soy sauce, chicken broth, sugar, sesame oil, ginger, and red pepper flakes, if using.
4. Place a small skillet over medium-high heat. Toast the sesame seeds for 1 to 2 minutes, or until aromatic and slightly browned. Remove the seeds from the skillet.
5. Add the dressing to the skillet. Cook for 2 minutes, or until thickened, and pour over the broccoli. Add the sesame seeds and toss.

MAKES 4 SERVINGS

- ◆ 4 cups broccoli florets, washed and trimmed
- ◆ ½ cup water
- ◆ 2 tablespoons reduced-sodium soy sauce
- ◆ 2 tablespoons reduced-sodium chicken broth
- ◆ 1 tablespoon granulated sugar
- ◆ 1 teaspoon sesame oil
- ◆ ½ teaspoon grated ginger
- ◆ Dash of red pepper flakes (optional)
- ◆ 1 tablespoon sesame seeds

NUTRITIONAL INFORMATION PER SERVING

Calories: 60 / Carbohydrates: 9g (Sugars: 1g) / Total Fat: 2.5g
(Saturated Fat: 0g) / Protein: 3g / Fiber 2g / Cholesterol: 0mg /
Sodium: 240mg

Recipe obtained from "Eat What You Love" - By Marlene Koch

Contains more than 300 incredible recipes which are low in sugar, fat and calories and are great for weight loss & diabetic diets

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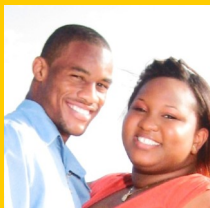
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