J & S HEALTH, FITNESS & SPORTS ACADEMY

Health & Fitness Newsletter

VOLUME 2, ISSUE 1 JANUARY/FEBRUARY 2011

PREFACE

This newsletter is a bi-monthly publication of J & S Health, Fitness and Sports Academy— a gym located in St. James, Barbados. The main purpose of this newsletter is to keep members of the gym informed about current health and fitness trends.

Quote to remember:

Those who do not find time for exercise will have to find the time for illness

Earl of Derby

INSIDE THIS ISSUE:

Soft Drink Consumption and Your Health

The consumption of soft drinks, like the use of the cell phone, has become an integral feature of modern living. In fact, soft drinks have replaced more nutritious drinks like milk and natural juices as the main beverage in a high percentage of individual's diets. This increasing prominence of soft drink consumption, coupled with a parallel rise in obesity rates in both adults and children, has led to much debate between independent researchers and the soft drink industry, over the true effects of regular soft drink consumption on an individual's weight, and overall health. Fuelling such debates are multiple 'soft drink consumption studies' aimed at determining the true effects of regular soft drink consumption on a person's wellbeing. Below are listed some of negative effects that studies have found to be correlated to regular soft drink consumption[1]:

1 ***Obesity***

An analysis of 88 soda studies from researchers at the Rudd Center for Food Policy and Obesity at Yale University, showed that "on days when people drink soft drinks, they consumed more calories than on the days when they did not have soft drinks." In fact, many of these studies further showed that the calorie increase which occurred was actually greater than the calories in the soft drinks which were consumed. While persons in the soft drink industry use this fact to suggest that the increased calorie intake and subsequent weight gain is therefore not as a result of the consumption of soft drinks researchers believe that the greater calorie intake which occurs on those days when soft drinks were consumed occurred due to not only the added calories from the sweetened soft drink beverages but also from the fact that the soft drinks had the effect of either increasing hunger, decreasing satiety or simply calibrating people to a high level of sweetness that generalized to preferences in other sweet high calorie foods for a period of time after the soft drinks were consumed, thus resulting in an increased overall calorie intake.

DID YOU KNOW?

The standard soft drink size increased from approximately 6.5 oz in the 1950s to 24 - 32 oz in the 2000s. That's approximately 5 TIMES the 1950s size.

2 ***Increased Risk of Bone Fractures, especially among teenage girls and women***

When consumed in high amounts, **phosphorus** (a prominent ingredient in soft drinks) has been shown to weaken bones and make them more susceptible to fracture. Thus, it has been argued that soft drink consumption leads to increased risk of bone fractures. The soft drink industry argues that the studies focusing on this particular effect are flawed as the amount of phosphoric acid in a 12-ounce can of a soft drink averages about 30 milligrams, which is well below the tolerable upper limit of 4 grams (or 4,000 milligrams) per day for persons 9 years and older, set by The National Academy of Sciences. However, researchers suggest that the increased consumption of soft drinks, which are high in phosphorus and contain virtually no calcium, combined with the proven displacement of more nutritious and calcium rich beverages (e.g. milk) from the diet ultimately result in a change in the ideal phosphorus:calcium ratio within the body. Thus, the level of phosphorus in soft drinks could result in an increased risk of bone fractures.

CONTINUES ON PAGE 4

[1] Despite numerous systematic studies and reviews, researchers ultimately agree that it is 'maddeningly tricky' to find the scientific bottom line on soft drinks due to the many varying lifestyle factors which can effect a person's wellbeing.

Hips and Buns Workout

You often hear many women say, 'the weight goes straight to my hips and butt!!' Below is a basic workout specifically targeted towards helping you reduce those extra inches on your hips and buns.

(1) ARC TRAINER (LEGS ONLY) - 15 MINUTES (Incline: 7, Resistance: 20, Strides/minute: 120 - 140)


A


B

KNEELING LEG LIFT: 3 sets x 15 repetitions (each leg)

Execution: Begin in a kneeling position with your back parallel to the floor, and one of your legs extended straight behind you suspended just above the floor. In a controlled motion, raise your extended leg until it is in line with your back and parallel to the floor. Hold this position for 1 second before returning your leg to slightly above the mat.


A


B

GLUTE KICKBACKS: 3 sets x 15 repetitions (each leg)

Execution: Begin in a kneeling position, with both your hands and knees on the mat and with your back parallel to the floor. Lift one knee slightly off the mat, and in a controlled motion, thrust your foot upwards and backwards while keeping your knee bent at approximately 90°. Hold this position for 1 second before returning your knee to slightly above the mat.


A


B

KNEELING HIP ABDUCTION: 3 sets x 15 repetitions (each leg)

Execution: Begin in a kneeling position, with both your hands and knees on the mat and with your back parallel to the floor. With your knee bent at approximately 90° lift your leg sideways until your outer thigh is parallel to the floor. Hold this position for 1 second before returning your knee to slightly above the mat.


A


B

LYING HIP ABDUCTION: 3 sets x 15 repetitions (each leg)

Execution: Lie on your side with both your legs extended and on top of each other. While keeping your outer leg fully extended raise it as far as you can without moving your pelvis. Hold this end position for 1 second before returning your leg towards the starting position, stopping just before both legs touch.


A


B

LYING HIP ADDUCTION: 3 sets x 15 repetitions (each leg)

Execution: Lie on your side with your outer leg bent at approximately 90° and your inner leg fully extended. While keeping your leg straight, raise your inner leg as high off the mat as you can without moving your outer leg. Hold this end position for 1 second before returning your leg to the starting position, stopping just before the lower portion of your leg touches the mat.

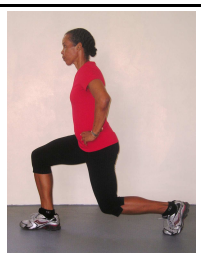

A


B

LYING HIP EXTENSION: 3 sets x 15 repetitions (each leg)

Execution: Lie on your side with your inner leg and outer leg fully extended at a 45° and 90° angle respectively in comparison to your upper body. Lift your outer leg slightly so that it is suspended in mid air and in a controlled motion, swing your outer leg backwards until it is behind the plane of your body. Hold this end position for 1 second before returning your leg to its suspended starting position.


A


B

STATIONARY LUNGES: 3 sets x 15 repetitions (each leg)

Execution: Stand upright with your feet together and your hands on your hips. Take a step forward with one leg, bending your front knee at 90° (your front knee should not go past your front toe) and lifting your back heel off of the ground. Hold this end position for 1 second before pushing backwards and returning to the starting position.

Were the floor exercises too easy?
Increase the intensity by wearing 1 - 5 lbs ankle weights

Research the Facts

Free Weight Squats vs. Smith Machine Squats

Shane Schwanbeck and colleagues from the University of Saskatchewan in Canada found that performing squats with free weights resulted in a 45% greater activation level of all the muscles in the lower body compared to when squats were performed on the Smith Machine. Thus free-weight squats placed a greater load on the lower body compared to Smith Machine squats.

Find a Partner, Increase your Results

Researchers at Oxford University in the UK found that a person's tolerance level for pain was generally twice as high when training with a group compared to when training by themselves, even though their power outputs and exertion were the same. The study was published in the Royal Society journal *'Biology Letters'* and focused on the pain thresholds of collegiate rowers when training by themselves vs. with the team. Although pain is not correlated to results, it is general accepted that when your muscles begin to tire, and you are "feeling the burn," the physiological ability to push through, weather it be for 2 more reps, 10 more seconds or 10 more meters will ultimately pay dividends with better results.

Your Best Diet for Weight Loss? It's All in Your Genes

Various studies have showed varying results to which type of diets (high-carbohydrate/low fat diets, high-protein/ low-carbohydrate diets) are best for weight loss. However, a Stanford University study led by Christopher Gardner discovered that your genes may actually be the key to determining the best diet to help achieve your weight loss goals. Within the study, approximately 39% of persons had a genetic makeup that responded best to a low-fat diet, while 45% responded best to a low-carbohydrate diet. 16% of the participants responded best to a diet which limited both fat and carbohydrate intake. Subjects within the study who were on a weight loss diet appropriate for their genetic makeup lost more than 5% of their body weight, while subjects who were on a diet inappropriate for their genes lost only 2.3%.

Deadly Abdominal Fat

A large population based study from the Epidemiology Research Program at the American Cancer Society in Atlanta found that the risk of death each year increased with increased waist size. This study was led by Eric Jacobs, and was unique due to not only the fact that it comprised of over 100,000 participants but also due to its results which showed that a higher waist circumference increased the risk of death from associated causes in all Body Mass Index (BMI) groups. Thus, even people with low body fat levels were at increased risk of death based on their waist size. In fact, the study deemed that people with a large waist circumference but normal BMI actually had the greatest risk of premature death.

Questions & Answers

Which cardio exercises are the best for burning calories and losing weight?

The simple answer to your question is "**the cardio exercise *that you enjoy and that you will do day after day consistently".*** In essence the best cardio exercise for burning calories and losing weight depends on the effort that you put in**.**. However, there are some exercises that, on a base line, are more "intense" than others. The intensity of a cardio exercise depends on its MET (Metabolic Equivalent) level. Exercises that have a higher MET level result in more calories being burnt over the same period of time. Below are a list of MET levels for 6 gym related activities.

Exercise : METS	**Exercise : METS**
Treadmill at speed 6.0 mph : 10.5 METS	Aerobics/Step Aerobics Class : 6 METS
Stepper at resistance of 45 : 8 METS	Stationary Bike at 100 watts : 5.5 METS
Circuit Training Class : 8 METS	Stretching/Yoga Class : 4 METS

It should be noted that the above list is based on average MET levels. The intensity level of some exercises (e.g. treadmill at speed 6.0 mph) are set while, the intensity level of other exercises (e.g. aerobics class) are highly variable depending on external factors such as class structure and your individual output, thus actual METS may vary from the average. For a full list of average MET levels for a wide range of activities you may check the following link: http://www.plu.edu/~chasega/met.html

Have a question you want answered? Read something you disagree with? Send your questions or comments to jamiljones@jandsacademy.com and we will try to answer them for you in our next issue.

Soft Drink Consumption and Your Health cont'd

CONTINUED FROM PAGE 1

3 ***Kidney Damage***

When a high quantity of soft drinks (which are acidic in nature) are consumed your body pulls calcium out of the bones to buffer the acidity of soft drinks. In most cases, in response to the acidity, your body releases too much calcium which must then also be neutralized. Such neutralization can occur when the excess calcium is secreted through the urine; however, when all of the excess is not secreted the extra calcium is deposited in the kidneys, resulting in the formation of kidney stones. Researchers have linked the consumption of large quantities of soft drinks to increased possibility of kidney stone formation and a subsequent increase in the risk of chronic kidney disease.

4 ***Diabetes***

An extensive study review, published in the April 2007 edition of the *American Journal of Public Health,* provided one of the a striking links between soft drinks and diabetes and a pre-diabetes condition called metabolic syndrome (***Metabolic Syndrome*** is the name for a group of 5 risk factors - excess waist circumference, high blood pressure, elevated triglycerides, low HDL cholesterols level, high fasting glucose levels - which has been shown to increase the risk of heart disease, stroke and diabetes). In the study, which included 91,249 women over an 8 year period, it was found that women who drank one or more soft drinks per day were twice as likely to develop diabetes over the course of the study compared to those women who drank less than one soft drink per month. While the authors of this review do acknowledge that there was a great deal of variability (e.g. methods, populations, beverage types, body weight) among the studies analysed, the reviewers inferred that the "result alone warrants serious concern about soft drink intake, particularly in light of the unprecedented rise in type 2 diabetes in children."

5 ***Tooth Decay***

In the last 25 years the incidences of tooth decay has declined in many developed countries. Nevertheless, tooth decay is one of the least disputed advised effects of regular soft drink consumption. Even the soft drink industry admits that the research linking soft drinks as a contributing factor to tooth decay "has merit". However, the soft drink industry is also quick to state (as most data suggest) that soft drinks are "just one of several contributors to tooth decay, and a less important one in developed countries". Research shows that drinking soft drinks actually has a double effect on your teeth as soft drinks not only contain sugar, which most people relate as the true cause of tooth problems, but they also contain acids (carbonic and phosphoric acid). The sugars within soft drinks damage your teeth indirectly as bacteria feed off the sugar and form plaque on the teeth, which can ultimately lead to tooth decay. The acids within soft drinks result in a more rapid (and direct) damaging effect on your teeth as when you consume soda drinks the acid in the soft drinks dissolve calcium in the enamel of your teeth, leaving a softened matrix which can directly result in the decalcification of teeth (where there are white bands of softened enamel circling the teeth at the gum line). Additionally, the decay of teeth due to the effect of bacteria infiltrating the weakened teeth can result in cavities and invariably tooth decay.

With the risk of obesity, bone fractures, kidney damage, diabetes and tooth decay, one may asking oneself why drink soft drinks at all?" Well, as with most other high sugar foods and beverages there is really no reason why one cannot have the occasional treat. Just keep your soft drink consumption to a reasonable level. Try reducing your soft drink intake to one a day, then one a week and then maybe just one a month. Remember "DRINK RESPONSIBLY!"

TIPS CORNER

Weight loss tip: *Remain Focused and Be Patient*

Do not become discouraged if you are not losing weight as quickly as you would like. As long as there is progress (weight loss) you are doing something correct. Focus on the progress you have made thus far and use it as a source of encouragement. Remember it did not take you 3 weeks to put on those extra 15 lbs so don't expect to lose them in 3 weeks.

TIPS CORNER

Muscle Building tip: *Execute Each Exercise Correctly*

The improper execution of an exercise commonly incorporates additional 'non-targeted' muscles into the motion. This additional incorporation not only increases the possibility of injury but results in a smaller load being moved by the targeted muscles. Hence the effectiveness of the exercise, on the targeted muscles, is decreased.

NEWS, NOTICES AND EVENTS

GYM/SPIN MEMBERSHIP ADDITION

- ***Effective Monday, 14th February 2011 this package will be extended to facilitate all specialty classes whereby the previous 4 spin sessions can now be used for any of the specialty classes (Spinning and Cardio Kickboxing) offered by the gym. Subsequently, this gym package will be renamed Gym/Specialty Class Combo.***

CLASS COMBO MEMBERSHIP

- ***The Class Combo membership package currently includes 12 gym classes (gym sessions are not inclusive in this package). Effective Monday, 14th February 2011, members signed up under this package may pay for gym sessions at a reduced session rate of $10 per session.***

LOCKERS

- ***J & S Academy has started to acquire lockers for its members to keep their belongings in while at the gym. Members are reminded that all contents should be removed from the lockers upon leaving the gym. Any contents left in the lockers after closing hours will be removed and held for up to 30 days for collection by its owners.***

PAST NEWSLETTER EDITIONS

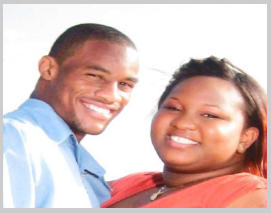
- ***Past editions of J&S Academy's Health & Fitness Newsletter can be downloaded from the gym's website (www.jandsacademy.com).***

CONTACT US

J & S Health, Fitness & Sports Academy

6 Holders Hill
St. James
Barbados
Tel: (246) 231-6792
Website: www.jandsacademy.com
E-mail: admin@jandsacademy.com

ACKNOWLEDGEMENTS



Writer: Jamil Jones

Editor: Janielle Jones

Photography: Janielle Jones & Jamil Jones

Special thanks to Renee Griffith & Jennifer Swanston-Jones for their assistance with this issue

WANTED...

Models for the next publication of the Health & Fitness Newsletter

Contact Jamil Jones at 231-6792 (w), 233-6433 (c)

or jamiljones@jandsacademy.com.

Let Us Know What You Thought Of This Issue

Read something that you disagreed with, that you did not understand or that was really helpful? Send your feedback to **jamiljones@jandsacademy.com**