

J & S HEALTH, FITNESS & SPORTS ACADEMY

Health & Fitness Newsletter

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Overtraining - Understanding It, Spotting It, Preventing It & Overcoming It

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:

It's not who you are that holds you back, it's who you think you're not.

Anonymous

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Overtraining — Understanding It

Overtraining is a physical, behavioral and emotional condition that occurs when the volume and/or intensity of an individual's training regimen exceeds their recovery capacity. As a result, the individual ceases to make progress and their performances or training outputs stall or regress until their body can fully recover from the previous stress. Although overtraining is directly linked to training regimens the onset of overtraining can also occur at a more rapid rate if the individual is simultaneously exposed to other physical and psychological stressors. Examples of such physical and psychological stressors are illness, menstruation, poor nutrition, jet lag, lack of sleep and being over worked.

Overtraining — Spotting It

Outside of the visual dip in training performance, overtraining maybe accompanied by one or more systems which can have other physiological or psychological effects on your life.(See Table I)

Table I: Examples of the Effect of Overtraining on an Individual's Life

Training Performance	Physiological Effects	Psychological Effects
Persistent muscle soreness	Excessive weight loss & loss of body fat	Depression
Persistent muscle fatigue	Decreased muscular strength	Loss of appetite
Decreased aerobic capacity	Increased resting & submaximal heart rate	Loss of enthusiasm
Delayed recovery	Increased incidence of injury or illness	Loss of motivation
Inability to compete/perform workouts	Absence of menstruation	Loss of competitive drive
Poor physical performance	Insomnia	Irritability
	Higher Cortisol (stress hormone) levels	



PAGE 2 Shoulders & Traps Workout

Whether male or female, clothed or not, your shoulders are one of the most noticed body parts. Well developed shoulders (targeted to being broad in size for men, and shapely for women) can help make your waist appear smaller with the added benefit of allowing for quicker development of your chest and back due to the stabilizing assistance that the shoulder muscles and joint provide in many of the exercises which target your chest and back muscles.

Below is a 'Shoulders & Traps' workout which ensures that all three deltoid heads are properly targeted to help develop a well rounded shoulder area.

Exercise	Sets	Repetitions
Smith Machine Front Press	2	8
Smith Machine Back Press	2	8
Dumbbell Lateral Raises	4	10
Dumbbell Bent Over Lateral Raises	4	10
Cable Upright Rows	4	12
Dumbbell Shrugs	3	15

* The above workout incorporates the use of the Smith Machine, Cable Crossover Machine and dumbbells, however all the exercises can be performed with dumbbells if necessary.



Cable Upright Rows



Dumbbell Lateral Raises



Dumbbell Bent Over Lateral Raises



Smith Machine Front Press

Ask Yourself Answers

- False Excess doses of any vitamin can be toxic
- False People who eat no meat can easily get enough protein without eating a lot of special foods
 - 3. True
- False A brown color does not always mean the bread is high in fiber as that color can come from additions in the creation process
 - True.

Research the Facts

Liposuction Increases Organ Fat



Liposuction is the most popular elective surgery in the world as persons use this surgery to remove unwanted fat from various parts of the body, most commonly the abdomen, thighs, buttocks and neck. A Brazilian study from the University of Sao Paulo found that liposuction of the surface fat in the abdomen caused an increase in the visceral fat (fat cells surrounding the organs). Subsequently persons who have liposuction should ensure that they exercise regularly to prevent visceral fat growth and the subsequent increased risk of heart disease that is associated with increased visceral fat.

(Journal Clinical Endocrinology Metabolism, 97, 2388 - 2395, 2012)

Failure Training Not Necessary for Max Muscle Activation

High-rep training to failure has been shown to increase muscle protein synthesis more than high-weight, low rep training. However, when Danish researchers compared muscle activation levels during heavy weight, low rep sets with sets to failure they found that initial activation was greatest when lifting heavy weights and that the muscle activation increased progressively during the failure sets; though, this muscle activation reached a maximum at 3 to 5 repetitions before achieving failure. This study therefore showed that pushing muscles to the max is an effective method of activating and training muscle fibers; however, it is not necessary to push the muscles to absolute failure.

(Journal Strength Conditioning Research, 26: 1897 - 1903, 2012)

Popcorn Satisfies Appetite Better Than Potato Chips



Long-term weight control studies have shown that people who eat potato chips regularly gain weight, while low-fat popcorn has been shown to be high in fiber and is a good snack food for weight control. According to a subsequent study from the Rippe Lifestyle Institute in Florida based on these two facts, it is suggested that to help weight control persons should substitute snacking on potato chips for low-fat popcorn.

(Nutrition Journal, 11: 71, 2012)

Diet Sodas Interfere with Appetite Control

Diet sodas are typically sugar-free, artificially sweetened beverages which many persons consume instead of their full-calorie counterparts in their quest to limit their calorie intake and control their weight. Researchers have shown however that the artificial sweeteners in diet drinks interfere with the brain's ability to predict the caloric content of foods from taste, which subsequently actually promotes overeating. Research from the University of California, San Diego showed that the problem was most severe in people who regularly consumed the diet soda drinks, as the brain scans of such individuals showed decreased activation of the brain region associated with food intake and satiety.



(Science News, July 14, 2012)

TIPS CORNER

Weight loss tip: Eat Thermogenic Foods

Thermogenic foods are foods which your body uses 'extra' calories in order to properly digest and utilize. Some of the good thermogenic foods are peppers, broccoli, celery, lettuce, cabbage, green tea and grapefruit

TIPS CORNER

Muscle Building tip: Rest Less Between Sets

Taking shorter rest periods between sets not only increases the intensity of the exercise but, it also increases the metabolic effect of weight training. The optimal rest period range is 30 — 60 seconds. Anything shorter than this may be counter productive.

Overtraining - Understanding It, Spotting It, Preventing It & Overcoming It Cont'd

Continued from Page 1

Overtraining — Preventing It

Different athletes not only have different recovery abilities but, the impact of additional physical and psychological stressors affect each individual differently. Thus, each individuals process to preventing and overcoming overtraining would be individualized. Nevertheless, there are some general specific steps that can be implemented to prevent overtraining:

- **Periodization Training** Involves alternating through periods of light, medium and hard training sessions, thereby reducing the possibility of becoming overworked. To help allow for full recovery from training sessions 'rest days' should also be included.
- ◆ Adequate/increased Sleep Allows your body time to totally rest and recuperate from strenuous training.
- ♦ Inclusion of Muscle Recovery Techniques (e.g. massage, cryotherapy) Allows the muscles to recover quicker from intense training sessions.
- Proper Diet Ensures you not only adequately meet your energy demands for everyday activities, but also for the intensity of
 your training regimen.

Overtraining — Overcoming It

The previously mentioned steps can all be implemented to help overcome incidences of overtraining. However, depending on the extent of the overtraining being experienced total rest maybe the only method which may adequately allow your body to fully recover. The length of rest needed would vary based on the current state of overtraining being experienced.

Conclusion

Overtraining is a common occurrence in athletes; however, many don't recognize it is occurring until it is too late. There is a common belief that 'harder is better' and that one should 'keep pushing' to get results; however, it is important to include adequate lower intensity, recovery and rest days into your program to allow your body to recover.

CAUTION	
Avoid Overtraining	J

AS	K YOURSELF True or False?	Score:	out of 5	Answers can be found on the bottom of page 2
1. 2. 3.	Artificial sweeteners are safe to use in moderation. Breads that are brown in color have more fiber than white No one is free of atherosclerosis (the narrowing of the arte		<u>True</u> <u>True</u>	<u>False</u> <u>False</u>
	cholesterol-containing plaque in the arterial walls). People who eat no meat need to eat a lot of special foods to You can't overdose on vitamins because the body excretes.	0 .	<u>True</u> <u>True</u> <u>True</u>	<u>False</u> <u>False</u> False

NEWS, NOTICES AND EVENTS

SHARE THE LOVE WITH FAMILY AND FRIENDS PROMOTION

During the month of February, J & S Academy invites you to share the love with your friends and family by giving them a coupon for 50% off our regular limited or unlimited monthly gym rates. Conversely, we at J & S want to share the love with you with weekly prizes, of one month of free membership, to be won for referrals made to the gym under this promotion. *Coupons can be collected from the Front Desk — Special conditions apply*

SHARE THE LOVE WITH FAMILY AND FRIENDS PROMOTION WINNERS

Congratulations to all the winners in our 'Share the Love with Family and Friends Promotion'
Thank You to all the gym members who took part in the promotion.

BARBADOS BIKINI AND MEN'S PHYSIQUE CUP

The Combermere School: March 2nd, 2013, 6 pm

PAST NEWSLETTER EDITIONS

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

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WANTED...

Models for the next publication of the Health & Fitness Newsletter

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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