



News That's Fit To Print

VOLUME 3

NOVEMBER 2007

Notes from Editor

Yours in health,

The cooler weather has finally hit here in North Carolina. It is hard to believe that Thanksgiving is a few weeks away. Read the article on page 3 on how to control stress and overeating during the busy holiday season.

We hope you are enjoying the newsletter and look forward to hearing any comments you may have!!

Yours in health,

Dave Radin
Editor

Resistance Training and Obesity

Obesity has become a major health concern. The American College of Sports Medicine (ACSM) defines obesity as the "percent fat at which disease risk increases." Individuals who are obese have a higher incidence of heart disease, diabetes, hypertension and certain types of cancer.

Obese individuals who are trying to lose weight are usually prescribed an exercise program that increases caloric expenditure. These programs sometimes focus on aerobic activities with little regard to resistance training, but resistance training is a vital component to a weight-loss program, and should be included to help obese individuals build strength and preserve lean body tissue (LBT).

Benefits of resistance training

Resistance training provides many benefits to obese individuals. Increases in the strength of the nervous system and muscular system are generally seen within the first few weeks of training, and increases in muscular size (hypertrophy) are generally seen after four to six weeks of training.

Another benefit is cardiovascular. Peak oxygen consumption (VO₂ max) either remains the same or increases slightly (3 to 4 percent) with non-circuit resistance training. Circuit training, in which exercises are conducted continuously with little or no rest, can result in VO₂ max gains of 3 to 10 percent because of the high volume of work.

Resistance training can also alter lipid profiles by increasing high density lipoprotein (HDL) levels in the blood and decreasing the total-cholesterol/HDL-cholesterol ratio. Total training volume plays a significant role in blood lipid profile changes.

Another benefit of weight training is increased bone mineral content.⁷ Increased bone density reduces the risk of bone-related injuries due to osteoporosis, a degenerative loss of bone tissue typically seen in post-menopausal women. Exercise intensity and duration may affect the mineral content of bone.

Obese individuals with high levels of body fat can also experience dramatic changes in body composition with resistance training. Increased levels of LBT increases physical function and strength. Body composition appears to be affected by training the larger muscle groups of the body, as larger muscle areas require an increased caloric cost. Total training volume appears to be another factor in altering body composition.

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LOOK!

Did you know if you refer friends and family who sign up for a training package, you can receive complimentary sessions!! For more information, ask your trainer the next time you are working out, or call either the Mooresville or Cornelius locations for more information.

Fitness Quiz

Bad posture contributes to which of the following conditions?

- A. headaches
- B. Joint pain
- C. Predisposition to injury
- D. Limited range of motion
- E. All of the above

the answer can be found on page 4

Hot Topics

Can Static Stretching Actually Improve Performance?

Static stretching has become quite controversial in performance training over the past decade. Research has reported that there are no apparent injury reduction benefits for pre-exercise stretching and some speculate that **static stretching could actually increase injuries in sports** that are explosive in nature because of decreased force potential in a muscle that's been stretched for as little as 15 seconds. Interestingly, a recent study **now suggests that de-conditioned populations** may experience performance gains with static stretching alone.

Thirty-eight participants were randomly assigned to stretching and control groups. **The stretching group participated in lower-extremity static stretching 3 days per week for 40-minutes over 10 weeks.** No other exercise activities were permitting during this period. Researchers assessed flexibility, **explosive power** via 20-meter sprint, standing long jump and vertical jump, strength via 1RM testing for knee flexion and extension, and strength endurance via total repetitions at 60% 1RM in knee flexion and extension.

Although **flexibility did improve 18%** over the course of the study, there was a significant increase in performance measures. Among tests of power, standing long jump, vertical jump, and 20-meter sprint participants all improved. **Strength improved 15.3% for knee flexion and 32.4% for knee extension, whereas knee flexion endurance and knee extension endurance increased 30.4% and 28.5%, respectively.** Controls showed no improvement in any of the variables assessed.

The results of this study indicate that **static stretching might benefit individuals who are not capable of participating in a traditional exercise program.** This may explain some of the perceived strength benefits attained when a de-conditioned individual starts a yoga program. **Athletes and other well-conditioned populations are not expected to see similar benefits.**

Kokkonen, J. et al (2007) Chronic static stretching improves exercise performance. Medicine and Science in Sports and Exercise. 39(10): 1825-31.

FACTOID

As we age, the body begins to slow down at decrease function. There has been one thing that can slow down or possibly halt this process.

EXERCISE!!

Trainer Spotlight



Greg Asbee, BS,
NASM-CPT,
Personal Trainer

Greg holds a degree in Health Promotions from the University of Iowa and is a National Academy of Sports Medicine - Certified Personal Trainer. A tremendous motivator and educator, Greg has helped many individuals reach a variety of fitness goals and an improved quality of life.

'Tis the Season to Binge and Stress; This Year Avoid the Holiday Worry and Pounds

The holiday season is a time full of joy, cheer, parties, and family gatherings. However, for many people, it is also a time filled with anxiety, stress, and weight gain. Unfortunately, many people often use the busy holiday season as an excuse to reduce exercise or put off starting a new program. Often these people have the intention of coming back with a vengeance after the New Year. "The New Year is just around the corner and I'm going to lose weight and get in shape"; this trusty New Year's resolution declaration is also conveniently used to justify holiday overindulgence. Researchers at the National Institute of Child Health and Human Development (NICHD) and the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) have shown that for most people weight gained during the holidays is not lost and accumulates on a yearly basis. Says NICHD Director Duane Alexander, M.D; "These findings suggest that developing ways to avoid holiday weight gain may be extremely important for preventing obesity and the diseases associated with it." Maintaining a regular exercise program throughout the holiday season provides benefits on many different levels.

The demands of shopping, parties, family reunions, and house guests can contribute to feelings of tension. According to The National Mental Health Association, (NMHA) this tension can illicit stress responses such as: headaches, excessive drinking, difficulty sleeping, and the ever-popular over-eating. Exercise has been shown to be a tremendous tool to manage stress. Exercise will give you energy and the mental strength to deal with the mad rush of holiday shopping, holiday travel and holiday visitors. Managing stress with exercise can also help control cravings for those comfort foods that adorn the holiday tables. Regular exercise also increases metabolism, thus reducing the detrimental effect of an occasional extra cookie or glass of eggnog. Experts at NMHA claim, even more people experience post-holiday let down after the New Year than suffer holiday anxiety. With this comes lack of motivation and comfort eating. Its no wonder those New Year's resolutions are rarely successful.

Parties, large meals and extra calories are almost unavoidable during the holiday season. Weight maintenance rather than weight loss through the holidays is a much healthier goal. Exercising regularly and enjoying the few extra calories will break the vicious cycle of guilt, feelings of failure, and more eating. Getting a head start on exercise prior to January 1st will give you a healthier and happier holiday season as well as make those New Year's resolution goals far more attainable.

Healthy Holiday Tips:

1. Focus on weight maintenance not weight loss - Parties, large meals and extra calories are almost unavoidable during the holiday season. If you are currently overweight and want to lose weight, this is not the time to do it; setting difficult or unrealistic goals can lead to a vicious cycle of guilt, feelings of failure, and more eating.
2. Get moving – Regular exercise will increase metabolism and allow you to enjoy a few extra calories without putting on the pounds. Exercise will give you energy and the mental strength to deal with the mad rush of holiday shopping, the holiday travel or holiday visitors and the party hopping.

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Chef's Corner...

Brined Turkey

This recipe serves: **8**

Ingredients

For the brine:

2 quarts water
 1 cup sugar
 1/4 cup kosher salt
 1/2 cup honey
 4 sprigs fresh thyme
 2 sprigs fresh sage
 2 sprigs fresh rosemary
 2 whole cinnamon sticks
 2 bay leaves
 1 tablespoon whole black peppercorns
 1 teaspoon whole allspice
 1 teaspoon fennel seeds



For the turkey:

1 fresh turkey, about 10 to 12 pounds
 1 tablespoon olive oil

Cooking Instructions

1. In a large saucepan, combine all of the brine ingredients except for the ice and bring to a boil. Cook until the sugar and salt dissolve.
2. Pour the brine into a heat-proof container large enough to hold the turkey. Add the ice to the brine to cool it quickly. Submerge the turkey into the brine, cover and refrigerate over night.
3. Preheat the oven to 325°F.
4. Remove the turkey from the brine, place it in a roasting pan and brush it with olive oil.
5. Roast the turkey in the oven for 2 to 2 1/2 hours, until a thermometer inserted into the thickest part of the thigh registers 180°F.
6. Remove the turkey from the oven, cover to keep warm and allow it to rest for 20 minutes before carving.

Nutrition Information

Serving Size: 6 ounces cooked turkey meat

Number of Servings: 8

Per Serving			
Calories	238	Carbohydrate	10 g
Fat	5 g	Fiber	0 g
Protein	37 g	Saturated Fat	2 g
Sodium	362 mg		

Quiz Answer:

E. All of the above

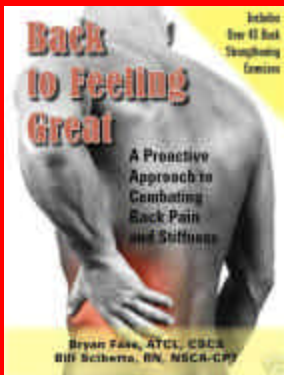
Bad posture causes the skeletal system to become mis-aligned and muscle tightness. The combination of the two leads to various ailments that can all be reversed by proper exercise and stretching!!

www.fitness-facts.com

What's That???

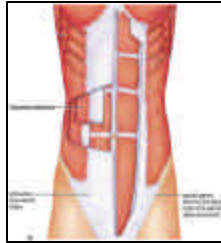
Skeletal muscles are made up of 75% water and 20% protein. The rest is made up of inorganic salts, enzymes, fat, and carbohydrates.

www.fitness-facts.com



The newest book put together for those suffering from back pain. Go to www.backtofeelinggreat.com to buy the book and view other books authored by the pro's at Precision Fitness.

Muscle Anatomy



Muscle: Transverse Abdominus

Origin: Thoracolumbar Fascia, Ribs (T6-T12), Iliac Crest

Insertion: Linea Alba, Pubic Crest

Eccentric Action: Decelerate Abdominal Protrusion

Isometric Action: stabilize lumbo pelvic hip complex

Concentric Action: increase intra-abdominal pressure.

The transverse abdominus is one the main muscles involved with stabilizing the spine during movement. The majority of Americans have very weak transverse abdominus due to bad posture and faulty movement patterns.

If you have a job that involves a lot of sitting, driving, or using a computer, you most likely have weak transverse abdominals. Below are some of our commonly used exercises to improve the strength and stability of the transverse abdominals:



Hip Flexor/Quad ROM



Low Abs 2



Plank

Our Training Philosophy:

"M.P.E. TRAINING" MAXIMUM PHYSICAL EFFICIENCY

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Want to learn about something that has not been on previous newsletters? Send an email to:

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3. Get Plenty of Sleep – Lack of sleep impairs our ability to handle stress (which there is usually no shortage of during the holidays). Chronic sleep loss can also affect various components of metabolism that influence hunger and weight gain.
4. Substitute healthy recipes - Use applesauce in place of oil; use egg whites in place of whole eggs; try plain nonfat yogurt in place of sour cream. Magazines and healthy cooking cook books are full of reduced calorie and reduced fat holiday recipes that taste great.
5. Don't go to parties hungry – Going to a party on an empty stomach is a recipe for disaster. Starting your day with a healthy breakfast and eating sensibly throughout the day should help you control your appetite and avoid over-indulging on the typically high fat and high calorie holiday fare.
6. Eat slowly- Make one plate of the foods you really want. It takes about twenty minutes for your brain to register that your stomach is full. Take your time to enjoy the taste of every bite, and you will realize you don't need to go back for seconds.
7. Limit alcoholic beverages - Liquors, wines and mixed drinks can contain 150-450 calories per glass whereas, water and diet sodas are calorie-free. If you choose to drink, try light wines and light beers, and use non-alcoholic mixers such as water and diet soda. Limit yourself to one to two drinks.
8. Get rid of leftovers – Some foods are more fattening than others, however, no food will make you gain weight unless you eat too much of it. Often we eat beyond our body's physical hunger simply because food is there.
9. Keep it in perspective – It takes days of overeating to gain weight; one day won't make or break your eating plan. Nothing is more destructive to a healthy eating plan than the negative feelings of failure and guilt. If you over-indulge at a holiday meal or party, don't beat yourself up; simply return to your sensible healthy diet the next day.

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