



News That's Fit To Print

VOLUME 4

NOVEMBER 2008

Notes from Editor

I can't believe the end of the year is upon us.

This year, just like every other year, has flown by.

We have had some a great year and even opened a new location in Huntersville.

Check out Bill Scibetta's article on healthy eating during the holiday season for tips to stay healthy this holiday season.

Behave. Exercise, and stay fit.

Dave Radin
Editor

The Concept of Periodization

How do you get ready for your desired sport or activity? Do you play yourself into shape or do you have a system that builds in intensity till you reach your peak performance at just the right time? If you play yourself into shape, you are behind your competitors. The old days of showing up for games and practices and getting into shape are over. Every baseball player, cyclist, bodybuilder, track and field athlete have a plan to be in peak physical performance by the time the season has started.

How do they do it? Secret Training tips? No. The process is called **Periodization**. Periodization is a systematic approach to training that divides the year into different phases. Each phase has a different goal and objective. The overall goal is to gradually increase the intensity of the workout and perform exercises that mimic your specific sport or activity.

Even if you are a weekend warrior or just looking to improve the shape of your body, periodization can help accomplish that. There are at least four phases: Adaptation, Hypertrophy, Strength, and Power. See the table below for the details of each phase.

Phase	Sets/Reps	Rest	Duration	Intensity
Adaptation	2-3; 15-20	60 secs	4 weeks	Low
Hypertrophy	3-4; 8-12	90-120 secs	4-6 weeks	Moderate
Strength	3-4; 5-6	2-4 minutes	4-6 weeks	High
Power	3-5; 2-5	3-5 minutes	4-6 weeks	Very High
In-Season	1/4-6; 8-12	90 secs – 4 minutes	Competitive Season	Very High

As you can see, each phase builds upon the next by increasing intensity to increase performance. The **adaptation phase** strengthens the neuromuscular system. Research has shown that the first few weeks benefit the neuromuscular system before gains in muscular strength occur. The **hypertrophy phase** is designed to increase muscle mass and to increase overall work capacity. Some limited sport specific exercises can start to be introduced in this phase. The **strength phase** is designed to do just that: improve muscular strength. The **power phase** is designed to improve force production associated with the particular sport activity.

After the power phase, an **in-season phase** can be performed to maintain power and strength levels gained during previous stages. The repetition range varies from heavy, power exercises (4-6 reps) to the muscle building hypertrophy phase (8-12). If your goal is to improve body composition, improve your golf game, decrease your 5K time, or improve strength levels, periodization is the way to do it. By planning your workouts from your target date and working backwards, you can easily put together a plan that can work to help you reach your goals.

If you have questions about periodization, ask your Precision Fitness trainer for more details about what periodization can do for your performance.

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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

How long does the cell structure of skeleton to completely rejuvenate itself?

- A. One month
- B. 1 years
- C. 5 years
- D. 10 years

Answer on page 4.

Hot Topics

Multi-modal Training Produces Exceptional Results!

Concurrent training refers to the training of two exercise variables (i.e. strength vs. endurance) simultaneously. Historically, multi-modal training has been believed to inhibit the optimization of any of the variables trained. **Hence, strength professionals often advocate a periodization model** that focuses on one exercise mode for a period of weeks before changing the program to target another.

A recent study published in the *Journal of Strength & Conditioning Research* suggests that we need not fear concurrent training citing that **benefits may actually be greater** than in single-mode variations.

Researchers from the **University of California** studied the effects of both serial concurrent exercise (SCE) and integrated concurrent exercise (ICE) on well-trained female college athletes. The SCE protocol incorporated 60 minutes of strength training followed by 30 minutes of aerobic training. **The ICE protocol used 75 minutes** of strength exercises with short cardio accelerations interjected. Total exercise volume was controlled by extending the warm-up period in the ICE protocol by 15 minutes. **Participants trained 3 times per week for 11 weeks.**

The study found ICE produced better results than SCE in 6 of 9 areas tested. Adaptations to both protocols were comparable if not better than to those expected in single-mode training. In fact, compared to single mode training strength gains in the SCE group during this study were ~42% and ~110% higher for upper and lower body, respectively. **Improvements were even greater for ICE over single mode training.**

Davis, W.J. et al (2008) Concurrent Training Enhances Athletes' Strength, Muscle Endurance, and Other Measures. Journal of Strength & Conditioning Research. 22(5): 1487-1502. www.exercisetc.com

Exercise of the Month—Mountain Climbers

Preparation

- Begin in a push-up position (arms lined up with the chest, legs extended out)
- Make sure to keep the head in line with the body and the stomach muscles contracted throughout the range of motion.



Movement

- Start the movement by bringing the right knee to the chest and back to starting position.
- Quickly alternate to the left leg and continue this movement for a timed period (anywhere from 30 seconds - 5 minutes).



FACTOID

The single most preventable cause of death is **smoking**.

Trainer Spotlight



Katie Gallagher, BS
CSCS, NSCA-CPT

Katie is currently working on her masters in Exercise Physiology at University of North Carolina– Charlotte. Katie majored in Exercise Science at Elon University and was a competitive dancer on the university's dance team. Katie's interest in strength and conditioning and cardiac rehab put her in a unique position of combining medicine and exercise.

'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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Quiz Answer:**D. 10 Years**

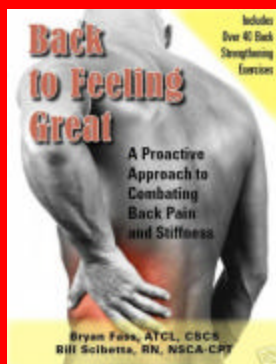
The body is an amazing machine that can rejuvenate itself.

Some things it make on a daily basis (blood cells, skin, etc.) while other areas take longer to do.

The skeleton (the body's frame) take the longest. So take care of it and make sure you are getting enough calcium.

Are you experiencing back pain on a regular basis and your doctor has no answer? We do!!

Check out the best resource for reducing your back pain at: www.backtofeelinggreat.com. Written by the pro's at Precision Fitness.



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



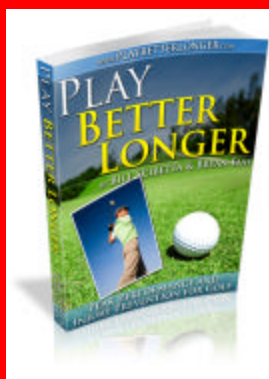
Per Serving			
Calories	238	Carbohydrate	10 g
Fat	5 g	Fiber	0 g
Protein	37 g	Saturated Fat	2 g
Sodium	362 mg		

www.foodfit.com

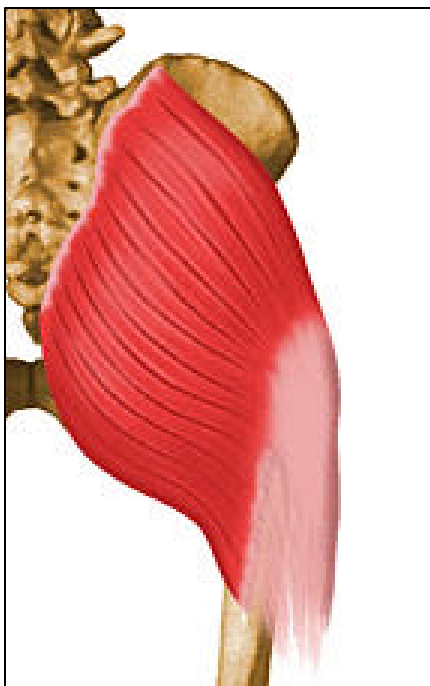
Health Tip

The single **most important** thing you can do to prevent the spread of infectious organisms, **wash your hands!!**

Suffer back, hip, knee pain while playing golf? Good news for you!! The pro's at Precision Fitness put together the most comprehensive golf book on the internet. Go to: www.playbetterlonger.com to buy the book and improve your golf game today!



Muscle Anatomy



Muscle: Gluteus Maximus

Origin: Sacrum and sacrotuberous ligament

Insertion: Iliotibial tract and gluteal tuberosity.

Eccentric Action: Decelerate hip flexion, hip internal rotation, and hip adduction. Also decelerates tibial internal rotation via the IT Band.

Isometric Action: Stabilize SI Joint via the sacrotuberus ligament via the IT Band.

Concentric Action: Hip extension and external rotation.

The gluteus maximus is one of the most powerful muscles in the body. Don't believe it? Take a look at the best sprinters in the world. They have very well developed glutes. However, even though these are powerful muscles, we typically see many people with weak glutes due to tight hip flexors.

Here are some basic exercises to improve glute strength:



Bridges



Bridges on Ball

Remember to brace your abdominals when performing these any strength training exercise.

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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