

Notes from Editor

I hope you are enjoying the dog days of summer. Summer is a time of family, fun, friends, and food. Grilling out is a summer tradition during the summer. Check out Bill and Bryan's articles to give you some tips on how to stay on the right path to eating healthy this summer.

Hope you and your family had a safe 4th of July.

Yours in Health,

Dave Radin
Editor

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Jump Start Your Metabolism

Weight Loss is a multi-billion dollar industry that promises to provide products that will "boost your metabolism" to assist in fat loss, thereby with weight loss as well. These weight loss products are typically made of ingredients that are believed to increase your basal metabolic rate (caffeine, guarana, ephedrine, plus others).

Want to know the safest way to increase your metabolism? **EXERCISE!!** Before we talk about the how with exercise, let's talk about the definition of resting or basal metabolism. Resting metabolism is the minimum number of calories the body needs per day to maintain current bodyweight while at rest.

It is very basic. You eat more than that number, you gain weight. The basic formula for weight loss is to burn more calories than to consume. Sounds simple right? Many people try this formula and have success in the beginning, but stall out after a period of a few weeks. This can be attributed to the metabolic rate adjusting to meet the body's needs. Remember this: **PHYSIOLOGY WILL BEAT PSYCHOLOGY.** Stop trying to trick your metabolism because it will not work. Here is how:



Jump Start your Metabolism with Exercise

- Strength Train**—the body's frame in-rate. Just 3lbs of muscle bolic rate by 100 calories to perform work. calories it will need.
- Aerobic Training**— you have to do it. Aerobic exercise is what is going to burn away excess calories stored as fat. Plus, it keeps your metabolic rate elevated slightly for a few hours post exercise. Try interval training to boost caloric expenditure.
- Combine Strength Training w/ Aerobic Training**—a targeted workout that incorporates both strength and aerobic training can give you the best of both worlds in one compact workout, saving you time which will allow you to focus on your life outside of the gym.
- Eat 4-6 Small Meals spaced throughout the day**— eating every few hours allows the metabolic rate to be consistent without drastic changes in energy levels. Snacks are also considered a "meal." Always eat break-fast!! Have a little protein at every meal along with some carbohydrate.

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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

According to the USDA, what is the minimum requirements for fruits and vegetables per day for adults over the age of 19 years of age?

- A. 3 cups
- B. 4 cups
- C. 5 cups
- D. 6 cups

answer can be found on page 4

Hot Topics

Cutting Back on Endurance Volume May Not Reduce Aerobic Capacity

Traditional endurance training models that emphasize very high volumes and moderate intensities, **although practiced by nearly all elite, endurance athletes, are a primary factor in the high rate of chronic overuse injury in endurance sports.** Consequently, research has sought alternative methods for optimizing endurance performance while reducing injury. **Preliminary studies on high intensity resistance exercise and explosive or plyometric training have been promising.**

One concern expressed by endurance athletes, is the effect that **replacing endurance training volume with anaerobic training will have on maximal aerobic capacity**; a determinant of endurance performance. A recent study published in the International Journal of Sports Medicine may help quell this fear. **The researchers determined that max VO₂ is unaffected when up to 20% of endurance training volume is replaced by explosive training.** Twenty-five 16-18 year old distance runners participated in the 8-week study. The participants were divided into two groups, one replacing ~20% of total endurance training volume with power/explosive training. **Total training volume was equivalent between groups.** The researchers completed pre- and post-assessment of top speed during anaerobic running and 30-m speed, top speed of aerobic running, **maximal oxygen uptake, running economy**, concentric and isometric leg extension, rate of force production in leg extension, and quadriceps size.

The explosive training group experienced **small but significant changes** in neuromuscular performance and anaerobic measures, including increased rectus femoris size. **Increases in lean body mass or muscle hypertrophy is not often found during training of endurance athletes.**

Although measures of aerobic performance were not improved, **the fact that there was no decline is an important finding.** Supplementing endurance training, and reducing endurance volume, by **integrating more explosive and resistance exercise** may reduce injuries by increasing muscle strength/size, increasing neuromuscular performance and **reducing repetitive stress of movement.**

Mikkola, J. et al (2007) Concurrent Endurance and Explosive Type Strength Training Improves Neuromuscular and Anaerobic Characteristics in Young Distance Runners. International Journal of Sports Medicine.

www.exercisetc.com

Exercise of the Month—SB Leg Curl

Preparation:

- Lie in the supine position with your heels placed on a stability ball.

Movement:

- Engage inner abdominals and pelvic floor muscles to assure spinal stabilization.
- Raise hips up into the bridge position.
- Once stable curl your legs in towards your glutes.
- Return to the bridge position and repeat.



FACTOID

There are 20 feet of blood vessels in each square inch of human skin.

Trainer Spotlight



LeMail Spain, MS, CSCS Sport Psychologist

Lamail hold Bachelors of Science Degree in Athletic Training from Wingate University and a Masters of Science in Health and Recreation, with a focus on Sports Psychology. Lamail is a Certified Strength and Conditioning Specialist and is an active member of various professional organizations that include the National Strength and Conditioning Association, American College of Sports Medicine and the Advancement of Applied Sports Psychology. A unique blend of sports medicine, sports psychology and strength and conditioning knowledge as well as experience as a standout college athlete has made Lamail one of the industries top personal trainers

Seven Habits of Highly Healthy Eaters

"What exercises can I do to ...? As fitness professional I hear these words often. It doesn't matter if the sentence ends with, "get bigger muscles", "firm up my butt" or "flatten my stomach". My initial response is always the same. "Well, what are you eating? In terms of physical fitness exercise is only part of the equation. Proper nutrition is vital regardless of the specific fitness goal. If you want to maintain energy levels, achieve or maintain optimal weight and lower risk of disease, a healthy diet is imperative. It doesn't matter if your goal is fat loss, body shaping, mass building, improved athletic performance or just maintaining a healthy lifestyle; the following tips will help build healthy habits that will allow you to fine tune your body and feel great.

1. Eat 5 - 6 Smaller Meals a Day.

This practice will allow your body to utilize the food you eat more efficiently. More of your food will be used for providing energy, building muscle and maintaining healthy tissue, while less will be stored as fat. If your goal is weight loss, this is a great way to reduce calories without losing energy or feeling hungry. If you are looking to gain lean muscle mass, eating more frequent meals will allow you to take in an increased number of calories without feeling stuffed. This will also insure that the vital muscle building nutrients will be available when your body needs them. Regardless of your fitness goal, eating 5 - 6 smaller meals a day will get your metabolism firing on all cylinders and give you the energy needed to reach your goals.

2. Do Not Skip Meals.

Skipping meals often leads to extreme hunger which can lead to "binge" type eating. The body can only process and utilize so much food at a time. It doesn't matter if you're only eating one or two meals a day. If you eat too much at any given meal, much of what the body doesn't use will be stored as fat. Here's another important reason not to skip meals. Depriving the body of vital nutrients often leaves one feeling tired and unmotivated (a real workout killer.)

3. Eat Real Food.

Our bodies are designed to metabolize food! Unfortunately the food industry has turned our bodies into chemical processing plants. Grocery store shelves are littered with food products containing non-food additives that are used to color, sweeten, stabilize, emulsify, bleach, flavor and preserve the food. The FDA lists approximately 2800 international food additives and about 3,000 chemicals, which are added to our food. Avoid foods that claim to be "enriched." The only reason processed foods are enriched in the first place is because their process has stripped them of virtually all their vital nutrients. Stick with whole foods including a good variety of fruits and vegetables, whole grains, and lean meats.

4. Read Food Labels.

To be sure you're making good food choices, read food labels. Look at the ingredients, the main ingredients are listed first. If the first few ingredients on the label include processed sugar (i.e. high-fructose corn syrup.) or saturated fat or trans-fatty acids (coconut oil, palm kernel oil, hydrogenated or partially hydrogenated oil, vegetable shortening), you may do well to make another food choice.

5. Pay Attention to Serving Sizes.

Pay attention to serving sizes, it's easy to over load. Weighing and measuring food is a good way to assure you are taking in the proper amount of calories

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Chef's Corner...

Grilled Coconut Shrimp with Pineapple Salsa

This recipe serves: 4

Ingredients

For the pineapple salsa:

- 1 1/2 cup canned or fresh crushed pineapple, drained
- 1 jalapeño chili pepper, seeded and finely chopped
- 1 red bell pepper, seeded and diced
- 2 tablespoons fresh lime juice
- salt to taste

For the grilled shrimp:

- 1/2 cup lite coconut milk
- 2 tablespoons fresh lime juice
- 1 tablespoon low-sodium soy sauce
- 1 tablespoon freshly grated ginger root
- 1 tablespoon brown sugar
- 20 large shrimp, peeled and deveined
- freshly ground black pepper
- 3 cups cooked rice
- 1/2 cup cilantro sprigs
- 4 metal or bamboo (soaked in water) skewers



Quiz Answer:

B. 4 Cups

4 cups of fruits and vegetables are the daily **minimum** requirement for adults. Try to eat a variety of fruits and vegetables to make sure you are getting a variety of vitamins and minerals in your diet.

Cooking Instructions

For the pineapple salsa:

1. Place the pineapple, jalapeño pepper and red pepper in a bowl and toss to combine. Season to taste with lime juice and salt. Refrigerate until ready to serve. (This can be made in advance and stored in the refrigerator for up to 3 days.)

For the grilled shrimp:

2. Combine the coconut milk, lime juice, soy sauce, ginger and brown sugar in a shallow bowl. Add the shrimp, toss to coat the shrimp evenly and refrigerate for at least 30 minutes or overnight.
3. Preheat the grill to medium.
4. Remove the shrimp from the coconut mixture. Season with salt and pepper and place 5 shrimp on each skewer.
5. Place the skewers on the grill and cook until the shrimp are just done, about 3 to 4 minutes per side.
6. To serve, spoon some [Basmati Rice](#) on each plate, remove the shrimp from the skewer and top with the salsa. Garnish with cilantro and serve.

Nutrition Information

Serving Size: 5 shrimp with 3/4 cup of rice and 1/2 cup of salsa

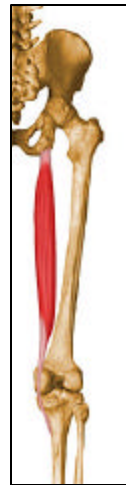
Number of Servings: 4

Per Serving			
Calories	329	Carbohydrate	52 g
Fat	3 g	Fiber	3 g
Protein	22 g	Saturated Fat	1 g
Sodium	406 mg		

Muscle Anatomy



Bicep Femoris



Semitendinosus



Semimembranosus

What's That???

Eating too much protein can leeches calcium from the bones which may lead to osteoporosis as you age.

Muscle: Hamstrings [Bicep Femoris (BF) , Semitendinosus (ST), Semimembranosus (SM)]

Origin: ischial tuberosity

Insertion: BF—fibular head/lateral condyle of fibula; ST—medial tibial plateau, SM—medial tibial condyle

Eccentric Action: decelerate knee extension, hip flexion, and internal rotation during heel strike. Decelerate iliosacral anterior rotation.

Isometric Action: dynamic stabilizer for the lumbo-pelvic-hip complex.

Concentric Action: assist with hip extension and knee flexion.

The hamstrings are typically very tight in most individuals usually because of postural issues. However, individuals with weak glutes force the hamstrings to perform their function (hip extension) causing overloading of the hamstrings which can lead to either low back pain or knee pain, or both. Proper flexibility and the right amount of strength allow these muscles to help stabilize the core as well.



Our Training Philosophy:

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

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and nutrients. This is especially important if you are on a weight loss or a weight gain program.

6. Eat Slowly and Chew Food Thoroughly.

Chewing food thoroughly aids in digestion, thus reducing the time it takes for vital nutrients to become available for use by your body. Eating slowly gives the stomach time it needs to tell the brain it's full. You are on a reduced calorie diet. It will allow you to eat less, yet still feel satiated.

7. Keep a Food Journal.

Write down everything you eat and drink. Initially include serving sizes along with the number of calories, 10/13/2006nd carbohydrates). This will make you conscious of everything you eat while you become educated on the components of a healthy diet. If you are not making satisfactory 10/13/2006 valuable information needed to make necessary adjustments.

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Inconvenient Wellness

Now that mother's day is over and Memorial day is just around the corner, followed closely by the 4th we all are faced with a dilemma. When faced with foods you should not eat, alcohol, sweets and all the other goodies that show up at picnics and cookouts, you know the mayonnaise based dishes, when do we take a stand and live the wellness lifestyle. Eating well, limiting alcohol, getting enough sleep, maybe only taking small samples of the 'bad stuff' is inconvenient. Everyone else is munching on double burgers and pie and relaxing through the dog days of summer, but when you have made a commitment to wellness that is not as easy, or is it?. Yes, it's true, being well will entail getting that work out when everyone else is lounging around and you may have to bypass those brownies. Looking back over a lifetime skipping a few 'bad' things here and there easily adds up to thousands of calories and untold toxins entering your body. Think back to all those picnics that you gorged yourself and felt miserable for days after. The amount of time and energy you must commit to burning off those calories is huge, not to mention the havoc it causes in your bowels and the inflammation it causes in your vasculature. Yes, eating high fat/calorie foods will increase the inflammation (temporarily) in your blood vessels which leads to sticky blood vessel walls. Sadly this is the same effect a smoker has each and every time they have a cigarette. But alas research has clearly shown that eating fruits / veggies / whole grain products will cut that level of inflammation in 1/2. So yes, sometimes being well is inconvenient, but it is a lot easier to be well and stay well than to always play catch up.

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