

Notes from Editor

Spring is coming which means that bathing suit season and golf season is also right around the corner.

Want to look good in your bathing suit? Exercise and understanding your nutrition will go a long way to help you achieve that. Read the article on Food Labels to help you.

If golf is your concern read Bill's article on the importance of core strength for your golf swing.

Stay true to your exercise to help you Feel Better, Look Better, and Play Better.

Yours in Health,

Dave Radin
Editor

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Understanding Nutritional Food Labels

Back in 1994 the FDA required food companies to put nutritional information on the package so consumers could make a smart choice. However, a quick glance at the label can be confusing if you do not know what to look for. Let's take a quick look at an example label of chicken soup.

The first part of the label is the serving size and serving per container. The serving size for this product is a half-cup with 2.5 servings per container.

The amount per serving section is next. Understand that the calorie, fat, protein and carbohydrate numbers are based on a half cup. If you eat the entire package, you have consumed 2.5 times the numbers listed in this section. The calories from this product is 60 calories while the calories from fat is 15 calories. Now here is where it gets tricky. If you look at the Total Fat and % Daily Value column it says 2%. **That 2% is based on a 2,000 calories/day. It does not tell you if this is a low-fat item or high fat item.** To determine the % of fat from this product, divide 60 into 15, and we get 25%. That is a "healthy" product. Anything under 30% is considered healthy. The lower the % of fat the better. Keep in mind that many low fat items substitute fat with other items: sugar, salt or other chemically enhanced products.

If the label does not list the calories from fat, you can determine that yourself by multiplying the number of fat grams by 9 (fat has 9 calories/gram). To obtain your percentage of fat, divide the number of fat calories by the total number of calories.

The next big thing to look at is sodium and sugar content. This particular item is loaded in sodium. Find a better product. Sodium is in just about everything you consume. Eating lots of sodium leads to high blood pressure, which can lead to strokes and is linked to obesity.

Sugar is a simple carbohydrate. This means the body burns it up really fast if it is used. If not, it causes the hormone insulin to spike. High sugar diets not only lead to obesity, but diabetes. There is evidence that sugar is a bigger culprit with the US's rise in obesity rates versus fat. So place close attention to the amount of sugar in the foods you eat. Try to eat complex carbs: pasta, beans, legumes, etc. as these take longer to be broken down by the body and they provide longer lasting energy.

Vitamins and minerals are listed as well. Any product containing more than 20% of a particular vitamin is considered "high". Try taking a multi-vitamin if you are unsure that you are eating enough fruits, vegetables, meats, etc. to cover your needs.

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Chicken Noodle Soup	
Nutrition Facts	
Serving Size 1/2 cup (120 ml) condensed soup	
Servings Per Container about 2.5	
Amount Per Serving	
Calories 60	Calories from Fat 15
% Daily Value*	
Total Fat 1.5g	2%
Saturated Fat 0.5g	3%
Trans Fat 0g	
Cholesterol 15mg	
Sodium 890gm	37%
Total Carbohydrate 8g	3%
Dietary Fiber 1g	4%
Sugars 1g	
Protein 3g	
Vitamin A 4%	Calcium 0%
Vitamin C 0%	Iron 2%
*Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs.	
	Calories 2000 2500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400m 2400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g

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

What is the most important aspect of weight loss?

- A. Calorie restriction
- B. Exercise
- C. Proper nutrition
- D. All of the above

the answer can be found on page 4

Hot Topics

Squats & Deadlifts vs the Stability Ball: Which Are Better for the Back?

Researchers at **Appalachian State University** compared trunk muscle activation during SB exercises to that experienced during squats and deadlifts.

Nine previously resistance-trained men were tested for 1 repetition maximum in the squat and deadlift. Then, three isometric SB exercises were evaluated: the quadruped hip extension, bridge-feet on the ball, and back extension. **Muscle activation in longissimus and multifidus was assessed.**

During the SB exercises, **muscle activation in the back extensors was greatest in the back extension, followed by the bridge, and finally the quadruped.** None of the SB exercises, however, recruited the back extensors better than the deadlift or squat when performed at **moderately high intensities.**

Because strength and hypertrophy are best achieved with muscle activation of greater than 60% of maximum, **the researchers suggest that the SB exercises are deficient** at building these characteristics. None achieved this minimum intensity.

Interestingly, the authors neglect to address previous findings that **strength & hypertrophy, although desirable, have not been correlated with back health.** Stuart McGill, renowned expert on the biomechanics of back pain and injury reports in his book **Low Back Disorders** that endurance, not strength, is necessary for a healthy back. According to McGill, some individuals who have back pain may require **exercises that spare them from excessive spinal compression.** Such exercises would exhibit less muscle activation, such as the SB exercises in this study. **McGill recommends activities such as the quadruped bird dog exercise because it allows the individual to begin at a much lower and safer intensity for building endurance in the spine.**

Nuzzo, J.L., et al (2008) Trunk Muscle Activity During Stability Ball and Free Weight Exercises. Journal of Strength & Conditioning Research. 22(1): 95-102.

Exercise of the Month—Lateral Raise (Tube)

Preparation

- Stand/sit with good posture with arms at sides.
- Hold resistance in hands with palms facing body

Movement

- Engage inner abdominals and pelvic floor muscles to assure spinal stabilization.
- Raise arms to sides until parallel with floor.
- Lower weight to hips and repeat.



FACTOID

By **bracing your abdominals**, you reduce the load off of the spine by **40%!!**

Trainer Spotlight



**Craig LePage,
CSCS, NASM-CPT
Certified Strength
and Conditioning
Specialist**

Craig holds a Bachelor of Science from University of Bridgeport and is a Certified Strength and Conditioning Specialist and National Academy of Sports Medicine - Certified Personal Trainer. Craig has authored a medically approved and highly effective nutrition and weight management program that helps people build healthy habits and win the weight loss battle safely and permanently. Craig is a master motivator who has been helping people reach their fitness and performance goals for more than nine years.

A Good Swing Starts with a Strong Base of Support

A good golf swing starts with a strong base of support (hips, pelvis and lumbar spine). A highly conditioned base of support will provide stability throughout the swing and allow forces to be effectively transferred from the legs through the hips to the upper body to produce optimal power and control. A strong base helps protect the joints and other supporting tissues against the strong compression, shear and torsion forces that occur during the golf swing. Unfortunately, there are a number of factors that predispose the golfer to developing poor postural patterns and muscle imbalance that result in a weak base of support.

Many of us now find ourselves spending excessive time in our cars or sitting in poorly designed chairs hunched in front of a computer. Over time we are conditioned to have tight hip flexors and a lazy posture. Poor posture and muscle imbalance decrease musculoskeletal efficiency and disrupt communication within the neuromuscular system. Short tight muscles fire at times when they should be less active or inactive. Over activation of dominant muscles leads to decreased neural control to their opposing muscles. Tight dominant hip flexors create weak and lazy hip extensors (gluteals) and set off a chain reaction of dysfunction.

Tight hip flexors pull the pelvis into a forward tilt leading to an excess curvature of the lumbar spine. As a result the muscles of the abdominal wall lengthen and weaken while the muscles of the lumbar spine get short and tight. This pattern also causes disruption in our body's lateral stabilization system (hip abductors and hip adductors.) These muscles work to stabilize the pelvis during lateral movement. Inefficiency in this lateral stabilization system inhibits coordination and hinders proper weight shift through the golf swing. So what we are left with are weak hip extensors (gluteal muscles) that can't drive the hips through the swing, dominant hip flexors that won't allow the hips to open to allow a full turn, tight spinal flexors that are forced to do the work of the weak hip extensors, but are too tight to make a full rotation, and a lack of coordination needed to make consistently good ball contact.

To break this pattern of dysfunction and build a strong base of support we must first establish coordinated muscle firing among the deep stabilizing abdominal musculature, the hip flexors and extensors, hip abductors and adductors, and spinal flexors, extensors and rotators. This is accomplished through the activation and strengthening of weak and inhibited muscles, and stretching the tight and dominant muscles. Once these muscles are re-educated and coordinated muscle firing is established we can then work to build optimal strength and power.

The first step in this process is the development of the deep abdominal and pelvic musculature. This is done by mastering the abdominal brace. The abdominal brace is an isometric contraction of the abdominal muscles meaning the abs are neither pulled in nor pushed out. This maneuver should be the first step of every exercise as it is the foundation of lumbar, pelvic, and hip stabilization. The following exercise will allow you to master this movement and re-educate the lower abdominal wall and allow the deep pelvic stabilizers to fire efficiently.

Abdominal Brace

- Lay in a supine position (on your back) with knees bent and feet flat on the

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Chef's Corner...

Jamaican Jerk Chicken Wraps

This recipe serves: 4

Ingredients

For the jerk chicken:

2 teaspoons olive oil
4 small skinless, boneless chicken breasts, about 3-4 ounces each
salt to taste
freshly ground black pepper
1/4 cup jerk sauce

For the wraps:

1/2 cup fat-free, whipped cream cheese
2 tablespoons minced, sweet onion
4 large flour tortillas
4 large lettuce leaves (green leaf, bibb or romaine), shredded
4 large slices of ripe tomato, sliced thin

Cooking Instructions

For the jerk chicken:

1. Preheat the grill to medium-high.
2. Brush the chicken breasts with olive oil and then season with salt and pepper. Cook them on the grill, about 4-5 minutes per side, depending on the thickness of the breast. During the last 2 minutes of cooking, brush the chicken breasts with jerk sauce. Transfer the chicken to a cutting board and cut into small pieces.

For the wraps:

3. In a small mixing bowl, combine the cream cheese and onions. Add salt and pepper to taste.
4. Lay out the tortillas on a work surface in front of you. Divide the cream cheese mixture among the tortillas, spreading it out in the middle of each tortilla. Divide the lettuce among the tortillas, top with a few slices of chicken and a slice of tomato. Tightly roll the tortilla in a cylinder ending with the seam side down.
5. Slice the wraps on the diagonal and serve.

Nutrition Information

Serving Size: 1 wrap

Number of Servings: 4

Per Serving			
Calories	563	Carbohydrate	47 g (188 cal)
Fat	11 g (99 cal)	Fiber	3 g
Protein	66 g (264 cal)	Saturated Fat	3 g (18 cal)
Sodium	893 mg		

www.foodfit.com

Quiz Answer:

D. All of the above

Calorie restriction, exercise, and proper nutrition all play a huge role in your ability to lose weight.

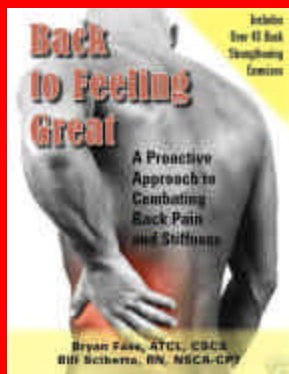
Weight loss has spectrum of conditions that all need to be met for you to be successful with weight loss. The trick is to figure out the right combination of each for it to be most effective.



What's That???

After the age of 25, VO2 Max (body's ability to take in and utilize oxygen) diminishes by 8-10% per decade. To reverse this process all you need to do is exercise!!

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: Hip Abductors

Origin: Posterior Ilium

Insertion: Greater Trochanter

Eccentric Action: decelerate hip adduction and internal rotation

Isometric Action: synergistic as frontal plane stabilizing mechanism.

Concentric Action: abduct femur.

The hip abductors include two sets of muscles: the glute medius and glute minimus. These two sets of muscles allow stabilization of the pelvis when standing on one foot. When these muscles are not firing properly, any lateral movement is compromised through lack of proper control by these two muscles.

To improve strength and stability of these muscles, try the following exercises listed below:



Figure 1



Figure 2



Figure 3



Figure 4

Figure 1—Dog Series of Exercises

Figure 2— Supine Hip Stability Exercise

Figure 3—Lying Hip Abduction

Figure 4— Lateral Tube Walking

Our Training Philosophy:

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

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floor.

- Brace your abdominals by tightening abdominals as if you were going to take a punch in the gut.

- Return to a relaxed position and repeat.

Don't limit the abdominal brace to exercise. Practicing the brace with all activity (sitting, walking, driving, golfing, etc) will help you develop the endurance your abdominals need to maintain a strong base of support as well as a healthy back.

A study presented by researchers at the American College of Sports Medicine's 51st annual meeting showed that golfers who possess strong hip muscles have lower handicaps and longer driving distances than those with weak hip muscles. This makes sense since muscles of the hip and pelvis play a major role in stabilizing the trunk and transferring forces from the lower body through the upper body and arms during the golf swing. The ability of the hip extensors (gluteals and hamstrings) and lumbar extensors to fire in concert also allows the body to react to and counteract the rapid rotational forces of the golf swing. Now we compound the issue repeatedly forcing our spinal muscles to do the job of our hip extensors to power through the swing. Spinal extensor muscles don't have the size or strength to do this, hence the tremendous incidence of over use injury and lower back pain among golfers.

The Bird Dog exercise progression effectively helps develop stabilization, coordination and strength of the spine. The key to this type of exercise is learning and then maintaining "neutral" spine. Neutral does not mean straight, it means allowing the natural curves to be present. This is imperative to allow the spine to function properly and movement to occur in a stress free manner. The golf club placed the length of the spine is an excellent cue that allows the golfer to feel the proper spinal positions and make necessary corrections. The club shaft should be in contact with only three points; the base of the head, the center of the back and the middle of the pelvis.

Dog 1

- Position yourself on your hands and knees with a golf club placed along your spine; make sure the rod contacts 3 points only (head-middle back-pelvis).
- Brace your abdominals and slowly raise one hand and the opposite knee just off the floor (no more than 1/4 inch). Hold for five to ten seconds.
- Return to the start position and alternate sides.

Dog II

- Position yourself on your hands and knees with a golf club placed along your spine; make sure the rod contacts 3 points only (head-middle back-pelvis).
- Brace your abdominals, slowly extend one arm (thumb up) straight out in front of you and the opposite leg behind you.
- Hold for five to ten seconds and repeat with opposite side.

The key with Dog 2 is not to allow the lumbar extensors to fire during this movement. After mastering Dog 2 you can then further challenge the hip extensors by adding the bridge exercise. The bridge adds the resistance of body weight to the hip extension movement and further challenges (and strengthens) the deep stabilizers or the lumbar-pelvic-hip complex.

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