



# News That's Fit To Print

VOLUME 5

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## Notes from Editor

The hot summer weather has finally come!! It is supposed to be hot over the next few days, in the high 90's!

If you plan on exercising outdoors, please make sure that you stay hydrated!! We have an article on page 3 about hydration strategies.

Have fun and be safe this summer, especially if you are heading outdoors.

If there is an article or suggestion for the newsletter, please send me a email!!

Yours in Health,

Dave Radin  
Editor

## You Need to Be More...Flexible!

For those of you who have seen the movie *The Incredibles* (great movie by the way!) you have heard this line before. Superhero Elastigirl meets up with Mr. Incredible who has caught a criminal in the act and takes the criminal out. Mr. Incredible wants to finish the job and get into an arguing match where Elastigirl says "You need to be more flexible!"

For the context of this article, flexibility, will be described as improving the extensibility of shortened muscle tissue. When we mention flexibility, we do not mean become as loose as possible. Every joint has an optimal degree of flexibility and depends on that range of motion to function properly. It is the muscles attached to that joint that determine how well the joint functions.

The ability of the muscles in the body to work together as a cohesive unit depends on a delicate balance of range of motion, stability, and strength. If one or more of these conditions is not present, postural distortions are the result. **Postural distortions** are predictable patterns of muscles becoming overactive and tight while their antagonist (opposing) muscles become weak and inhibited causing altered joint mechanics.

Need an example? I have a classic one for you. If you sit in a chair all day at work, or drive a lot, or ride a bicycle for hours on end, you will most likely have an increased arch in your lower back. This increased lower back extension is the result of the hip flexors (iliopsoas muscle) becoming chronically tight and overactive leading to the tightness and weakness of the lumbar extensors.

The tightness in the hip flexors leads to an inhibition of the gluteal muscles as well as a weakening of the transverse abdominal muscles. These two sets of muscles are very important for overall hip/pelvis stabilization. The weakened glutes have a hard time performing hip extension. As a result, the hamstrings have to work harder to "pick up the slack" to create hip extension. Over time, the hamstrings become overactive and tight as well.

To improve your body's ability to perform better through flexibility, static stretching and self-myofascial release are the best ways. As luck would have it, we have a handout located on our website for you download. Click [here](#) to receive your flexibility handout and get started today to improve your body's ability to perform better so the next time someone tells you that you need to be more flexible, you can tell them "I'm working on it!"

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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

Which of the following exercises is best for burning excess levels of bodyfat?

- A. Walking for 20 minutes at a slow pace
- B. Walking at a fast pace
- C. Bodyweight circuits
- D. Interval Training

Answer on page 4.

## Hot Topics

### Strength Training Cuts Risk of Cancer Death by 40%

Although overall cancer death rates have dropped nearly 20% over the past 15-20 years, deaths from specific types of cancer that are associated with obesity continue to rise. **It turns out Resistance Exercise may further reduce overall cancer deaths despite elevated Body Mass Index (BMI)**, and hence impact the rate of cancer-related deaths regardless of obesity.

Researchers at the **Cooper Institute** tracked 8,677 men between the ages of 20 and 82 over a 23-year period beginning in 1980. The data was obtained as part of the **Aerobics Centre Longitudinal Study**. Information on the participants muscle strength and adiposity were correlated with the incidence of cancer death over the study period. Strength was assessed using the 1-repetition maximum for both the bench press and leg press exercises. Body mass index along with body fat percentage and waist circumference was used to determine adiposity.

Over the study period, **men with the greatest strength associated with regular resistance exercise were 30-40% less likely to die from a cancerous tumor**. This benefit remained after accounting for adiposity. Previous research has identified connections between aerobic exercise and weight loss on the incidence of cancer deaths. **The researchers suggest that men regularly participate in Resistance Exercise at least twice weekly to achieve the benefits uncovered in this study.**

*Ruiz, J.R. et al (2009) Muscular Strength and Adiposity as Predictors of Adulthood Cancer Mortality in Men. Cancer Epidemiology Biomarkers & Prevention 18(5):1468-76*

[www.exerciseetc.com](http://www.exerciseetc.com)

### Exercise of the Month—SMR—Iliotibial Band

#### Preparation

- Lie on your side while placing your outer thigh on the foam roll with your top foot placed on the floor in front of you.

#### Movement

- Slowly roll your outer thigh until a tender spot is found.
- Upon finding the tender spot hold in place until you feel a (75%) release in discomfort.
- Slowly move to the next tender spot and repeat the steps.



**FACTOID**

The most **powerful** muscle in the human body are the **glutes** (**butt muscles**).

## Trainer Spotlight

**Verun Tahiliani,**  
**ASCM-HFI**  
*Certified Personal Trainer*

Verun first came to Precision Fitness as an intern from UNC – Charlotte. Upon graduating with a degree in Exercise Science and earning his certification a Health and Fitness Specialist through the American College of Sports Medicine, Verun became a full time member of the Precision Fitness team. Verun is and an excellent coach and motivator who's training approach has proven successful with all populations regardless of fitness or performance goal.

## Pre/Post Hydration Strategies for Sport Performance

With the weather warming up and sport leagues starting to practice, hydration is of extreme importance. Dehydration is a serious matter that can cause the following serious medical complications:

- Heart arrhythmia
- Heat stroke
- Syncope (fainting)
- Hyperthermia

A loss of body fluid of 1-2% can have a negative impact on performance. According to the NATA (National Athletic Trainers Association), "minimizing dehydration is the simplest, yet the most effective step athletes can take to protect both health and performance."

There are some signs that dehydration is occurring: thirst, loss of mental focus, fatigue, and irritability. The problem is that most athletes do not recognize these symptoms as dehydration happen. As a result, the athlete becomes more and more dehydrated and performance continues to drop.

Below are some basic guidelines for pre, during and post exercise hydration.

### Pre:

Consume at least 16 ounces of fluid two hours before exercise. Fluids should be cool to encourage gastric emptying.

### During:

Drink **at least** 20 ounces of fluid for every hour of exercise. If exercise exceeds 60 minutes, use a sports drink (Gatorade, PowerAde, etc.) with a 8% carbohydrate solution. If exercise is less than 60 minutes, water is fine.

### Post:

Drink at least 20 ounces of fluid per pound to replace lost fluid.

One way to check your hydration levels is to weigh yourself before and after exercise. If your weight is the same, proper hydration was achieved. If you weigh less than when you started, you have lost fluid and it must be replaced.

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**Quiz Answer:**

C, D

Bodyweight Circuits and Interval Training are best bang for your fat burning buck.

Intensity is the key to burning bodyfat. The more intense your workout, the more calories you will burn.

*Check out the latest books written by the pro's at Precision Fitness: (click on picture)*



**Chef's Corner...**

**Farfalle Pasta Salad with Broccoli, Grape Tomatoes and Yellow Pepper**

This recipe serves: 6

Ingredients

- 1 bag (16 ounces) farfalle pasta (bow-tie pasta)
- 2 cups broccoli florets
- 1/2 cup roasted garlic vinaigrette, or use a reduced-fat bottled vinaigrette
- 1 cup grape tomatoes, sliced in half
- 1 cup chopped yellow bell pepper
- 1/2 cup chopped scallions
- 2 tablespoons chopped, fresh basil
- 2 tablespoons chopped, fresh Italian parsley
- salt to taste
- freshly ground black pepper
- 4 cups arugula
- 1/2 cup goat cheese



Cooking Instructions

1. Bring 1 gallon of salted water to a boil over high heat. Add the farfalle and cook until it is al dente, about 12 to 14 minutes. Drain well.
2. In another small pot, bring 2 inches of water to a boil, insert a steamer basket with the broccoli florets and steam for 2 minutes (or until the broccoli turns bright green) once the water comes to a boil. Then remove from the heat and run the broccoli under cold water to stop the cooking process.
3. Place the farfalle in a large bowl and toss with the Roasted Garlic Vinaigrette. Add the broccoli florets, grape tomatoes, yellow pepper, scallions, herbs and gently stir to combine. Season to taste with salt and pepper. Serve at room temperature or refrigerate for later use. Bring to room temperature before serving.
4. Serve the farfalle pasta salad on a bed of Arugula (4 cups) and sprinkle with 1/2 cup of fresh goat cheese. Serve at room temperature.

**Serving Size:** about 1 1/2 cups of pasta

Nutrition Information

**Number of Servings: 6**

|          |        |               |      |
|----------|--------|---------------|------|
| Calories | 369    | Carbs         | 63 g |
| Fat      | 7 g    | Fiber         | 5 g  |
| Protein  | 13 g   | Saturated Fat | 2 g  |
| Sodium   | 144 mg |               |      |

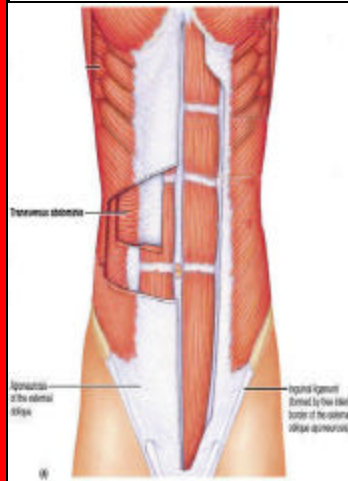
## Did you know?

That your heart will beat an approximate **2.7 Billion times\*** over the course of **72 years?**

\*Based on an average resting heart rate of 72 b/min. Does not include any activity that may raise heart rate

Want more information on a fitness topic that has not been covered? Send an email to: [dave@ncprecisionfitness.com](mailto:dave@ncprecisionfitness.com)

## Muscle Anatomy



**Muscle:** Transverse Abdominus

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

**Insertion:** Linea Alba, Pubic Crest

**Eccentric Action:** Decelerate Abdominal Protrusion

**Isometric:** 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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### We're on the Web!

[www.lakenormanfitness.com](http://www.lakenormanfitness.com)

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

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## The Functionality of Active Stretching

Static stretching involves holding a position for a specific amount of time in order to elicit relaxation and subsequent elongation of muscle fibers and soft tissue. Consistent daily static stretching will help prevent injury, lessen the effects of postural strain/distortion, and help you to feel and move better.

Active, or functional, stretching achieves the same goal as static stretching except with one major difference — they are performed through a "functional" range of motion, one that is specific to a joint or natural movement in the body. Research has proven that active stretching is superior to static stretching prior to strenuous physical activity, with static stretching decreasing muscular force production in areas where active stretching does not. Active stretching has also been shown to better increase tissue temperature, which may have an effect on injury prevention — the warmer the joint and surrounding tissue, the less chance there is for injury.

One of the major benefits of active stretching is that most of them are done while standing and there are no long hold times. As the stretching involves movement, there is some slight calorie-burning. Active stretching is best done prior to beginning your workout, due to its inherent capacity to increase flexibility, raise tissue temperature and bring a joint through its full range of motion. The increase in heart rate and need to engage stability muscles while performing the active stretching truly makes it a functional warm up.

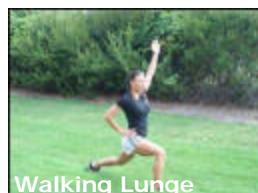
As a result, there is little need to perform static stretching prior to your workout, unless you have an ongoing injury, which is best addressed with a slow and gradual stretch. Save the static stretching for after the workout, when your body is in need of recovery and elongation of fatigued tissue.

Performing active stretching is simple as long as you adhere to a few principles:

- Never swing through the movement. They are fast, but need to be done with purpose.
- Certain movements require balance and flexibility. You may not be able to perform all of these movements safely; never force them.
- If you have an injury or any kind of muscle "problem," perform static stretching for a few weeks prior to beginning active stretching.

Many of the active stretches require a significant amount of strength and stability. If you are just beginning in fitness, make sure you start out slowly. Some stretches are no problem to accomplish, while others may be initially out of reach.

The active stretches included are only a few of the many you can and should perform; there are endless combinations that are applicable to sport and life. Active stretching is great while on duty due to its ease of integration. Hopefully, the psychology behind functional stretching will help you as well. As it feels like a workout, you may be more inclined to implement them prior to beginning your normal routine.



Walking Lunge



Inchworm 1



Inchworm 2

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