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**MAX 2008 RACES**

**Season Opener  
Both Sprint Distances  
Duathlon/Triathlon**  
May 11th  
Hopkinton State Park,  
Hopkinton, MA

**Massachusetts State Triathlon  
Sprint & Olympic Distances**  
July 27th  
Lake Dennison  
Winchendon, MA

**Title 9 Women Only Triathlon  
Sprint Distance**  
September 7th  
Hopkinton State Park,  
Hopkinton, MA

**MAXIMIZE BALANCE & PREVENT INJURY**

*Written by: Dr. Kate S. Kelly*

**Balance and Injury Prevention in Triathlon.** Balance, equilibrium, counterpoise. Balance is a particularly interesting topic in a sport such as *TR*athlon where the prefix of the word suggests unevenness. Balance between family, friends, work, swimming, biking, running, yoga, nutrition, stretching and the list goes on. Guess what? One more to add to the list is balance in muscular development. When balance is disrupted in muscular development, dysfunction can occur and injury can creep in.

***Shoulder Pain, Discomfort and Dysfunction:***

**Who:** Triathletes

**From what:** repetitive overuse from swimming

**Sounds like:** clunking, grinding, snapping, popping, nothing, sounds like something but can't put finger on it

**What to determine:** pain, stiffness, instability, weakness, numbness, tingling, limited range of motion, location

**What to do:** If you experienced a traumatic fall or accident seek immediate attention from a primary care physician or orthopedist to rule out fracture etc. Otherwise seek out a chiropractor or specialist who can assess joint, nerve, muscle and tendon dysfunction.

**Preventative Measures for Shoulder:**

(Depending on injury and discomfort level)

**Ensure equal muscular development of the shoulder (front, back).**

Strengthen the Rotator Cuff musculature (Term used to describe a muscle group that includes four muscles: Supraspinatus, Infraspinatus, Teres Minor, Subscapularis. They all contribute to the movement of the shoulder and scapula.) using resistance bands (Thera-band). It is often not the strength of the rotator cuff that diminishes potential for injury but the ENDURANCE of these muscles and ability to be "on and activated" for a period of time. When using dumbbells to strengthen the rotator cuff musculature go with light weights vs. heavy weights.

**Hone in on your off balance skills.** Also extremely important is how the shoulder handles "off balance scenarios"---often called proprioception. This is accomplished by performing balance/stability ball push-ups and exercises where the shoulder and its contributing partners are able to re-position when thrown off balance.

**Don't overdo front of shoulder and chest musculature.** Many exercises will strengthen the chest-pectoralis major and minor. Just be sure not to overdo this side. It is easy to see benefits of increased chest musculature and many people "bulk-up" creating a postural problem such as a forward

## Buzzard's Bay Triathlon Sprint Distance

September 28th  
Demarest Lloyd State Park,  
Dartmouth, MA

More Info:

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

## TRI "LINGO"

### Hammered, DOMS Hurting 2-days after a hard workout?

Delayed Onset Muscle Soreness - legs feel like they've been tenderized with a sledgehammer. Actually, you've had microscopic tearing of muscle fibers due to more intense or more prolonged activity than normal. "But, why do I feel sore 2-days later?" When you strain a muscle too far, the surface membrane breaks open and some chemicals spill out, damaging other muscle tissues, nerve fibers, and initiating an inflammation response. The pain is associated more with inflammation than it is with damage itself, which is why soreness may take hours or days to develop. The most effective way to avoid DOMS is to cause it in small amounts. Also - warm-up, fuel recovery (see Recovery Drinks article), cool down. ICE - ice, compression, elevation, and massage.

## GREAT TRAINING SONGS

What makes them great? They either psych you up or simply make you feel good! *[Please don't wear headphones when you ride outside though!]*

- "Gone Daddy Gone" by Gnarlles Barkley
- "S.O.S" by Rihanna

shoulder roll. This, in turn, creates an imbalance and can lead to dysfunction with the mechanics and movement of the shoulder joint.

**Check your swim stroke biomechanics.** Having your swim stroke analyzed is always a good idea and can help in diagnosing problems with the shoulder.

### **Lower Back Pain, Discomfort and Dysfunction:**

**Who:** Triathletes

**From what:** Lack of core strength, shortened Psoas muscle

**What to determine:** pain, stiffness, instability, weakness, numbness, tingling and whether or where the pain/discomfort/sensation travels to or whether stays in one place.

**What to do:** If you experienced a traumatic fall or accident seek immediate attention from a primary care physician or orthopedist to rule out fracture etc. Otherwise seek out a chiropractor or specialist who can assess spine, joint, nerve and muscle dysfunction.

### **Preventative Measures for the Lower Back:**

**Core strength exercises for the lower back and abdomen.** This provides a sharing of the work in supporting and utilizing the trunk. When both sides of the mid-section are conditioned, efforts are shared equally and injury potential diminishes. Pilates, core Yoga poses, and stability ball exercises are great for core/abdomen strength. Note: just doing old school sit-ups is not enough. The goal is to get down to the deep abdomen and lower back musculature-those that are close to the spine. These are the FIRST to power-up during initial movement. Performing these exercises twice a week off season and at least once a week during your triathlon peak season is essential to lower back health.

**Stretching the Psoas muscle.** The psoas muscle is a major hip flexor. It is responsible for stabilizing the base of the spine, allowing the spine to flex, and rotating the hips. It is the only actual muscular connection between body and legs. This muscle is very often shortened due to bike position, amount of sitting we do, and lack of stretching. This is a must-do stretch for lower back health.

Basic Psoas stretch is to lie on the floor, pelvic position neutral, spine and head in perfectly straight alignment. Gently bring one knee up to your chest while extending the other leg along the floor, breathing deeply and evenly. Hold the position for several breaths before switching sides, and repeat several times.

For a deeper Psoas stretch, assume a lunging position with one knee forward, forming a 90 degree angle. Extend the other leg behind you, kneeling slightly bent, and lower yourself slowly into the stretch, which you will feel in the front of the hip. Keep your spine straight while performing this stretch, and do not allow the knee of your forward leg to go beyond the boundary of your toes

**Get off the saddle.** During a triathlon, especially during the longer events, be sure to get up from the seated position here and there. A cat stretch (flexion of the spine---arching your back like a cat) is recommended several times during longer rides. If you start to feel discomfort add more off the saddle stretches. This is especially important when the transition area is in sight before heading out on the run. It could save you from some discomfort on the run both immediately and long term.

- "Back In the Saddle" by Aerosmith
- "Electric Marlin" by Insect Surfers
- "Jelly Head" by Crush
- "Don't Fear the Reaper" by Blue Oyster Cult
- "The Only Difference..." by Panic! At the Disco
- "Last of the Mohicans" Theme Song

## "NOW THAT'S A TRIATHLETE!"

"I already signed up as a Clydesdale but lost some more weight due to training. So, I can either switch categories or eat more. Ben & Jerry's here I come."

## FAVORITE BIKE WORKOUT

**Goals:** strength, technique, aerobic combination

**Warm-up, Cool down:** 10 min. each

Main Set: 1-2-3-4-5-6 min. ladder  
1 min. standing in Big ring, 13-14, 55-65 RPMs

1 min. seated in Small ring, 16-17, 85-90 RPMs

1 min. rest interval (RI)

Repeat above for each set increasing each by 1 min. each time, including RI

**Total time:** 1 hour

**Flexibility options:** change gears, length of each set, RPMs to meet your goals and fitness levels.

## TRI TIPS

Getting out of your Wetsuit

Find out more information about Dr. Kate S. Kelly and this article visit [www.waterhousewellness.com](http://www.waterhousewellness.com), email Dr. Kate at [kkellydc@gmail.com](mailto:kkellydc@gmail.com), or call 781.257.4111

## RECOVERY DRINKS: HOW MUCH, WHEN, & WHAT TYPE

*Written by: Juli Jones Ph.D., USARIEM Neurophysiologist, Tricoach*

Muscle and liver glycogen are vital sources of energy that is utilized during exercise. If you don't take in calories during long rides and runs, your physical performance will decline once your glycogen stores are depleted. However, it is just as important to focus on what you consume after exercise as it is during exercise. Deciding on whether you need a post-workout recovery food or drink depends on both the time and intensity of your workout. Ideally, you should consume a recovery meal or drink after: 1) more than 90 min of moderately intense exercise, 2) a very strenuous workout, or 3) if you are doing a 2<sup>nd</sup> workout later in the day.

**How Much:** So now that you have decided you need recovery fuel, you need to determine how much you should take. You should eat or drink 1.0-1.2 grams of carbohydrate for every 2.2 pounds of body weight. So, for a 150 pound person that would be approximately 68-82 grams of carbohydrate.

**When:** Once you have finished your workout you should consume your recovery fuel within the first 30 minutes after you are finished. There is a very small window of time for your body to replenish the depleted glycogen stores. After 60 minutes, the rate at which your muscles are able to replenish their glycogen stores is drastically reduced. For instance, if you wait more than 4 hours after your workout to consume a carbohydrate source your muscles will restore glycogen around 5% per hour, which may take up to 2 days to replete all of your glycogen stores, assuming they were completely depleted. Also, after a particularly long workout it is important to continue to top off your glycogen stores every 2 hours for the next 4-6 hours for full recovery since your body can only replenish itself at a given rate regardless of amount of consumption.

**What Type:** If you are going to use food as your recovery fuel, make sure the carbohydrate source has a moderate to high glycemic index, which will aid in recovery. A useful tool for determining the glycemic index of certain foods can be found on this website: <http://www.glycemicindex.com/>. Using a commercial recovery drink is not necessary, but tends to make things easier since the carbohydrate to protein ratio is already known, and it typically helps with rehydration as well. Studies have shown that adding a small amount of protein to your recovery fuel improves the rate at which glycogen stores are replenished and leads to less muscle soreness the following day. The ratio of carbohydrate to protein is debatable but studies show that the optimal ratio ranges from 3:1 to 6:1. While protein is important for recovery, consuming too much protein and fat will hinder recovery.

There are many types of recovery drink on the market. Determining which type of recovery drink is right for you is as simple as looking at its label, but also you need to like the taste. Below is a quick review of some of the various recovery drinks on the market.

Train hard and recover smart!

## Faster

Use body glide or similar products to grease up before putting it on (pros & cons to "Pam!"). Use it on at least on shoulders, neck, lats, ankles, forearms, and calves - most common removal sticking points. Good sequence is: unzip and get out of arms while running to T1, at T1 pull down each leg to below knees, step on each side with opposite foot to get it down to ankles, insert thumb in between wetsuit and ankle and pull rest of way off; breathe while doing.

## Drafting during the Swim

Not recommended by us unless you're a pro. Why? You could gain some energy savings because the person in front of you is separating the water. On the flip side, what are the odds that the stranger swimming in front of you is going precisely at the speed you're trying to achieve? Very slim - so you're most likely going too fast or too slow, either of which will result in an overall slower total race time.

Product	Approx. Carb:Protein:Fat Ratio	Flavors	Website
Endurox R4	4:1:0	Chocolate Fruit Punch Tangy Orange Lemon Lime Vanilla	<a href="http://www.accelSPORT.com">www.accelSPORT.com</a>
PowerBar Recovery Drink	6:1:0	Orange	<a href="http://www.powerbar.com">www.powerbar.com</a>
PowerBar Recovery Bar	3:1:1	Peanut Butter Caramel Crisp Cookies & Cream Caramel Crisp	<a href="http://www.powerbar.com">www.powerbar.com</a>
PowerBar Recovery Shake	3:1:0.5	Chocolate Vanilla	<a href="http://www.powerbar.com">www.powerbar.com</a>
Hammer Recoverite	3:1:0	Citrus	<a href="http://www.hammernutrition.com">www.hammernutrition.com</a>
Clif Recovery	6:1:0	Mango-Orange French Vanilla	<a href="http://www.clifbar.com">www.clifbar.com</a>
Cytomax Recovery	1:1:1	Chocolate Mocha Orange Vanilla	<a href="http://www.cytosport.com/">www.cytosport.com/</a>

## TRI CONNECTIONS

[Max Website](#)

[2007 Photo Gallery](#)

See if you made the gallery!

[Suggestion Box](#)

Got any???

[BnS Fitness](#)

[Fit Werx](#)

[Vescio MPS](#)

[Village Bicycle](#)

[Xterra Wetsuits](#)

## TRIATHLETE SPOTLIGHT

### Curtis Cleaves

**Profile-** I'm a photographer running a small portrait studio that specializes in high school senior photographs, family portraits and a few weddings. I've been married 34 years to my high school sweetheart and have two daughters that love to travel extensively and live each day to it's fullest. I now learn more from them than I think they do from me.



**The "beginning"** - I just finished my third season of triathlon. I started by taking home a sign up sheet from my gym for a local triathlon. I had been doing recreational biking since about 1990 and had been running a bit on the treadmill. The only thing I wasn't sure I could do was swim. I hadn't been in the water for about 30 years. It bugged me that I couldn't swim so I signed up for a tri. I was encouraged in a way by what my daughters had done and how they faced new challenges and I wanted to put myself in that context. I had about 18 days to train before the tri. Each day I went and tried to swim just to the next buoy. All in all I went to the lake 11 times before the tri in those 18 days.

**Athletic Interests** - Prior to triathlons I was mainly a recreational cyclist with some occasional golf.

**Triathlon Accomplishments** - I think the first year doing the whole open water start and seeing elite triathletes in the same transition area. That is one of my best memories to this day. I also worked myself up to a marathon - something I thought would never be possible for me. In 2007, I managed somehow to place first in my age group at three events and 2<sup>nd</sup> and 3<sup>rd</sup> at two other events. Coming from someone who was never athletic I was happy to accomplish that.



**Motivation** - This sport and life style really have given me a way to manage my weight and stay fit. I've gone through several gain/lose cycles with my weight over the years and am happy to have structure to maintain my health. Triathlon seems to allow that to happen naturally while being fun in the process.

**Goals for 2008** - My goals for 2008 are to get faster in all three sports and shave a few more seconds off those transitions. Also I want to stay healthy and have fun with it in the process. I'd like to also continue to place well within my age group.

## NUTRITION RESOLUTION IN 2008

As the New Year begins, many athletes have made their list of key races and areas of training to focus on in 2008. A common goal for athletes is to improve our nutritional intake or diet. Whatever your goal is: weight loss, maintenance, or simply to provide your body with the nutrients it needs to perform, a balanced diet is crucial to every athlete. The last 10 years we've seen nutrition evolve from the mainstream fad diets to many less than simple dietary programs. Some advise to "avoid red meat," "eat nothing after 5pm," or "stay away from (*insert food here*)!" The following is a list of simple, proven concepts that will provide a healthy program toward eating correctly in 2008.

**4-5 Smaller Meals** - in a busy work lifestyle, with training squeezed in before and/or after work, it can be hard to balance your diet throughout the day. By eating 4-5 smaller meals that focus on an even distribution of carbohydrates, protein and good fats, your blood sugar levels won't leave you feeling flat by 2PM. Provide your body with fuel every 3-4 hours to have the best workouts and keep your body's metabolism burning all day long.

**Whole Grains** - fad diets may work in the short term, but eating a diet with complex whole grains such as 100% whole wheat bread, brown rice, sweet potatoes, or oatmeal provides the backbone of a diet that will get you through your day feeling fuller, longer. And as athletes, you need carbohydrates to fuel your muscles with glycogen to get through those challenging workouts.

**Fruits & Vegetables** - why do athletes really need to eat fruits and vegetables? When you train for long periods of time, your body requires additional fuel to recover. This fuel also includes vitamins and minerals that assist your body in fighting free radicals created during endurance activities. Vitamin C, E, and beta carotene: Simply stated, try to incorporate the following into your diet: **oranges, broccoli, spinach, blueberries, almonds, carrots, tomatoes, and bananas** to name a few.

*Remember to eat your vegetables!*

**Lean meats** - endurance athletes have traditionally focused on consuming carbohydrates to fuel their bodies with pasta, baked potatoes, breads and cereals; however protein is essential in balancing your daily diet. By consuming a small portion of protein with each meal, you can help to balance your blood sugar and prevent spiking or the post meal "fatigue" you feel after eating a large bowl of pasta. Taking into account that endurance athletes are not weight lifting champions, we don't need to eat four chicken breasts at lunch, so a simple rule is 1/3 of our your plate or meal should be a portion of protein. Chicken breasts, turkey meat, lean red meat, pork are great meat sources. For the vegetarian endurance athlete, beans, legumes or lentils, eggs, tofu, or soy milk will provide the necessary dietary intake of protein.

**Good Fats?** - Yes, there are things such as good fats. Some great examples of good fats are the healthy oils found in olive, flaxseed or grape seed oil and fats found in fish, lean meats and nuts such as almonds. They contain a mix of mono-unsaturated fats and the "buzzing" omega 3 fatty acids. All this being said; good fats help to absorb the nutrients found in vegetables, contain antioxidants and may help prevent heart disease and high blood pressure.

**Takeaway Message:** Simple is always better, so just remember:

- balance your diet throughout your day with 4-5 smaller meals
- portion each meal to thirds, 1/3 carbohydrate, 1/3 protein, 1/3 vegetable/fruits
- whole grains help sustain your energy in coordination with protein and healthy fats
- incorporate good fats into the diet to help absorption of nutrients and promote a healthy diet
- Reach your nutritional resolution in 2008!

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*Future issues will cover aerodynamics, featured MA races, and more!*

*All the best,*

*Tim Richmond*

*RD, Max Performance  
617.797.2215*

***Max welcomes you to share this Newsletter  
with your friends!***

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## NORTHEAST TRIATHLON SUMMIT

Speed, Technique, Power & Planning  
Salem State College (O'Keefe Center), Salem, MA  
2/23/08 8am- 4pm

**Keynote Speaker: Karen Smyers, Professional Triathlete**

Key Topics:

- Open Water Swimming- technique & swim
- Bike- technique, power, & free speed!
- Run- drills, technique, & speed
- Nutrition Periodization and long Course Fueling
- Tri-Specific Injury Prevention & Rehab
- Race Year Planning & Periodization
- Strength Training for Triathletes

**Contact: Brandi Dion, BnS Fitness**  
**(978) 204-8588 -or- [BnSfitness@yahoo.com](mailto:BnSfitness@yahoo.com)**  
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