

April 2007

Issue 97

# Quick Transitions

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## "A Word From the Prez"- By John Pepke



**John Pepke:**  
*President of the BTC.*

Greetings!! I hope everyone is getting geared up for another triathlon season and starting to work off those winter pounds. Hopefully the weather will cooperate and we can begin to get outside for some serious training without 20lbs. of clothes.

It has been a few years since we last had a President's column in the BTC newsletter and since being elected in January it

has been one of my goals to start writing one. The concept of the column is to give our members an idea of where the club is heading in the upcoming year, providing some insight as to the needs of the club, and presenting general information that may or may not be already known.

One of the executive committees' goals for 2007 is to get more members involved with volunteerism, specifically with the Fall Frolic. The Fall Frolic has been a BTC event now for the past eight years and we continue to provide support for the race in many ways. This year we need to provide additional workers to support the race. There will be several key positions that need to be filled in order to make the race equitable for all involved. If we can't fill these positions

then outside volunteers have to be hired to cover them. This impacts the amount of the donation that the BTC can give to the YMCA for Camp Keenan. If anyone is interested in working with the BTC and Score-This!!! during the Fall Frolic please contact one of the BTC executive committee members ([pres@buffalotriathlonclub.com](mailto:pres@buffalotriathlonclub.com), [vice-pres@buffalotriathlonclub.com](mailto:vice-pres@buffalotriathlonclub.com), [treasurer@buffalotriathlonclub.com](mailto:treasurer@buffalotriathlonclub.com), or [secretary@buffalotriathlonclub.com](mailto:secretary@buffalotriathlonclub.com)) for a listing of the jobs and job descriptions.

The BTC By-Laws have been amended for 2007. We have redefined the officer election process and have changed the minimum distance requirement for associate

**Con't on Pg. 10**



**"Quote of the Month"**  
*If you are bored with life, if you don't get up every morning with a burning desire to do things, you don't have enough goals... - Lou Holtz*

## Spotlight on an Area Business - Handlebars Cycle Company



### *Handlebars Cycle Company*

Located at 685 Englewood Ave (at the corner of Englewood and Starin), *Handlebars Cycle Company* has been serving the biking and triathlete community since 1971. The store was originally opened in 1971 at the same location where it stands today. At one point they expanded to a total of three locations but have since consolidated their operations back to the flagship store on Englewood. Interestingly enough the store suffered a serious fire and burnt to the ground back in the Blizzard of '77! The store was ultimately bought by Petrus (Peter) dePagter in the early 1980's who still owns the store to this day. I met with Jim Costello who jokingly refers to himself as the "Managing Director of Retail Operations". Jim is a very personable guy who obviously knows his stuff. I enjoyed dealing with him in

both the capacity of "editor" writing this story and as a "customer" who needed to get my bike ready for the season, have some warranty work done and get refitted.

Obviously as the name suggests Handlebars is a bike shop first and foremost. They offer a wide range of bikes starting at the entry level type cycle all the way to the latest carbon fiber race bike. They carry Cervelo, Trek, LeMond, Orbea, Colnago, Specialized and Guru just to name a few makes. They also offer a full array of bike accessories and components. As I walked around the store I noticed a large selection of technical compenets, as well as, a very large selection of helmets, shoes, rims, aerobars, tires, bike computers, etc. They pride themselves on the fact that they pretty much carry the largest inventory of bicycling and triathlon attire in all of Western New York. Handlebars also offers a full array of bicycle services from tune ups and painting to custom works and complete overhauls. Besides the typical bike service they also offer customized bike fitting. I had Chris Bushover refit me on my bike. He took his time and did a great job working with me to insure that I was

fitted properly. It was obvious to me that he takes great pride in his work. I would strongly recommend anyone looking to get fitted or refitted to go see Chris.

Besides the sales and service of bike, parts and accessories, Handlebars also offers gear for the swimming leg of the triathlon. They sell and rent wetsuits and stock both Profile Design and Highway 19 suits for sale. They also sell swim goggles if you are in the need. In a nutshell I would safely say that Handlebars can handle all of your biking and swimming needs...

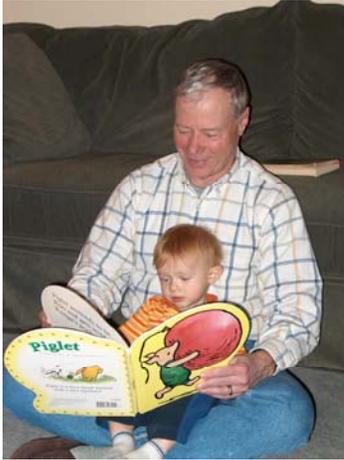


***A full selection of bikes to choose from...***

Another important thing to note is that they are also actively involved in the triathlon community.

**Con't on Pg. 10**

## “The Dr. is In”: BTC April 2007 Testing - By Frank Cerney, PhD.



**Can you say *Ma-tab-o-lism*????**

Now that you have some basic understanding of metabolism we can talk about some science that can contribute to what you might want to know about your potential and about your training status.

### **Maximum oxygen consumption (VO<sub>2</sub> max)**

VO<sub>2</sub> max is a measure of the maximum capacity of your body to take in oxygen through the lungs, pump the oxygen containing blood into the arteries, transport it through the cardiovascular system and use it in the muscles to produce energy. As such VO<sub>2</sub> max is the best measure available to assess the functioning of the lungs, heart and vascular system and the muscle's metabolic capacity. The test used to measure VO<sub>2</sub> max is the ultimate fitness test; the more fit you are, the better your VO<sub>2</sub> max. For our purposes, we could say the better trained you are the better your VO<sub>2</sub> max. This is because training improves the functioning of the lungs, the cardiovascular system and the metabolic apparatus of the muscles.

We measure VO<sub>2</sub> max using a cycle, treadmill, swim flume or any other device that will allow forcing you to work at increasing intensities. Many of you will be familiar with the clinical “stress test.” This is similar to the VO<sub>2</sub> max test, but doesn't force you to work to

your absolute maximum. In any case you will be exercised starting at low intensities and then at increasing intensities over a period of 10-15 minutes until you can no longer continue. We measure VO<sub>2</sub> max by monitoring the volume of air you breathe in and out and determining how much oxygen is in the air you breathe out compared to the amount you breathe in. The value is reported in liters O<sub>2</sub> /minute (l/min) or, to correct for body mass so that values can be compared among individuals, in milliliters O<sub>2</sub> per kilogram per minute (ml O<sub>2</sub>/kg/min).

Your VO<sub>2</sub> max is determined to a large extent by your parents – your genetics. The average couch potato going on an intensive exercise program might be able to improve it by 20%. For someone who has been training an improvement of 15% is realistic.

What difference does this make? The table below gives some average values in ml/kg/min.

	<u>Male</u>	<u>Female</u>
Elite cross country skier	>80	>75
Elite marathon runner	72-82	68-75
National class marathon runner	68-75	62-70
Regional class runner	60-70	58-65
Local “good” runner	50-60	45-55
Avg. untrained 25-35 year old	40-50	30-40

As you can see, those with higher VO<sub>2</sub> max values are higher performers for activities that require a high rate of oxygen consumption. This means that someone who has been born with a muscle make up that will allow a VO<sub>2</sub> max of 55 will not compete at the Olympic level. Apologies to all of you out there who had those aspirations, but who picked the wrong parents.

**Con't on Pg 8**

## “Yoga for Athletes” by Bruce Levine

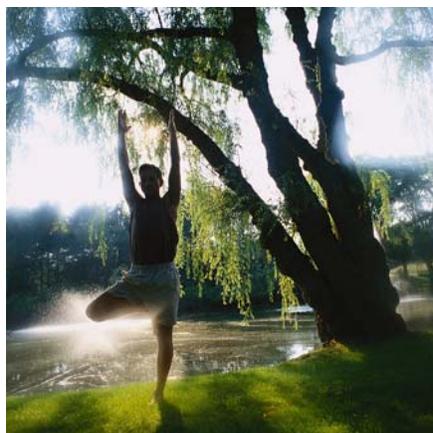


***Bruce looking good at the Nation's Capital at the Marine Corp Marathon.***

The triathlon has been a journey for me. The training has taken time which has allowed me to become more disciplined and smart in my approach to training and competing. Perhaps this is necessary because I am getting older and my body doesn't recover as fast as it once did. Regardless of the reason, I knew that I needed to build my core strength and flexibility, but I didn't know the benefit of breath training and proprioceptive balance techniques in my training program. I am happy to say that all changed.

A few months back, I decided to take a yoga class at Rising Sun Yoga in Snyder. I quickly found that incorporating yoga into my training would make me a more

efficient athlete and a healthier person. But, this new journey wasn't easy. The first thing I realized is that I did not know how to breathe. Proper breathing is as important as good nutrition when it comes to maximizing your performance, yet few of us have ever been instructed in the mechanics of it. Learning to take deep, relaxed breaths helps to slow the heart rate, calm you, improve the exchange of gases (oxygen & carbon dioxide), control pre-race anxiety and improve concentration.



In the past, if I had one hour available, I would run the entire hour. But, since the introduction of yoga, my routine is different. I include yoga poses and stretching in my training as they have increased my strength and flexibility and improved my balance. The more flexible I am, the less chance I have of injury. The more balance I develop, the greater my

ability to concentrate as yoga balance poses require tremendous concentration and yet they quiet the mind... which relaxes me. This all adds up to a longer and freer gait with less tension while training and during races.

The importance of core strength cannot be overstated. Most yoga poses can involve isometric contractions of the core muscles improving not only physical strength but posture too. As I improve my posture, my breath becomes deeper and more relaxed. As I relax, I feel better and my times improve. I have often said that to improve on athletic performance, it's all about the miles. But at what cost? Cross-training that includes yoga makes each workout more meaningful and effective. It reduces boredom and aides in recovery. It has become a regular part of my day.



*Next BTC Meeting ...*

**Thursday, 19 April 2007 @ 7pm**

**Handlebars Cycling Co.  
685 Englewood Ave, Kenmore**

**If anyone has anything to bring up, please reply to  
Theresa Palmieri at [tpluvs2run@yahoo.com](mailto:tpluvs2run@yahoo.com)  
or leave a message at 716-834-5530. Hope  
to see everyone there. Thanks!**

**2007 Buffalo Triathlon Club Executive Committee**

President: John Pepke - [pres@buffalotriathlonclub.com](mailto:pres@buffalotriathlonclub.com)

Vice President: Theresa Palmieri - [vicepres@buffalotriathlonclub.com](mailto:vicepres@buffalotriathlonclub.com)

Secretary: Bob Sobon - [secretary@buffalotriathlonclub.com](mailto:secretary@buffalotriathlonclub.com)

Treasurer: Warren Hale—[treasurer@buffalotriathlonclub.com](mailto:treasurer@buffalotriathlonclub.com)

**New Members:**

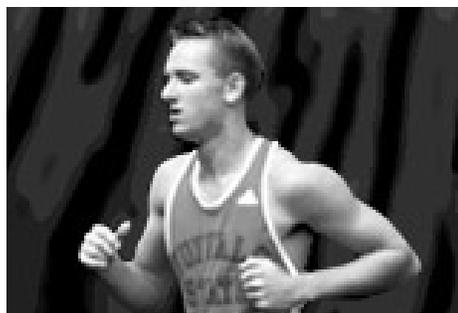
**Tim Chesko  
Brian Montanaro  
Rebecca Warren  
Ryan (Beau) Warren  
Daniel Oliverio**

**We Need Your Newsletter Articles!**

Help make this newsletter yours by contributing articles on your recent races, different training techniques and ambitions, etc... Send them to: [newsletter@buffalotriathlonclub.com](mailto:newsletter@buffalotriathlonclub.com)

Also, I would like to add a picture page starting sometime soon, so please send in some action photos of workouts, races, etc. to the same email address listed above. Without photos it will be a hard to do a picture page (unless of course you just want to see photos of my fat cat, my receding hair line, my baby and whacked out teenagers...).

## Is Ceramic Really Faster? By Joe Niezgoda



*Joe Niezgoda*

With the Ceramic Revolution that is going on now it can be very confusing trying to find what bearings are faster. Let's try to clear things up a bit.

In cycling originally, the cone/cup style bearings were used and you would find them in older hubs. These bearing systems use loose steel ball bearings placed in a larger diameter rounded cup with an opposing rounded bearing race holding the system together. Both the cup and race are grooved enough to contact about 25% of the bearings surface and located at opposing 45 degree an-

gles from the normal direction of force. The system is then packed with grease to help reduce friction and improve longevity, then preloaded with enough tension to remove play in the bearing. This is a very good system and is used in low end equipment even today. But, what frictional losses are happening in this bearing style and how is one to improve on this design?

Within the cup and cone bearing design, friction was happening in three areas.

First, steel bearings:

- This bearing is not perfectly round. Having an imperfect ball causes friction and vibration by not rolling smoothly along the cup/race surface.
- These loose ball bearings are able to contact each other, further increasing the friction and vibration.

The manufacturing of a ball bearing makes it "soft" relative to the race, and under normal rotational speeds, loads and shock experienced in cycling, Because

of this the ball bearing changes shape or deforms further increasing friction.

The second area of increased friction comes from the cup/race interface.

- In the angular interface of the race/cone, 75% of each bearing surface is in contact with the race and cone causing high levels of friction.
- This bearing system has forces opposing the weight of the rider and the angular component of holding everything together. Meaning as downward force (riders weight) is applied to this system is want to separate.
- In order to offset this preload must be set. This is not a precise adjustment so bearing interface creates more friction (over tightening a cup and cone bearing in you hub and see what happens). Finally, the grease causes friction.

*Con't on Pg 13*

### BTC Birthdays for April

**4/2 Jeffrey Lebsack, 4/3 Mark St. George,  
4/5 John Pepke, 4/8 James Karnath, 4/8 Adam Toy  
4/8 Margaret Giardini, 4/10 Ron Winkleman,  
4/12 James Schaffstall, 4/16 Greta Buck,  
4/18 Todd Lemmiksoo, 4/19 Stuart McCallister,  
4/27 Bruce Levine, 4/28 Hollis Mahaney-Lulek  
4/30 Prudence Meads, 4/30 John Radzikowski**



**Buffalo Triathlon Club—  
Buffalo's Premier Multisport  
Club**

**BTC Quick Transitions  
c/o Mark St. George— Editor  
191 North Long St.  
Williamsville, NY 14221**

**The BTC - helping you  
reach goals you didn't  
even know you had!**

## It's That Time to Re-Join the BTC!!!!

That's right, all memberships expired at the end of the calendar year 2006 as of December 31. To rejoin all you need to do is go to the Buffalo Triathlon Club Web-site at <http://buffalotriathlonclub.com> and click on the "Join Us" hyper-link. Next step is to print off the application at <http://buffalotriathlonclub.com/documents/application.pdf>, complete it and send in your check (amount based on the type of membership) to Warren Hale at the address on the application.

## WANTED!!!!

- 1) **Member Spotlight Volunteers Needed!** One of the most difficult tasks of putting these newsletters together each month is tracking down volunteers to be in our Member Spotlight section. It would be great if I had some folks volunteer to complete the short bio and include a few JPG's each month. If you are interested in being spotlighted in an upcoming newsletter please contact me at either [saint464@adelphia.net](mailto:saint464@adelphia.net) or [newsletter@buffalotriathlonclub.com](mailto:newsletter@buffalotriathlonclub.com). I will send you the questionnaire (and of course buy you a beer next time I see ya)!
- 2) **Roving Reporter Wanted:** Have you ever dreamed of being a journalist and traveling the world in search of a good story? If so, I have a job for you. I am looking for someone who can give me one story a month. It could be a focus on an area business catering to the triathlon world or possibly a story on an upcoming event. If you are interested in helping out please contact me at the email addresses mentioned above. By the way if you do travel the globe in search of a good story it will have to be on your dime...

## “The Dr. is In” - Con't from Pg. 3

*(Continued from page 3)*

Your job in training is to optimize what you have been given. The first step is to actually measure your  $VO_2$  max, train for a period and remeasure it to see how much it has improved, and so on until you are sure your training has been optimized. The measurement of  $VO_2$  max along with lactate threshold can help in establishing training zones to improve metabolic production of energy.

### Lactate Threshold

Another important indicator of training status and athletic potential is the lactate threshold. A review – remember that your muscles are always producing some lactic acid and that the level in the muscle is determined by the balance between that produced and that removed. The lactate threshold is the exercise intensity at which the balance is tipped in favor of accumulation; more is being produced than can be removed. Your lactate threshold can be measured indirectly during the  $VO_2$  max test as the point where ventilation increases more than expected; this is called the ventilatory threshold and is a good indicator of the lactate threshold. The advantage is that blood does not need to be sampled.

In general an athlete can exercise virtually indefinitely just above the lactate threshold. If the exercise intensity is too much higher than this point too much lactic acid accumulates in the muscle and that build up makes you stop exercising. Knowing your lactate threshold can help you monitor exercise intensity to prevent the build up of lactic acid.

In someone who is untrained the lactate threshold occurs at about 60% of your  $VO_2$  max; with training this can increase to between 80 and 90% of  $VO_2$  max. You can imagine the significance of this on

performance! Again, repeat measurements will assist you in monitoring your training.

### Movement Efficiency

Within a group of athletes with similar  $VO_2$  max values and similar lactate threshold values there will still be a pecking order of performances. Of course some of this is due to psychological factors, but another big factor is how efficient each athlete is in their movements. I have measured an Olympic marathon runner with a  $VO_2$  max value of 78 ml/kg/min who could not beat of fellow competitor with a  $VO_2$  max of 72 ml/kg/min because the latter athlete was a more efficient runner. This too can be measured in the laboratory.

Some will argue that the serious athlete will train hard and optimize their potential without knowing anything about  $VO_2$  max, lactate threshold and efficiency. This is true to a certain extent, but experience indicates that being armed with this information can help set realistic goals and monitor the appropriateness of training. Optimal training requires that you specifically target workouts for each of your metabolic systems. By identifying the heart rates associated with  $VO_2$  max and lactate threshold important fine tuning of your training zones can take place.

Measurements of  $VO_2$  max are available at the Human Performance Lab at UB <http://sphhp.buffalo.edu/ens/hpl/index.php> or through Endurance Factor <http://www.endurancefactor.com/testing.htm>.

As usual, if you have questions that I can address please contact me at [frank.cerny@verizon.net](mailto:frank.cerny@verizon.net).

## Member Spotlight on Mark St. George

**Name:** Mark St. George

**Age or Age Group:** 43

**Occupation:** Branch Underwriting Manager for Tower Insurance Companies

**Hometown:** Williamsville, NY

**Family:** Wife Karyn, Justin (son 15) Brittany (daughter 18) and Makena (daughter 15 months)



*The St. George clan...*

**Pets:** Parker (black lab), Joe (fat cat), Mr. Pounce (neurotic cat) and a bunch of goldfish

**Member of the BTC since:** spring of 2006

**Past or current offices / positions held for the BTC:** Editor since joining the club

**Goal(s):** 1) Montreal Ironman in September of 2007. 3) Stay sane raising teenagers.

**Greatest accomplishments:**

Was being a single dad with primary residency raising two kids for three years (before marrying Karyn). If you can raise kids on your own you can pretty much do anything...

**Personal Records:**

**½ Ironman:** 5:35:33 - Montreal 2006 (first and only one so far)

**Marathon:** 3:38:36 - Buffalo Nisan Marathon 2005

**Typical training schedule for the week:**

Swim twice a week with Nickel City Splash. Last week about 3500 yards both days (just moved up to the next level and now my shoulder is killing me, thank you very much!) Spin class directly followed by a 4 mile run on a treadmill twice a week. Long run once a week and a long ride (or spinning session depending on the weather) once a week. Some weights and core strengthening (albeit still not enough) thrown in as well...

**Favorite event of a triathlon:** I actually like racing and training for all three legs. My first triathlon I almost drowned thanks to an anxiety attack but I am now really comfortable in the water (thanks to joining Nickel City Splash and some open water swims last year with the BTC.). I used to be a faster runner but thanks to a bum knee I don't put the mileage on or speed work in that I used to so I pretty much like all three equally.

**Favorite Organized Event?:**

Have only been doing tri's for a year so I don't have all that much experience with various venues. I like the Montreal triathlon I guess the most because the course is a little different. Although I am looking forward to the Spring Fling this year (which is now in August and called the Summer Sizzler). I am looking forward to trying a Formula 1 race format which looked pretty neat...



**Drunk, barefoot and catching gators is no way to go through life...**

**Why did you join the BTC:**

When I joined I had never done a triathlon so I figured it would be smart to join the club to learn more about the sport and pick up some pointers. I also joined it for the social aspect. I have to admit I am really glad I joined the club and can't get over how many interesting and friendly people I have met.

**Con't on pg 12**

## *"A Word From the Prez"- Con't from Pg. 1*

members from living within a 100 mile radius to living within a 50 mile radius. Per the current BTC By-Laws the amendments have to be accepted by a 2/3 vote of a quorum of members in good standing present at a regular meeting. The executive committee will provide information concerning the date of the meeting that the By-Laws will be voted on. The current version of the BTC By-Laws is posted on the Yahoo Group site under the files link.

As you may know the Thursday night bricks will be starting soon (once it stops snowing!). This year there is some road construction on the route we typically use

which will force us to relocate the workouts for a short period of time. Our brick Czar, Joe Pautler, has recently released a doctoral thesis on the possible locations for the Thursday night brick. If you haven't had an opportunity to view Joe's work please take the time to and let him know what location you most prefer. You can find the information on the BTC website at <http://buffalotriathlonclub.com/workouts/brickschedule.php#schedule>.

The BTC Will be supporting Eastern Mountain Sports club day again this year. The event will be held at the Niagara Falls Boule-

vard location on Saturday April 21<sup>st</sup> from 12-4 pm and Sunday April 22<sup>nd</sup> from 1-5 pm. Come out and see some of the different organizations in WNY that promote healthy living. We will be manning a table both days. If you would be interested in assisting please contact either [pres@buffalotriathlonclub.com](mailto:pres@buffalotriathlonclub.com) or [vice-pres@buffalotriathlonclub.com](mailto:vice-pres@buffalotriathlonclub.com).

Until next time, train safe, train smart, and as one of our past President's would say, "Push 'til you Puke"

John

## **Handlebars Cycle Company - Con't from Pg. 2**

They offer bike support and rent wetsuits for all Score-This events.

They are also one of the sponsors of the Score-This series and are the sole sponsor for the Score-This Kid's Multisport Series. They also will be offering bike support at the Muselman Triathlon and ITC Pan American Cup bike race this year.

Jim mentioned to me that they were getting ready to announce some pretty exciting events that will be coming this

year. He wouldn't let me know exactly what they are as things are not finalized but stay tuned!



In closing, keep in mind that Handlebars offers all BTC

members a 10% discount on all parts and accessories. Something to keep in mind on your next triathlon shopping excursion...

The contact information for Handlebars Cycle Company is:

685 Englewood Ave  
Buffalo, NY 14223  
(716) 835-0334

Email: [handlebarscc@aol.com](mailto:handlebarscc@aol.com)

Web-site: <http://www.handlebarscc.com/>

## On the Calendar....

### Buffalo and New York State Triathlons and road races...

\*\*\*\*\*

Sun. April 29 @ 8:00am

**BPAC 6 Hour Distance Classic**  
Amherst, NY

Sat. May 5 @ 10:00am

**GBTC 1/2 marathon**  
Grand Island, NY

May 20 @ 9:00am

**Tom's Pro Bike**  
50 / 100 mile Bike Ride  
Lancaster, NY

Sun. May 27

**Nissan Buffalo 1/2 and**  
**Full Marathon**  
Buffalo, NY

Saturday, June 2

**Tour De Cure**  
Niagara Co. Community College

June 10th @ 8:00am

**Keuka Lake Tri**  
Keuka Park, NY

Saturday June 23, 2007

**Ride For Roswell**  
Amherst NY

July 1st @ 8:00am

**Tri in the Buff**  
Irving, NY

July 8th @ 8:00am

**Xterra Off-road Triathlon**  
Holiday Valley  
Ellicottville, NY

July 14-15

**Musselman Tri**  
Geneva, NY

August 4 @ 9:00am

**Wilson Wet & Wild Tri**  
Wilson, NY

August 5th @ 8:00am

**Cayuga Lake Tri**  
Ithaca, NY

August 11 @9:00am

**Summer Sizzler**  
(formerly the Spring Fling)  
Grand Island, NY

September 9th -@ 9:00am

**Danforth Fall Frolic Tri**  
Barker, NY

September 23 @ 7:30am

**Finger Lakes Triathlon**  
Canandaigua, NY

### **TriSport Canada - Tentative 2007 Series Overview** [www.trisportcanada.com](http://www.trisportcanada.com)

Victoria's Duathlon

May 13, 2007

Milton Triathlon & Duathlon

June 3, 2007

Muskoka Triathlon and Duathlon

June 16/17, 2007

Guelph Lake 1 Triathlon & Duathlon

June 23/24, 2007

Peterborough Triathlon & Duathlon

July 8, 2007

Niagara Triathlon and Duathlon

July 21/22, 2007

Orillia Triathlon & Duathlon

August 19th, 2007

Guelph Lake 2 Triathlon & Duathlon

September 1, 2007

Sherkston Shores Triathlon and Duath-  
lon

September 8/9, 2007

Niagara-On-The-Lake Duathlon

September 22, 2007

**Important! Always be sure to  
check with race organizers and  
web-sites to verify date and  
times...**

## Member Spotlight on Mark St. George - Con't from pg. 9

**Music In my "I-Pod":** For a white insurance guy from Williamsville it may come as a surprise that the majority of the music in my I-pod is rap. I have Akon, 50 Cent, Eminem, Snoop Dog etc. It's great music to train to and helps you tap into your inner demons..... I also have some mellow stuff in there like Neil Diamond, Ray Charles, and some Gregorian Chants when I need to relax...

**Favorite food and drink:** If I ever had to do a last meal it would start with a glass of Bombay Sapphire on the rocks. Then some stuffed banana peppers. The main course would be a big juicy rib-eye served with a nice California Cabernet. However, I don't recommend this be part of your daily training regiment (trust me I did this the night before this years Shamrock Run - I almost met "Eaaarl!!!!" a few times a long the course!. Generally I do eat pretty healthy but love to indulge now and again with the really good food and drink...

**Favorite Movie:** Easily it's Shawshank Redemption. It is based on a Steven King novella "Rita Hayworth and the Shawshank Redemption" which is a great read too.

**I am currently reading?:** Sadly I am not reading anything. I do love to read but with raising kids, work, being editor of the newsletter and all this training I don't have much time. When I do read it is generally mindless drivel like Dean Koontz or Steven King. However, I do have Barack Obama's "The Audacity of Hope" collecting dust on my night stand....

**Best Tri Advice you ever received:** "Keep going forward..." It's great triathlon advice but also great advice for living life...

**Favorite quote:** It's not really triathlon or sports related but it's a good way to go approach your life:

*"If you want to find happiness focus on what you have not what don't,*

*and compare yourselves to those that have less not those that have more..."* The Dalai Lama

**What / who inspires you:** A lot of people are inspired by the sports greats. I am actually much more inspired by a 45 year old couch potato that wakes up one day, decides that they have really missed the boat and decides to run a marathon or do a triathlon. When I am at any event I always like to watch these "late finishers". It's these folks that fascinate and inspire me. And to me they are the ones with the most guts. Seriously, watch them as they hobble over the finish line of a marathon in six hours or so. By the sense of accomplishment on their face you would never know that the winner of the race finished three or four hours ago. To me that's pretty cool. The great ones motivate me to be better and train harder but the former couch potato that accomplishes his or her goal inspires me....

## 2007 BTC Volunteers

**Joe Pautler - Webmaster and Brick Workouts**

**Kei Riley - Librarian**

**Gene Baran - Lake Erie Swim Workouts**

**Rob Harold - Lake Ontario Swim Workouts**

**Joe Niezgoda - Lake Ontario Swim Workouts**

**Ed Harkey - Triathlon Race Results**

**Ken Tocha - Duathlon Race Results**

**Mark St. George - Newsletter Editor**

## Is Ceramic Really Faster - Con't from Pg. 6

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- Grease tends to leak out of this system so a thicker grease is needed, less viscous grease provides less friction and lower temperatures, but need to be replaced more frequently.
- Grease attracts dirt system, which causes the friction, heat and vibrations.

Some bearing styles have seals to help solve both of these problems, but this adds more friction. Cup and cone bearing style has been replaced by more efficient cartridge bearings. These sealed bearings were designed for industrial applications but we found a better use for them. Cartridge bearings use two races sandwiching balls held equally spaced by a retainer. These balls roll in grooves between the races. The cartridge is sealed to keep grease in and dirt out. Also, load forces are now perpendicular to the race and bearings.

This design providing a much harder and rounder ball that has been separated by the use of a bearing retainer. This prevents the balls from rubbing together which decreases heat, friction of vibrations which are found in the cup/cone style systems. The cartridge bearing also has less surface contact between the balls and races. Less contact equals less friction. By sealing the bearing system, it allows manufacturers to use lower friction grease.

**Is ceramic better?**

Ceramic is better because:

- Ceramic balls are about 60% lighter per ball than steel balls or about 30% as a complete system. This may be significant during climbing, breaking and accelerating.
- Ceramic balls are harder and have the potential to be much more round. This increases bearing life by about 20 times.
- In high quality systems the grease used is of a better quality and designed to work specifically with the ceramic surfaces to reduce friction and last longer. Ceramic style bearing systems often use a Teflon retainers to separate the balls. The Teflon is lighter and slicker than the brass retainer used in most steel bearings. A higher quality seal is used which will reduce friction and save watts. The more ways a cyclist can shave weight and/or reduce friction the less watts go into over coming friction and the faster he/she can go. Because the ceramic balls are rounder, have less contact with the races, use a better grease they



reduce friction and save watts.

One study states that in triathlon, you would gain over 12 watts of free energy on the bike or provided a 22m lead in just 55 seconds of coasting down a hill.

Another study found a 22-fold decrease in friction, an average power savings of about 2.25 watts with ceramic bearings for a pair of wheels (6 bearings) with ceramic 30-45kph. Derailleur pulleys fitted with ceramic bearings can save anywhere from 0.6-1.7 watts and bottom brackets can save an additional 1-3 watts.

That is a big advantage by just swapping out bearings.

The less wind resistance and the slower you go the more you will notice improvements of ceramic bearings because the friction being discussed tends to be small so percentage wise you will gain more speed if you are a slower rider.

The only real downfall this system has is cost. Ceramic bearings take a long time to make and the materials used are much more expensive. Therefore we the consumer must pay for the improvements. However, ceramic bearings may be less expensive in the long term by saving money

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## “Is Ceramic Really Faster?” - Con’t from pg. 13

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in maintenance and replacement.

Not all ceramic bearing are created equal:

Ceramic balls (and any other finished ball from all materials) are specified by “Grade” levels. The highest typical Grade is 3 (denoting 3 millionths sphericity or better), then 5, then 10, etc..... Bearing companies use different grades depending on the bearing precision and application. The lower the number the rounder the ball.

Another important measurement is ABEC tolerance. Precision ball bearings are manufactured to standards established by the Annular Bearing Engineers Committee (ABEC). The ABEC standards are primarily concerned with bearing tolerances. While tolerance is an important factor in the performance of a bearing, there are many other

factors that also affect the suitability of a bearing to its application. ABEC standards do not cover: radial play, race curvature, surface finish, material, ball complement, number, size or precision level, retainer type, lubrication, torque, cleanliness at assembly, packaging and other factors that may be essential to the desired bearing performance. In simple terms the ABEC rating tells us how tight the cartridge bearing is put together. The higher the number, the closer the races are to the balls equaling less play in the bearing system. This should make a faster bearing, correct? Well, without getting into the science behind it you want to make sure that the races tolerance is as close as it can be without interfering with the balls. An example of a bad

choice would be a grade 22 ball (a high quality steel ball, Zipp uses 22 grade steel balls) in a bearing with an ABEC rating of 9. You would be better off having an ABEC rating of 1 while using a grade 22 ball. An example of a good ceramic set up would be ABEC rating of 7 using a grade 3 ball.

### Conclusion

I feel that if you are a fast rider and have everything else you can upgrade on your bike go with the ceramic bearings, or if you are very slow and just want a little more speed a quality ceramic bearing may be right for you. Or if you plan on keeping your bike for the long haul, ride in nasty conditions on a regular basis or are just lazy and don't want to take care of your bike then ceramics may also be the answer.

## “Impressed at the Around the Bay 30K” - By Warren Hale

On a brief note, I take my hat off to the Milton Ontario Canada Firefighters. They formed 5 relay teams of 3 people and ran the Around the Bay 30K together. So what is so impressive? They ran the race in their fire-fighting coat and pants! 10K or 6.2miles each! Running 6 miles can be tough enough for some of us. Just imagine putting on 15+ pounds of clothing designed to NOT breathe, keep blazing heat outside and keep your body heat inside, AND run 6.2 miles. Oh, did I forget to mention you may have to take your turn in carrying the country's flag? Kudos to those who take pride in their occupation, stay fit, and get along with their coworkers in work and out.

## Race Day Checklist...

<i>x</i>	<i>Pre-Race</i>	<i>x</i>	<i>Swim</i>	<i>x</i>	<i>Cycle</i>	<i>x</i>	<i>Run</i>	<i>x</i>	<i>Post Race</i>
	Tracksuit		Swim suit		Bike		Running shoes		Warm dry clothes
	Water bottles		Swim cap		Cycling shoes		Running shorts		Towel
	Breakfast		Goggles		Racing shorts		Anti-chafe lube		Shoes / flip-flops
	Energy bars / gels		Spare goggles		Racing top		Cap / hat		Post race drink
	Car keys		Anti-fog spray		Helmet		Socks		High carb snack
	Money for entry		Wetsuit		Water bottles		Sun block		sunglasses
	Directions to race		Stool / water bucket		Spare tube / puncture kits		Safety pins		Baseball cap / hat
	Gas for car		Sports lube		Toilet paper		GPS / Watch		Clean socks
	Chip / ankle strap				Race # / bib strap		Power gels		Camera
	First Aid Kit				Gloves				Glasses / extra contacts
	Cell Phone				Sport drinks				
					Wrist / Bike ID Bands				

## “BTC Clothing Order” - By John Pepke

Below is the list of items that was voted on to purchase for the 2007 BTC clothing order. If you are interested in purchasing any of these items please email [pres@buffalotriathlonclub.com](mailto:pres@buffalotriathlonclub.com) with the number of items and the size you would like.

- 7E20244 Women's Monaco Jersey - Club Fit XS-XXL \$52.00
- 7E83008 Arm Warmers XS-XXL \$31.00
- 7E83015 Leg Warmers S-XL \$42.00
- 7E50091 Women's Elite Tri Shorts XS-XXL \$40.00
- 7E60038 Tights XS-XXL \$58.00
- 7E85009 Lycra Socks S-XL \$10.00
- 7E20282 Men's Monaco Jersey - Club Fit XXS-XXXL \$61.00
- 7E50082 Men's Elite Tri Shorts XS-XXL \$45.00

Minimums for each item is 16 pcs. Once the minimum quantity is reached for the items we will place the order.

If you want to get a general idea of what the clothing will look like please visit the Louis Garneau website at <http://www.louisgarneau.com> and use the product codes listed above.

I will provide status updates via Yahoo Groups and once we are close to placing the order will ask you to remit payment at that time.