



► Upcoming Races
IM Hawaii 10/11/08
IM Arizona 11/23/08
Freaky 5K 10/25/08
Santa Scamper Mile
10/25/08
Noodelini 5/15K 11/30/08



► Other Events at:
Trifind.com
Midwestsportsevents.com
wicycling.org



The
Your
Training
Zone
Newsletter

○ Sept/Oct | ○ Issue 4

Your Training Zone.com

- USATriathlon, USA Cycling and USA Track and Field certified coaches
- Official training partner of: Attitude Sports Cycling Team and Gear N Up
- Computrainer Power Coach
- Pacesetter Medical Consultant

Helping you achieve your Training goals

Fall Base Training 3 for \$350

Now is the time to zero in on your training zones via lactate step testing using Our medical grade equipment. Did you know we have done over 500 evaluations and are the only coaching business in the state using medical grade equipment. Do not be fooled by inaccurate results.

For the Fall, 3 lactate evaluations for \$350, normal price \$450.

YTZ Athlete Focus of the Month

We want to congratulate all our IM WI finishers, several first timers, and a few veteran repeaters. Your dedication, perseverance and commitment is contagious to everyone around you.

Special congratulations to Rob Yamry who qualified for the show: Ironman World Championships with a 9:34 time, 19th overall.

Tips

Cycling Tip

Drills, drills drills..What is your cadence?...Did you know that for all of the past Hour World Record cycling times that the cadence has been over 100 and only twice has it been in the 90's. Of course they are pushing huge gears as well. Do your spin ups and get your cadence higher so pushing that big gear with a higher cadence is easier.

The off season is the time to work on it!

News & Notes

YTZ Ongoing Swim Clinic

Receive excellent drill and instruction from the best swim instructor in the valley, Curt Beutler. Curt is a certified USA swimming instructor and triathlete. He has coached multitudes of age group swimmers to the national level, let Curt help you conquer the swim.

Monday and Wednesday nights at Neenah High School 7:15-8:30 pm. YTZ also provides individual lessons as well.

Starts week of Oct 20, 2008 , Inquire for future clinics....

This session is filled!

Results

Please go to our website, yourtrainingzone.com weekly as we will post results of our clients and you can follow their progress.

Post Workout Recovery Tip

Strenuous exercise depletes essential amino acids especially glutamine. Glutamine is the most abundant amino acid found in your muscles. If glutamine is not replaced, the immune system and white blood cells will not function correctly. You are then more prone to becoming ill. Replacing carbohydrates and protein within 30 minutes of your workout is essential to recovery and healthy immune function.

Products like Recoverite and Endurox are valuable and easy substances to take as well as glutamine supplementation.

BY MICHAEL PIERSON M.D.

THE MYSTERY BEHIND FATIGUE

Now that marathon season is here, some things to consider...

Fatigue is the **ultimate limiter** of athletic performance. We all want to reduce or eliminate fatigue and enable ourselves to perform faster and longer.

Training appropriately helps reduce the onset of fatigue, but we can never eliminate it. What then do we need to be aware of as we train and race?

In endurance events there are four factors that can reduce your physiologic performance:

Systemic acidity, depletion of glucose, neuromuscular junction failure and increased tryptophan in the brain.

Systemic acidity increases occurs when blood hydrogen ions accumulate in blood and muscle tissue. This occurs after short rapid bouts of speed or when an athlete goes beyond his anaerobic threshold for too long. Watch a local 5K race at the second mile mark; there you will see the unraveling of a lot of individuals who took it out too hard. Their muscles are now in a huge acidic environment and they are forced to slow down.

This is not seen during an extended duration event.

Specific training at and just slightly above your anaerobic threshold can help the athlete cure the burn so to speak. This is another broad topic for another day.

Depletion of liver and muscle glycogen levels or the bonks. Humans can store 2500-3500 calories of glucose in their muscle and liver. In the early stages of exercise the body uses muscle glycogen, liver glycogen and fat for energy. If an individual depletes their glycogen stores they are unable to continue to use fat as a fuel despite having thousands of calories available as stored fat available. The fat lady starts to sing and you are done. You have bonked! To avoid this we need to replenish our glycogen stores during a competition lasting longer than 90 minutes with carbohydrate drinks gels or bars. A whole industry has sprung up with multiple choices of sports drinks for the athlete to use. The bottom line, use the product you can tolerate. A rule of thumb is to take in about 1gm/kg of carbohydrates per hour.

Neuromuscular junction failure. This is a complex event, but basically for some known and many unknown reasons the nerves stimulating muscle groups are unable to fire and an athlete cannot recruit muscle groups to perform. Athletes are forced to slow down or even stop.

Factors which likely contribute to this are dehydration and electrolyte loss as well as a low fitness level.

Increase of tryptophan in brain. After extended endurance events tryptophan accumulates in the brain as it competes and replaces branched chain amino acids, BCAA (leucine, isoleucine, and valine). Normally tryptophan is kept out and the BCAA's are allowed in. The problem arises when tryptophan accumulates in your brain tissue; it is then converted to serotonin.

Serotonin is a principal factor in feeling fatigue and sleepiness. The dwindles occur. Obviously, elevated levels should be avoided and some studies suggest supplementation with branched chain amino acids before and during an event. At the very least a bit of protein in your pre race meal is essential.

Reference: [The Paleo Diet](#), Cordain L, Friel J. Chapter 7, p 121-137.

Dr. Pierson is a practicing anesthesiologist at Theda Clark Hospital, an endurance athlete, as well as President and Managing Owner of YourTrainingZone.com and a USA cycling and USAT Triathlon certified coach. He can be reached at Michael.Pierson@yourtrainingzone.com