



*Developing Children to be  
Champions in Life through Swimming*

# “LANE 4” TIMES

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## 2013 MPSC Grand Prix Championships:

The 2013 Grand Prix Series closed with the Championships meet hosted Feb 23-24 in Mount Pleasant. Twelve swimmers made the trip and did an outstanding job resulting in numerous personal best times and 3 new SCS State Championship q-times.

**Connor Churchill** earned 3 personal best times and a new SCS q-time in the 100 butterfly. **Peyton Mc Whorter** swam to 7 personal best times and 2 new SCS q-times in the 50 butterfly and 50 backstroke. Those are Mc Whorter’s first SCS q-times.

**Rafael Adi** earned 7 best times including a 20-second improvement in the 200 freestyle.

**Connor Campbell** went a perfect 4-for-4 personal best times and a huge 39-second improvement in the 200 IM.

**Alyssa Cozart** earned a personal best in the 50 butterfly, but swam the 200 free, 200 IM and 100 breaststroke for the first time in competition.

**Lily Gibson-Grossman** swam her first meet as a Riptide in and did an outstanding job.

**Tucker Hendrix** earned two personal best times including a 31-second improvement in the 100 backstroke.

**Matthew Key** swam Saturday only and competed in his first-ever 200 freestyle.

**Hannah Mc Donough** raced her way to 5 personal best times and a first-time swim in the 200 IM.

**Kylie Mc Whorter** also raced to 5 personal best times with her largest improvement in the 50 backstroke by 3 seconds.

**Ethan Nechemia** earned two personal best times in the 50 breaststroke and 100 backstroke.

**Chloe Stampfle** earned a best time in the 100 backstroke.

Congratulations to all of our swimmers at the Grand Prix Championships and to Coach Mary for doing such an amazing job with the swimmers.

## 2013 Collegiate Conference Championships:

While younger Riptides were competing in Mount Pleasant, two Riptides’ alumni were competing in their respective college conference championships meets in Georgia and California.

### CCSA Championships, Athens, GA –

Lauren Campbell (freshman, GA Southern Eagles) competed in her first collegiate conference championship meet. Campbell earned a 10th place finish and personal best time in the 200 backstroke (2:03.8) and a 14<sup>th</sup>-place finish in the 200 fly (2:07.1). Campbell also competed in the 400 IM (4:33) and 400 Medley Relay (57.6 butterfly split).

### MPSF Championships, East LA, CA –

Keenan Lineback (sophomore, U of San Diego) swam to two event wins in the 400 IM (4:17.4) and 1650 free (16:39.0, school record), 6th place finish in the 200 fly (2:02.5) and a personal best in the 500 free (4:54.9).

Lineback’s wins were the first event wins by a USD swimmer since 2003-04.

Video of both girls’ races are available at [www.TeamRiptides.com](http://www.TeamRiptides.com).

Congratulations to Lauren and Keenan for a job well-done!

## 2013 Lowcountry Palmetto Championships:

The Riptides will be hosting the 2013 Lowcountry Palmetto Championships this year at the North Myrtle Beach Aquatic and Fitness Center the weekend of March 22-24. We expect this meet to be as large as the Winter Invite with one exception... it will have between 6 and 9 sessions!

With so many sessions, we will need to double, possibly triple our volunteer efforts and increase our concessions needs.

Most of our volunteer needs will come in the position of timers. Per session, we will need up to 17 timers. While the visiting teams may be able to assist with this, it is important that Riptides does its best to provide as many if not all of the timers.

Where can timers come from?

The best resource is our immediate families. From there, grandparents and other family members are invited to participate.

But timers can also come from the schools, particularly those students who need to fulfill volunteer hours required.

So please help get the word out so we can secure all of our volunteers and host an even better meet than the Winter Invite.

In terms of concessions items, Shelly Nechemia and Chris Long will be heading up this area. A current list of items on hand already includes water, sports drinks, snack crackers and some candies.

We are looking to add more water and sports drinks, fruit (particularly grapes and citrus if possible), snack crackers and candy (particularly Airheads).

Concessions also hosts hospitality. We will need to provide coaches and officials 3 breakfasts and 3 dinners; depending on total number of sessions, we may also need 3 lunches.

At this time, Logan's Roadhouse will cater at least one meal. Any additional restaurants which can cater should contact Coach Jim as soon as possible.

Once the entries have been received, then more exact numbers can be announced in order to better prepare for concessions and hospitality.

Any families who are going to sell signage for the meet need to have their sponsors return to Coach Jim the contract with check and a jpeg of their logo.

**These items are due no later than March 15.**

Thank you in advance for everyone's support of the Riptides.

## **Sleep Derivation**

*By Dr. John G Mullen*

SANTA CLARA, California, February 4. SINCE moving to California from Ohio, I've noticed numerous differences between teenagers in the midwest and California.

Californians wear less shoes, and less frequently.

Californians are more frequently late to appointments. Californians (at least in the Bay Area)

have to swim in much harsher conditions (outdoor swimming when it is 30 degrees). Californians don't get their driver's license the moment they turn 16. Californians are tanner (had to throw this one in there).

Now, these correlations with geographic location are influenced by many variables, and I'll be the first to admit this may be a generational difference, nonetheless these differences do exist.

Of these differences, two of them are the most bothersome: the tardiness to appointments and the lack of urgency for obtaining their driver's license. I'll never forget all the morning workouts I performed growing up, and my mother pushed me to get my driver's license the moment I turned 16. This push from my mom was trying to restore her 'normal' sleep schedule and, without surprise, waking up at 4:30 a.m. to drive her son to practice was not her 'normal' sleep schedule.

In swimming, morning workouts are extremely common and deemed a necessity in this sport, as motor control and conditioning are believed to be improved by highly frequent workouts and repetitions. Unfortunately, there are also negative consequences with morning practice, most specifically sleep deprivation.

Despite common belief, health and sport are two separate categories. For example, many feel athletes have extremely healthy bodies, when in fact their bodies are constantly pushed to the limit resulting in many musculoskeletal injuries. Moreover, the necessity to be frequently 'amped' for a competition or practice can result in a sympathetic nervous system overload, and potential damage to their endothelial walls due to excess inflammation and damage.

These differences make it necessary to say any elite National training program for swimming (or for any other sport) is not the epitome of health. This makes it essential to reduce the negative results of intense training without sacrificing the demands necessary in the sport for elite success.

One modifiable variable is the volume of sleep. Sleep is a simplistically complex topic. First, it is simple as everyone can sleep, but complex as no one truly knows why we actually sleep or what initiates sleepiness. Now before I discuss why we sleep, it is key to discuss the different phases of sleep and the role of each specific phase.

### **Rapid eye movement (REM):**

This phase of sleep produces the highest brain activity and those being awakened during this phase of sleep experience improved initial motor function compared to those awakened during different stages of sleep (Horner 1997). More importantly, REM

sleep may help brain regeneration and diminishing emotional expression during the day.

### **Non-rapid eye movement (NREM):**

NREM appears to aid in restoration of the nervous system and energy conservation.

Overall, it seems sleep helps repair the brain and body. Unfortunately, the research may not be specific on the roles of sleep, but several pieces suggest the necessity of sleep. Simply, the potential of accumulating sleep debt suggests an essential role. Sleep debt is defined as the effect that occurs mentally and physically by not getting enough sleep.

Moreover, sleep deprivation in flies can actually cause death more quickly than food deprivation (Rechtschaffen 1998). Unfortunately, this death cannot be isolated to lack of sleep alone (potentially from the sleep prevention stimulus), but is still worrisome.

Another note, human performance becomes impaired during sleep deprivation (Binks 1998). This begs the question, is sleep deprivation worth it for the extra 6,000 yards a day?

This is just the intro to this series which will undoubtedly question the tradeoff between sleep deprivation for increased swimming volume. Unfortunately, this series will not provide all the answers, but give you the tools to assess the risks and benefits of sleep deprivation secondary to morning workouts.

### **What Initiates Sleep**

Sleep is a complex and highly integrated function and the initiation of sleep is no exception in this complexity. At the start of sleep, many hormonal changes occur, specifically cytokines and insulin and instead of discussing all these hormones, which would make this series many more than the four intended parts if I discussed all of them.

I will, instead, focus on the likely most important hormone for the initiation of sleep, melatonin. Melatonin is produced by the pineal gland, a small gland located in the center of the brain. Light (and artificial light, computer screens, phones, etc.) inhibits the production of melatonin and is permitted by darkness. This is why, nearly all melatonin secretion occurs at night (Atkinson 2003). At night, melatonin peaks and likely regulates the various sleep phases, particularly increasing the rapid eye movement (REM) phase.

### **Durations of Sleep Stages**

Achieving all the phases of sleep is crucial, as noted last week, these various phases each have a different, yet vital role. Overall, non-rapid eye movement sleep (NREM) accounts for approximately 80% of total sleep and REM sleep makes up the remainder

(Carskadon 1994).

Stage 1 of NREM sleep comprises 2 - 5% of sleep, but disruptions of this phase occur with low stimulation. This low stimulation makes walking more frequent during this phase, but luckily, returning to stage 1 sleep is easy and fluctuating sleep occur during this phase (like bobbing between wakefulness and sleep during class).

Stage 2 NREM sleep takes 10 - 25 minutes after stage 1 and is much less sensitive to arousal. Stage 3 and 4 of NREM accounts for 13 - 23% of sleep time and are the deepest sleep stages.

REM sleep results in central motor activation and increases in length as sleep progresses, initiating at 5 - 15 minutes during the first cycle and potentially accumulating to 25 minutes. The highest levels of dream vividness, brain activity, and eye movement occur during this stage of sleep.

The combination of these phases combines to create a sleep cycle. Each cycle of sleep last around 90 to 110 minutes, and typically occur four to six times per night (Gyllenhaal et al., 2000).

### **Disturbed Sleep**

Different types of disrupting sleep exist, yet these can broadly be divided into three categories:

\* *Sleep fragmentation*: This is characterized by disruption of the normal progression of sleep stages, as occurs in certain sleep disorders.

\* *Prevention of sleep stages*: As an example of this, certain psychiatric medications can selectively impair REM sleep (specifically benzodiazepines).

\* *Sleep deprivation*: This is the typical result of inadequate sleep volumes and the typical form of disturbed sleep, as many people are more ambitious than they are physiologically capable!

### **Issues with Studying Sleep**

Like all human studies, there are issues with research. For one, self-reported sleep durations are frequently inadequate, as many overestimate their sleep (Ancoli-Israel 2003). Secondly, the volume and quality of sleep are important to distinguish, as many report sleeping 8 hours, but lying in bed may account for a few of these hours. As you will see in later posts, sleep quality is more important than sleep quantity.

These human errors cause many researchers to collect blood samples, but the blood values will be greatly augmented depending on the time of sampling, as many hormones undergo diurnal variation (read [Science of Performance: Diurnal Variation in Swimmers](#)). Alterations in dietary intake and the presence of illness and allergies may also alter these blood values.

## **Disturbed Sleep Prevalence**

The International Classification of Sleep Disorders has outlined more than 80 distinct sleep disorders, and 30 to 45% of the U.S. population exhibit sleep and wakefulness problems (Hossain & Shapiro, 2002). Needless to say, sleep disorder prevalence is dependent upon the country investigated and varies widely within sub-populations, such as swimmers.

Using the U.S. in 1998 as an example, 18% of individuals reported difficulties with wakefulness at least a few days a week (Johnson, 1998). Indeed, 9% reported being diagnosed by a physician as having a sleep disorder (Gallup, 1997). To compensate for this problem, 10 to 15% of US respondents reported using over-the-counter stimulant medications or supplements. No sleep studies exist on swimmers, but it is believed the amount of sleep deprivation prevalence is high in populations high in large volumes of wakefulness during darkness (like shift workers and possibly early morning swimmers).

## **Problems with Sleep Deprivation**

A myriad of problems occur during periods of sleep deprivation. The next installment will address the physiological consequences of sleep deprivation. For now, understand the importance of obtaining all the stages of sleep, since all of these phases play a vital role of well-being. Lastly, the ending to this saga will provide practical insights and methods for implementation, as it depends is not an applicable solution!

## **Money Can't Buy (swimming) Success**

*By Chuck Warner*

A common argument for the value of sport in America, and similar societies, is that it helps prepare children to successfully enter the competitive system of capitalism. In fact, the reverse is also true. The culture in a country contributes to the competitiveness of its children and ultimately the success of its swimmers.

I'm on my third trip in three years to the United Arab Emirates (UAE). My first one opened my eyes to how a country with very different assumptions and expectations for its youth can steer them away from athletic achievement. My third visit underscores that perception, as well as the observation that cultures in America and other countries, as well as communities and swim clubs, severely discourage or encourage athletic results, as well.

In the oil rich UAE, sheiks run, or perhaps better said, 'own' the country. Dubai, in particular, has become known for its audacious building construction, for its business enterprise zones that attract companies from around the world and it's unusual development of man-made islands. Engineers have been successful here in drilling into the sand to simultaneously build islands and canals, thereby developing a shoreline to look more and

more like the home of the International Swimming Hall of Fame (ISHOF), Ft. Lauderdale, Florida. They have even built one of the premiere swimming facilities in the world — the 15,000 seat Hamdan Aquatic Center — at a cost of approximately \$350 million dollars.

But the likelihood of a UAE youngster ever earning an athlete's induction into the ISHOF is enormously unlikely because of the country's culture.

UAE national coach, and former USA National team coach Jay Benner told me:

*"WHEN YOU LIVE IN A COUNTRY THAT HAS THE CAPACITY TO BUY AND BUILD WHATEVER THEY WANT TO, IT'S HARD TO ACCEPT THAT YOU JUST CAN'T BUY SUCCESS IN THE SPORT OF SWIMMING. YOU HAVE TO WORK FOR IT."*

I can remember preaching a very similar statement to swimmers while coaching in Fairfield County Connecticut, the richest per capita income area in the United States.

Any culture's expectations and rewards can affect the internal drive of an individual, whether it is to earn a handsome living or to become a successful athlete. In the sport of swimming, for an athlete to climb an objective structure of competition it is necessary to produce a consistent commitment to hard, well-planned work. There are young swimmers in virtually every country capable of winning Olympic medals. But a culture, demanding competitiveness through a capitalistic system can be an advantage to an athlete because of the message to youth that work is honored, failure during a process is never final, and in the long run, you will pretty much, get what you've earned and deserve.

The swim organizations and clubs that channel the most successful kids into becoming great swimmers consistently present clear signals about their priorities, values and beliefs. Those that recognize world-class character and world-class performance send a message through their membership that both are supported and achievable within their organization. The first can be attained by all, and the second by those with talent that is applied within an environment that promotes training and competition opportunities, a positive self-image, personal responsibility and, especially, hard work.

The club or organization that continuously hands out big benefits for small investments suggests that they have low expectations for kids to develop their own process for achievement. An example of such a reward system might be one that hands out huge trophies for winning at the lowest levels or supports extensive travel for beginning swimmers as an incentive for minimal achievement. This kind of culture of "two much, too soon and too easy"

discourages youngsters from reaching for their potential as a person and as a swimmer.

Goal attainment or even winning may be the object of the swimmer's motivation, but it is the process that informs him or her in a way that will renovate the quality of their lives. In a country like the UAE you are handed a home and salary for marrying a fellow citizen, a methodology that makes for a content population, but quietly discourages a mentality that builds competitiveness in a person.

A culture that can light the fire in an athlete is one that gradually entices their development with progressive opportunities that reward their instrumental thinking and transforming reflection to achieve their goals.

As a 14-year old, Brian Goodell earned the opportunity to train in the Mission Viejo Senior group. But during the summer he didn't earn an opportunity to join his teammates on a major travel meet to the Santa Clara International Meet. He didn't get put on a relay, or go swim time trials, to sooth his feelings of loss. He watched the team bus pull away from the pool for the trip and committed himself to never missing out on an opportunity with his teammates like that again.

There are endless similar stories to Brian's about great swimmers that used a temporary disappointment as motivation to dig deeper to develop all of their potential.

Three years later, Brian was a double gold medalist and world record holder at the Montreal Olympics. He also went on to win nine NCAA individual titles in his first three years of college swimming. A large reason for Brian's success was that he grew up in a culture in which excellence was rewarded, with no attempt to manufacture it. In his experience there was plenty of mentoring, goal setting, encouragement and even praise, but there was also accountability for the result of one's actions and effort.

Without thoughtful planning an organization can become wallowed in a culture in which mediocrity become its version of excellence. When children are condemned to such a culture, and are still engaged in the unforgiving, objective, sport of swimming, they will be cheated out of the chance to bear witness to their own greatness and discover the champion that exists within each of them, by swimming to their potential.

But for those that develop and sustain a culture where competitiveness is encouraged, the future is limitless.

### **Upcoming Events:**

**March 2** – Bring-A-Friend to Practice Day, 12-1pm @ Canal St

**March 22-24** – MBR Lowcountry Palmetto Championships

### **Tuition Payments:**

Just a reminder to parents who pay by check... Checks are to be made out to **Grand Strand Aquatic Management** or **GSAM**.

Families may also utilize the online billing system by adjusting their account and adding a credit card number; surcharges apply.

Thanks!

### **Practice Changes:**

**March 2** – Blue, Red, White @ Canal ST, 12:00-1:00pm

**March 22-23** – NO Practices

**Spring Break** – March 30-April 7, NO PRACTICES!

### **Birthdays:**

Chloe Stampfle – 23<sup>rd</sup>.