

# NEWS SPLASH

Volume 4 Issue 4

May 2009

## A Great Day for a Swim Meet!



We couldn't have asked for a nicer day. Lakewood Aquatics hosted its annual swim meet at Long Beach City College and everyone had a great time. Thanks to all who participated and lent a hand to make this event a success. Our swimmers did a wonderful job. It was definitely the most exciting meet of the year!! Keep up the good work!

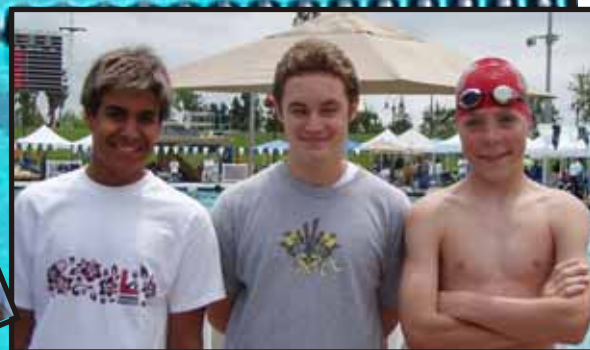


**Lakewood  
Aquatics  
at  
Long Beach  
City  
College  
Swim  
Meet**



# Big Splash at La Mirada!

The La Mirada Aquatic Center is certainly one of the nicest places for a swim meet, and Lakewood Aquatics swimmers brought their "A" game to this meet. We had so many swimmers take it to the next level. Great job! Congratulations to those swimmers who dropped time. Your coaches are impressed by your effort and dedication to the team. You can go to the Lakewood Aquatics' web-site, and check out your favorite swimmer's results. Let's keep riding the wave of hard training and consistency at workouts.



## Lakewood's Own Record Breaker

Daniel McArther has done it again. He broke the record for the boys 11-12 800 free and 200 fly at the La Mirada BRW long course meet in May. Daniel broke the record for the 800 free with a time of 9:44.81 and the record for the 200 fly with a time of 2:42.35. He was also invited on May 17th to attend the Southern California Top 3 and the National Top 10 Banquet, where he was recognized for his achievements in swimming. Daniel also first in the 200 IM with a time of 2:38:13. Congratulations Daniel!



# Swim-A-Thon Update

*Our annual Swim-a-Thon fundraiser is Saturday, June 13th at the Cerritos College pool.*

This action packed day is a great opportunity to raise funds for our swim team. Lakewood Aquatic's Swim-a-Thon is our major fundraiser in which our swimmers earn money for our team by swimming lengths of the pool. Swimmers have a **1 hour period** to swim as many lengths of the pool as possible.

Swimmers solicit pledges from family, friends, neighbors, and businesses prior to swimming. Swimmers that choose to get **flat pledge donations** are encouraged to collect that money prior to swimming. Pledge donations for **per length** swimming can be collected following the Swim-a-Thon. **95% of Swim-a-Thon pledge money will go directly to our team** and 5% goes back to USA Swimming. The minimum mandatory contribution is **\$50 per swimmer**. Each family will also be asked to contribute something; either cash \$5.00 to \$20.00 per swimmer) or an item, toward the creation of our theme raffle baskets. Susie Beeghly will be contacting you soon. If you own or work for a business which is willing to donate goods or services for the Swim-A-Thon, please contact Susie Beeghly.

Pledge envelopes were handed out at the pool Tuesday, May 12<sup>th</sup> and Thursday May 14th. Those families which did not receive the package please contact Susie Beeghly at (5662) 818-1252. Once you receive the pledge envelope, the swimmer can begin to seek pledges. There will be prizes awarded to the **Top three pledge earners**.

We are asking families bring the following items based on the first letter of your last name:

A-F: Fruit (cut into 12 servings individually wrapped portions) for example:

A&B-bananas or cantaloupe, C&D-grapes or oranges, E&F-strawberries or watermelon

G-N: 12 Bagels and cream cheese

O-S: Case of water (in a cooler with ice please!)

T-Z: Case of sports drink or soda (in a cooler with ice please!)

We will need folding tables for the food. If you have a table please notify Susie Beeghly. Also please remember to put your name on all items for easy clean up/pick up. If you have an EZUP, please bring it for shade. Brings chairs for lap counting and for relaxing at lunch. It's a block party feeling! **APOOL** block!!

Susie Beeghly and Annie Arnsparger will be contacting you for a donation for the raffle baskets. Please donate whatever amount is comfortable for you, there is no set amount. Raffle tickets will go on sale on deck at the pool prior to Swim-A-Thon. They will also be sold the day of Swim-A-Thon.

Every year at Swim-a-Thon we take our team picture. This year our photographer will be Pat of **Ambient Expressions Photography**. Pat will provide us with two photographers to make sure we get all the individual photos taken with plenty of time for the team group photo. Pat will also provide **Portrait Package Envelopes** which will be available *prior* to Swim-A-Thon so you can choose the size and quantity of pictures you would like. The package prices, as well as an a la carte pricing list, will be listed on the envelope. Portrait Package Envelopes will be available the day of Swim-a-Thon as well.

**Individual Photos** will be scheduled as follows: **Sr. & Pre-Sr.'s:** 8:00 am; **Junior & Gold:** 8:15 am; **Silver & Bronze:** 8:30am; **White II & I:** 8:45 am

Please **arrive on time**. For the *individual pictures* we suggest the swimmers wear their **team swim suits and/or caps**. **The team photo line up will begin at 9:00am and the photo will be at 9:10 am**. For the *team photo* you will all be wearing your **new team t-shirts**. Those t-shirts will be distributed during the first week of June, before Swim-a-Thon. If you do not receive your shirt during that week, you will need to arrive early on Swim-a-Thon day to pick up your shirt. The team photo will be taken **promptly at 9:10 am**, so you need to be at the pool, in your new t-shirt and listening for instructions. It gets quite busy and loud on deck, so please pay attention! Lakewood Aquatics has hired a **professional** to take the individual and team photos. As a **professional courtesy**, please *do not* take photos while the photographer is working. Thank you!

# Dealing with Sore Muscles

Just about everyone who strives to be - the best they can be develops sore muscles at some time, so it is amazing that this is still mostly a mystery. Consider this: we don't really understand the main source of pain, we don't understand why it takes so long to show up, most of the treatments suggested don't work consistently, and there is no reliable way to prevent the problem except taking it easy.

If you overdo any kind of physical effort... working out longer than usual or harder than usual... about 12 to 48 hours later you will develop very stiff, sore muscles. In the sports medicine community, this is called **delayed onset muscle soreness**, known as DOMS for short. Those of us who taper for the big meets, swimming faster than usual, can attest to the fact that everything hurts... even the eyebrows. This can bring on a disconcerting feeling of "I'm in trouble; I don't feel good even in the taper; how can I ever do well at the meet?!" This seems to be the price we pay for swimming fast; but pain is still a signal that something is wrong, so let's see what you can do to minimize the problem.

## Muscle Damage and Soreness

Hard exercise causes muscle damage. In fact, this is the principle you have to follow to increase muscle size. "Muscle damage must precede size increases. The repair process causes increased muscle size," says William Evans, Ph.D., at Penn State University. If you looked under a microscope at your sore muscles after a hard or fast workout, you would see torn and ruptured individual muscle cells, and breakdown of the membranes between them. There are some components of cells that are too large to escape from normal cells, but when cells are beaten up and have broken membranes, the large molecules escape and end up in your bloodstream. This is useful to researchers, because they can study muscle damage by taking blood samples rather than muscle biopsies. An enzyme called creatine kinase (CK) is an example, which is often used as an index of muscle damage. Another enzyme called lactate dehydrogenase is an example of a molecule that comes from the breakdown of the lipid cell membranes themselves, and it also leaves its "footprints" in the blood. Concentrations of these "escaped" enzymes are seen to rise as high as two to 10 times normal in the blood depending upon type, duration, and intensity of training bouts.

Muscle cell damage not only leaves you stiff and sore, you also lose some muscle strength; you won't be able to move as well as normal, and you may have swelling. The kind of exercise you perform can affect how you feel. Sometimes your muscles stretch and return to their original size; this is called eccentric exercise. (If the muscle has not been pre-stretched before use, the limited range-of-motion (ROM) will allow for eccentric activity to predominate.) Other times your muscles contract and return to their original size: this is called concentric exercise. (Here, pre-stretching will prevent muscle tearing as the muscle tries to move through its accustomed range-of-motion.) Lifting weights in an arm-curl is concentric; letting the weight down to lengthen the arm is eccentric.

Almost all current theories acknowledge that eccentric action is the primary initiator of muscle soreness. Many studies over the years have compared concentric, eccentric, and static muscle actions, with those performing eccentric activity having, by far, the most muscle soreness. A rather clear-cut study was undertaken in the 1980's having test subjects run on a treadmill for 45 minutes on two separate days. Initially, they would run on a level grade. Another day they would run on a 10% downhill grade. No muscle required extensive eccentric action, resulted in considerable soreness within 24 to 48 hours, even though the blood lactate levels, previously thought to cause muscle soreness, were much higher with level running.

High-intensity, speed workouts can also affect how you feel. Muscles become sore after faster movement, even if the force and work levels were higher at slower speeds, according to studies from East Carolina University and the University of Wyoming. Sometimes you may hear that protein loss is a factor in sore muscles, but this is not the case. It is true that exercise increases protein turnover because some is broken down and is replaced during repair, but the amount is much less than most would believe. Most Americans get about 15% of their total calories from protein, which is about twice the recommended dietary allowance. Generally, they don't need extra in their diet, or protein, or amino acid supplements for that matter. But those engaged in high-intensity, strength-demanding athletic endeavors, probably do need more protein than the average. As much as one gram of protein per pound of body of weight might be needed to build and sustain muscles and the power they generate.

### **Preventing DOMS is Tough**

Researchers have worked hard to try to prevent muscle soreness, but usually their ideas haven't worked. For example, when you work out, you breathe faster because you need more oxygen to burn muscle fuel faster. Some of the extra oxygen causes an increase in reactions that produce free radicals which can cause damage even with anti-oxidant vitamins, but they don't reduce muscle soreness. Vitamins C and E and Beta-Carotene made no difference to the after-effects of intense training of a rower at Cal Berkeley.

There are similarities between sore muscles and inflammation, which causes pain, redness, stiffness, and swelling. It would sound logical to use anti-inflammatories in this situation; the results have been very inconsistent; sometimes they seem to help, but more often they do not. Topical products that contain counter-irritants, such as menthol, seem to stimulate blood flow. Other topicals contain anti-inflammatories such as trolamine salicylate, a relative of aspirin. Both kinds of products may help a little by making you "feel" better with a counter-irritant effect, but there is no evidence that they actually promote healing. Cold applications also provide no actual healing but may keep swelling and in-sight bleeding down to a minimum immediately after activity; this could indirectly help the situation. But muscle spasm and contraction can result from intense cold, so cold (cryo) therapy should be limited to short-term immediate after-use application. On the other hand, adding heat such as with a heating pad (moist heat being better than dry heat) some hours later does provide for muscle-relaxation and increased blood flow, allowing for accelerated muscle repair.

### **Minimizing DOMS**

Good training habits help. First, start with a slow warm-up. Cold muscles suddenly put to work are more likely to become damaged than warmed-up ones. Also, warm-ups help you relax, and put you in a right frame of mind to tackle a challenging workout. Warm-ups gradually increase your heart and breathing rates, and increase the flow of oxygen and nutrients to your muscles before you begin to work them hard. They also allow a gradual increase in the speed and strength of muscle contractions, and a decrease in joint stiffness. About 15 minutes should be allotted to each workout for this most important of rituals. Ideally, holding the stretch for about 30 seconds. This overcomes the body's resistance to stretching and allows for the muscle's full-range-of-motion.

Wise athletes cool down after workouts or races. If you suddenly quit, your heart and breathing rates will soon go back to resisting levels, but your muscles retain by-products such as lactate. If you continue to exercise at a lower intensity (about 60% of maximum effort), you keep your heart pumping at a somewhat higher than resting level. This keeps the supply of nutrients coming to help clear out your muscles.

The main causes of DOMS are sudden increases in intensity or duration of workouts, or hard races. Large forces intensely-applied to the relatively small cross-sectional area of a muscle produced cell-membrane rupture, leakage of calcium and eventually necrosis (cell death) that peaks about 48 hours after the exercise. To build a training program logically, keep your training intensity and duration during the same week. These guidelines will allow your body to recover properly, and adapt slowly to improve performance levels. The military, on the other hand, is not famous for its logic and chooses to condition its recruits with just the opposite tactic: intense exercise every day with the expectation that eventually pain and stiffness will dissipate.

You cannot over-emphasize the importance of adequate recovery from one workout before you begin your next; following hard workouts with easier ones is one way to implement this. And remember to eat a high-carbohydrate, low fat diet so your muscles have plenty of fuel.

### **Handling Sore Muscles**

If you follow the ground rules but end up sore anyway, what then? Conventional injury treatments don't seem to work well for DOMS, and there is now some evidence that the anti-inflammatories (Motrin, Aleve, etc.) may actually retard healing due to their prostaglandin inhibition (prostaglandins allow the body to trigger natural responses to infection and injury). Relief provided by these medicines seems to come mainly from their analgesic (pain-relieving) properties and from reducing the attendant swelling surrounding the inflamed area.

You can try massage; most who do find it makes them feel good, even though it hasn't been proven to speed healing. A series of tests have shown that when athletes worked out hard and followed up two hours later with 30 minutes of massage, their blood CK levels were lower, a kind of white blood cell called neutrophils that helps fight inflammation increased, and the athletes reported lower levels of DOMS, compared to a placebo treatment with "medication." You can expect best results from a certified massage therapist, but self-massage and the use of hand-held massagers are also good.

Small amounts of moderate exercise (active recovery) are much better than inactivity (passive recovery). You want to give your body a prod to stimulate natural healing processes, but not enough to cause more damage. Usually, one recovers in a few days from intense activity and is the better for it. Hard races need more caution, but in a multi-day championship, recovery must be timed to allow for repeat competition. A prescribed warm-down after each swim would be the most beneficial, along with massage at the end of the day's events.

There is one more area of thought that I want to present even though to traditionalists it may seem a bit of a "stretch" (pun intended) in physiologic reasoning: the eating of certain fruits which contain enzymes that reduce edema (swelling) and inflammation and break up dead and damaged tissue to help heal and repair muscles sooner for the next bout of exercise. Pineapples contain bromalains; papaya, mangos, and passion fruit contain papace and papain. These fruits (must be fresh, not processed) eaten daily can provide that little bit of added help in allowing the body to recover faster. In fact, for the 2000 Olympic Games in Sydney, the coaches of the German National Team have mandated the eating of such fruits to allow their athletes to train and race harder and then aid them in the recovery process. They are also using a product called Wobenzym N which contains the enzymes pancreatin, papain, bromelain, trypsin and chymotrypsin plus the antioxidant rutin in the hopes of ensuring that all the athletes get the necessary quantities of these reparative enzymes.

Ask anyone who has weathered the multi-swim battles at zones or nationals. They are usually so beat-up that **even their eyebrows hurt!**

## Lakewood Aquatics Dinner at Cerritos Pool

Come and carb up for before the Swim-a-Thon. We will be having a Pasta Dinner Fundraiser at the Cerritos pool on Friday, June 12th. The Pasta Dinner will include: pasta with sauce, dinner roll and bottled water. Please fill out the order form that was e-mailed to everyone, so that you won't be left out of all this great food!

Return the order for to Susie Beeghly in the Beeghly file at Lakewood by **Monday June 8th.**



### A Special Thank You

Lakewood Aquatics would like to thank Alan Gafford (Connor's dad) for stepping up to our request for Team flyer copies. He and an anonymous business partner worked together to make 3500 copies for the team! Lakewood Aquatics has never had a flyer before and we expect that it will have a great impact on our exposure in the local community. Thank you to Anonymous Business Partner! And thank you to Mr. Gafford for getting the copies done so quickly and for giving his input on the distribution strategy! We appreciate your generosity.

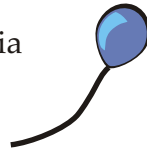


### May Birthdays

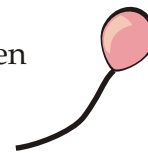
Garret Arnsperger



Gabriella Garcia



William Nguyen



Kayla Velkov

### Calender of Events

May 30	Dual Meet with Zap @ Zap - All swimmers
June 6-7	Downey BRW Meet - Long Course
June 13	Swim-A-Thon - Cerritos - <b>Mandatory for all swimmers</b>
June 25-28	June Invite - TBA - Must meet time standards
July 18-19	La Mirada BRW - Long Course
July 29- Aug 2	SCS Long Course Jo's - TBA -
August 8-9	Metro JO Max - Downey Championship Meet - <b>Mandatory for all swimmers</b>
August 17-31	Summer swim break
Sep 19-20	Santa-Fe BRW Short Course
Oct 10-11	Downey BRW Short Course
Oct 31	SC Dual Meet with Downey at Cerritos College