Swim Arizona

Volume 29 Number 5

September-October 2004

Training Cycles

David Grilli

Perhaps your past training efforts have not been effective. You thought you were in pretty good shape, went to a meet and bombed. Don't worry. It happens to everyone including world class swimmers.

Perhaps you need to consider putting your training plan on a cycle to optimize your swimming in preparation for a championship meet. This is what the elite swimmers do.

A proper cycle includes the conditioning phase, a speed working component, a degree of maintenance, and a tapering phase. These components have to be blended properly. You don't want to get bored with your training, but at the same time, the boring sets are usually the more productive ones.

The cycle should start with an emphasis on aerobic conditioning. About 60% - 75% of the workout should be sets like, 5 x 300s, 10 x 100s or even 20 x 50s. All are good examples of aerobic conditioning sets. These sets can be done on an interval that allows for a short amount of rest or on a rest interval. I prefer and recommend using a definite interval. Choose one that allows 10-15 seconds rest between swims. As your conditioning improves, you should be getting more rest. Once the rest is more than 15 seconds, shorten the interval by 5 seconds. Eventually you will get to an interval that will be hard work to maintain. At this time consider expanding the set. Instead of 10 x 100, do 12 x 100 on your hardworking interval.

The remaining part of your early cycle workouts should focus on speed and technique.

These sets are to be swum at 80% - 90% race pace. Allow more rest between repeat swims. A good set for this phase is the "broken set."; A broken set, has stops or breaks during the repeated swim. Say it's a broken 200. You swim 50, rest 10 seconds, swim a 100, and rest 10 seconds, and swim a 50 for a total of 200. You repeat this type of swimming on an interval that allows a minute or more of rest between repeat swims.

The key is to swim fast and use the breaks and the long rest period to recover. Look at your overall time to swim the 200. Subtract your break time and get your swim time. As the cycle progresses, measure improvement by a decrease in your swim time.

After 4 to 6 weeks of this blend, work into the speed building phase of your cycle. Scale back the ærobic yardage and increase the speed yardage. Have your aerobic yardage be no more than 50% of your total workout yardage. Your speed workouts now need to get more intense. You can continue to do broken sets. Give yourself a little more rest between repeats and increase the break time. But make sure your swim time is faster.

You can do these sets with any combination of freestyle or stroke. I also suggest alternating the sets within a workout so you can do an aerobic set, then a speed set, followed by another aerobic set, and so on.

When you are two weeks away from your big meet, you should begin to taper. Drop dead sprinters can taper a little longer and distance swimmers need not taper as much.

There are numerous little tricks to tapering but the concept is to do less yards with more rest. This process allows your muscles to recover so that come race day, you will be stoked.

David Grilli is formerly Fitness Chairman of the New England LMSC and past chair of the USMS Fitness Committee. This article is from David's Self-Coached Swimmer and Workout series, which is published monthly in the New England Masters Newsletter. This article is reprinted with permission from the author.

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As the summer draws to a close, new events are on the horizon for Arizona Masters. There are two main examples of this which will happen before the year ends.

First of all, there are elections on the horizon for the leadership of Arizona Masters. The people chosen will lead masters swimming in our state for the coming two years. Soon information on this event will be distributed to all members so you can participate in this process.

Second, there are numerous open water, postal, and triathlon events coming up. The end of summer and the beginning of fall are a great time to participate in these events. Check out the entry forms online as well as in the newsletter for additional information.

Of course, be sure to check out the articles included in this month's newsletter for tips and advice on different aspects of swimming. Hope you enjoy it.

Doug Adamavich

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Send written submissions to Doug Adamavich, *dpa_az@cox.net*. Please submit your article in one of the following electronic formats: Text (*.txt), Microsoft WordTM (*.doc), or Microsoft ExcelTM (*.xls). Articles are due on the 15th of the month before the publication date. *Swim Arizona* reserves the right to edit or not publish submissions for publication. We welcome your widespread use and sharing of our materials, and ask that you give credit to AZ LMSC. Back cover artwork provided by Max Von Isser.

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Around the Deck

La Jolla Ocean Swim

The 74th Annual La Jolla Rough Water Swim will be held on Sunday September 12 this year. For those of you who have entered this event, best of luck to you. We will have the results of the Arizona swimmers in the next issue of *Swim Arizona*.

Oktoberfest!

In Germany, Oktoberfest is a time to enjoy beer and bratwurst. In Tempe, Oktoberfest is a time to swim in Town Lake. DCB Extreme Adventures will be hosting another open water race on Tempe Town Lake on October 2nd as part of the city's Oktoberfest celebration. If you are interested in this event, visit www.dcbadventures.com for more details.

Firebird Triathlon

For all of you triathletes, there is an event coming up you may want to enter. It is the Firebird Triathlon, which takes place at Firebird International Raceway, just south of Phoenix. The event will be held on September 26th and will be comprised of a 1000 yard swim, a 15 mile bike ride, and a 4 mile run. You can find more details on this event at www.tucsonracing.com or at Landis Cyclery in Tempe. The event can also be done as a relav. please check with the event organizers for more information on this option.

Gruender Award

Last year, a new award was created by the Arizona LMSC. The name of this is the Gruender award, which is to be awarded annually to the one individual who has done the most to promote masters swimming in Arizona over the past vear. Last vear was the first vear for it, and it was given to Edie and Dan Gruender for creating Arizona Masters and for 30 years of continues service. A new recipient of this award will be honored this year. If you know of a deserving indivi dual, please contact one of the Board members or your Team Representative.

Shrimp Man Triathlon

Ever wanted to do a triathon in Mexico? If so, there is one going on October 23rd in Rocky Point, MX. It is called the Shrimp Man Triathon, and consists of a 1000 m swim, a 30 km bike ride, and an 8 km run. After the race, you can recover by enjoying some freshly boiled shrimp! Relays will be available for this event if you are so inclined. This event is being organized by Tucson Racing, the same organization who is putting on the Firebird Triathlon. Please go to their website for more information.

SCM Meet

At the end of September, Sun Devil Masters will host the Short Course Meters State Meet at ASU. The entry form is included in the newsletter so please fill it out and enjoy this fun event.

Going Postal

How far can you swim in 30 minutes? If you don't know, you now have an excuse to find out. O*H*I*O Masters is running this event and the entry form can be found in this edition of the newsletter. Challenge yourself, your team, and others as you swim for 30 minutes straight.

Elections

Before the end of the year, Arizona Masters will hold elections to determine the composition of the Board. You will receive a packet in the mail with all the information you need in order to vote. Your vote matters because it determines who will lead masters swimming in our state in the coming years. Please participate and let your vote be your voice.

The Right Stuff

Dr. David Costill

Soon after I began doing research on athletes, I became convinced that champions were genetically gifted and made of "special stuff." Our studies with runners such as Frank Shorter, Alberto Salazar, and Bill Rodgers made it clear that they had done a good job of choosing their parents. When I returned to swimming in 1982, I shifted my sports- related research from running to swimming, expecting to find that the best swimmers also had the best physiology. Surprisingly, that was not the case!

What we found were many swimmers with exceptional strength and endurance who were only average performers, and a few individuals with average strength and endurance who were outstanding swimmers. That is, the best swimmers are exceptional because of factors other than their physiology talents, namely skill.

In many cases the best swimmers are the ones with the "best swimming mechanics." The qualities that contribute to swimming skill are termed "biomechanical" because they involve factors responsible for resistance of the body's movement through water (e.g., drag) and the efficient application of muscular force for propulsion. These factors of swimming biomechanics range from the shape and composition of your body to the sculling actions of your arm/hand action during swimming. It would be impossible to detail all of these factors in this column. Nevertheless, let me illustrate one factor with which we must all contend, but which may be only partly under our control: body shape and composition.

Having a body that is shaped like a javelin may be considered by some to be the "perfect body" for swimming, since it offers almost no resistance to movement through the water. But the fat content of the body may be of equal importance, because it determines your buoyancy and the amount of energy you must expend to simply stay on the surface of the water. Being on the lean side means that you must work harder to stay high on the water. Though having a lot of body fat means that you float well, the added body mass adds resistance to your movement through the water.

What's the ideal body fat? That's hard to say, since the percentage of fat in elite swimmers may vary from 6% to 25% of body weight. Women, in general, have a higher body percentage of body fat than men, giving them a buoyancy advantage. Female fat tends to be disproportionately distributed in the lower half of the body, giving a bit more lift to the legs which in turn reduces body drag. As a result, the amount of energy (calories per kg of body weight) needed for a woman to

swim at the same pace as a thin man is significantly less.

So, why not make all male swimmers fatter? Since men tend to store a large amount of their fat above the waist, putting on more fat would shift their buoyancy forward, making their legs sink - which increases drag. This is easily demonstrated by the fact that most men can swim faster with a float between their legs than without it, whereas women experience little or no improvement when they add flotation to their legs. Thus, if I were put to the task of recommending the "ideal fat level" for Masters swimmers, I'd play it safe and suggest that the range for men be from 10% to 20% and from 15% to 25% for women.

Although there are a number of ways for you to determine your body fat percentage, you should be aware that there is no perfect method. The simplest method involves the measurement of the thickness of fat stored under your skin with specially designed calipers. By sampling the thickness of skinfolds at selected sites on the body, it is possible to estimate the body's overall fat content. Since we all store fat in different areas of the body, this method cannot be considered perfect, but it will provide you with a point of reference and a general idea of your body composition.

Being too thin is usually not a major problem for most Masters swimmers (including me), but you should realize that dieting to lose weight may not result in large improvements in your swimming performance. To the contrary, losing fat generally means that you must use more energy each day than you are eating, putting you in a negative caloric balance. In addition to burning body fat, dieting also causes the body to use some of its protein for energy, which can result in a sizable breakdown of muscle protein. So, while you may lose some excess body fat by restricting your food intake, you can also lose muscle tissue, leading to a decline of strength and swimming performance. Consequently, if you intend to lose weight to improve your swimming, make sure your dieting is done during periods of the year when your training can be at relatively low intensity and when you don't intend to compete.

Dr. David Costill is the director of Ball State University's Human Performance Laboratory and is current chairman of the USMS Sports Medicine, Health and Safety Committee. A Masters swimmer for the past 12 years, he has won numerous national freestyle and individual medley championships.

The Starting Block

by Wayne McCauley

Many races are lost on the starting block or the dive into the water. There are three distinct phases of the start; the starting block technique, the dive into the water and the pullout or breakout.

First we will concentrate on starting block technique. The person who reacts fastest and gets their body moving toward the water wins the start. Whether using the grab or the track start, always have your head down and your hips as high and as close to the edge of the blocks as possible. This positions your center of gravity closer to the edge of the block. For those who use the track staff, never rock back and then forward. It costs you a second before you finally start going toward the water. Try starting with your eyes closed! The start light isn't for you, it's for the timers! You can't see it anyway so why not close your eyes and react faster to the sound of the starting beeper! Armin Harry won the Olympic 100 meter dash and Steve Lundquist won the 100 meter Breast using this technique.

When the beeper goes off, quickly push (don't grab) on the starting block with your hands. This gets the body moving towards the water quickest and positions the body for best use of the leg thrust. With the legs, try to explode; then concentrate on using the toes (which were curled over the front of the block) for additional push. Once the start begins and you are hurtling through space, the dive begins. You can gain .1 to .3 seconds on the start, but you can gain or lose .5 to 1.0 seconds on the dive. Therefore the dive is mush more important than the actual start technique.

During the match races with Mark Spitz and Matt Biondi, Spitz actually won the start. Unfortunately Spitz did a flat dive, while Biondi did a perfect single hole entry dive. After the first stroke Biondi was over 1/2 body length ahead and the race was already won. Steve Lundquist in the '84 Olympics came up 1/2 to 1 body length ahead of the field. Whether you are going for an Olympic gold medal or a blue ribbon at a masters meet, it is always better to start the race out front.

To learn the single hole entry dive, always start water. Follow this sequence:

- · Head down, chin on chest, rear as high as possible.
- React to start beep or pistol.
- Head up, push with feet and toes upward and outward.
- Head down and arms down, while following the whole body through water where the head and arms went.

- Correct your depth under water, depending on the stroke
- Blast to the surface, all strokes this should be the strongest most powerful stroke in the race.

Tip, stick near the starter for a few races, learn the cadence and sound of the starter beep. Being familiar with the sound before hand will improve your start reaction time.

Your coach should always be there and he/she will be able to help you learn the dive correctly. Practice until you cut with your eyes closed. Then be prepared for new personal bests at the next swim meet.

NOTE: This start is to be practiced only in a deep pool (5 feet or greater) and under the supervision of a coach, and only one person in the lane at a time.

Wade McCauley lives in Hawthorne, California and swims for El Segundo Masters. This article appears on the USMS web site.

Last month's trivia answers:

- A, Before taking over his family's peanut farm, Jimmy Carter was a Nuclear Engineer in the US Navy.
- 2. **A**, Economics, he also played football and participated in school plays.
- 3. **C**, Polio, at the age of 39, FDR contracted the crippling disease.
- 4. **A**, Taft is the only President ever to serve on the Supreme Court.
- 5. **B**, Whiskey, the distillery is currently being restored at his mansion in Mount Vernon.
- 6. **C**, Ronald Reagan was a member of the Screen Actors Guild who later became its President.
- 7. **False**, Abraham Lincoln was born in Kentucky and moved to Illinois.
- B, William Henry Harrison caught a cold which developed into pneumonia within a month of taking office.
- 9. **D**, Woodrow Wilson became President of Princeton University in 1902.
- 10.**D**, Andrew Jackson got the nickname from his days as a politician in Tennessee.
- 11. **False**, Theodore Roosevelt was the youngest man to serve as President.

Upcoming Events

07/01-12/31	30-Minute Fitness Swim Challenge O*H*I*O Masters Swimming	SCY Any Pool	Anywhere
09/25-09/26	Arizona SCM State Meet Arizona State University	SCM Mona Plummer Aquatics Cente	r Tempe, AZ
09/01-10/31	USMS 3000/6000 Yard Postal Central Oregon Masters Aquatics	SCY Any Pool	Anywhere
09/01-10/31	ASA 3300 Yard Postal Adult Swimming Association	SCY Any Pool	Anywhere
10/02	Oktoberfest Town Lake Swim City of Tempe	Open Water Tempe Town Lake	Tempe, AZ
10/03	Natadores Masters Swim Meet Mission Viejo Natadores	SCM Marguerite Acquatics Center	Mission Viejo, CA
10/16	UCLA Bruin Masters Meet UCLA Masters	SCM UCLA Men's Gym Pool	Los Angeles, CA
11/06	Santa Clarita Masters SMC Meet Santa Clarita Masters Swimming	SCM Santa Clarita Aquatics Center	Santa Clarita, CA
11/06-11/14	Pan Pacific Masters Games Queensland Masters Swimming	LCM Southport Olympic Pool	Gold Coast, AU
11/21	2004 Turkey Shoot Southwest Masters	SCM Pierce College Pool	Woodland Hills, CA

Swim Arizona Subscription and Change of Address Form

Important—Swim Arizona is sent via bulk mail and is not forwarded MAIL TO: by the US Postal Service. Please inform us of address changes. Marilyn Fogelsong Old Address: AZ LMSC Registrar 991 E. Calle Mariposa NAME Tucson, AZ 85718 ADDRESS CITY _____STATE __ZIP___ ☐ Change of Address PHONE ____ USMS #_____ **New Subscription** New Address: **Subscription Renewal** NAME Include your email address If you wish to ADDRESS _______ STATE __ZIP_____ receive Swim Arizona electronically. EMAIL ___ PHONE _____ USMS #____

Etcetera

Who own who? That is the theme of this month's trivia section. Give it a shot, you may be surprised...

- 1. This company purchased the automotive division of SAAB.
- A. FIAT B. Ford
- C. General Motors
- D. Toyota
- 2. Mack Trucks are a division of this large European company.
- A. MAN
- B. Daimler-Benz
- C. Iveco
 D. Renault
- 3. Firestone Tires was sold to this large Japanese company in 1985.
- A. Bridgestone
- B. Dunlop
- C. Toyo
- D. Yokohama

4. Ziploc products are currently owned by...

- A. Dow
- B. DuPont
- C. WL Grace
- D. SC Johnson and Company
- 5. ABC is now owned by this large media conglomerate.
- A. Clear Channel
- B. Gannet
- C. Disney
- D. Viacom
- 6. Which of these former "Seven Sisters" purchased Mobil Oil?
- A. Exxon
- B. Chevron
- C. Amoco
- D. Unocal
- 7. Miller Brewing is currently owned by an African company.

True False 8. Pringles is a brand owned by this company.

- A. Nabisco
- B. Proctor and Gamble
- C. Kraft Foods
- D. Keebler
- 9. Which South Korean company now owns Zenith?
- A. Daewoo
- B. Samsung
- C. Lucky-Goldstar
- D. Hyundai
- 10. T-mobile is a division of this German industrial giant.
- A. Siemens
- B. ThyssenKrupp
- C. Bosch
- D. BASF
- 11. NBC is a part of Vivendi Universal.

True False

UNITED STATES MASTERS SWIMMING

History and Mission

United States Masters Swimming (USMS) is a swimming program for adults aged eighteen and over. Begun in 1971, its membership has grown to more than 35,000 by the end of the 20th century. The USMS has the following mission, goals and objectives:

Mission Statement of United States Masters Swimming

To promote fitness and health in adults by offering and supporting Masters Swimming programs.

Goals and Objectives

- •To encourage and promote improved physical fitness and health in adults.
- •To offer adults the opportunity to participate in a lifelong fitness and/or competitive swimming program.
- •To encourage organizations and communities to establish and sponsor Masters Swimming programs.
- •To enhance fellowship and camaraderie among Masters swimmers.
- •To stimulate research in the sociology, psychology, and physiology of Masters Swimming.

SUNDEVIL MASTERS SWIMMING 2004 SHORT COURSE METERS MEET SEPTEMBER 25 AND 26

Meet Director: Katy James- katyjamesswims@hotmail.com

(480) 897-6411

Sanction: Held under the sanction of U.S. Masters Swimming and the Local Masters Swimming

Committee of Arizona.

Sanction #: 484-0007

Facility: Competition will be held at Mona Plummer Aquatic Center at Arizona State

University, located at College and 6th Street in Tempe. The facility is an outdoor 50-meter, 8-lane pool operated at 80 F with non-turbulent lane lines and electronic timing. There will be separate lanes available for warm-up and loosen-down during

the meet.

Eligibility: Open to all registered Masters Swimmers holding a valid 2004 USMS Card. For

further information on registration call Marilyn Fogelsong at 520-299-8997 or e-mail her at mfogelsong@aol.com. Swimmers that do not include a copy of the their USMS card will be required to show proof of registration the day of the meet and may risk

forfeiting the entry fee and their swim.

Rules: 2004 USMS rules apply. All events are timed finals. There is a limit of four (4)

individual events per day plus relays. Age is determined based on the age of the competitor on December 31st 2004. Swimmers may enter either but not both the 800

and the 1500.

Entries & Fees: Entries must be received by Saturday, September 18th, 2004. Late entries will not be

accepted. There is a \$30.00 fee for the meet. This covers all events that a swimmer wishes to enter (no more than 4 per day). Please use the new Arizona Consolidated entry card. Fill it out completely (both front and back) and be sure to enter seed times for all the events that you wish to swim. You must also send a copy of your USMS registration card. There will be **no deck entries**. Make checks out to **Sun Devil Masters Swimming**. Mail your entry card, check and photocopy of your USMS Card

to:

Katy James 723 East Diamond Street

Tempe, AZ 85283

Questions, email Katy at katyjamesswims@hotmail.com or call at (480) 897-6411. If you need an Arizona Consolidated entry card, go to www.arizonamasters.org and look

under forms.

Seeding: All events will be pre-seeded (Women & Men together) slowest to fastest. Due to

time constraints, the 800 and the 1500 may need to be limited in size. This will be done on a first come first serve basis. If you register after the event is closed, we will

attempt to notify you in advance.

Scoring: Top eight places within each age group and sex will score points: 9-7-6-5-4-3-2-1.

Awards: Individual high point awards will be given for the meet.

Results: During the meet, results will be posted. At the conclusion of the meet, results will be

posted online at www.sundevilmasters.com

Relays: Relay entries will be due to the meet director at the conclusion of Event 4, the 200 IM.

Social: Following the Saturday session, we will meet at Four Peaks Brewery. Directions will

be available at the meet.

Order of Events

Saturday – Warm Up starts at 1:00 PM- Meet begins at 2:00 PM.

Sunday – Warm-ups at 8:00 am and the meet begins at 9:00.am. There will be a 30 minute warm-up period immediately after the 1500 finishes.

Saturday's Events:

Order	Event
1	200 Free
2	50 Breast
3	100 Fly
4	200 IM
5	400 Free
6	50 Back
7	100 Breast
8	200 Fly
9	200 W Free Relay
10	200 M Free Relay
11	200 X Free Relay

Sunday's Events:

Order	Event	
12	800	Free
13	1500	Free
	30 Mi	nute warm-up
14	100	IM
15	100	Back
16	50	Free
17	200	Breast
18	400	IM
19	50	Fly
20	200	Back
21	100	Free

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30-Minute Fitness Swim Challenge

Presented by the O*H*I*O MASTERS SWIM CLUB Sanctioned by the Lake Erie LMSC for USMS, Inc. #18-1011231

$2004\,USMS\,30\text{-Minute Fitness Challenge Entry Form}$ Sanctioned by the Lake Erie LMSC for USMS, inc.

NAME1	REG. NUMBE	R		
(Print-As it appears on registration card)	(Inclu	ide COPY of 2004 USMS Reg.)		
ADDRESS		PHONE		_
CITYSTATE_	ZIP	GENDER	M	F
E-Mail Address:	AGE	BIRTHDATE		(MM/DD/YY)
CLUB	CLUB ABBI	R		
WAIVER: I, the undersigned participant, intending to be le	egally bound, he	ereby certify that I am physica	ıllv fit an	nd have not been otherwise
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possible permanent disability or death, and agree to assun		U ,	_	1 /
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ıllMediumLargeX-LargeXX-Large	\$	Check Payable To:	O*H*I	*O Masters Swim Club
International @ \$20/shirt: (includes shipping)	\$	Send Entries to: To	om Spen	ce, PMB 112, 46 Chagrin Plaza,
Total (US \$)	\$	Chagrin Falls, OH	44022	(Talltom13@msn.com)

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WEB GUIDE

Check out these sites on the Internet for information on Masters swimming, news, events, workouts, and more from throughout the world.

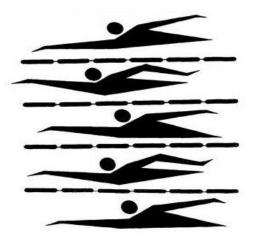
US Masters Swimming www.usms.org Arizona Masters Swimming www.arizonamasters.org Southern Pacific Masters www.spma.net

FINA www.fina.org Swim.net www.swim.net Swim Info www.swiminfo.com

Southwest Zone Masters www.southwestzone.org Places to Swim Worldwide www.swimmersguide.com

Swim Arizona

A newsletter for registered members of the Arizona LMSC of United States Masters Swimming.



www.arizonamasters.org