

Swim Arizona

Volume 30 Number 2

March-April 2005

Distance Per Stroke

Emmett Hines

If you are skillfully applying sculling motions in your stroke you should be able to keep your hand firmly anchored in one plane as you pull your body past your hand. If you are using the fullest extent of your "wing span" in each stroke (i.e.. stretching your stroke out in front and finishing your stroke completely in the rear) you should be able to move approximately the length of your wing span with each freestyle stroke. (In real life we find that some of the best swimmers move even further than their wing span with each stroke. An explanation of why this is possible is beyond the scope of this article.)

Assume you are 6 ft. tall and have approximately a 5 ft. effective wing span measured wrist to wrist. Swimming or pulling with 100% stroke distance efficiency, you should be able to travel approximately 5 ft. with each freestyle arm stroke (10 ft. for each right-left stroke cycle). In a 25 yd. pool you push off from the wall and begin your first arm stroke at approximately the backstroke flags, leaving 20 yds. (or 60 feet) to swim. If you start counting each hand hit as you stroke down the lane at 100% efficiency you should contact the far wall after 12 strokes (or 6 stroke cycles). If you are 5 ft. tall this would work out to more like 14 strokes per length (6'6" about 11 strokes, 5'6" about 13 strokes).

We are, of course, talking about moderate paced swimming. In the best swimmers we see some reduction in efficiency as speed increases. Anywhere from 10% to 40% increase in the number of strokes per length at a flat out sprint. However these same world level swimmers still take fewer strokes per length while sprinting than the swimmers they beat to the wall.

By now you may have taken stock of your own stroke efficiency and found it lacking. "How do I improve my stroke counts?" you ask. First and foremost, start counting strokes. While you are warming up, while you are swimming easy, while you are sprinting etc. Be aware of how many strokes you are taking now at all speeds. Determine what your "normal" number of strokes per length is in easy or moderate freestyle

swimming & pulling and also in threshold intensity swimming & pulling and finally in all out sprints. Get out your training diary (I just know you keep a training diary) and write these down.

Next, realize that the numbers we calculated above are considered ideals and that it can take years of training to reach ideals. But, starting right now, you can begin trying to decrease strokes in your all of swims. Do drills aimed at absolute minimal strokes per length using long glides between each stroke. Aim to be down around half of your ideal number - certainly less than 10. Do sculling drills and be aware of where your stroke is sculling dominated and where you let go of the water and just paddle. Also do lots of swimming and pulling at 1 or 2 strokes less than your "normal" numbers at various swimming intensities while trying to keep your speed from suffering.

By doing these things regularly you will find that your "normal" numbers will begin to decrease. When this happens, you win.

Coach Emmett Hines is the head coach of H2Ouston Swims. He has coached competitive Masters swimming in Houston since 1982 and was selected as United States Masters Swimming's Coach of the Year in 1993. This Article first appeared in Schwimmvergnugen, the monthly newsletter of H2Ouston Swims.

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Fellow Masters Swimmers,

If you have experience with desktop publishing and want to positively impact master's swimming, there is an opening for you. I am moving on to concentrate on his duties as Vice-Chair of AZ LMSC, that means opportunity for somebody to take over the newsletter. Between the 800-1000 of us, somebody out there should be able to do an excellent job keeping our members informed. If you are interested or know of somebody who is, email me at dpa_az@cox.net and pass the information along.

I have enjoyed my time working on the newsletter. It has been a good run and I hope that all of you have gained something from my tenure as editor. However, we need new blood to give our publication additional life and vitality. So if you are up to the challenge I encourage you to give the newsletter editor position due consideration. Thank you and see you in the pool.

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 Word™ (*.doc), or Microsoft Excel™ (*.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.

Printed in the United States of America.

Upcoming Events

04/01-04/03	SW Zone Championship Brophy East Swim Team	SCY Brophy Pool	Phoenix, AZ
04/21-04/24	YMCA National Championship YMCA Masters	SCY IU Natatorium	Indianapolis, IN
04/22-04/24	SPMA Regional SCY Championship Saddleback College Aquatics	SCY Margurite Pool	Mission Viejo, CA
04/26	Ironman Distance Swim City of Tempe	Open Water Tempe Town Lake	Tempe, AZ
05/19-05/22	Short Course Nationals Ft. Lauderdale Masters	SCY ISHOF Pool	Ft. Lauderdale, FL
05/22	Pasadena Senior Olympics Pasadena Senior Center	LCM Rose Bowl Aquatics Center	Pasadena, CA

Swim Arizona Subscription and Change of Address Form

Important—Swim Arizona is sent via bulk mail and is **not** forwarded by the US Postal Service. Please inform us of address changes.

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New Address:

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 PHONE _____ USMS # _____

MAIL TO:

Marilyn Fogelsong
 AZ LMSC Registrar
 991 E. Calle Mariposa
 Tucson, AZ 85718

- Change of Address**
 New Subscription
 Subscription Renewal

Include your email address if you wish to receive *Swim Arizona* electronically.

EMAIL _____

Dietary Supplements

Jane Moore, MD

Summary Points

Don't assume that the ingredients listed on the supplement label, and only those ingredients, are present in the amounts stated. There is essentially no regulation of the supplement industry.

Be aware that supplements sometimes include anabolic steroids, ephedrine, caffeine, and other substances that may not be listed on the label and may produce a positive test for banned substances. More importantly, they may damage your health.

Herbs can be especially dangerous when taken with certain prescription drugs or over-the-counter medications. You should tell your physician about any herbal supplements you are taking.

Don't expect herbal supplements to take the place of hard training as a means of improving your performance.

Introduction

Banish joint pain. Lose weight. Improve your vision. Have more energy. Perform better. Prevent heart disease. Stop hot flashes. Sleep better. Improve your memory. Build muscle. Improve your nutrition. Enhance athletic performance. Improve strength. Improve endurance. Make stronger bones. Improve your concentration. Supplements are everywhere. You can find them on drugstore shelves, in advertisements on television, in magazines and newspapers, and on the Web. They promise to relieve pain and inflammation, provide energy, improve performance, keep you healthy, improve sleep, improve memory, and more.

Do they really work? Claims need to be carefully evaluated. How do they work? Are they supported by solid scientific evidence? Is there proof of safety or effectiveness? Will they interact with other supplements or with prescription medications? What's the proper dose? Are they legal? What are the potential adverse effects?

There are many different types of supplements. The Dietary Supplement Health and Education Act of 1994 (DSHEA) defines dietary supplements as products "intended to supplement the diet." A supplement may include one or more vitamins, minerals, herbs or botanical products, amino acids, dietary substances, concentrates, metabolites, extracts, or combinations of any of those ingredients.

Who uses supplements?

From 1994 to 2001, sales of dietary supplements grew from \$8.8 billion to almost \$18 billion per year. Almost half of the U.S. population uses some type of dietary supplement regularly. Use of supplements has always been higher in athletes than in the general population.

A survey taken during the 2000 Summer Olympics reported use of supplements by 91% of the 592 American athletes at the Games. The substances athletes reported using included vitamins, minerals, proteins, amino acids, herbs, creatine, energy bars, and energy drinks. The most commonly used supplement was a multivitamin with minerals as reported by 83% of the male athletes and 87% of the female athletes.

Reasons for taking supplements

Many people assume that herbal supplements are safe and without the side effects on medications because they are "natural" and are available for purchase without a prescription. This misconception can be dangerous because herbs, like medications, can have adverse effects. The risk of adverse effects increases when herbs and other supplements are combined with over-the-counter and prescription medications.

Athletes use supplements to enhance performance by boosting energy levels, increasing muscle mass, or reducing body fat. Many performance-enhancing substances are banned from high-level sports to protect the health and safety of athletes and to ensure that no athlete has an artificially induced advantage over the competition. Athletes must know which substances are banned and be aware that dietary supplements may contain prohibited substances.

Regulation of dietary supplements

Dietary supplements belong to a category falling between "food" and "drugs" and so are outside of the regulatory jurisdiction of the United States Food and Drug Administration (FDA). Unless a supplement specifically claims to diagnose, mitigate, treat, cure, or prevent a specific disease, it is not subject to regulation. Such claims are limited to drugs and must be supported by proof of safety and efficacy. However, there are many Web sites pertaining to health-related uses of supplements.

While most supplements are safe, there have been problems with contamination and with inaccurate listing of ingredients on labels. Containers may include much more or much less of the listed amounts of ingredients. They may also contain added substances not listed on the label. Some of these substances can cause failed

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The "R" in "FIT-R"

by Jennifer Parks

When people choose to get "fit," many people think that it means to workout as often as possible, pushing as hard as possible. What happens is that people often become too tired, too exhausted, and then may drop out of a fitness program. Or, they really push themselves, and then they get sick, and are forced to drop out, at least for a while. In this country, we value a great work ethic, whether it's at work or in the work of getting fit. The problem is that we become less efficient in our workouts and often compromise our immunity to illness, if we do not give our bodies a chance to rest and recover. Several years ago, one of my former swimmers who became a great triathlete, Wendy Ingraham, told me that sometimes when she thought she should "workout," (meaning run, bike or swim hard) she would go and "work out" in her garden, instead! A former professor of mine, in the Holistic Health graduate program at Western Michigan University, often said that sleep and rest were "spiritual practices." I think it is important to listen to your body; amazingly, it will tell you when you need more rest, or recovery, relaxation, or even just extra sleep.

Checking your heart rate during practice is a simple way of seeing whether you are overly fatigued. Compare your heart rates during and after workouts for a period of time, at least a week. Keep a record. If your heart rate does not return to what is normal for you (don't compare yourself to other people), after a workout, stays relatively elevated, you may be overly exhausted, or possibly on the verge of becoming ill. It may be time to take a little more rest: put more recovery time in your intervals, have a relaxation day (swim less and/or easy, or not at all), and try to get more sleep.

We all have different physiological, mental and emotional make-ups, yet it is important that we take the rest we, as individuals, need. We may have a stressful job that takes a lot of energy, physically and/or mentally/emotionally, which can fatigue us. Being fit can help us handle stress better, particularly the muscular tension. But we definitely need to assess our rest and sleep. Working out does put some physiological stress on our bodies and it is important to allow ourselves to rest and recover. In truth, we can actually become more fit and able to handle the stress of workouts, competition (if you choose to compete), and even work and family, if we get enough rest! Really!

Keep a rest/sleep diary for a week, a normal week. See how much sleep/rest you need to feel energetic in fitness workouts and in daily life (work, family and friends). Try "power" naps of short duration, if you strug-

gle to get enough sleep at night. As you grow older, for various reasons, your sleep may be broken up more, so naps may help, though long ones can interfere with sleep at night. Try not to overly rely on caffeine for an energy boost. The largest number of swimmers workout in the morning so going to bed earlier may be a better choice. Do you really need to see that last newscast? If you have difficulty going to sleep, try deep breathing, progressive muscle relaxation, and even visualizing a relaxing place, a beach with waves breaking or a campfire by a river. Sometimes working out later in the evening may interfere with sleep because you're too "pumped up," so those techniques may help then at bedtime.

And even during practice, if you're really struggling, take a break, an extra ten seconds, another minute's rest between sets. You are an adult and know yourself and your energy/fatigue level better than anyone. A commitment to exercise is great, but when it becomes an addiction and your body begins to break down, it is not good. If you want to become stronger, faster, and really fit, reasonable rest between sets, recovery time between intervals, relaxation swims, and good sleep can help you toward your goals. You'll feel better, too, and often swim much more efficiently and faster when you do workout!

There's an acronym, "FIT," which stands for frequency, intensity and time/duration...let's add an "R" for rest, recovery and relaxation so that it, and we, become "FIT-R"!

Jennifer Parks is a member of the USMS Fitness Committee. Parks teaches health, wellness, fitness, aquatics, and stress management courses at Ferris State University in Michigan. She was the swim coach at Michigan State in the 70s and 80s, and has been swimming Masters for almost 30 years.

BROPHY
SWIM CLUB
MASTERS

PRESENTS THE

2005 Southwest Zone and
Arizona Masters
State Championships

April 1st - 3rd, 2005

- Sanction:** Held under the sanction of the Local Masters Swim Committee of Arizona for USMS, INC.
Sanction No. 485-0003
- Meet** Matt Rankin mrankin@brophyprep.org
- Directors:** Bob Beardsley BobBeardsley@SouthwestCB.com
- Location:** Held at the Dottie Boreyko/Brophy Sports Campus, 2902 East Highland, Phoenix Phone: 602-264-5291 press 5
- Facility:** Outdoor, 25 yard pool with non-turbulent lane lines with a separate 25 meter pool for continuous warm-up and warm-down. Electronic timing will be used.
- Rules:**
1. 2005 USMS Rules apply.
 2. All events are timed finals.
 3. Swimmers are limited to nine (9) individual events for the meet, no more than one (1) individual event on Friday and no more than four (4) individual events per day on Saturday and Sunday. Failure to comply with this rule will result in the highest numbered event causing the infraction to be dropped at the time of data entry.
 4. The **distance events** on Friday **require positive check-in**. Positive check-in for the 1000 will close at 3:30pm on Friday, Positive check-in for the 1650 will close at 4:00 on Friday
 5. The Swimmers age on April 3rd, 2005 determines their age for the meet.
- Seeding:** Friday's events shall be deck seeded. All other individual events shall be pre-seeded. All events run slowest to fastest, ages and sexes combined
- Eligibility:** Open to any swimmer with a valid 2005 USMS registration. **You must include a copy of your USMS registration card with your entry.**
- Awards:** Unique awards for both men's and women's high point recipient in all age groups shall be presented. Team awards for the 1st, 2nd and 3rd place teams combined men and women shall be presented.
- Entry Fee:** There is a flat entry fee of \$35.00 which includes a souvenir meet t-shirt. Be sure to include your t-shirt size with the attached form along with your registration.
- Entries:** Entries must be received by 5:00 pm on Friday March 25th 2005

No late entries will be accepted.

Mail Entries to: Sandy Lee, Brophy Sports Campus, 2902 East Campbell, Phoenix, Arizona 85016 (602-264-5291 press 5)

Checks Payable To: Brophy College Prep

Include: Copy of USMS Registration, completed Arizona consolidated entry card may be located at <http://www.arizonamasters.org/> under "forms" tab) check in the amount of \$35.00 and your t-shirt information.

ARIZONA STATE 2005 CHAMPIONSHIP ORDER OF EVENTS

Friday April 1st, 2005		Saturday April 2, 2005		Sunday April 3rd, 2005	
Warm-up at 3:00pm Competition at 4:00pm		Warm-up at 9:00am Competition at 10:00am		Warm-up at 9:00am Competition at 10:00am	
1	Women's 400 free relay*	5	500 free	15	100 IM
2	Men's 400 free relay*	6	50 breast	16	50 back
3	1000 freestyle**	7	100 fly	17	200 fly
4	1650 freestyle**	8	200 back	18	100 back
(*) these relay entries are due to the clerk of the course by 3:30 pm Friday. (**) these events require positive check-in on Friday. (***) these relay entries will be due at an announced time on the day of competition		9	50 free	19	50 fly
		10	200 IM	20	200 free
		11	100 free	21	100 breast
		12	200 breast	22	400 IM
		13	Women's 200 free relay***	23	Women's 200 medley relay***
		14	Men's 200 free relay***	24	Men's 200 medley relay***

(Detach this form and include with your entry)

Please reserve _____ (Print Name)

A Masters State Championship t-shirt.

My desired size is: small medium large X-large XX-large

(circle one)

**Ironman Distance Open Water Swim
on Tempe Town Lake
March 26, 2005**

- Distances:* There are two races offered, the 2.4 mile Ironman Distance Swim and the 1 mile Tempe Town Lake Swim. The races are sanctioned by USMS 485-OW001
- Course:* **2.4 mile Ironman Distance Swim**
- This is the actual course that will be used in the Arizona Ironman in April. The only difference is the exit point. You will race a single lap on a rectangular course. Starting on the south side of the lake in front of the SunCore building, athletes will swim counterclockwise.
- 1 mile Tempe Town Lake Swim**
- This will also take place on the Ironman course. The only difference is that the first two turns will occur earlier. Turns 3, 4 and the finish will be identical to the Ironman Distance Swim.
- Divisions:* Expected water temperature on race day is 69. We will offer and score separately a wetsuit and non-wetsuit division. Age groups are broken into 5-year divisions with your age on race day determining your age group.
- Eligibility:* The race is open to all USMS members over 19 years of age. Non-USMS members can purchase a one-event USMS membership for \$8. For further information on USMS registration, contact Marilyn Fogelsong at mfogelsong@aol.com.
- Registration:* Online at www.active.com. Registration closes on March 24th. Registration by mail must be received by March 23rd or postmarked by March 21st. Registration may also be dropped off at Swimmers Edge until March 25th.
- Packet Pickup:* Friday from 4:00 pm – 7:00 pm
Swimmers Edge
1010 West Broadway Road #1
Tempe, AZ 85282
On Broadway between Hardy and Priest (480) 968-5325
- Warm-up:* A warm-up area will be provided in the lake starting at 8:30 am and will be available during the races.
- Schedule:* 7:00-8:30 am Last minute packet Pickup and check-in at the race venue
9:00 am Start of 1 mile Tempe Town Lake Swim
9:30 am Start of 2.4 Ironman Distance Swim
11:30 am Awards Ceremony
- Safety:* During the race, canoes and kayaks will be on the water escorting athletes. Along the boat wall, lifeguards will be posted in the event of any emergency.
- Parking:* We recommend that you park in the Monti's Casa Vieja parking lot located on the southwest corner of Mill Avenue and Rio Salado Parkway.
- Event Directors:* Mark Gill- mark.gill@usms.org or (480) 784-7112
David Benjes – david@dcbadventures.com or (480) 460-5052

Registration Information (please print)

Race Distance (circle) 2.4 mile 1 mile Both

Last name _____ First name _____

USMS number _____

Address _____

City _____ State _____ Zip _____

Phone (____)____-____ Email _____

Date of Birth _____ Age on race day _____ Gender ____ M ____ F

Entries Fees

Ironman Distance Swim	\$25
Tempe Town Lake Swim	\$25
Both races	\$30

“I, the undersigned participant, intending to be legally bound, hereby certify that I am physically fit and have not been otherwise informed by a physician. I acknowledge that I am aware of all the risks inherent in Masters Swimming (training and competition), including possible permanent disability or death, and agree to assume all of those risks. AS A CONDITION OF MY PARTICIPATION IN THE MASTERS SWIMMING PROGRAM OR ANY ACTIVITIES INCIDENT THERETO, I HEREBY WAIVE ANY AND ALL RIGHT TO CLAIMS FOR LOSS OR DAMAGES, INCLUDING ALL CLAIMS FOR LOSS OR DAMAGES CAUSED BY THE NEGLIGENCE, ACTIVE OR PASSIVE, OF THE HOST FACILITIES, MEET SPONSORS, MEET COMMITTEES, OR ANY INDIVIDUALS OFFICIATING AT THE MEETS OR SUPERVISING SUCH ACTIVITIES. In addition, I agree to abide by and be governed by the rules of USMS.”

SIGNATURE _____

Detach and send this entry to with a check made payable to DCB Extreme Adventures.

Send to DCB Extreme Adventures, PO Box 93131, Phoenix, AZ 85070-3131. Be sure to include a copy of your USMS card. For more information, contact the race directors or go to www.dcbadventures.com.

Upcoming Events

The Series: In 2005, DCB is proud to offer the Arizona Open Water Series. This is a 5-race series taking place on Tempe Town Lake in downtown Tempe, AZ. For more information see www.dcbadventures.com.

Race 1	5/7	3000 meter	1500 meter
Race 2	6/11	5000 meter	2500 meter
Race 3	7/16	2000 meter	2x1000 meter relay
Race 4	8/20	1000 meter	3x1000 team time trial
Race 5	10/2	2.4 mile	1500 meter

(Continued from page 4)

doping tests for athletes. The FDA must prove that a product is unsafe for it to be removed from the market.

Manufacturers are not required to report adverse events related to supplement use. Even generally safe supplements such as vitamins and minerals can be toxic if taken in huge doses.

There is really no foolproof way to determine if a product is safe. Vitamin and mineral supplements labeled USP (United States Pharmacopoeia) have passed tests for dissolutions, disintegration, potency, and purity. Nationally known food and drug manufacturers generally make supplements under the strict quality control procedures they use for other products.

This article about dietary supplements was written by Jane Moore, M.D., who is a member of the USMS Fitness Committee and the USMS Sports Medicine Committee. Jane is also the 2002 co-recipient of the Ransom Arthur Award, along with her husband, Hugh.

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.

Arizona LMSC Board

EXECUTIVE OFFICERS

CHAIRMAN	Katy James	<i>katyjamesswims@hotmail.com</i>	480-897-6411
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BOARD MEMBERS

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AT LARGE	Gordon Gillin	<i>Swimgordon@aol.com</i>	

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HOSPITALITY			
IMMEDIATE PAST CHAIRMAN	Sam Perry	<i>azperrys@hotmail.com</i>	480-941-0232

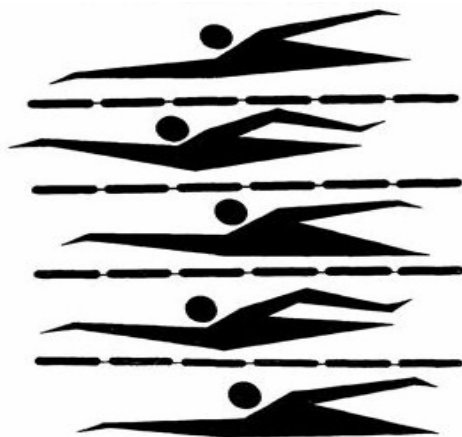
WEB GUIDE

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

FINA	<i>www.fina.org</i>
US Masters Swimming	<i>www.usms.org</i>
Arizona Masters Swimming	<i>www.arizonamasters.org</i>
Southern Pacific Masters	<i>www.spma.net</i>
Swim.net	<i>www.swim.net</i>
Swim Info	<i>www.swiminfo.com</i>
Southwest Zone Masters	<i>www.southwestzone.org</i>
Places to Swim Worldwide	<i>www.swimmersguide.com</i>

Swim Arizona

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



www.arizonamasters.org