# How Much Should IExercise? 

Acrobic exercise programs promise at least three outcomes: increased fitness, weight control, and protection against heart disease. Unfortunately, the fitness movement has touched only about one in five adult Americans, with inconvenience and lack of time ranking near the top of the list of excuses for not participating. Most of us aren't able or willing to squecze four 30 -minute workouts into an already hectic week.
Are there alternatives? Exercise scientists wish there were, and many are looking for them. Perhaps short bouts of exercise scattered throughout the day would help because short, high-intensity workouts can improve fitness. For example, running 1 mile as fast as possible four days a week requires only about 30 minutes of total exercise time per week, but because the intensity is high, results are dramatic. This approach may be fine for former athletes, but most Americans are poorly suited for such demanding exercise.

A study by DeBusk et al' showed that three ten-minute jogging workouts a day, five days a week for eight weeks at moderate intensity increased maximum oxygen capacity ( $\dot{\mathrm{O}}, \mathrm{max}$ ) by $8 \%$ in healthy middle-aged men. Another group, who performed the standard 30 -minute jogging workout, increased their Vo, max by 14\%. Although the standard approach to acrobic fitness produced the greatest effect,

[^0]these results indicate that more moderate approaches are beneficial.

DeBusk et al also examined whether three shorts bouts of exercise complemented the daily schedule. They found just the opposite. Participants reported that three workouts were less convenient than going straight through for 30 minutes. One lengthy workout required only one change of clothes and one shower. With three workouts-although brief-the exercisers sweated and needed to freshen up. One or two additional cleanups was too much.
Even though this exercise schedule is impractical, the study's findings are provocative and raise the question of whether bouts of moderate exercise shorter than ten minutes might also effectively promote fitness.
But even if fitness does not increase significantly, are briefbouts of physical activity worthwhile? From the weightcontrol standpoint, the answer is yes. Total calorie expenditure vs caloric intake over time determines weight gain or loss, and it doesn't matter whether those calories are burned in small doses or all at once. Participants in the DeBusk et al study lost $2 \%$ of their body weight regardless of whether
they exercised in short or long bouts.
Short periods of activity may also provide some protection against heart disease. The Harvard alumni study by Paffenbarger et al ${ }^{1}$ found that stair climbing, walking, and light sports that burned at least 2,000 calories a week offered protection against heart disease. In addition, three studies of active vs sedentary workers by Morris et ald $^{13}$ found fewer cases of fatal and nonfatal heart disease among the more active subjects. The Framingham Study ${ }^{6}$ found that moderately active people had less coronary heart disease, myocardial infarction, angina pectoris, and sudden death compared with sedentary counterparts.
Additional research giving credence to the benefits of moderate activity is beginning to emerge, which is good news for the $80 \%$ of the population who opted out of the fitness movement. Bits-and-pieces workouts similar to those followed by the Harvard alumni could be incorporated easily into a busy schedule. Climbing two or three flights of stairs several times a day or taking a midday walk should not necessitate a change of clothes and a shower. More research is needed, but the message is encouraging. PSM

## References

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3. Morris JN, Heady JA, Rame PA, el ai: Coronary heari-disease and physical activity of work Lancet 1953;2:6795

## FRREESTYLE

SOME PSYCHES I'VE KINOWN...Whether you're getting it together, going for it, entering the bullring, opening the envelope, letting it all hang out, reaching for the ring, at the moment of truth, taking the acid test, bombs away, or just gamely trying to hold it together, your thoughts can play an important role in determining the outcome of your endeavor - a trained for and planned for race for us masters swimmers.

Rare is the swimmer who steps on the block without hauling along emotional baggage significantly influencing what he is capable of doing. The baggage can be of our own creation or loaded upon us by others. Regardless of where it originates, it can be a major contributor to how we do. The word "psyche" frequently implies some sort of damage or hindrance to our ability to perform. We seem to be unusually susceptible to this virus and, conversely, immune to words and thoughts of our own and others that try to offset this force. While I can't tell you how not to succumb to this plague or what's the cure, I can describe some of the psyches I've known to at least make it clear there's enough of it going around for all of us.

The Strong, Silent Type... He (or she- all these types can be either sex) exudes the emotional sensitivity of Arnold Schwarzenegger's "Terminator". You quite likely have heard of this swimmer - perhaps even read a clipping or to0 - and are cur 1ous to find out just what makes him tick. After all, this is good old friendly masters swimming where no one gets up tight. Wrong. This guy, when you introduce yourself, barely acknowledges your presence and makes it clear talking with you is a needless, and perhaps unpleasant, use of his time. It takes a strong ego or thick skin to shrug off this sort of rebuff, let alone direct your stung pride into "showing" him in the water that he should have been nice to you.

The Tough Guy... He can be friendly enough, but may seem Dent on making sure you appreciate how tough he is. Sort of a Bionic Man. His handshake is better suited to barbells, making you wonder if your well defined but runty by comparison hand bones were designed for this abuse. While seemingly idly standing around, he may suddenly flex or demonstrate some physical capacity you know is far beyond your arsenal of fitness. He's into clenched jaws, sucked in stomachs, overly deep breathes, and West Point plebe postures.

A true anecolote may convey the impact the truly tough guy can have. In college, my caach grossly misrepresented my ability in order to get me in the fast, timed finals heat of the 1650 at a regional meet. That heat had three former Olympians, including the current world 440 record holder (John Marshall, the first to go under 4:30). I had never met, only seen pictures of him. As I swung open the door in the john minutes before the race, I almost bumped into him as he was tying his bathing suit. To do it right he had inhaled deeper than I had ever imagined a human could.

1 estimate his chest measured about 50 inches. Whatever plucky resolution I had been nurturing disappeared at that moment. How could I compete against such superior hulk? As it turned out, he and the others got the last lap gun in plenty of time to get in to, if not out of, the shower before I finished. In fact, if I had not been psyched, I would still have finished far back, but I like to attribute my loss to the hotshots to my getting psyched.

The Bold One... He makes no bones about it. He is in top shape and expects to blow us all away. He may say it straight out, which takes more than a bit of poise or courtesy to respond to without risking inciting him to further aspirations. Sometimes he says it in such a way that it is not clear whether he is aware of the claims he is making for himself. Saying he never used to be able to stay with me in a race but, lately, has had such good workouts that he will at least try to do it for a while and see what happens. Then- artfully?- he may try to retract the thought, apparently recognizing it suggests parity.

The Expert... This person knows more about racing than you could ever hope to know, or so it seems when he strikes up a conversation with you, usually not too long before the race. It's hard to tell if the expert is trying to help you or upset you. You do know that he puts ideas in your head that are hard to shake and can be deleter ious to your racing. He may call your attention to the fact that there is a slippery spot on the wall on the left side of the touch pad. In your warmup you somehow happened to miss it, but, knowing you resort to a modified circle swimming pattern sometimes in your races, you imagine hitting that bad spot over and over. He may note there is an unusual wave that seems to carom off the ropes when you come up from your turn, and is especially troublesome if you are ahead of the other swimmers. If my strategy had been to get out ahead and hang on, I will rethink how smart this will be.

The concerned One..His swimming talents can seem eclipsed by his far reaching analysis of swimming technique, which, before your big race, happens to focus on yours. No, you had not considered bilateral breathing to smooth out that obvious hitch in your stroke that causes you to lose momentum, throws your body out of line, and suggests you're definitely overtrained. I don't know whether it's good or bad that this type can be good at spotting your flaws. I appreciate the help but have a tough time not dwelling on my shortcomings when I am asking so much of myself.

From time to time you will be confronted with the psyche's many forms. Whether you sublimate, squash, or sidestep the damage is strictly up to you. It only matters if you allow it to get in the way of what you want to accomplish in the pool. You are the "Captain of your ship". As long as you keep your hands skillfully on the wheel and read the conditions around you as wisely as you can, you will flow to the best of your abilities and that is good enough for me. But have you happened to notice how you're dropping your left shoulder lately?

5/89

# In the summer of 1950 

By Celia Morris

ne of the great moments in my life came in the summer of 1950 at the Shamrock Hotel, when I won the Women's Gulf Coast AAU 800-meter freestyle championship and set a record. I was 14 years old.
The next day my picture was in the Chronicle along with Jane Kneip, who won all the shorter freestyle races, and Mignon Martin, who took the diving. Almost 40 years later, the expression in that old clipping still radiates bliss.
I swam on the Golfcrest Country Club team because its genial coach, E.A. Snapp Sr., had recruited me at a local meet the summer before. But along with a score of other girls and boys, I had discovered when I got to the pool that another E.A. Snapp - this one the son - was the real taskmaster. And swimming for E.A. Jr. was not for sissies.

His smile was big and infectious like his father's, but he popped a wet towel at any sluggard in sight, and he had a quick, mean wrist. I rode home backward one evening, with my bottom stuck in the air so as not to sit on the welts.

But E.A. Jr. had earned the right to be tough. Some years before, he was training for the Olympics when polio struck him. The doctors said he would never walk again.

Giving up or giving in, however, was not in the Snapp tradition. The old man began coaching him with as much devotion as when the Olympics had been their goal, and by the time we knew him, he could walk without a cane. He had powerful shoulders, but when he swam, his legs dangled behind.

Some two weeks before the meet at the Shamrock, which was the first of the season, E.A. Jr. decided I should swim the $800-$ meter freestyle. I was appalled. I had never swum more than 200 consecutive yards in my life, and I wailed at the prospect. He was unmoved: From then on, I was to swim 1,000 yards a day.

When he came back a week later and demanded a report, I confessed to a daily total of maybe 250 . So he put one of
his minions on one side of the pool with a wet towel, stationed himself on the other, and ordered me to swim 40 widths, or just under 700 yards. Whenever I dallied on a turn, they popped me with the towels, and it was that night I got those welts on the rear.

The 800 was 16 lengths of the Shamrock pool. Eight girls were entered, and whether the gods or lesser mortals plotted, I drew one of the coveted middle lanes. To my right would be Patsy Bonner from College Station, an "older woman" of 17 , and the winner of a handful of gold medals the summer before. To my left would be Dolores Anderson for the Shamrock - tall, fast, and a year younger than I.
The starter raised his gun. The eight of us bent over, arms down. The gun cracked. We jackknifed out. The race was on.

By the middle of the first lap, Patsy, Dolores, and I had emerged from the pack, and for the first three lengths, we swam evenly together. And then on the third turn, Patsy and I pulled ahead, and for the next 10 lengths, she and I matched stroke for stroke.
And then on the 13th turn, I pulled ahead and kept on pulling. As I made the 15th turn, three body-lengths ahead, the gun signaled the last lap. Patsy put on a burst to catch me, but I was flying on adrenalin and glee, and this one was mine! The flashbulbs went off. The old man fell into the pool. And E.A. Jr. said, "Baby, you're going to the Olympics!"
That turned out to be the peak of my swimming glory, and apart from intercollegiate athletics, my career as a competitive swimmer didn't last more than another two years. I was too lazy. And not long after, I got seriously interested in boys.
There was one special boy with whom I shared that summer and the next. He was standing by E.A. Sr. when the gun went off; he was running beside E.A. Jr. down to the finish; and he too ended up in the pool. His name is Dave McComb. He has a grin like Huck Finn and a great swimmer's body, and he was 15 the year I won the big one. We discovered this summer in Washington, D.C., that our friendship, which blossomed in an era past recall, will last a lifetime.
Both of us went on to get Ph.D.s and learned to analyze the past as historians. So that when we got together again after more than 20 years, we realized to our bemusement that two conditions had governed our adolescent friendship: too much chlorine and an absolute prohibition against sex.

The chlorine, which could damage our eyes if we stayed too long in the water, meant we could train no more than two
hours a day. The ban on sex gave us not only the imperative, but the space to find different ways to know one another.
Technology and a sexual revolution have subsequently destroyed those two conditions: goggles have been perfected to protect the eyes - with the result that anybody who competes now has to work out seven hours a day just to stay in the race. Swimmers have no time or energy left over for play. The pill and the sexual revolution mean that from early adolescence, boy-girl friendships must cope with a human drive as powerful as hunger.
Davey and I were lucky.
Within the hour, our old intimacy came flooding back, and over the course of a weekend, we rediscovered patterns of character we had built together 40 years earlier. We still do what we learned then to do: We know how to work, and we know how to play.
Allowing for the normal wrinkles, bulges and sags of middle age - and for Dave's mustache - we looked much the same, one virtue of our swimming years being the respect we had learned for our bodies and the care they needed.

But we are more likely now to work with our brains: Both of us write books. In fact, though neither lives in Texas, each of us writes about it. (David wrote a history of Houston that is a standard source.)

The sense of adventure we discovered at the Shamrock has led him twice around the world, and me to live abroad. We're more relaxed, to be sure, than when we were kids: We stood in the midst of Union Station and laughed at each other shamelessly.

It was the old '50s style. Corny, if you will, but we're past the age of apologizing. We're the kind of people who pay our bills on time. Neither would tell a lie except to protect someone's feelings Neither would deliberately hurt ar other. Both believe above all in decencand integrity in personal relations, an both have discovered to our cost that th: world does not.
I told him every important secret $\mathrm{i}_{4}$ my life, and he told me most of his. The candor was awesome because the trust was unqualified.
Golfcrest moved to another part of town, and they tore the Shamrock down, the collective wisdom having decided it was an eyesore. Perhaps it was. But for us in 1950, it was a great, green palace - a place of wonder, challenge and daring. A place where boys and girls had grand adventures and discovered how to be friends forever.

Celia Morris is a novelist and historian who lives in Washington, D.C. Her book, Fanny Wright: Rebel in America, was published in 1984 by Harvard University Press (under the name Celia Eckhardt).

# Swimmer getting faster and faster 

## By MEL DUPAIX

Bob Bailie can't seem to reach a peak sprint time. He just gets faster and faster.
A resident of The Woodlands, Bailie competes in the $50-54$ age group of the U.S. Masters Swimming program.
Last May at the Short Course National Championships in Boca Raton, Fla., Bailie took second place in his favorite sprint, the 100 -yard freestyle. His 52.62-second clocking shaved a 10th of a second off his all-time best effort achieved more than 30 years ago when he competed for Rutgers University.
"Jeff Farrell beat me in world-record time for the 5054 age group," noted Bailie. "I was $3 / 100$ of a second over the world record for the age group which I'll enter next fall.
This accomplishment is a contradiction to the common notion that top-flight competitive swimming is for the kids only. Bailie may be faster than the typical high school competitor today.
"In order to swim at the level I want to swim at, and at the speeds I want to achieve - nobody can do it alone. You've got to have coaching in the water, on dry land and in the weight room," declared Bailie. After relocating his business from Florida last summer, Bailie trains with The Woodlands Masters Swim Team in order to benefit from team practices.
"You have to have a heck of an understanding family, because you're like another teenager coming home late from training after school," he observed. "Your wife has to adjust meal times.
"You have to do a whole lot of things. You have to have a lot of support from everyone around you. That's crucial and I've got my wife's (Carol) support. That's all I need."
Bailie notes that swimming is merely moving water. As a result, strength and power are crucial to winning races.
His weight-room approach at The Woodlands Athletic Center involves many of the Nautilus machines as well 'as some of the Universal equip-
ment. Bailie follows the standard resistance-training format of alternately increasing repetitions, then weight. He has built a powerful physique that is not bulky by combining weights and swimming.
"But I wish I had the physique that Rowdy Gaines has," said Bailie. The 30 -year-old Gaines anchored the exciting relay finish for the U. S. winning effort in the 1984 Olympics.
"Gaines visited with several of us top nationally-ranked 'old-timers' at the Pan Pacific Games in Indianapolis last fall. I think he respected our condition and ability. This may motivate him to be active in the U. S. Masters Swimming program.
After a 25 -year layoff from competitive swimming and regular training, Bailie found that he didn't have to start a tortuous workout schedule in order to be a national-ly-ranked swimmer. Currently he goes to the weightroom three mornings a week and swims four-to-five times a week, usually in the late afternoon.
"This is an effective workout schedule that I can balance reasonably with my family and work lives," noted Bailie. "It's made possible because for the first time my home, job and athletic facilities are nearby in the same community.
"Everything I can tell you about swimming and fitness, I learned from somebody else. I'll pick anybody's brain if I think he's got something of value.
"I'll even listen to someone who has a crazy idea in order to see if there's something in it that seems to fit," added Bailie.
"One of the things the Coach taught me that I will carry for life is that if everything is perfect in your swimming and you're not winning - that's as fast as you're ever going to go. So as long as there's something that needs improvement, you've got something to be happy about.
"You can improve style or build strength or get your mind right, and go a little fas-

ter," he said.
"You know, I'll probably drop down to working two hours a day when I'm 95, but it'll be about four hours a day in my earlier retirement. The rest will be training and recreation and fun.
"I'll work on into the 100 s . I mean..I'm already planning for it," he revealed.
Meanwhile, Bailie has some shorter-term accomplishments in mind.
"I've got this target - to go to the 1991 Nationals - at 55 years old and do it all over again - only better. And just 'work' toward it because it's hard work.
"This time I'd like to win more than three races, and I want to set a few new world records," he added.
"The 100 -yard freestyle has become my best event," said Bailie. In his age group he is also a nationally-ranked Top 10 competitor in the 50 -yard freestyle, the 50 - and 100 -yard
butterfly, the 200 -yard freestyle and the 100 -yard individual medly. Relays highlight the fun that he has at swimming meets, however.
"A relay win in the final event gave my school (Brooklyn Technical High School) New York City's dual meet champlonship in the early '50s. I swam the anchor leg,' he recalled.
"The race was so close that I didn't know we won until my teammates jumped on top of me in the pool. We went completely bonkers. I greatly enjoy relay competition to this day."
Bailie concluded, "It's exciting to know that you can get better - get faster - become more competitive. Where else but in Masters Swimming can you look forward to getting older ('aging up')...even into your 80s?
"It's a great feeling. In the long run, fitness and longevity is what it's all about."





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Guth, Alfred 81
02:11.29

## SWIMMING NEWS

A SAFETY NOTE - From Leo Letendre - I would like to describe two swimming incidents which happened to two different swimmers from the Ozark Association last year. One of the accidents was quite serious while the other had the potential to be serious. Taken together, these two accidents should remind us of the dangers which are around us when we swim but which we often ignore. The first 5 wimmer is a USS swimmer who was competing in the regional meet. While entering the water for a backstroke start, he was holding onto the starting block when he slipped. One of his fingers became wedged in the starting block and was ripped off his hand as he fell into the water. The starting block had to be disassembled to remove the finger at which time the swimmer was rushed to Louisville where the finger was reattached. The swimmer has been back in the water for some time now and appears to be doing as well as could be
expected. The second accident occurred at the Pan-Pacific Championships in Indianapolis. The swimmer, a meaber of St, Louis Masters, was practicing her grab start in the main competition pool. During one of these starts, her ring got caught on the lip of the starting platform as she dove into the water. Luckily, the ring was not substantial and broke as she dove. She suffered only a few cuts where the metal scraped her as it came off of her finger. She went on that day to win the 200 IM so she recovered well. These two accidents, especially when taken together, should remind us of the potential for serious accidents that surround us when we are swimming. The first accident demonstrated that there is enough force available in our normal routine to cause serious harm if applied in certain ways. The second shows us that we can cause ourselves to be more vulnerable to these accidents. Many of us wear rings and other jewelry when we swim and there are a number of places that they could get caught, for example, lane lines, starting blocks and gutters. Minimizing these potential accidents can only help us enjoy our sport for a longer period of time.
AN INTERESTING EVENT - Suzanne Dods, a Masters Swimmer for the Tamalpais Aquatic Masters swam the length of Lake Tahoe, a distance of approximately 21 miles. Suzanne is 27 years old and her time was 11 hours and 4 minutes. She was accompanied by Mark Lyon and David Kenyon. She started at 1:17 am from Crystal Bay Point and finished at Regans Beach, South Shore. This feat was accomplished without the aid of a wet suit and it is believed to be the first time a woman has completed the length of the Lake. Several men have completed the length with times ranging from 19 hours (Fred Rogers) to 10 hours 19 minutes (David Kenyon)......... LETTER TO EDITOR - Jeff Bankson writes, "I depend on your publication for Masters results and Top Ten lists. These help me see where I wight have placed. Along that line I was unhappy to see that only the first place times were listed for the Pan Pacifics meet. Where else can I get results if you don't print them? But aside from that you do a good job. Thanks. To see that Rowdy Gaines placed first is nice, but to see that maybe a few hardcore hasbeens like me have been in the top ten is more incentive. Don't let Masters Swimming get too elite oriented. The reason it is 50 wonderful is that 5 wimmers of all levels and abilities can compete and win even if it's only the knowledge that they've bettered a previous best time. That's the most important plus."............................... Editor's note: I do not have the space to print all results because of the way the computers print out the results! Sorry......

# SWIW-MASTER <br>  

June Krauser, Editor

## swim today. . .

## swim for the health of it!

## LIFETIME VICOROUS SWIMAMING FOR FUN, SRORT AND HEALTM  SWIM CALENDAR

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MAR 16-18 SC - DAN MC MAHAN, 15 2ND ST., RENSSELAER, NY 12144
    17 SC - RON BANK, }80\mathrm{ PEBBLE BEACH DR., LITTLE ROCK, AR }7221
    17 SC - JOANITA REED, RT 20 BOX 208KK, SAN ANTONIO, TX 78218
    17 SC - ST PATRICKS MEET, OKLA CITY
    17-18 SC - LISA WATSON, 2104 HOWELL BLVD, DULUTH, GA 3OL36
    25 SC - HERITAGE PARK POOL, IRUINE CA - STEVE SCHOFIELD (818) 992-1820
    30-APR 1 SC - RAY BRIMHALL, 15419 22 AVE SW, SEATTLE, WA 98166
    30-APR 1 SC - HAROLD FERRIS, 1146 44TH AVE NE, ST. PETERSBURG, FL 33703
    30-APR 1 SC - MAURY SCHOTT, 3O4BASHLAND DR, GREENSBORO, NC 27403
    31-APR 1 SC - ANNA LEA ROOF MEET/DIR, 5708 OUTLOOK NO 301, MISSION, KS 66202
    31-APR 1 SC - BOB KOENIG, 24 E SHARON RD., CINCINNATI, OH 45246
            31 SC - SDI, 1135 GARNET-K, SAN DIEGO, CA }9210
    31-APR 1 SC - TMS, F O BOX 44582, GREENSBORO, NC 27404
APR 1 SCM- PENTATHLON - SDI, 1135 GARNET-K, SAN DIEGO, CA }9210
    1 SC - PETER CRUMBINE, 3 COPPER BEECH RD, GREENWICH, CT 06830
    6-8 SC - KATHLEEN BUCK, 3L925 NE CANTER LN, SHERWOOD, OR 97230
    6-8 SC - JERRY SCHEIBNER; RT L; BOX 204, SFANGLE, WA 99031
    7 SC - SANTA MONICA CITY COLLEGE, STEVE SCHOFIELD (818) 992-1820
    7 SC - SDI, 1135 GARNET-K, SAN DIEGO, CA }9210
    7-8 SC - JACKSONVILLE, FL - AMBERJAX
    8 SC - SUE PRESSLER, OHIO WESLEYAN U, DELAWARE, OH 43015
    1 4 \text { SC - FAYETTVILLE, SC - RON BANK, 80 PEBBLE BEACH DR, LITTLE ROCK, AR } 7 2 2 1 2
    2 1 \text { SC - LEO LETENDRE, 267 GLANDORE DR., MANCHESTER, MO 63021}
    21-22 SC - JUDY MEYER BONNING, 10333 DIEGD DRIVE SOUTH, BOCA RATON, FL 33428
    21-22 SC - ULTRA SWIM, SPARTANBURG; SC
    21-22 SC - RALEIGH AREA MASTERS, PO BOX 19845, RALEIGH, NC 27619
    22 SC - SWIM CENTER ONE, }97\mathrm{ SALMON BROOK, GRANBY, CT 06035
    27-29 SC - HUGH MOORE, 29920 2ND PL SW, FEDERAL WAY, WA 98023
    27-30 SC - YMCA NATIONAL CHAMPIONSHIPS - MILWAUKEE, WI
    28 SC - CAL SCHAEFFER, 2826 EASTWOOD DR., YORK, PA 17402
    28-29 SC - MARY-LEE WATSON, 6613 ROLLING FORKS DR., NASHUILLE, TN 37205
    29 SC - SPMA REGIONALS - LONG EVENTS AT USC - STEVE SCHOFIELD (818) 992-1820
    29 SCM- RESTON, VA
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MAY 4-5 SC - INDIAN RIVER CC, FLORIDA
5-6 SC - KEVIN FISHER, 15 DARTMOUTH PLACE, BOSTON, Min 02116
5-6 SC - SPMA REGIONALS AT USC - STEVE SCHOFIELD (818) 992-1820
21 SCM- SNELLVILLE SCRIMAGE
26 SC - SII, 1i35 GARNET-K, SAN DIEGO, CA 92109
27 LC - PENTATHLON, ALICIA COLEMAN, 24 THE POINT, CORONADO CA 92118
272 MI LAKE SWIM - LYNN HAZELWOOD, 11714 DECADE CT, RESTON, VA 22091
NATIONAL AND INTERNATIONAL MASTERS SWIMMING SCHEDULE
MAY 18-21, 1990 USMS SC NATIONALS, ED BARTCH, 203 KENNEDY ATH CTR, LOS ANGELES, CA 90089
AUG $7-12,1990$ SRD FINA/MSI WORLD CHAMPIONSHIFS, ABMN - AV.PRES, VARGAS, $418 / 801$, RIO DE
JANEIRO, BRAIIL 20071


[^0]:    Dr Stamford is director of the Health Promothon and Welness Center and professor of allied health, School of Medicine, University of Loulsvile, Kontucky.

