

✓ Training

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- **✓ Stroke Development**
- **Career Philosophy**

A Long-Term (healthy) Approach

with examples of improvement



In competitive swimming, there are dramatically different if not conflicting views on developing age-group swimmers. While long-term development and health and well-being seem logical, mainstream approaches to athlete development tend to work counter to these concepts. In reality, there is a true dividing line between short-term success and long-term development and we have seen this play out in our twenty plus years with the team. In a highly competitive landscape and a society oriented toward immediate gratification, short-term success is most commonly pursued by *all* interested parties; coaches, parents, and swimmers. We see this in the sprint (win) orientation of summer-league swimming, to the pursuit of national rankings by club coaches, to scholarships and college admissions by parents. It is often ironic that in most cases, everyone feels that they are acting in the athletes' best interest. It is increasingly rare to see anyone take a broad view of development from a technical, training, racing, emotional, and career perspective; to be patient. While immediate results are enticing to parents, many simply cannot envision a longer-term perspective (i.e. 6-8 years into the future) or plan as to what is best for their kids. It is also assumed that "fast" times at a young age are equated to high-level coaching, proper training, and continued improvement when the opposite may be true.

The quote, "begin with the end in mind" does not always apply to the development of age-group swimming. If the "end" is competing in college, training at a high level, swimming at one's true potential, swimming at a proficient technical level, loving the sport, and possibly leading the team as a captain, one would most likely shift the emphasis from high volumes or training intensity, to systematic efficiency-based training and emotional engagement. Too often, in the heat of the "battle" (every meet) though, these concepts lose any validity, relevance, and luster. Let's be clear, swimmers have success in every model but the critical analysis is where does the majority (not simply the talented) fall in terms of career longevity and at what point/age do they enjoy their greatest success?

From a training perspective, the most commonly used model is training or developing an "aerobic base" in the "aerobic window" of growth (11-13 for girls and 12-14 for boys). While this model is good from an aerobic, endurance, or fitness perspective, higher levels of volume and aggressive repetition can easily lead to stroke inefficiencies, mental and physical degradation, a plateauing of development, and potential injury (see Dr. Genadijus Sokolovas's article, <u>Too Much Too Soon</u> on the website). A second training philosophy, and one gaining in popularity among younger coaches, centers on speed and "race-pace" training, and virtually omits aerobic/endurance work and, most importantly, technical development. In the short-term, this type of training can significantly benefit swimmers who have good technique and stroke length (and natural ability). While this method has seen iterations over the past fifty years, there is no long-term data or consistency to suggest that it is either the best or only way to train. It should however be a critical training component in every program.

Training a swimmer aggressively with shorter, faster strokes (seen in many rec programs) in most cases is going to create a ceiling of improvement. If the training doesn't increase in intensity and strength isn't improved each year, the times will plateau. As much as a coach thinks he/she can make the stroke changes later, realistically it is difficult if not impossible. We have witnessed many national-level swimmers at 13-15 years old quit during high school and/or never improve in college, not to mention lose their desire and drive to train and to be an athlete. Swimming is even harder emotionally than it is physically, and endurance *or* speed- oriented training needs to consider the long-term implications from a technical and an emotional perspective. As mentioned earlier, ideally, training, efficiency, and emotional engagement escalate with age.

The philosophy of developing stroke length and balance early in a child's swimming career and building training *into* the stroke efficiency was and is the core of the OA program, and in our view, the single most critical aspect of athletic development. For younger swimmers in particular (even new swimmers in high school), the early training focus should be on stroke balance, length, efficiency, technical discipline (stroke counts, drill progressions, etc.), underwater technique and speed, as well as on turn technique and speed, and dive technique. This methodology has been at the heart of individual success (some outlined here), and team championships from the OMPA, County, North Coast, and Junior Nationals. Additionally, Orinda Aquatics has been the highest performing team in USA Swimming in our size range (under 150 swimmers), over the past fifteen years in USA Swimming's Virtual Club Championships. Additionally, our percent per capita of Sectional to National level swimming development and college participation is as high as any club.

While we want younger swimmers to be competitive, the focus shouldn't be to train aggressively to "swim fast now". It should be to have a long-term development approach, to improve every day, and to have a plan to intelligently and systematically improve over many years. Three reasons as to why we came to embrace this philosophy are: 1) from ourselves having been in a yardage-based program absent of technical development, and as a result, leaving the sport far too early, 2) watching many local and national club teams over-train young swimmers and seeing them burn out both physically and emotionally, and 3) being witness to OA swimmers' countless positive developments, experiences, and reflections over careers, and in retrospect, in life.

Anecdote: Fifteen years ago we were at a US Open meet at Auburn University with a group of about ten kids. **David Marsh** (at that time was the Auburn University Head Coach and winner of multiple NCAA Championships, and now the U.S.A Women's Olympic Coach) approached us to tell us how much he enjoyed watching our kids swim. We shared with him our training philosophy and focus and his response was, "Most coaches just don't understand that it is easier to speed up a long stroke than it is to lengthen a short stroke."

In sum, the philosophy that we strictly employ is a balanced, healthy, long-term approach to development which includes a gradual increase in training, and an emphasis on stroke length, balance, timing, and efficiency. Our view is that regardless of speed or endurance, if a stroke is not efficient, balanced, and lengthened, then neither speed nor endurance will matter when the athlete reaches full physical maturity. Endurance training without technical focus and discipline will often lead to technique breakdown, burnout, and potential injury. This is explained in detail in our "National Development Plan" on the website.

We feel our philosophy has been extraordinarily successful over the last twenty years and has proven to be what is in the best interest of the kids both athletically and emotionally. The large majority of our swimmers improve through high school and college. OA typically has near 90% of graduating high school swimmers competing in college, with a high percentage of swimmers continuing to compete and improve three to four years into college. Ultimately, the point is not to sacrifice long-term development for immediate success, with the hope of maximizing a career in terms of performance and experience.

To put all this into perspective, valuable insight came from a coach voted ASCA Age-group Coach of the Year, Beth Winkowski from Dynamo Swim Club, a very large and successful club from Atlanta. She said, "Our philosophy is teach before you train." She said young swimmers should develop in all strokes and the coaches should NOT look to place kids on national top ten lists." Her assumption, as is ours, is that kids should continue to improve, train at higher levels, and look to swim in college. The physical, technical, and emotional base which is developed with age-group swimmers will either create a tailwind or a headwind for their progress.

A coach gave us a negative interpretation on this many years ago when we asked why coaches of young swimmers (age-group and even high school) seem to aggressively over train their swimmers, knowing these kids most likely still have four more years of college swimming after high school. He told us matter of factly, "If they swim fast when they are young, the club coach gets the credit. If they swim fast in college, the college coach gets the credit." People call these coaches "resume coaches". And it is actually ironic that they often justify their methods by blaming the college coach if the swimmer doesn't improve or burns out, and if the swimmer does do well in spite of the overtraining, they take credit for providing the proper foundation.

Finally, all swimmers should have:

- General awareness, maturity, and discipline about stroke technique
- 4 A "penny in the piggy back" (an every stroke matters) mentality & pride in technique
- ♣ Physical and mental discipline to focus (and improve) technique when fatigued
- An awareness of stroke counts, stroke rates and under water kick counts/distance under water
- ♣ An understanding of their inefficiencies or stroke flaws
- Knowledge of drill progressions to "build the stroke" from kick to scull to stroke isolation to swimming

Also see: National Team Overview, Orinda Aquatics National History, and Stroke Development Summary Sheets

Ideally, the plan is three years and assumes good attendance: Year 1) develop stroke efficiency and balance, teach turn technique, train UW technique and conditioning; Year 2) build on technique specifics with efficient training, Year 3) train aggressively and fine-tune technique.

Example of proper progression for a Freestyle set for a boy and a girl over a three-year time frame: 10x100 Free

	General emphasis	Girls' Sets	Boys' Sets
Year 1 - girl 7 th grade - boy 8 th grade	moderate interval, swim best average with good technique, holding a stroke count and with good turns. It is not best average period. It is best average WITH 1) technique, 2) distance per stroke (stroke count), 3) good turns. Stroke count would most likely be 14-15.	10x100 Free @ 1:20, hold 14-15 strokes per lap (spl), work on technique and turns, ave 1:07	10x100 Free at 1:15-1:20, hold 14 spl, work on technique and turns, ave 1:04
Year 2 - girl 8 th grade - boy 9 th grade	same but tighter interval, holding a better average - stroke count may decrease by one.	10x100 Free @ 1:15, 14 spl, ave 1:05	10x100 Free @ 1:15, 13-14 spl, ave 1:01
Year 3 - girl 9 th grade - boy 10 th grade	set should be near "all out" with a long stroke and power kick, average is determined by the coach	* 10x100 Free @ 1:15, 13-14 spl, ave 1:02	* 10x100 Free @ 1:10, 11-12 spl, ave 58

^{*} These types of sets typically can't be done well unless the swimmer has stroke length & efficiency and good walls.

Example of proper technique and training progression for Fly, Back and Breast

7 th grade	Fly	Back	Breast					
Stroke emphasis – teach and	- proper head position, balanced	- head position still	- streamline on everything -					
develop	and in line, DON'T TUCK CHIN	- even rotation with head still	pulling, kick drills and swimming					
develop	- relaxed recovery – low and back	- in line recovery (above shoulder)	- timing of the breath on insweep					
	of the hand lead	- clean, palm out entry	– not on the glide or start of					
	- clean entry and catch in front of	- tight catch at or before the	outsweep					
	shoulder	shoulders and parallel to the body	- keep pull in front					
	- timing of the 2-beat kick	200	- do all sets with a stroke count					
Sample Sets	- 75s (by 25) kick fast, 1A, Swim	- 25s med speed with perfect head	- 50s 6-7 strokes per lap with good					
5585838383100 certain	- 50s 1A/Swim 4 black lines uw	position, rotation, recovery, entry	technique					
	fast off each wall; focus on turns,	- 25s and 50s 38-40 stroke rate	- 75s – 25 6 SPL med, 25 7 SPL					
	uw, stroke balance	with good technique and 4 BLUW	med, 25 7 spl fast					
8 th grade		· · · · · · · · · · · · · · · · · · ·						
	Technique							
	- continue to develop technique							
		ate to aggressive training when fatigu	ied, and during speed sets					
	Underwater Training General							
	- focus on underwater technique and speed during all sets							
	 focus on underwater technique ar 	nd speed during all sets						
		nd speed during all sets d and distance during all sets, includir	ng warm-up, warm-down, distance					
	- train underwater technique, speed		ng warm-up, warm-down, distance					
	- train underwater technique, speed Underwater Training Specific	d and distance during all sets, includir	ng warm-up, warm-down, distance					
	- train underwater technique, speed	d and distance during all sets, includir min. (or kick counts)	ng warm-up, warm-down, distance					
	- train underwater technique, speed Underwater Training Specific - Fly & Back Training – 3 black lines	d and distance during all sets, includir min. (or kick counts) in.	ng warm-up, warm-down, distance					
9 th grade	 train underwater technique, speed Underwater Training Specific Fly & Back Training – 3 black lines Fly & Back Speed – 4 black lines m 	d and distance during all sets, includir min. (or kick counts) in.	ng warm-up, warm-down, distance Breast					
9 th grade Stroke emphasis	 train underwater technique, speed Underwater Training Specific Fly & Back Training – 3 black lines Fly & Back Speed – 4 black lines m Breaststroke – all sets 4 black lines 	d and distance during all sets, includir min. (or kick counts) in. s min.						
9 th grade Stroke emphasis	- train underwater technique, speed Underwater Training Specific - Fly & Back Training – 3 black lines - Fly & Back Speed – 4 black lines m - Breaststroke – all sets 4 black lines Fly	d and distance during all sets, includir min. (or kick counts) in. s min. Back	Breast					
	- train underwater technique, speed Underwater Training Specific - Fly & Back Training – 3 black lines - Fly & Back Speed – 4 black lines m - Breaststroke – all sets 4 black lines Fly - teach proper head position, balanced and in line	d and distance during all sets, includir min. (or kick counts) in. s min. Back - head position still - even rotation with head still	Breast - pull with flutter kick, always hold					
	- train underwater technique, speed Underwater Training Specific - Fly & Back Training – 3 black lines - Fly & Back Speed – 4 black lines m - Breaststroke – all sets 4 black lines Fly - teach proper head position,	min. (or kick counts) in. s min. Back - head position still - even rotation with head still - in line recovery (above shoulder)	Breast - pull with flutter kick, always hold streamline, breath later, keep pull in front					
	- train underwater technique, speed Underwater Training Specific - Fly & Back Training – 3 black lines - Fly & Back Speed – 4 black lines m - Breaststroke – all sets 4 black lines Fly - teach proper head position, balanced and in line - teach relaxed recovery and clean	d and distance during all sets, includir min. (or kick counts) in. s min. Back - head position still - even rotation with head still	Breast - pull with flutter kick, always hold streamline, breath later, keep pull					
Stroke emphasis	- train underwater technique, speed Underwater Training Specific - Fly & Back Training – 3 black lines - Fly & Back Speed – 4 black lines m - Breaststroke – all sets 4 black lines Fly - teach proper head position, balanced and in line - teach relaxed recovery and clean	d and distance during all sets, includir min. (or kick counts) in. s min. Back - head position still - even rotation with head still - in line recovery (above shoulder) - clean, palm out catch just	- pull with flutter kick, always hold streamline, breath later, keep pull in front - 3 kicks pull & breathe – 3 kicks in					
Stroke emphasis Sample Sets with training	- train underwater technique, speed Underwater Training Specific - Fly & Back Training – 3 black lines - Fly & Back Speed – 4 black lines m - Breaststroke – all sets 4 black lines Fly - teach proper head position, balanced and in line - teach relaxed recovery and clean catch	min. (or kick counts) in. s min. Back - head position still - even rotation with head still - in line recovery (above shoulder) - clean, palm out catch just outside of shoulders	- pull with flutter kick, always hold streamline, breath later, keep pull in front - 3 kicks pull & breathe – 3 kicks in a streamline - hold SL through kick					
Stroke emphasis	- train underwater technique, speed Underwater Training Specific - Fly & Back Training – 3 black lines - Fly & Back Speed – 4 black lines m - Breaststroke – all sets 4 black lines Fly - teach proper head position, balanced and in line - teach relaxed recovery and clean catch 8x25 @ :25 - 200 pace with good	d and distance during all sets, includir min. (or kick counts) in. s min. Back - head position still - even rotation with head still - in line recovery (above shoulder) - clean, palm out catch just outside of shoulders Conditioning sets	Breast - pull with flutter kick, always hold streamline, breath later, keep pull in front - 3 kicks pull & breathe – 3 kicks in a streamline - hold SL through kick Goal Sets					
Stroke emphasis Sample Sets with training	- train underwater technique, speed Underwater Training Specific - Fly & Back Training – 3 black lines - Fly & Back Speed – 4 black lines m - Breaststroke – all sets 4 black lines Fly - teach proper head position, balanced and in line - teach relaxed recovery and clean catch 8x25 @ :25 - 200 pace with good technique, stroke rate 4x50 @ :35 - hold stroke	d and distance during all sets, includir min. (or kick counts) in. s min. Back - head position still - even rotation with head still - in line recovery (above shoulder) - clean, palm out catch just outside of shoulders Conditioning sets - 150s with medium stroke 34 SR	- pull with flutter kick, always hold streamline, breath later, keep pull in front - 3 kicks pull & breathe – 3 kicks in a streamline - hold SL through kick Goal Sets - Girls 4x100 at 1:20 with 6-7 SPL					
Stroke emphasis Sample Sets with training	- train underwater technique, speed Underwater Training Specific - Fly & Back Training – 3 black lines - Fly & Back Speed – 4 black lines m - Breaststroke – all sets 4 black lines Fly - teach proper head position, balanced and in line - teach relaxed recovery and clean catch 8x25 @ :25 - 200 pace with good technique, stroke rate 4x50 @ :35 - hold stroke technique, good turns and UW	min. (or kick counts) in. s min. Back - head position still - even rotation with head still - in line recovery (above shoulder) - clean, palm out catch just outside of shoulders Conditioning sets - 150s with medium stroke 34 SR and working all turns & uw 4+ bl - 100s at threshold interval	- pull with flutter kick, always hold streamline, breath later, keep pull in front - 3 kicks pull & breathe – 3 kicks in a streamline - hold SL through kick Goal Sets - Girls 4x100 at 1:20 with 6-7 SPL					
Stroke emphasis Sample Sets with training	- train underwater technique, speed Underwater Training Specific - Fly & Back Training – 3 black lines - Fly & Back Speed – 4 black lines m - Breaststroke – all sets 4 black lines Fly - teach proper head position, balanced and in line - teach relaxed recovery and clean catch 8x25 @ :25 - 200 pace with good technique, stroke rate 4x50 @ :35 - hold stroke	d and distance during all sets, includir min. (or kick counts) in. s min. Back - head position still - even rotation with head still - in line recovery (above shoulder) - clean, palm out catch just outside of shoulders Conditioning sets - 150s with medium stroke 34 SR and working all turns & uw 4+ bl	- pull with flutter kick, always hold streamline, breath later, keep pull in front - 3 kicks pull & breathe – 3 kicks in a streamline - hold SL through kick Goal Sets - Girls 4x100 at 1:20 with 6-7 SPL					

- <u>Heather White</u> came to our team at 10 years old as a very good swimmer but with short strokes and very high stroke rates. At 13, we made the decision to rework her strokes and train her more distance per stroke (DPS). Her 200 Back improved from 2:10 at age 12 with a stroke rate (SR) of close to 60, to 1:59.0 at age 16 with a SR of 40. She made **Olympic Trials** in the 200 mtr Back (2:17), 100 mtr Back (1:04.7), 200 mtr IM and 400 mtr IM.
- Steven Stumph swam with Donnie in 8th and 9th grade. He lengthened Steven's breaststroke, making him train at 5 strokes per lap and improved his turn technique and pull downs. Steven made Olympic Trials in the 200 mtr Breast as a freshman swimming in the Senior 2 Group and training distance per stroke. When Steven entered the Senior 3 group, it was very easy to continue build on the training. He eventually broke two Pacific Swimming Records in the 200 Breast, broke the Junior National Record in the 200 Breast (1:55.9), and set the National High School Record in the 100 Breast (53.3). Steven is currently a junior at USC and has broken the USC school record in the 200 Breast at 1:52.5 and won the Pac 12 Champs.
- <u>Kim Vandenberg</u> came to OA at 12 as a pure sprinter. We trained her Freestyle DPS, made her train at 14 spl, worked on stroke balance (low in-line recovery, balance on the breath), and made her swim and train for the 200 Free. Even though she won the 50 Free her freshman year at the North Coast Championship Meet and broke the 15-16 Pacific Swimming Record in the 50 mtr Free (26.3), her best freestyle event became the 200 Free (1:48.1 in high school). For Fly, we changed her flat, sprint stroke to a more efficient, rolling stroke with 1- beat kick to help feel the rhythm for the 200 Fly. Then we built the 2-beat kick into that stroke. The 200 Fly was her best event (1:58.9 SC in high school, 1:54 in college). During her college years at UCLA, Kim continued to improve. At the World Championships in 2007, she swam a 2:06.8 in the 200 mtr Fly which, at that time, was the second fastest time in US history. Her 200 Free long course became very competitive and at the 2008 Olympic Trials qualified fifth in the 200 mtr Free to make the Olympic Team for the 800 Free Relay.
- Justin Chiles came to OA at 12 from MTSC as a fast, talented OMPA high point. As primarily a sprint freestyler, we chose to slow him down and lengthen his stroke, which made him slower before he got faster. One Far Westerns meet when Justin was 14 during the 500 Free (he was not swimming well) his mother came up to us during the race and asked/begged if we would speed up his stroke. It can be frustrating to watch the other kids swimming much more aggressively (and inefficiently) and faster. However, three years later Justin won North Coast in the 200 Free (1:39) and was second in the 500 Free (4:30) and that was 15 years ago. After high school Justin continued to swim four more years at Princeton where he was team captain, voted Most Inspirational, and led the Tigers to the Ivy League Championship.
- Chris Chuck came from Las Trampas as a competitive rec swimmer but not a "superstar" by any means. He was a Breaststroker below JO times in the Jr Group. In 9th grade he committed to working on technique, pull downs and turns. He trained at 6 SPL. Entering his freshman year in high school his times were 100 yd Breast 1:07 and 200 yd Breast 2:24 yds. By his junior year he was 58 in the 100, 2:07 in the 200 and his senior year made Junior Nationals in the long course 200 Breast.
- <u>Courtney Whyte</u> is a perfect example of balanced, consistent improvement. She swam year-round her entire career starting at 6 yrs old. She joined OA at 10. Her time improvements in the 200 Fly (as noted below) are 11-12 2:17, 13-14 2:10, 15-18 2:02, college 1:56. She swam four years at **Notre Dame, was team captain**, and had her fastest time of 1:56 in her Senior year.
- <u>Katie Arnold</u> joined OA at 9 yrs old as a top rec swimmer from Springbrook. She swam all the strokes well but was primarily a backstroker. Her summary of development in the 200 Back was: 11-12 not competitive; 200 Bk 13-14 2:06.6; 15-18 2:00; college 1:55. Katie swam four years at UCLA, was All-American, and made **Olympic Trials**. (now works for USA-Swimming)
- <u>Lauren Beaudreau</u> joined OA at 12 yrs old as a top rec swimmer from Springbrook. She was primarily a breaststroker and was not strong in the other strokes. Her summary of development in the 200 Breast was: 11-12 not competitive; 13 yrs old 2:33; 14 yrs old 2:26, 15-18 2:15.1, college 2:11. Her summary of development in the 200 IM was: 11-12 not competitive, 13-14 2:13, 15-18 2:02, college 1:58, and qualified for the **Olympic Trials**.
- <u>Emily Ward:</u> Possibly the most dramatic improvement has come from Emily Ward. She began swimming summer league in San Leandro at age 7. She joined OA at 11 yrs old. Her only JO time in the Jr Group was in the 50 Free. She was passive in workout and poor underwater. Over the next three years she worked hard, focused on technique, distance per stroke and UW training. The times are from freshman year through senior year are: 100 Fr: 58.1 to 51.9 (split 51.3 in 400 FR), **200 Free: 2:14.0 to 1:50.8**, 500 Free: 5:53 to 5:05 (Dec Sr yr), 100 Back: 1:08.3 to 56.1 (Junior Nationals), 1000 Fly: 1:09.3 to 57.0

The following are profiles of additional OA swimmers showing their improvement from 11-12 to 13-14 to 15-18 and well into college. Many of these national level swimmers were <u>not</u> top Far Western Swimmers at 11-12 or 13-14 but through consistent hard work and effective, balanced training became outstanding high school swimmers and even better college swimmers. What this data should show is that there is not an urgency to swim fast at 12 or 13. If the technical training is sound and the swimmer is committed to the process, much greater improvement can come. While this list appears extensive, it is intended to show a history of positive development based on stroke development and controlled training.

Notes: UW = underwater; SC = stroke count; SR = stroke rate; SC = short course; LC = long course; Yellow = Jr National level or above

Swimmer (girls)	Event	11-12	13-14	15-18	Event note	Comments
Kim Vandenberg	100 Fr SC	58	53.0	<mark>49.4</mark>	National HS record	UCLA; swam 4 years;
Joined age 12	200 Fr SC	2:05	1:55	1:48.1	Won NCS	All American; Full
MTSC	500 Fr SC	No time	5:09	<mark>4:54</mark>	Won NCS	Scholarship;
UCLA	100 Fly SC	1:03	58	<mark>54.</mark>	72.0%	College times
	200 Fly SC	No time	2:14	<mark>1:5</mark> 8.9	Jr Nat record	200 Fly 1:54
	200 IM SC	2:18	2:11	2:02	Unshaven	200 Fr 1:47
	400 IM SC	No time	4:45	<mark>4:21</mark>	1 2	200 mtr Fly 2:06
The second second	50 Fr LC	31	27.3	<mark>26.3</mark>	Pac Swim Record	200 mtr Fr 1:58
	100 Fly LC	No time	1:06.5	1:01.6	B Final Nationals	Made Olympic Trials in
	200 Fly LC	No time	2:33	2:16.7	Final at Nationals	7 events
	200 IM LC	No time	2:35	2:19.6	B Final Nationals	
Notes: Free: fo					off each wall, worked on long, I	balanced stroke: Fly: focused
				training UW speed for		saranood on ono, r ry. roodood
Amy Thurman	100 Fr SC	55.3	53.3	50.5	75	Junior Nationals High
Joined age 10	200 Fr SC	1:59.6	1:55.8	1:52	-	Point;
Meadow	100 Bt SC	1:09.6	1:04.9	1:03.5	15	UCLA - Swam 4 years,
UCLA	200 Bt SC	2:37	2:19.2	2:18.3		Full Scholarship; made
	100 Fly CC	1:01.1	56.9	55.4		Olympic Trials in 4
	200 Fly SC	2:28	2:10.9	2:06.0		events
	200 IM SC	2:18.5	2:06.1	2:03.4		CVCIIIS
Enguend long					used stroke balance and lengt	th: amphasis on training LIM
speed for Free		e. trained CO 12	spi anu regulai r	1ee 13-14 Spi, Fly 100	useu stroke balance and lengt	ii, eiripiiasis on training Ovv
Katie Arnold	100 Bk SC	1:04	56.9	<mark>55.8</mark>	11	UCLA; All American; Full
Joined age 9	200 Bk SC	2:14	2:06.6	2:00.7		Scholarship; Improved
	200 DK 00	2.14	2.00.0	2.00.1		all times in college;
Springbrook UCLA						made NCAAs &
UCLA				/ (/		Olympic Trials – 200
1000				A.F		Bk 1:55
Packetroke: on	nphasis on stroke ba	lance head posit	ion and catch: for	oused on LIM speed	- 44	DK 1.33
Lindsay Sharp	50 Fr LC	31.9	28.8	26.9	8 BW	U of Washington;
	100 Fr LC	1:05.6	1:00:3	58.1		Improved all times in
Joined age 12	100 FI LC	1.03.0	1.00.3	<mark>50. 1</mark>		
SHSTC			4 68		7	college; 200 Fr 1:47,
Washington						make Olympic Trials in
Improved soch	voor in high school	Won North Coop	t in 50 Eros Sru	par Mada Pag 12 Fin	als in 200 Free Sr year in colle	50 mtr Free
	200 Fr SC	2:06	1:56	1:51.2	Jr Nationals	y c 1.41.
Hope Thurman	200 FI SC 200 Fly SC	2:29	2:13	2:04.4	JI INALIOHAIS	
Joined age 9	200 Fly 30	2.23	2.13	2.04.4		
Meadow						
UCLA	<u> </u>			<u> </u>		
	year in high school.				On Nin Count Count	
Jillian Ochs	100 Bt SC	1:13.8	1:06.3	1:03.2	Sr National time	
Joined age 11	200 Bt SC	No swim	2:28.9	2:22.3		
MTSC						
UCLA						
Breaststroke e	emphasis was dive, t	urns speed, and p	oull downs.			

Swimmer (girls)	Event	11-12	13-14	15-18	Event note	Comments
Heather White	200 Fr SC	2:05	1:55.7	1:51.3		Cal; swam 4 years;
Joined age 10	500 Fr SC	5:23.5	5:11.3	4:56.7		partial scholarship;
	100 Bk SC	1:01.1	58.9	55.9		Improved all times in
Montclair	200 Bk SC	2:10.2	2:06.5	1:59.0		college; made NCAA –
Cal		2:10.2	2:07.0	2:01.9		
	200 IM SC					200 IM 1:58, 400 IM
	400 IM SC	4:42.6	4:30.0	4:19.0	Olemenia Triala	4:11
	100 Bk LC	1:13.0	1:09	1:04.7	Olympic Trials	
	200 Bk LC	2:41.0	2:22.8	2:17.7	Olympic Trials	
	200 IM LC	2:35	2:25.9	2:19.0	Olympic Trials	
	400 IM LC	5:45	5:08.2	4:56.2	Olympic Trials	
					distance per stroke and	
					per catch to hold more w	vater. In HS SR in 200 Back
		1:11	huge benefit for her		I	LL of Diobascade Full
Lauren Beaudreau	100 Bt SC		1:06.6	1:03.7		U of Richmond; Full
Joined age 12	200 Bt SC	2:36	2:26.8	2:15.1	Z = A	Scholarship; made
Springbrook	200 IM SC	2:19	2:11	2:02.5	A	NCAA's – 200 IM 1:58;
U. of Richmond	400 IM SC	4:56	4:42	4:27.2	TAR. S	200 Breast 2:11
						Breast: trained at 6 spl and
				r all stroke which helpe	ed the IM.	
Shannon Herman	200 Bt SC	2:42	2:27.2	<mark>2:19.2</mark>	1 1	San Diego State;
Joined age 9	400 IM SC	5:04	4:48	4:26.7	4 7	Improved all times in
SRVLA	- B	-	- Links		# L	college - 400 IM 4:20;
San Diego State		100			2 15	college team captain
Not a strong sw	immer physically bu	ıt had a good kick. V	Ve focused on stroke	length and efficiency	and trained sets at 6 spl.	Did set 4x100 Breast @
1:20 with 6 spl,	ave 1:17				•	
Jill Jones	100 Fr LC	1:06	1:02.9	<mark>58.2</mark>	Jr Nat time	Cal Poly; Improved all
Joined age 11	200 IM LC	2:45	2:36	2:24.8	> =	times in college; team
Terrapins	400 IM LC	5:55	5:35	5:05.8	3	captain; 200 Fr 1:48
Cal Poly			12/11/19	-5		SC
	to a straight arm str	oke Jr vear in HS. Si	r vear made Jr Natio	nals in the 100 mtr Fre	e 58.2 lifetime best time.	Developed in 200 Free in
	1:53 then dropped		your made or mane.		0 00.20(0 2000 (0.	2010.0000 2001.00
Courtney White	100 Fly SC	1:01.8	59.0	<mark>55.9</mark>		Notre Dame; near full
Joined age 10	200 Fly SC	2:17.8	2:10.5	<mark>2:02.</mark>	College 1:56	scholarship; Team
SRVLA	200 Fr SC	2:05	1:57	1:51		Captain; Improved all
Notre Dame				\ \ \ \ \ \		times in college; made
Notic Buille						NCAAs, team captain;
						200 Fly 1:56
Worked hard co	nsistently and was	very disciplined LIM	/ was weak when sh	e was vounger hut was	s much improved in high	school and very competitive
in college.	moiotonily and was	very disciplified. Ovi	was weak when sin	e was younger but was	s macir improved in mgir	school and very competitive
Caroline Lukins	100 Fly SC	1:12	59	<mark>55.3</mark>		Columbia; Team
Joined age 12	200 Fly SC	2:29	2:13	2:05	1 1/4	Captain; Improved all
OCC			1 111		1 41	times in college; team
Columbia			/ //			captain
	d shoulder issues in	high school so we	adapted her training	She swam well in high	school making National	Is and continued to train and
	h her four years at C		adapted nor training.	Cho Ghain Well III Illyl	. concormaning National	o and continuou to train and
Shelbi Luchini	200 Fr SC	2:09	2:03.5	1:51.8	College –	Washington State;
Joined age 12	200 Bk SC	2:29	2:15	2:02.6	200 IM – 2:01	Team Captain;
Pleasant Hill rec	100 Bk SC	1:11.0	1:07.4	56.3	200 Back – 1:59	Improved all times in
Washington State	.00 200	1				college; team captain;
	lined and hard worl	king loined in the in	nior group from root	with primary events 50	Fr and 100 IM In high a	chool made Jr Nationals in
		200 Back, 200 Fly an		mai piimary events 50	T Tana 100 IIVI. III IIIGII S	Uniour mauc or Nationals III
Andrea Ward	100 Fly sc	1:12	1:05.3	56.5		UCSB; NCAA Finals;
	500 Fr SC	6:18	5:28	4:57.7	At UCSB 4:47	Improved all times in
Joined age 12		No time	2:14	2:05.5	At UCSB 1:55	
San Leandro rec	200 Fly SC			2:03.2	ALUGOD 1.00	college; 500 Fr 4:47;
UCSB	200 IM SC	2:29	2:19			100 Fly 51.4, 200 Fly
	400 IM SC	4:59	4:42	4:23.1	A4 LICOD 4:00	1:55; made Olympic
5	100 Fly LC	No time	1:16	1:03.2	At UCSB 1:00	Trials
					all strokes with a focus all swimmer in the history	on turn speed and uw speed of UC Santa Barbara.

Swimmer (girls)	Event	11-12	13-14	15-18	Event note	Comments
Hannah Grubbs	100 Bk SC	59.8	58.4	<mark>55.4</mark>	Nationals	Swam at UCLA. NCS
Joined age 12	200 Bk SC	2:13.2	2:05.3	2:00.4		finals in 100 Bk and
CCC	100 Bk LC	1:13	1:07.5	1:05.3		100 Fly.
UCLA	200 Bk LC	2:41	2:28.5	<mark>2:22.0</mark>		,
			on stroke balance and			
Mary Ashby	100 Fr SC	54.5	52.2	5 0.2	Nationals	Currently swimming at
Joined age 10	200 Fr Sc	2:00.8	1:52.8	1:50.8		Columbia
MCC	100 Bk Sc	58.3	56.3	<mark>54.8</mark>		
Columbia	200 Bk SC	2:13.5	2:04.1	2:01.4		
			11-12 SPL. Also focus		ee and Back. She will continu	ue to improve in college as
she builds strer	ngth and increases	s her stroke rate	es in Free and Back.	,		,
Scott Metcalf	100 Bk SC	58.8	53.2	<mark>50.8</mark>	Won NCS	Swam at Harvard
Joined age 12	200 Bk SC	2:18	1:58.4	1:49.3	Pac Swim record	
MTSC	100 Bk LC	1:06.2	1:01.7	<mark>59.2</mark>		
Harvard	200 Bk LC	2:26.2	2:17.5	<mark>2:07.2</mark>	T .	400
			han two years. Worked	l on stroke balance, tu	rns & uw and training aggres	ssively with tempo trainer. At
	not competitive in		T = 1 =			
Justin Chiles	100 Fr SC	54.0	51.0	45.8	754	Swam at Princeton;
Joined age 12	200 Fr SC	2:01	1:50.00	<mark>1:39.9</mark>	Won NCS	team captain; most
MTSC//Princeton	500 Fr SC	5:19.0	4:54.9	<mark>4:30.6</mark>	120	inspirational
			n technique, stroke cou B strokes per lap max, a			@ 1:20. The criteria was he
Zach Disbrow	100 Fly SC	1:09	1:00	50.2	West Point	West Point; team
Joined age 10	200 Fly SC	2:41	2:11	1:52.6	100 Fly – 48.7	captain; made
Sleepy Hollow	200 T Ty 00	0 6 8	0.	1.02.0	200 Fly – 1:48	Olympic Trials in 200
West Point	100	1 10	3 3 1	- 4	200 T Ty 1.40	mtr Fly Sr year at WP
	1 and often strugg	led with the wo	rkoute and longer diets	ance races. He worked	hard and improved graduall	
			lympic Trials in the 200			y each year. The made of
Scott Lathrope	200 Bk SC	2:04	1:55.2	1:48.6	Pac Swim Record	Swam at Stanford 4
Joined age 11	400 IM SC	No time	4:14.2	<mark>3:56.2</mark>		years; made Olympic
Terrapins/MCC	200 Bk LC	No time	2:15.6	2:04.9	B Finals at Nat'ls	Trials in HS
Stanford	200 IM LC	2:30.4	2:19.8	2:08.3		
Otamora	400 IM LC	No time	4:55.0	4:30.6	B Finals at Nat'ls	
An example of	how stroke balanc	e and efficienc	y can pay off in the 20	o if the swimmer IS NC	T powerful enough to be fas	t in the 100. Scott's best
long course tim	e in 100 Back 1:0	0.1 but did a 2:	04.9 in 200 mtr Back a	nd made Olympic Tria	ls and made the National Jui	nior Team. Scott made
	ol finals at Nation					
Shane Tutass	200 Fly SC	2:36	2:01.88	<mark>1:50.8</mark>	Jr Nat time	Columbia; Swam 3
Joined age 10						years
Columbia						
					r Nationals in the 200 yd Fly	1:50.7 at 17. Considering
			200 Fly time is very im		2 70	Curam at LICC
Tyler Schlenker	100 Bt SC	1:13	1:05	57.1		Swam at USC.
Joined age 11	200 Bt SC	2:38	2:21	2:03.0	B B B	
Miramonte rec	100 Bt LC	No swim	1:15 2:39	1:06.4 2:24.8	1 20	
USC Charles of O.A. at	200 Bt LC	No swim	400 400		in Nationals in the 400.0	000 D 4
	T as a JO leve				ior Nationals in the 100 &	ZUU Breast.
Tommy Dowley	200 Fr SC	Age 15 1:57	Age 16 1:44	Age 17 1:40		
Joined age 14	500 Fr SC	5:10	4:46	4:38		
Campo JV						
Cal	200 IM Sc 400 IM SC	2:12	2:01 4:19	1:53 4:01		
Started in high		No time Nan year when			r polo team. Improved to NC	S finals and Jr National
level. Swam at	Cal.				<u> </u>	
Robbie Ashby	200 Fr Sc	No time	1:53	<mark>1:39.9</mark>	Jr Nat time	
Joined age 12	500 Fr SC	No time	No time	<mark>4:29.9</mark>	Jr Nat time	
MCC						
Texas A&M/UOP						
						200 and 500. All sets were
			w 11-12 SPL. Senior y			

Swimmer (boys)	Event	11-12	13-14	15-18	Event note	Comments
Chris Leon			10th grade	12 th Grade		USCB & Cal; made
Joined age 15	100 Bt SC		1:01	55.9		Olympic Trials in 200
	200 Bt SC		2:09	2:02		Mtr Breast; graduated
WCST	200 Bt SC 200 IM SC					
Cal	200 IIVI SC		2:11	1:56		from Cal–Sr yr lifetime
						best 200 Bt 1:56
trained all Breast	sets at 5 or 6 sp		rec was 1:01. He was one ent was: 11th grade 57, 12			
freshman yr of co	niege.	40th I	4.4th	40th	At Dules	Mada la Nationala in
Clay Sanders	5 00 F 00	10 th grade	11 th grade	12 th grade	At Duke:	Made Jr Nationals in
Joined after 10th grade	5:00 Fr SC	5:07	4:53	4:38	1:48.0 – 200 Fly	the 800 meter Free.
Campo JV / Duke	200 fly	Didn't swim			5:34 – 500 Free	
			n high school freshman and de 5:07, 12 th grade 4:38.	l sophomore years. W	orked hard and trained e	verything long DPS.
Albert Miao	200 Bk SC	2:26	2:09	1:49.8		Swam Back (49.9) on
Joined age 11	200 IM SC	2:38	2:13	1:51.9	-	400 MR that broke the
Miramonte rec	400 IM	No swim	4:31	4:04.1	1 1	Pacific Swimming
UCSB	400 IIVI	140 SWIIII	4.01	4.04.1	AL 1 / 3	record
	union Cuovin an a	maid lawal was aw	uluanaan luanua vadaaah v	anta madra la Nationa	No. Man many the date assume	
senior year.	inior Group as a	mia-ievei rec sv	vimmer. Improved each ye	ear to make jr Nationa	ais. Was recruited to swirr	i at OCSB and is in his
Steven Stumph	100 Bt SC	1:05.6	59.2	<mark>53.3</mark>	National HS	Finished Junior year at
Joined age 12	200 Bt SC	2:19.03	2:05.1	<mark>1:55.8</mark>	record	USC; won Pac 12 200
Blackhawk	200 IM SC	2:09.7	1:57.7	1:46.7	Jr National record	Bt sophomore and
USC	400 IM SC	4:40.4	4:10.7	3:50.0	Won Jr Nationals	junior year; 9th at
030	100 Fly SC	1:02	55.1	47.7	North Coast	NCAA's, broke the
				1:48.8		· · · · · · · · · · · · · · · · · · ·
	200 Fly SC	No time	No time		Record	USC school record in
	100 Bt LC	No time	1:08.7	1:03.3	Olympic Trials	the 200 Breast.
	200 Bt LC	No time	2:30.4	<mark>2:15.2</mark>	Olympic Trials	
	200 IM LC	No time	2:15.7	<mark>2:03.9</mark>	Olympic Trials	
	400 IM LC	No time	4:55.0	<mark>4:24.3</mark>	Olympic Trials	
			Rth grade; Fly & Back traine		ively. Didn't swim Fly as a	freshman or sophomore,
			n <mark>ior 47.7 mainly because o</mark>		NCS record//	Held 3 Pacific
Sven Campbell	50 Fr SC	> 24.9	22.3	20.2		
Joined age 12	100 Fr SC	> 54.7	48.0	<mark>44.2</mark>	NCS record	Swimming records;
Montclair	200 Fr SC	> 1:59	1:48.2	<mark>1:38</mark>		during his Jr year
Cal	100 Bk SC	> 1:02	53.2	<mark>47.6</mark>	NCS record	owned all or part of 6
	200 Bk SC	> 2:18	1:58.0	1:43.8		of 11 North Coast
	50 Fr LC	> 28.5	24.8	<mark>23.2</mark>	Olympic Trials	Records: 50 Fr, 100
	100 Fr LC	> 1:01	53.8	<mark>50.9</mark>	Olympic Trial	Fr, 100 Back, 200 MR,
	200 Fr LC	> 2:15	1:59.3	<mark>1:52.6</mark>		200 FR, 400 FR. He
	100 Bk LC	> 1:12	1:00.7	56.3	Olympic Trials	anchored a 400
307792	200 Bk LC	No time	2:14.6	2:02.7	Olympic Trials	Medley Relay with
	200 DR LO	140 time	2.17.0	2.02.1	Orympic Triais	43.1 split on the
			/ 40		1 11 11	
0		0.4111	one Dealesturies to 1 11	b officion and 10.00	and a sum 1 - 1 111 COO	Freestyle leg.
2:08 to 2:02 in or	ne year. Free trai	ned everything	ory. Backstroke trained wit DPS at 11-12 SPL working			
than 2 years. Ma			1.51	1.20.2	Jr National time	
Talbot Jacobs	200 Fr SC	2:13	1:51	1:39.3		
Joined age 10	500 Fr SC	6:12	5:00	4:27.9	Jr National time	
Sleepy Hollow	200 Fr LC	2:29	2:05.8	<mark>1:54.1</mark>	Jr National time	
Brown	400 Fr LC	4:51	4:22.7	3:59.05	.5 off Olympic Trials	
			eath side from right to left is in the 400 mtr Free – it w			e Jr National times in the
Jolen Griffin	100 Fly SC	56.3	52.8	48.2	Jr Nat time	
Joined age 12	200 Fly SC	2:17	2:01.6	1:50.9	Jr Nat time	
Montclair	100 Bk SC	58.2	53.9	48.7	NCS champ	
OA Current	200 Bk SC	2:21	2:04	1:52	1	
1	100 Fly LC	?	58.9	<mark>56.5</mark>	Jr Nat time	
	100 Bk LC	?	1:04.7	<mark>59.5</mark>	Jr Nat time	