



Things to Know

General Terms/Definitions/Explanations

Short Course: (SC) times are those that are achieved in a 25 yard pool. OLQH and Ward 3 pool along are 25 yards long. All high school and most college swim meets are conducted SC.

Long Course: (LC) times are those that are achieved in a 50 meter pool. SPAR's pool is 50 meters long. The LC season runs from April until mid-August. Summer Championships, Olympic Trials, and Olympic swimming competitions are conducted LC.

Side Note: LC vs. SC: Due to the longer distance (one meter = one yard, three inches) and the loss of turns (turns make you faster) LC times are approximately 13% slower than a comparable SC time. For example: a 1:01.0 SC time in a 100 would be similar to a 1:08.9 LC time in the 100. Also, the longer freestyle events change from LC to SC. The 400, 800, and 1500 are swum LC while the 500, 1000, and 1650 are substituted if the meet is SC.

Warm Up: Low intensity swimming used by swimmers prior to a practice or competition to get muscles loose and warm. Warm up gradually increases heart rate, respiration and helps to prevent injury.

Circle Swimming: Traffic control. Performed by staying to the right of the black line (on the pool bottom) when swimming in a lane to enable more swimmers to swim in each lane. This is accomplished the same way motorists drive down a road.

Cool Down: Low intensity swimming used by swimmers after a practice or competition to rid the body of excess lactic acid, and to gradually reduce heart rate and respiration. Swimmers should cool down after every race/practice.

Drill: An exercise involving a portion or part of a stroke, used to isolate and improve the technique of that particular portion or part of the stroke.

Dryland Training: Training done out of the water that aids and enhances swimming performance. It usually includes stretching, running, calisthenics and/or weight training.

Block: The starting platform.

Flags: Backstroke flags placed 5 yards (SC) or 5 meters (LC) from the turn/finish end of the pool. The flags enable backstrokers to execute a backstroke turn more efficiently.

Pace Clock: Large clock with a large second hand used to check pace or maintain intervals in practice; may also be digital (as with the Colorado boards at SPAR)

Shaving: Swimmers, especially male swimmers, sometimes shave off their body hair just prior to a major competition. This is often done after a taper and right before the big meet. The effects of this are two-fold. There is a physiological benefit from shaving. A swimmer will feel faster. Second, a swimmer will be physically faster from the loss of drag producing body hair. Conversely, female



swimmers might stop shaving in order to increase their drag potential during the normal training season.

Taper: The final preparation phase sometimes referred to as rest. The positive effects of rest will be directly proportional to the amount of consistent preparation (work) accomplished during the season. A taper can last up to a month prior to a major competition. Tapers are often used with physically mature swimmers over the age of 13. This is often accomplished in conjunction with shaving.

Meet Terms/Explanations/Definitions Qualifying Times/Time Standards

Cuts: A cut is a time needed to compete in a particular event, in a particular meet. Most in-season meets do not have any qualifying times, or cuts. State Finals do. State finals cuts will affect St. Louis swimmers are posted on the St. Louis website.

Heats: A division of an event in which there are too many swimmers to compete at one time (a number greater than the number of lanes available).

Timed Finals: Competition in which each swimmer swims each of their events only once. Final scores are determined by the times performed in the heats for each event.

Preliminary (Trials) and Finals Meets Preliminary (prelims) or Trial: These two terms are interchangeable. Prelim is more traditional, but Trial is becoming more popular. All swimmers race the clock, as well as those in their heat to determine the top eight. The times posted in the prelims do not determine the final placings in an event. They only determine the top group which will swim again to determine the final placings. Finals: The top eight from the prelims in each event return later in the day (or the next day) to swim for the final placings. A swimmer that did not make the top group (Finals) may not move up in the final rankings no matter how slow the swimmers in the Finals may go. Consolation Finals (Consos): Some meets will bring back sixteen to compete for the final placings. This larger group is broken into two heats; Finals (the top half of the group) and the Consos (bottom half of the group). During the second swim rankings may change within the Consos and within the Finals, but those in the Consos may not advance beyond any of the finalists regardless of the times swum.

Time Trial: A time-only swim which is not part of a regular meet. Time trials are generally conducted to afford swimmers an additional opportunity to qualify for a major competition.

Scratch: Withdrawn from competition. In a Timed Finals event, a swimmer may scratch any event without penalty.

Disqualification (DQ): This occurs when a swimmer has committed an infraction of some kind. A swimmer that is DQ'ed is not eligible to receive awards, nor can the time be used as an official time.

False Start: Occurs when a swimmer is moving on the block after the swimmers have set for the start and before the start is sounded. Generally the Officials will allow the race to proceed and DQ the swimmer after the race.



Freestyle (Free/Fr): The crawl is the most commonly used stroke, but any stroke may be used in a freestyle event. The crawl is characterized by the alternate overhand motion of the arms and a flutter (up and down) kick. DQ: Walking on the bottom; pulling on the lane rope; not touching the wall on the turn; not completing the race distance.

Backstroke (Back/Bk): Alternating motion of the arms with a flutter kick while on the back. DQ: In USA Swimming, pulling or kicking into the turn wall once rolled over to the front, in high school only pulling in the front is illegal; turning onto the front before touching the wall at the finish.

Breaststroke (Breast/Br): Simultaneous movements of the arms on the same horizontal plane. The hands are pulled from the breast in a heart shaped pattern and recovered under or on the surface of the water. The kick is a simultaneous somewhat circular motion similar to the action of a frog. DQ: An illegal kick such as flutter, dolphin or scissors; shoulders not level; non simultaneous pull; taking two arm strokes or two leg kicks while the head is under water; touching the wall with only one hand at the turns or finish.

Butterfly (Fly/FI): Simultaneous overhand stroke of the arms combined with an undulating dolphin kick. In the kick, the swimmer must keep both legs together and may not flutter, scissor or use the breaststroke kick. DQ: Non simultaneous movements of the arms or legs; underwater arm recovery; breaststroke kick; touching the wall with only one hand at the turns or finish.

Individual Medley (IM): A race that features all four strokes. The order that the strokes are swum is set ... Butterfly, Backstroke, Breaststroke, and Freestyle (unlike a freestyle event, butterfly, backstroke and breaststroke may not be used during the freestyle portion of an I.M.).

Relay: Four swimmers, one after the other, combine their swims to achieve a single race.

Medley Relay: Each swimmer performs one of the four strokes in the following order ... Backstroke, Breaststroke Butterfly, and Freestyle. As with the I.M. the freestyler may not do backstroke, breaststroke or butterfly.

Free Relay: All four swimmers on the relay team swim freestyle. Freestyle may be any stroke in this event.

Exhibition Swim: A swim that cannot score points for the individual or team ... usually done to establish a time in a particular event, or to allow participation in a meet for which an individual is not eligible. Sprint: All out efforts from start to finish.

Middle Distance: A combination of pace and sprint ... controlled sprint. Distance: A race strategy or method of pacing is required in order to avoid a severe lactic acid buildup in the muscles.

Lap Counter: A set of plastic display numbers used to keep track of laps swum during the 500, 1000, 1650 yards and 800, 1500 meters. The lap counters are located at the end opposite the start and therefore display odd numbers only. The counter has a solid orange surface that is displayed as the swimmer makes their final turn.



Heat Sheet: The meet *Program*. All races are listed in the order that they will be swum. Swimmers will use this to locate their heat and lane assignments for the events that they have entered.

Psych Sheet: Similar to a Heat Sheet. Swimmers are listed according to their seed time (ascending or descending) in each event. Swimmers can tell immediately where they rank going into each event entered.

Seeding

Seed Time: Each swimmer is entered into their events with a time (or NT = No Time). This time is used to determine the heat and lane where the swimmer should compete.

Pyramid Seeding: In Timed Final events the swimmers are organized by their seed times and placed into heats with other swimmers having similar seed times. This arrangement creates more competitive situations within the heats. Within each heat the swimmers are placed into lanes according to their seed times, with the middle lane being the fastest and moving out from the center. Below is an example of pyramid seeding for 34 swimmers. The numbers represent the swimmer's rank according to their seed times.

Lane #	1	2	3	4	5	6	7	8
Heat 1			35	33	34			
Heat 2	31	29	27	25	26	28	30	32
Heat 3	23	21	19	17	18	20	22	24
Heat 4	15	13	11	9	10	12	14	16
Heat 5	7	5	3	1	2	4	6	8

If there are more swimmers than evenly divide into the number of lanes being used (as with the example above), the first heat will always be the heat that is not full ... however, the first heat will never be seeded with less than three swimmers (as with the example below). You may see a first heat with less than three swimmers if one of the swimmers seeded in the first heat has scratched.

Circle Seeding: In Prelim/Final events, the prelims will seed the top swimmers throughout the fastest three heats as shown below. Prior to the last three heats, the swimmers are pyramid seeded as in a Timed Final event.

Lane #	1	2	3	4	5	6	7	8
Heat 1			34	32	33			
Heat 2	31	29	27	25	26	28	30	
Heat 3	21	15	9	3	6	12	18	24
Heat 4	20	14	8	2	5	11	17	23
Heat 5	19	13	7	1	4	10	16	22



Circle seeding allows more people an opportunity to race the top seeds, and thereby improve chances of qualifying for finals.

Split Time

Individual: Coaches record the intermediate times of races in order to gather information about how a particular swimmer paces a race. These intermediate times are called splits. Example ... A 200 freestyle swim of 1:56.7 might have 50 splits of 27.4 + 30.0 + 30.0 + 29.3 = 1:56.7. Relay: Each swimmers portion of a relay race is called a relay split. Splits for the second, third and fourth swimmers on a relay tend to be slightly faster than a regular race time because these relay swimmers may be moving on the blocks before the swimmer in the water has finished.

Negative Split: Deliberately swimming the second half of a race equal to or faster than the first half.

Practice Intensity Explained

AE = Aerobic ... work done with oxygen ... aerobic glycolysis and lipid metabolism.

ANG = Anaerobic Glycolysis ... 20 to 50 second bursts of maximum effort, with plenty of rest. This training will help the body adapt to high levels of lactic acid in the muscles, and in the bloodstream. Further, the muscles will learn to recruit greater numbers of muscle fibers to do the work involved in swimming fast.

AT = Anaerobic Threshold ... The work is aerobic (with oxygen), but at the threshold of becoming anaerobic (without oxygen). Lactate is high, but level. Working at these speeds, as determined by performance during test sets, will improve a swimmer's maximum endurance and their ability to tolerate, buffer, and remove lactic acid (a muscle hindering byproduct of the breakdown of ATP) from the muscles.

ATP/CP = Adenosine Triphosphate/Creatine Phosphate ... CP breaks down to add a phosphate to ADP (adenosine diphosphate) to re-form ATP without using oxygen ... an anaerobic reaction. This process is trained by swimming VERY short distances VERY fast.

VO2 = Maximum Oxygen Consumption ... Training just beyond AT with more rest between swims. Work of this type will improve a swimmer's oxygen uptake capacity and thereby improve all work done using oxygen.