

# **What to Watch in a Swim Meet**

**A guide to all of the strokes, the pool, strategies and more  
The Racing Course**

The length of a long course racing pool is 50 meters. World records may only be set in 50-meter (long course) or 25-meter pools. FINA added the 25-meter world record at the 1991 FINA Congress in Perth, Australia. The competitive pool has a minimum of eight lanes, each lane anywhere from seven to nine feet wide. The racing course must be at least four feet deep and is frequently deeper. The top pools in the U.S. are six to nine feet deep. The water temperature must be between 78 and 80 degrees Fahrenheit. The front edge of the starting blocks are 30 inches above the surface of the water.

## **The Meet**

There are 14 individual events and three relays for men and women in a swimming meet. In the Olympic Games, there are only 13 individual events and three relays for men and women. In the Olympics, men do not swim an 800-meter freestyle and the women do not swim a 1500-meter freestyle.

## **Freestyle**

In the freestyle, the competitor may swim any stroke he or she wishes. The usual stroke used is the Australian Crawl. This stroke is characterized by the alternate overhand motion of the arms and a flutter kick which can be either a six-beat-per stroke or two-beat-per-stroke cycle rhythm. The slower two-beat kick is used in the distance races, while the faster, six-beat kick is used in the sprint events and at the very end of the distance races. In all U.S. Swimming and FINA competition, each swimmer's head must surface within 15 meters of the start of the race. This rule was passed at the 1998 FINA Congress in Perth, Australia. The freestyle is swum in 50-, 100-, 200-, 400-, 800- and 1500-meter distances at the Olympic Games. Women's events do not include the 1500-meter freestyle, while the men's schedule of events does not include the 800-meter freestyle.

## **Backstroke**

In the backstroke the swimmer must stay on his or her back, except during the turns. The stroke is an alternating motion of the arms -- much like the crawl stroke -- with a flutter kick. Since April of 1991, a swimmer is no longer required to touch the wall with his or her hand before executing the turn maneuver. The key to proper interpretation of the backstroke rule is the phrase "continuous turning action", i.e., a uniform, unbroken motion with no pauses. In a more technical interpretation, after the shoulder rotates beyond the vertical toward the breast, a continuous simultaneous double arm pull may be used to initiate the turn. There shall be no kick, arm pull, or floatation that is independent of the turn. The position of the head is not relevant. In all U.S. Swimming and FINA competition, each swimmer's head must surface within 15 meters of the start of the race. This is a change from the 1988 FINA rule change which stated that a swimmer must surface within 10 meters of the start of a race. The rule was passed after America's David Berkoff set a world record in Seoul using a 35-meter underwater start, nicknamed the "Berkoff Blastoff" by NBC swimming commentator John Naber. Backstroke race distances are 100 and 200 meters.

## **Breaststroke**

Perhaps one of the most difficult strokes to master, the breaststroke requires simultaneous movements of the arms on the same horizontal plane. The hands are pushed forward from the breast on or under the surface of the water and brought backward in the propulsive stage of the stroke simultaneously. The kick is a simultaneous thrust of the legs called a "frog" or breaststroke kick. No flutter or dolphin kicking is allowed. Swimmers must touch the wall with both hands at the same time before executing their turn. Breaststroke race distances are 100 and 200 meters.

## **Butterfly**

The most physically demanding stroke, the butterfly features the simultaneous overhead stroke of the arms combined with the dolphin kick. The dolphin kick features both legs moving up and down

together. No flutter kicking is allowed. As in the breaststroke, swimmers must touch the wall with both hands before turning. The butterfly was "born" in the early 1950's as a loophole in the breaststroke rules and in 1956 became an Olympic event in Melbourne, Australia. In all U.S. Swimming and FINA competition, each swimmer's head must surface within 15 meters of the start of the race. This rule was passed at the 1998 FINA Congress in Perth, Australia. USA's Misty Hyman, among other swimmers, had utilized an extended underwater start prior to the restriction. Butterfly races are swum in 100 and 200 meter distances.

### **Individual Medley**

The individual medley, commonly referred to as the "I.M.," features all four competitive strokes. In the I.M. a swimmer begins with the butterfly, changes to the backstroke after one-fourth of the race, then the breaststroke for another quarter and finally finishes with the freestyle. The "no-touch" backstroke rule comes into play in the individual medley events in that the new turn may be used in the 400-meter IM (100 meters of each stroke) only in the middle of the backstroke leg. The new turn may not be used in the backstroke to breaststroke turn, however, and is therefore not allowed in a long course 200-meter individual medley race. The IM is swum in 200 and 400 meter distances.

### **Medley Relay**

In the medley relay, all four strokes are swum by four different swimmers. No swimmer may swim more than one leg of the relay, which is swum in backstroke, breaststroke, butterfly and freestyle order. Additionally it is possible to see a world record in the 100-meter backstroke (the first leg) in this race. Jeff Rouse, the current men's world record holder in the 100-meter backstroke, set that mark swimming the lead-off leg for the 1991 U.S. team at the Pan Pacific Championships in Edmonton, Alberta, Canada and again on the '92 Olympic team in Barcelona. The medley relay is 400 meters -- or 4x100 meters

### **Freestyle Relays**

There are two freestyle relays -- 400 and 800 meters. In the freestyle relays, four swimmers each swim one fourth of the total distance. As in the medley relay, no individual may swim more than one leg of the relay.

### **Starts and Turns**

Many races are lost in poor starts and turns. In the start, the swimmer is called to starting position by the starter who visually checks that all swimmers are in the down positions and still. Then, once the starter is satisfied, the race is started by either a gun or electronic tone. If the starter feels that one of the swimmers has jumped early, the race will be recalled and the offending swimmer disqualified. Quick turns are essential to a good race. In all events the swimmer must touch the wall, but in the freestyle and the backstroke, the swimmer may somersault as he or she reaches the wall, touching only with the feet. In the other two competitive strokes, the swimmer must touch the wall with one or both hands before executing the turn.

### **Strategies**

The sprint races (50 and 100 meters) are an all-out scramble from start to finish. The slightest mistake can cost precious hundredths of seconds -- and the race. The 200-meter events require the swimmer to have a sense of pace as well as the ability to swim a controlled sprint. This distance is considered by many swimmers to be the most difficult to master. The 400, 800 and 1500-meter freestyles require the swimmer to constantly be aware of where they are in the water and the fatigue of their muscles. Swimming the first portion of the race too fast can sap a swimmer's strength and cause a poor finish. Swimming the first portion of the race too slowly can separate the swimmer from the pack and make catching up impossible. Swimmers may elect to swim the race evenly (holding the same pace throughout the race) or they may "negative split" the race. A negative split occurs when the swimmer covers the second half of a race faster than the first half. In the late 1970s and early '80s "negative splitting" was considered the way to win a distance race. World records have been set by Janet Evans and Jorg Hoffman using "even pace" strategies as well.

## **On-Line Aquatics Resources**

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- a. USA Swimming (FINA)
  - Rulebook is available online at [www.usaswimming.org](http://www.usaswimming.org) - use the search to find “rulebook” The complete rulebook and the technical rules can be downloaded or viewed in pdf format. Copies of sections of the technical rules pertaining to strokes and disabilities are attached to this handout.
  - **Tips & Training** section has information on teaching and solving stroke problems, including videos on drills
  
- b. Special Olympics ([www.specialolympics.org](http://www.specialolympics.org)) –
  - Click the link for Coach, and look for links to Sports Resources, or search for rulebook.
  - The Special Olympics rulebook adaptations supplement and clarify the NGB rules. Special Olympics rules are used for entry-level events (since these events don't exist in USA swimming events). Special Olympics Summer Sports Rules pertaining to Aquatics events are included in handouts.
  - This website also includes coaching guides, quick start guide, and videos of training tips by sport
  
- c. Special Olympics Pennsylvania ([www.specialolympicspa.org](http://www.specialolympicspa.org)) –
  - Links to on-line training for General Orientation and Protective Behaviors (look under Coach/How to Become a Coach)
  - Links to coaching resources (Coach: Coaches Corner publications and Sports Resources)
  - Information on Competitions (Compete: Links to games)
  - SOPA Database (contact your local management team for access to Resources and athlete lists)
  
- d. [www.swimmingcoach.org](http://www.swimmingcoach.org) – American Swimming Coaches Association web site. Look for training tips, articles, and some videos – see link on left to “Free Stuff”
  
- e. You Tube – search for videos on training tips and strokes (with the usual caution of the accuracy of what's available on the internet)

## **Additional Resources:**

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**a. Your head coach and local management team**

**b. Aquatics Sport Director – currently**

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