# Swimming

Basic information

* Swimming is an individual or team [racing sport](https://en.wikipedia.org/wiki/Racing" \o "Racing) that requires the use of one's entire body to move through water. The sport takes place in [pools](https://en.wikipedia.org/wiki/Swimming_pool" \o "Swimming pool) or open water (e.g., in a sea or lake). Competitive swimming is one of the most popular [Olympic](https://en.wikipedia.org/wiki/Olympic_Games" \o "Olympic Games) sports.
* Swimming is seasonal sport, thanks to indoor pools. In summer you can go to outdoor pools or open water.
* Modern pentathlon is combined of fencing, frrestyle swimming, equestrian show jumping, postol shooting and cross country running. Triathlon is combined of swimming, cycling and running. Guadriathlon is combined of Swimming, cycling, kayaking and running.

History

* Evidence of recreational swimming in prehistoric times has been found, with the earliest evidence dating to [Stone Age](https://en.wikipedia.org/wiki/Stone_Age) paintings from around 10,000 years ago.
* Written references date from 2000 BC, with some of the earliest references to swimming including the [Iliad](https://en.wikipedia.org/wiki/Iliad), the [Odyssey](https://en.wikipedia.org/wiki/Odyssey), the [Bible](https://en.wikipedia.org/wiki/Bible), [Beowulf](https://en.wikipedia.org/wiki/Beowulf" \o "Beowulf), the [Quran](https://en.wikipedia.org/wiki/Quran" \o "Quran) and others.
* In 1844 two [Native American](https://en.wikipedia.org/wiki/Indigenous_peoples_of_the_Americas" \o "Indigenous peoples of the Americas) participants at a swimming competition in London introduced the front crawl to a European audience
* Captain [Matthew Webb](https://en.wikipedia.org/wiki/Matthew_Webb) was the first man to swim the [English Channel](https://en.wikipedia.org/wiki/English_Channel" \o "English Channel) (between England and France), in 1875. Using the breaststroke technique, he swam the channel 21.26 miles (34.21 km) in 21 hours and 45 minutes. His feat was not replicated or surpassed for the next 36 years, until T.W. Burgess made the crossing in 1911.
* Men's swimming became part of the first modern [Olympic Games](https://en.wikipedia.org/wiki/Olympic_Games" \o "Olympic Games) in [1896 in Athens](https://en.wikipedia.org/wiki/1896_Summer_Olympics)

Swimming equipment

* Swimsuit - improve upon bare skin for a speed advantage and coverage. Rules banned suits which go above the [navel](https://en.wikipedia.org/wiki/Navel" \o "Navel) or below the knee for men and suits which extend past the shoulders or cover the neck for women.
* Swim cap - A swim cap (a.k.a. cap) keeps the swimmer's hair out of the way to reduce drag.
* Googles - protect your eyes from chlorine (and anything else that may be in the water), and they help you keep your eyes open while you swim so that you can see where you're going
* Swim Fins - are used to help kick faster and build strength and technique, but are illegal in a race. They also improve technique by keeping the feet in the proper position while kicking.
* Hand Paddles - devices to build arm and shoulder strength while refining hand-pulling technique
* Kickboard - use to support the weight of the upper body while they focus on kicking
* Pull buoy - at the same time as hand paddles, pull buoys support swimmers' legs
* Snorker - helps swimmers breathe while swimming. This piece of equipment helps the swimmer practice keeping their head in one position, .

Butterfly – technique

* after the start, dolphin waves are used, which can have a very positive effect on time with a well-mastered technique. After emerging from the water, both hands are pulled out at the same time and move forward (to the head) and return under the water along it, and along the body they move along the longest possible path (so-called wave) to maximize speed. The legs kick twice behind the shot with their hands parallel to each other. When turning at the end of the pool, a breast (basic) turn is performed.

Backstroke – technique

* He swims on his back, his hands working similarly to a crawl It is very important to turn the arm as much as possible before immersing the hand in the water, so that the path of the hand in the water is as long as possible. A crawl turn is performed, before which the competitor must turn on the abdomen, one crawl shot is allowed. Flags, which are 5 meters in front of the wall, help to orientate in the pool.

Breaststroke – technique

* The technique consists of engaging the hands, kicking the feet and then merging in the optimal position, when the hands and feet are completely crossed.First, they occupy the hands, which occupy from the water surface towards the chest. So the hands lift the whole body out of the water up to the breasts, at the same moment the legs are pulled to the body and prepare to kick. Subsequently, at the same time, the hands go forward over the water and the feet perform a kick. After performing these movements, the body should get back to the optimal straight line where it will use the minimum resistance and the highest swimming speed

Freestyle – technique

* The swimmer begins the movement with a crawl in a position lying on his chest towards the bottom with slightly curved hips, which makes it easier to kick his feet. During breathing, the head tilts to one side above the water along with the engagement of the whole hand on the same side. The engagement is performed with both the lower limbs and the upper limbs, which are, however, the main ones for movement. Their movement is approximately along the path of a circle around the body, with the right hand alternating with the left. One hand always slides into the water out of the uproar. First the hand goes into the water, then the elbow and finally the arm. The fingers are outstretched and slightly stretched to increase the grip area. The hand then performs an underwater movement with the elbow slightly bent until it extends in a semicircle around the whole body and ends at the thigh, when it is again removed above the surface and transferred over the head to the next pace. This process is constantly repeated, which leads to regular swimming

Officials

* Referee -has full control and authority over all officials. The referee will enforce all rules and decisions of FINA and shall have the final answer to all questions relating to the actual conduct of anything regarding the meet, as well as the final settlement of which is not otherwise covered by the rules. The referee takes overall responsibility for running the meet and makes the final decisions as to who wins each race. Referees call swimmers to the blocks with short blasts of his or her whistle. This is the signal for the swimmers to stand next to their blocks. Then the referee will blow a long whistle that will tell the swimmers to step on the block. For backstroke events, the long whistle is the signal for the swimmers to jump into the water. The referee will then blow another long whistle, signalling the swimmers to the provided block handle. Finally the referee will hand over the rest to the starter by directing his or her hand to the starter.
* Starter - The starter has full control of the swimmers from the time the referee turns the swimmers over to him/her until the race commences. A starter begins the race by saying, "Take your mark." At this point, the swimmers will get into stationary positions in which they would like to start their race. After all swimmers have assumed their stationary position, the starter will push a button on the starting system, signaling the start of a race with a loud noise flash from a strobe light. A starter sends the swimmers off the blocks and may call a false start if a swimmer leaves the block before the starter sends them. A starter may also choose to recall the race after the start for any reason or request the swimmers to "stand", "relax" or "step down" if he or she believes that (a) particular swimmer(s) has gotten an unfair advantage at the start.
* Clerk of course - he clerk of course (also called the "bullpen") assembles swimmers prior to each event, and is responsible for organizing ("seeding") swimmers into heats based on their times. Heats are generally seeded from slowest to fastest, where swimmers with no previous time for an event are assumed to be the slowest. The clerk of the course is also responsible for recording and reporting swimmers who have chosen to "scratch" (not swim) their events after they have signed up or qualified to a semifinal or final. The clerk is also responsible for enforcing rules of the swim meet if a swimmer chooses to not show up ("No show" - NS) his or her events.
* Timekeepres - Each timekeeper takes the time of the swimmers in the lane assigned to him/her. Unless a video backup system is used, it may be necessary to use the full complement of timekeepers even when automatic officiating equipment is used. A chief timekeeper assigns the seating positions for all timekeepers and the lanes for which they are responsible. In most competitions there will be one or more timekeepers per lane. In international competitions where full automatic timing and video placing equipment is in use timekeepers may not be required.
* Inspectors of turns - One inspector of turns is assigned to one or more lanes at each end of the pool. Each inspector of turns ensures that swimmers comply with the relevant rules for turning, as well as the relevant rules for start and finish of the race. Inspectors of turns shall report any violation on disqualification reports detailing the event, lane number, and the infringement delivered to the chief inspector of turns who will immediately convey the report to the referee.
* Judges of Stroke - Judges of stroke are located on each side of the pool. They follow the swimmers during their swim back and forth across the pool. They ensure that the rules related to the style of swimming designated for the event are being observed, and observe the turns and the finishes to assist the inspectors of turns.
* Finish judges - Finish judges determine the order of finish and make sure the swimmers finish in accordance with the rules (two hands simultaneously for breaststroke and butterfly, on the back for backstroke, etc.)

Common injuries

* The rotator cuff in the shoulder is most susceptible to injury in swimmers. Injury to the rotator cuff results from repeated trauma and overuse. This position occurs in each of the four swimming strokes in every cycle of the arms. Out of the four tendons in the rotator cuff, the supraspinatus is most prone to tearing. Rotator cuff impingement is due to pressure on the rotator cuff from part of the scapula as the arm is raised. The best way to prevent injury is catching the issue early. Typically, poor technique and over excessive use of the muscle group can be the primary causes of injury. Through communication between swimmers, coaches, parents, and medical professionals, any issue can be diagnosed prior to a serious injury. Additionally, proper warm-up, stretches, and strength training exercises should be completed before any rigorous movements.
* Another common injury is breaststroke knee, also known as swimmer's knee. This injury is caused by the kicking movement used while swimming breaststroke. The kicking movement will cause wear and tear on the knee and it will eventually lead to constant pain

Health benefits

* Swimming is a healthy activity that can be done by most people throughout their life. It is a low-impact workout that has several mental and bodily health benefits all while being a good recreational activity. Swimming builds endurance, muscle strength, and cardiovascular fitness. Correspondingly, it also improves weight loss while being a safer alternative of working out for someone who is injured or for women who are pregnant. Swimming requires less effort than other sports, but the athletes will get the results they are looking for.
* swimming is linked to better cognitive function; also lowering the risk of Type II diabetes, high blood pressure, and a stroke. It can improve lung and heart strength while it tones muscles in a full body workout. People can typically exercise longer in water than on land without increased effort and minimal joint or muscle pain