

## Navigation Techniques for Open Water Swimming



Great open water swimmers either have – or develop – a high navigational IQ. Navigational IQ refers to the ability for a swimmer to swim the fastest course in an open water race. But, the fastest course may not always be the straightest course, depending on the currents, waves and surface chop.

Additionally, navigational IQ refers to the ability to know not only where the competition is, but also the distance to the next turn buoy, distance to next feeding station, the remaining distance to the finish, and the effect of any currents waves, wind and surface chop.

For example, if the ocean winds are blowing strongly towards the shoreline, then an experienced swimmer will expect that the turn buoys will be slightly off course and will swim accordingly.

This need to be fully aware of the surroundings requires swimmers to occasionally raise their heads to look ahead. But, looking ahead must be done within the natural rhythm of the stroke, without letting the hips drop too much.

Sometimes, it is difficult to know where one is or where one should swim due to the glare of the sun, currents or a boat blocking one's line of sight or waves. In those cases, the swimmer should make reasonable judgments where to swim based on their competitors to their right, left and in front of them.

Drafting is a key element in racing: the closer the swimmers are to their competition, the more energy they can save for the sprint at the end of the race. Drafting wisely means swimmers are close enough to touch their competitor's feet if they are swimming behind them or close enough to touch their swim suit if swimming side-by-side.

The importance and benefits of drafting cannot be overemphasized. Swimming alone in an open water race is almost never advisable unless a swimmer has broken from the lead pack and is sprinting alone first to the finish.

Sometimes, swimmers cannot see landmarks because there are too many escort or official's boats in the way. In that case, swimmers can look at the boats and swim in the same direction as the bow (or front part) of these boats. Generally, the pilots of boats along the course will be aiming either for the turn buoys or the finish point. Therefore, following their line of sight is general an excellent guide for open water swimmers.

For the uninitiated pool swimmer, open water races can present an intimidating challenge. No longer are you safely bounded by pool walls and guided by black lines on the pool bottom, but are instead navigating in the vast expanse of water under variable conditions. The ability to swim straight in the open water is usually difficult to master.

Open water navigational skills also include head lifting and bilateral breathing and may take a few years to develop. By lifting one's head during the normal breathing pattern and taking frequent sightings of the race course, a swimmer can make directional adjustments and swim a generally straight line. The frequency of head lifting depends on the conditions of the water, the swimmer's familiarity with the course, one's natural ability to swim straight, and the number of experienced swimmers in the general vicinity.

Swimmers may have to lift their head every 20-30 strokes if there are large waves, heavy surface chop or strong cross currents. If swimmers are familiar with the course and can swim straight, then quick infrequent glances forward should be sufficient. If a swimmer is drafting off experienced swimmers, they may be able to take even fewer sightings.

In every case, head lifting should be efficiently incorporated with one's breathing cycle and natural swimming stroke in order to save time and energy. There is no need to lift one's head once to breathe and then another time to navigate.

In the "look-and-breathe" style, a swimmer should first lift their head forward to look, then turn their head to the side to breathe. In the contrasting "breathe-and-look" style, a swimmer will first take a breath to the side, then turn his or her head forward to look. Both styles work best if the swimmer lifts their head only high enough for their eyes to clear the surface of the water. If a wave or another swimmer blocks one's view when the head is lifted, take another quick look after a few strokes. It is not recommended to swim head-up like a water polo player, struggling to find the correct course. Rather, it is better to take a series of looks over 15-30 seconds in order to get a good fix on one's position relative to the course.

Bilateral breathing, also called alternate breathing, is the ability to breathe on both the right and left sides. Although an inexperienced swimmer may not feel comfortable breathing on both sides at first, the ability to see opponents and reference points on both sides is an essential navigational skill. Because of the course layout, turn buoy positions and water conditions, breathing to both sides is often desirable in open water races. Bilateral breathing also helps balance a swimmer's body position and, very importantly, allows swimmers to breathe away from oncoming waves, surface chop or the sun's glare.

The mechanics of swimming in the pool and open water are basically the same with a few exceptions. During windy or choppy conditions, swimmers can make slight adjustments to their breathing style to avoid swallowing water. That is, breathe away from the oncoming waves in the depression created by one's armpit and head. By turning one's head further back than normal, a swimmer can position their mouth under their recovery arm to avoid swallowing water in rough conditions. Breathing in the depression of the stroke can enable swimmers to breathe at or below the water level without swallowing water in wavy conditions.

For many swimmers, their kick in the open water is more of a stabilizing force than a means of propulsion. Also, because swimmers are naturally more buoyant in salt water than in fresh water, less effort and concentration can be applied to one's kick without sacrificing speed, especially in the ocean or during choppy conditions. This is especially important to triathletes who need to conserve their legs for the bike and run.