

Underwater Analysis

Key focus points:

Head Position

1. Holding the head too high, looking forward too much when swimming. Need to aim to look down, about 40 degrees from the bottom, maintaining a longer body, more horizontal to the waterline. Think of lying on top of the water. Keep the spine long, the same as you would standing up. Imagining a wire coming out of the top of your head and being wound up at the other end of the pool can help visualize. Head, hips, and heels in line and close to the surface.

Drills to help:

Side kick + 1, 2, or 3

Polo – alternate doing polo and normal swim looking down – feel the difference in body position.

Sculling – keep neutral head position

Snorkel – Best piece of equipment for head position because you can focus on eyes down without need to breath.

Breathing

1. Head alignment on the breath. This means when you breath you do not want to tilt the chin down, otherwise there is a bend in the neck. Think of rolling to the side to breath and then rolling back into the water. One goggle should always stay submerged in the water, as to not over rotate.
2. Controlled exhaling all the time when face is submerged. At the moment this is not a big problem, but it looks like you are holding your breath just a little bit too long. If you exhale all the air out underwater then when you turn to breath you will only need to inhale, which will result in a faster turn.

Drills to help:

Side kick + 1, 2, 3

Kick holding a board with one arm extended out in front. Ensure you are breathing away from the extended arm.

On all drills focusing on having the small roll to breath.

Kick – best seen in video from the side + video of kick from the back

1. Kicking too much. Due to the current head position, the hips are sinking, followed by the legs, looks like you are compensating for this by kicking more. For Tri we want to save the legs, we just use them to keep the lower half of the body near the top of the water. I suggest we switch to a 2 beat kick with the corrected head position.
2. Legs opening too wide. In addition to too much kick, you are opening legs too wide which will cause a lot of resistance. Particularly when you breath, legs open too wide and you have to do a big kick to get them back together. This will also be connected to the head position during the breath, and the outward arm sweep which we'll come onto next.

Drills to help:

Pull buoy – when using pull buoy make sure you still kick, small kicks with legs close together. Remember, the kick comes from the hip, not the knee.

Side kick + 1, 2, 3

Doggy paddle short & long, u/w recov – on these use snorkel and pull buoy. Focus on kicking the leg just before you start the pull phase of the arm. Repeat without snorkel with focus on keeping the kick, with that flat head position on the breath.

Doggy paddle long with pull buoy, focusing on the 2 beat kick, followed by normal swim with pull buoy maintaining the 2 beat kick.

Outward sweep on the breath with late catch – best seen in video taken from the front

1. On the breath the right arm sweeps outwards too much. Remember, once our arm enters we want our fingers to point forward, then down, then back. If the fingers point towards your body its ok, as long as not crossing the centre line. We want to avoid fingers drifting to point outwards away from the body.
2. Late catch. By catching earlier you can keep the arm in a more solid position and avoid the out-sweep. Think of popping the elbow up earlier, aiming for an earlier vertical forearm. Imagine reaching forward and then placing your hand on a flat surface and pulling the body past the hand, rather than the hand past the body.

Drills to help:

Side kick + 1, 2, 3 – Great for this as it gives you time to reposition the arm each time.

Ensure that you are not crossing under your body when you do the pulls to change sides.

Doggy paddle short & long, u/w – again with snorkel, this will allow you to look forward and watch what your arm is doing – always repeat with the correct head position after. Ensure that you extend all the way forward on these drills.

Catch up + $\frac{3}{4}$ Catch up – similar to the side kick this drill gives you more time to get into the correct position.

Arm entering too early – best seen in video from in front above the water

1. I think there is a little more length in the stroke over the water. With a more neutral head position you should find that you're able to stretch over the water just a little more. Your right arm enters slightly shorter than your left.

Drills to help:

Single arm fly followed by single arm free – keep the arms as long as possible in the fly, and then bring that over into the free. Underwater focus on the high elbow catch in both strokes.

Free arms with fly kick – this will help you get the feel of throwing the arm forward, keeping it long.

Catch up – the extended arm will give you the feel of support as you stretch the other arm forward.

Weak hips – best seen in video from directly above

1. You can see that there is a tendency for the body to follow an S shape. This will be due to imbalance and misalignment caused by the kick and the head position. For this just keep in mind that we want to rotate in both the hips and the shoulders when we swim free. Keep an engaged core and when you kick feel the connection with your hip.

Drills to help:

Side kick + 1, 2,3 – ensure that you engage the opposite hip to the pulling arm with each stroke, keeping an aligned spine and neck as you do it.
All fly drills – will strengthen the core muscles.