

FREESTYLE

- Hand enters in front of shoulder with ability for hand to move right into catch (in line with shoulder)
- To be most effective and strongest (and to protect the shoulder) the arms should never reach behind the back.
- Arms should move in natural range of motion staying to the side or in front of the body.
- Arms should be in front or in line with your back (power lines) ... best opportunity to be connected
- In free, it's easy for the arm to be out of line (first part of recovery or rotating shoulder into the catch)
- Rotating FORWARD is key to having arm and body working together
- Pivoting forward. Not side-to-side long rotations. Shift your shoulder forward.
- Over rotating leads to late rotation, which leads to narrow hand entries (inside shoulder width above the head)
- To rotate on-time so that you can have proper hand entries, use the arm that is in the water to hold water and shift your above water arm/shoulder forward
- From sprinters to distance swimmers, the hand goes right from entry to catch because the rotation is on-time (because they're not over-rotating)
- In terms of rotation amount, the shoulders shouldn't rotate under the face but should stay next to the cheek. The hips will naturally pivot slightly as well, but overrotation of the hips will cause all of the disruptive kicking symptoms (legs crossing, kick stops, legs open wide)

- Over-rotation of the shoulders will lead to a straight arm pull (inefficient), or rotating the body into the shoulder joint (which stresses the shoulder)
- Hips do not lead the rotation action (like it is with a throwing or swinging action on land)
- When one arm is catching water at the front of the stroke, that anchor should help the opposite hip pivot towards that arm
- On the recovery, avoid shoulder impingement and have the arm swing be with a
 wide hand. Teaching a high elbow that is also narrow to the body is not good for
 the shoulder over time. A high elbow recovery should happen with the hand being
 wider than the elbow.
- Jonty Skinner thinks it's important to acknowledge that kick timing is related to the arm movements. All of the best freestylers have the leg on a downkick opposite the arm that is entering. It creates tension diagonally across the body/core.
- In order to have the desired catch in freestyle... looking at someone swimming towards you... the hands enter in front of shoulder and then moves backward from that point, staying at shoulder width (or wider) for the first 2/3 of the stroke. The fingers point downward. The elbow bends outward and is wider than the shoulder and the hand.
- Distance swimmers will have wider elbows (and hands). Sprinters will have less elbow bend and deeper, more narrow hands (but not narrower than the shoulder).
- Breathing is the cause of so many flaws in freestyle because it causes people to over-rotate.
- The key is to turn your head back early so that the recovering arm does not close the breath. (For sprinters, start and close the breath early. For mid-d and distance swimmers, just close the breath early.)
- Turning the head back early also makes the pulling arm (underwater arm) much stronger than if you were pulling while your head was still turned for the breath.
 Oftentimes, the hips over-rotate and causes the issues with the kick as described before.

 Inhaling and exhaling should be natural and not forced.