Freestyle swimming

Body

- aim for flat in the water, a high head can lead to low legs, burying your head down lifts feet clear of the water, start off with your face in the water but your hair or cap just above the surface, looking slightly ahead.

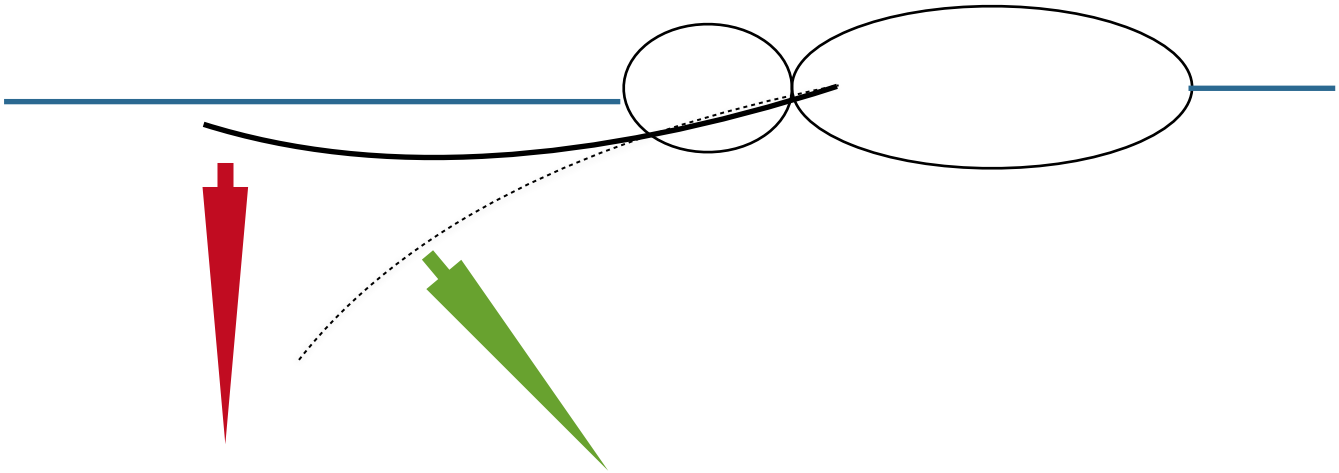
- *Body rotation is what drives the stroke.* After hand entry in front of the shoulder, body rotation drives the hand and arm down and forwards - reaching over a barrel. On the other side the hip is rotating away from the hand as it finishes the push. Visualising this hip getting out of the way may help achieve the rotation. Core strength is important for this.

Hand entry - catch

- *Fingers* then *wrist* then *elbow*. At all points the elbow is higher than the wrist which is higher than the fingers.
- Palm faces the water as fingers enter, in line with the shoulder, elbow slightly bent. If there is no body rotation at this point the stroke will appear shortened and choppy. Keeping the hand in line with the shoulder as the body rotates allows the hand to keep moving forward and down in the water as the catch is made. AVOID saying the hand extends forwards, this immediately suggests straightening the elbow and losing the *Fingers* then *wrist* then *elbow* order.

Consequences of reaching/extending on entry.

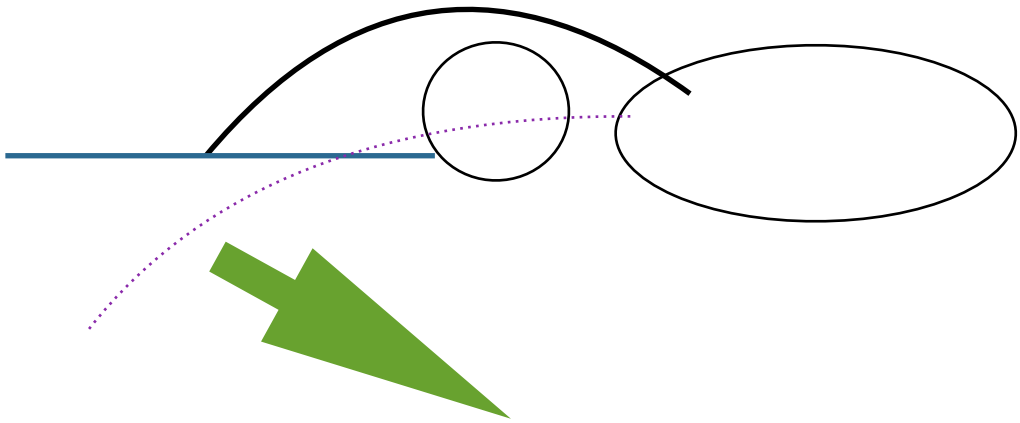
- The hand moves forward parallel to the water surface, straightening the arm and putting the hand as far from the body as possible. The only way to "pull" is down, pushing the body "up" and even worse, backwards. Once the hand/arm is at 7:30 position, some propulsion can begin. Throughout all of this the arm has to work independently, the chest and back can't help. Imagine a press up with your hands way out in front of your head.



This type of entry and reach puts huge strain on the shoulder.

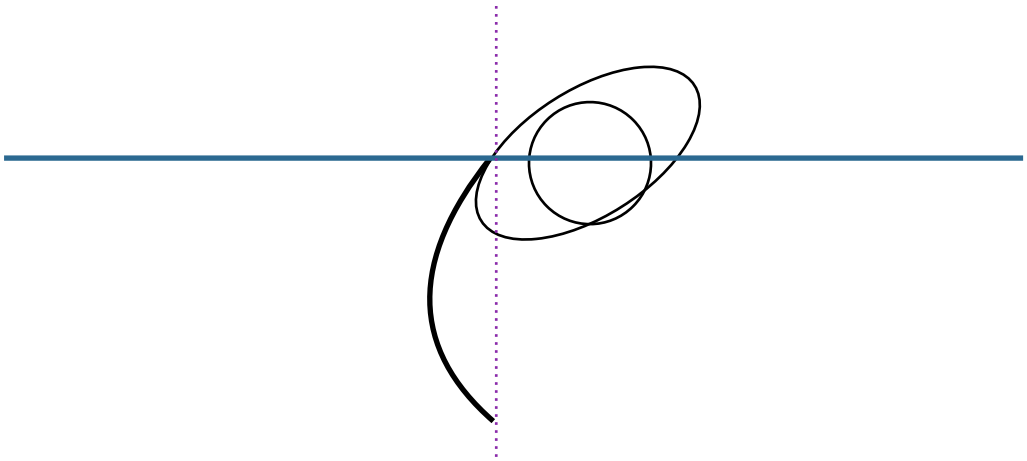
Consequences of rotation

- After entry the hand is driven to the catch position immediately, advancing forwards and down if the hand remains in line with the shoulder, maintaining *Fingers* then *wrist* then *elbow* order
- The catch position is reached without wasted downwards force meaning more energy for pulling and no up and down bobbing. Rotation, keeping the hand in line with the shoulder and with the elbow still slightly flexed and higher than the wrist, brings the shoulder blades together, engaging chest and back muscles in the pull/ push. Compare lifting yourself out of the pool with your hands wide apart or close together, think what your shoulder blades are doing.



Pull/push

Maintain the alignment of hand and shoulder, the elbow will be slightly outside this line as it is flexed. At the catch the wrist is flexed as well as the elbow. As the hand moves backwards the palm faces backwards, pushing hard as it passes below the shoulder to a finish. The elbow stays slightly flexed at the finish, exiting the water first, then the wrist, then the fingers. Rotation should keep the hip away from the pushing hand allowing exit.



Drills to aid rotation

Starting position

- Freestyle kick with fins on side. One arm out stretched but with the elbow and wrist just flexed. Fingers at 45 degrees to surface, palm down i.e. at the catch. Trailing hand "in jeans pocket " in front of hip,looking at bottom of pool past arm pit

1 6:1:6
- With fins on assume starting position on side, looking down
- This is extreme rotation, taking a pull through to out-stretch the other arm and kick again on the other side.
- This drill can be 6:1:6, 6:3:6 etc (kicks:pull:kicks)

2 Popov
- With fins on assume starting position on side, looking down
- Run the recovering hand up the body, the thumb tracing a line from hip to arm pit and back down, trace up again and forward to a perfect entry as you rotate to the other side. Repeat.

3 Shoulder tap
- With fins on assume starting position on side, looking down
- Lift hand forward and tap shoulder on way to rotating into perfect entry
- Assume starting position on other side

4 Broken arrow
- With fins on assume starting position on side, looking down
- Lift trailing hand and raise to ceiling, pause, bend arm to 90 degrees, rotate as you enter perfectly
- Assume starting position on other side

When recovering hand over surface, imagine carrying a briefcase to avoid thumb first entry.