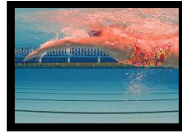


Swim Drills and Stroke Improvement

Entry/Glide



Catch



Pull



Recovery



In developing the skills to improve your stroke it is necessary to try to isolate the different phases of the stroke as well as body position. Drill work allows you to accomplish this mission. The following drills are the most common which will help to improve both your stroke and body position.

Drill Fist

This drill is used to develop a more effective use of the forearm during the catch and downstroke phases of the stroke. During the fist drill you are essentially swimming with a closed hand (a fist). The fist is not tightly squeezed but loose. It is important during this drill to keep a high elbow pull and get good hip rotation (skate side to side) to allow for a long boat (stretched out body) in the water and to keep the elbow high during the stroke. This will set you up to get as much water under your fist and forearm as possible so you are using as much water as possible to pull you through the water efficiently. This drill is best done in 25-yard increments followed by 25 yards of traditional swimming.



Drill: Single Arm (arm at your side)

This drill is used to develop proper rhythm and timing in your swimming so there is a proper transfer of power and energy through your hips and shoulders. During this drill you are swimming with fins in order to facilitate the drill better. You are swimming with one arm only while the other arm is positioned at your side. It is important to maintain a good kick while performing this drill to keep high body position in the water. Do not let the arm at your side drop and be sure that the shoulder of the non stroking arm drives and rotates normally under the surface of the water. In other words do not swim flat get good rotation as though you are swimming normally. As you are swimming breath to the side of your non-stroking arm and concentrate on getting powerful hip rotation to drive the arm forward to full extension during any 25-yard length. This drill is best done in 50 yard increments (25 yards of right arm swimming then 25 yards of left arm swimming) followed by 50 yards of traditional swimming.

Drill: Zipper

This drill is used to develop proper up-sweep portion of the stroke. Many novice swimmers will not follow through with their stroke far enough. It is important that as you complete your stroke that the hand reach the hip before it exits the water. In this drill you are swimming traditionally but on every stroke open up the thumb and brush your hip with the thumb as you pass along the hip. The hand and arm should exit the water at the hip. This drill is best done in 50-yard increments followed by 50 yards of traditional swimming.



Drill: Finger Tip This drill is used to develop proper recovery portion of the stroke for formal pool swimming (it is not as applicable for open water swimming), from the time the arm exits the water to the time it re-enters the water. During this drill you are exaggerating the recovery portion of the stroke. Exaggerate a high elbow exit out of the water and forward movement of the arm back to the entry phase of the stroke. As the arm/hand is returning to

the entry phase of the stroke drag the fingertips along the top of the water keeping the elbow high and arm tight to the body. Complete this pattern on every stroke. This drill is best done in 50-yard increments followed by 50 yards of traditional swimming.

Vertical Kicking

Flutter kicking is important to stabilize the arm stroke and help to maintain horizontal alignment in the water. Kicking is also used to propel you forward although for most novice swimmers it can acutely hinder your efficiency. Complete 30 sec reps of kicking in the vertical position with sculling with your arms. Don't bend at the waist – toes pointed - be tall in the water.



Keys to a good kick:

- To minimize drag, the thigh, knee and foot should never go outside the hole in the water that the head/torso created.
- During the first half of the downbeat, the movement is initiated by slightly flexing (bending) at the hip
- During the second half of the downbeat, the hip is locked (stops bending) while the knee is extended whipping the foot
- The upbeat movement is initiated by the glutes.



Drill: Shoulder Touch

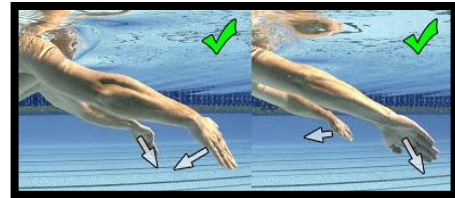
This drill is used to develop proper entry, eliminating crossover, better hip rotation and a good horizontal body position with full arm/body extension. During this drill you are swimming with a delayed stroke by simply taping the shoulder prior to entry. This helps you to focus on keeping the elbow high during recovery so you enter finger tips first. It also helps you to align the hand with the shoulder prior to entry so you do not crossover the centerline of the body upon entry or during the glide phase of the stroke. Finally, this drill help you to keep a body long and

aligned by forcing you to hold your extended arm in good position and to kick efficiently so your hips don't sink. This drill is best done in 50-yard increments 25 yard drill followed by 25 yards of traditional swimming.

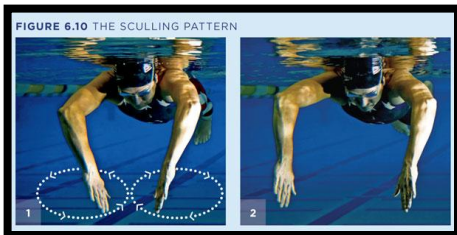
Sculling - Catch or Butterfly Scull

"The catch scull is perfect for swimmers who want to improve the catch of the front crawl in freestyle. The catch scull uses the forearm and hands to produce frontward propulsion. To do the front catch scull, put your arms out in front of you and bend your elbows. You should lie face down in the water and put a buoy between your legs. A small kick may be effective, but only to prevent sinking. This is all about the arm strength, and not the leg strength.

Make sure your elbow is above your hand so your fingertips angled towards the bottom of the pool.



When doing the catch scull, do not put too much stress on the shoulders - this is a relaxed position. Create a figure 8 movement with the forearms and the hands for 3-8 seconds - don't use the shoulders to generate this movement. Use your hips to do the positioning if needed which will help support your shoulders. Breathe by lifting the head to the side as in a normal breathe. If this is too difficult take 2 strokes, breathe then return to the sculling position. This drill is best done in 50-yard increments 25 yard drill followed by 25 yards of traditional swimming.



Sculling - Pull or Vertical Scull

"The catch scull is perfect for swimmers who want to improve the catch of the front crawl in freestyle. The catch scull uses the forearm and hands to produce frontward propulsion. To do the pull scull, put your arms at your side and bend 90 degrees at the elbows. You should lie face down in the water and put a buoy between your legs. A small kick may be effective, but only to prevent sinking. This is all about the arm strength, and not the leg strength. Make sure your elbow is above your hand so your fingertips angled towards the bottom of

the pool.

When doing the pull scull, do not put too much stress on the shoulders - this is a relaxed position. Create a figure 8 movement with the forearms and the hands for 3-8 seconds - don't use the shoulders to generate this movement. Use your hips to do the positioning if needed which will help support your shoulders. Breathe by lifting the head straight forward and you can also take two breast strokes if needed. This drill is best done in 50-yard increments 25 yard drill followed by 25 yards of traditional swimming.