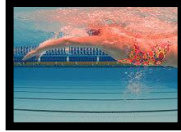


Freestyle Swim Form and Stroke Technique Tips and Insights

Entry/Glide



Catch



Pull



Recovery



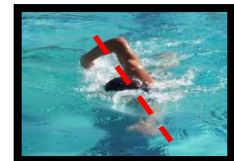
○ **Head Position and Breathing -**

1. Exhale out underwater before you take a breath and no forward head motion to breathe
 2. Breathe in the Trough - tuck the chin into your chest and turn the head so the mouth comes just above the water line
 3. Look down at the bottom of the pool, 5-6 feet in front of you. Good head position allows the surface of the water to hit the middle to top portion of the forehead to reduce drag at the head and hips.
- **Visualize – water level just above the forehead.**



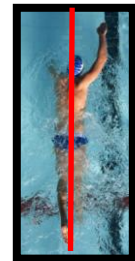
○ **Shoulder Rotation – Drill to improve: Finger Tip drill and Upper body flexibility.**

1. Good shoulder rotation is at 45-65 degrees
 2. Don't over rotate the shoulders. This extends your breathing time.
 3. Shoulders rotate farther than hips and the rotation starts just after hip rotation starts.
- **Visualize – your body spinning side to side around a pole**



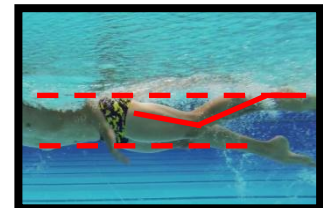
○ **Hip position and rotation - Drill to Improve: One swimming (other arm at your side)**

1. Good hip rotation is at 30 to 50 degrees
 2. Hips should rotate around the spine or long axis by stiffing your posture/ gluteus
 3. Avoid Snaking which creates drag and requires extra energy.
 4. Avoid low hips and drag with a better kick (see below).
- **Visualize – your body spinning side to side around a pole**



○ **Kick and feet position – Drill to Improve: Vertical kicking**

1. Keys to a good kick:
 - a. The kick starts with the **upbeat movement** of the leg which is initiated by the glutes but also uses water pushing against the foot. The knee is extended, the toes pointed and the leg is straight.
 - b. During the **first half of the downbeat**, the movement is initiated by slightly flexing (bending) at the hip, which initiates a slight bend at the knee. Keep the foot anchored and the toes points.
 - c. During the **second half of the downbeat**, the hip is locked (stops bending) while the knee is extended or straighten quickly to create a whip action of the foot.
 2. To minimize drag, the thigh, knee and ankle should not go outside the hole in the water that the head/torso created.
 3. Tighten your posture and your bum when you kick if the kick spreads apart.
 4. Maintain good kicking rhythm while turning your head to breathe.
- **Visualize – hip bend & knee extend and snap.**



○ **Strokes per time vs Strokes per distance – Balance must be found between the two.**

1. At a constant stroke rate you can gain 2-4 seconds per 100 with 1 stroke **count** improvement per lap or 25 meter/yards. In other words, if you swim 100s in 1min 20 sec at a stroke rate of 68 and have a per lap stroke **count** (including push-offs) of 20 you can reduce that time by 3-5 seconds by keeping the same stroke rate and reducing your stroke **count** per length to 19. Use paddles during every workout and Catch-up drill to decrease stroke count.
2. At a constant stroke count you can gain 1-3 seconds per 100 by improving your **rate** by 3-6 strokes per minute. In other words, if you swim 100s in 1 min 20 sec at a stroke rate of 60 and have a per lap stroke count (including push-offs) of 20 you can reduce that time by 1-3 seconds by keeping the same stroke count and increasing your stroke **rate** to 65. Use paddles during every workout and Catch-up drill to decrease stroke count. Use a swim metronome to increase stroke rate.