Underwater Swimming

How do you talk about it?
How do you teach it?
How do you train it?
Coach Jay Chambers is a Sport Performance Consultant for USA Swimming with 41 years of coaching experience at the Club, High School and NCAA D I levels. He has coached in Ohio at the Athens Swim Club and Ohio University, but most of his 41 years of experience were in Indiana. There he coached at the Indianapolis Athletic Club, Tippecanoe Swim Team, Harrison HS, Zionsville HS, Carmel Swim Club & Carmel HS, Washington Township Swim Club, and Fishers Area Swimming Tigers/Fishers HS, where he coached National Champions and Record holders.

Jay holds a Masters degree in Physical Education.
The 5th Stroke

Utilized at all levels

International

Men’s & Women’s NCAA

Phillips 66 Nationals & Speedo Junior Nationals

High School State

Age Group?

Basically a “must have” skill to be competitive
The 5\textsuperscript{th} Stroke

Similar movement but not the same as butterfly dolphin kick

Not used to generate propulsion but to maintain speed off starts & turns

Eliminate resistance
Dolphin Kick
Dolphin Kick

Movement begins in chest/upper core and travels down the body

“I roll my back through the water” - Ryan Hoffer

The hips and core:

Control the direction of the kick

Hip movement is coordinated with the upkick
Dolphin Kick

Set up and follow-through

Knees bend to set-up the kick

Follow through and finish the kick in front of the body

Crack the whip!

Forward kick is primary propulsion but backward kick vital for set-up
Part of finishing the leg whip is making sure the upper body stretches forward too.
Dolphin Kick: Hips

There is such a thing as moving the hips too much!

Lift the hips too much and:
- The body crunches forward too much
- The leg whip gets cut off

There are very good dolphin kickers that don’t move their hips much
Dolphin Kick: Hips
Dolphin Kick: Hips
Dolphin Kick: Back vs. Front

Whipping the forward kick most important
On your back...the forward kick is up
   Helps keep the swimmer underwater
On your stomach...the forward kick is down
   Each kick pushes the swimmer toward the surface
   Many swimmers pop the hips too much in order to stay underwater (compromised technique)
   Maintain best technique by controlling the depth with direction of the arms
Dolphin Kick: Back vs. Front
**Dolphin Kick: Race Stats**

Male/Female, 100m back/fly:

Tempo: 0.40-0.50 seconds per kick

A tendency for the kick tempo to slow down during the breakout

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<thead>
<tr>
<th></th>
<th>M 100 back</th>
<th>W 100 back</th>
<th>M 100 fly</th>
<th>W 100 fly</th>
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<tbody>
<tr>
<td>15m start</td>
<td>&lt; 6.2 sec</td>
<td>&lt; 7.0 sec</td>
<td>&lt; 5.6 sec</td>
<td>&lt; 6.5 sec</td>
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<td># kicks</td>
<td>10-13 kicks</td>
<td>11-12 kicks</td>
<td>8-9 kicks</td>
<td>8-10 kicks</td>
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<td>15m turn</td>
<td>&lt; 7.0 sec</td>
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Additional Notes

Streamline with head pressed against arms

Don’t be concerned with size of the kick
  Focus on having a complete forward kick
  Size probably dependent on leg length

Physical traits that help (but not necessary)
  Ankle flexibility
  Low back flexibility
  Hyperextended knees
Additional Notes

Exhale while kicking – reduces anxiety & increases distance

Use it as a weapon late in the race more valuable than early in the race
Dolphin Kick: Training

PRACTICE!! Repetition & Discipline
Kick on all sides
Practice movement hanging from pull bar or diving board
Dolphin Kick: Training

Use drills/tools:

- Fins/Monofins
- Seaweed kicking
- Vertical kicking – varying tempos
- Resistance
- Underwater at different parts of pool

Tempo Trainer/Metronome to teach frequency

Make it a game with younger swimmers – Freeze tag using underwater dolphin

Dolphin Dances
Dolphin Kick: Training

Sets

3 X 6 X 25 @ :45 (advancing to 3 X 8, 10, 12+)

- 6 - underwater with fins
- 6 - 15m underwater + 8m race swim with fins
- 6 - 15m underwater + 8m race swim without fins

100’s – 4 kicks off first wall, 5 off second, 6 off third, 7 off fourth
Dolphin Kick Training: 10-10-10 Drill
Dolphin Kick Training: Underwater Kickbacks
2016 Olympic W 50 Final