

# Flowing Freestyle Novice to Pro



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Presented By:

# Scott Colby

Sport Performance Consultant



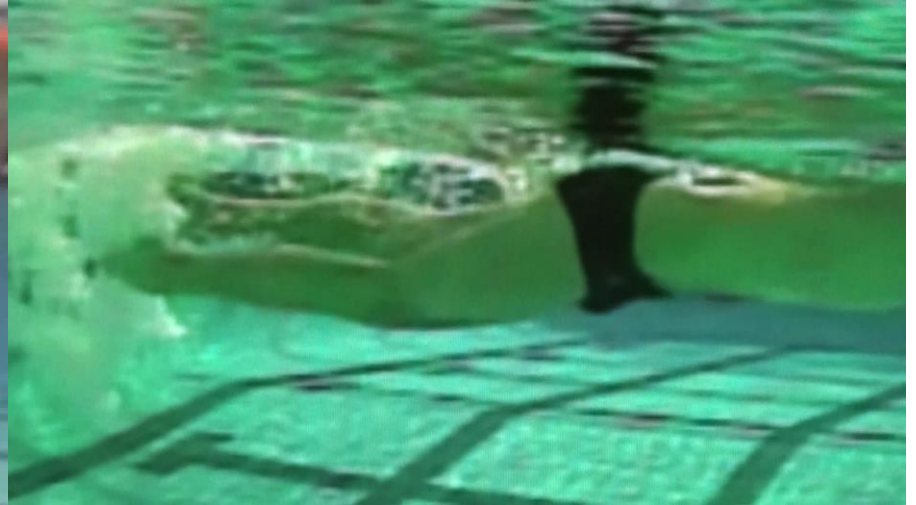
Since August 2007, Coach Scott Colby has been a Sport Performance Consultant for USA Swimming. Prior to that, Scott coached in Ohio, Louisiana (Bengal-Tiger Aquatic Club), Texas (Fort Worth Area Swim Team), served as an assistant at Dynamo Swim Club in Atlanta and coached for 5 years at a YMCA on Long Island. His Louisiana team placed top ten at Nationals.

His swimmers have placed in the finals at Olympic Trials, won 2 National titles and 7 Junior National titles including all four strokes, set three National Age Group Records, and won the National Meet Bob Kiphuth High Point award. Scott has also produced numerous Top 16 athletes. He holds a Masters degree in Physical Education and is an ASCA Level 5 coach.

# Comparison

Poor

Good



# Kick Mechanics

The Difference is: “Follow Through”



# Learning



# Kick Mechanics

**Toes point inward (“pigeon-toed”)**

**Movement originates from the hip joint (core)**

**Knee bend sets up the extension/power**

**Power comes from leg extension (quads)**

**Lift leg straight (“recovery kick”)**



# Kicking with Fins – Not Too Much



Video Courtesy of Guy Edson



# Kicking with Fins – Not Too Much



Video Courtesy of Guy Edson



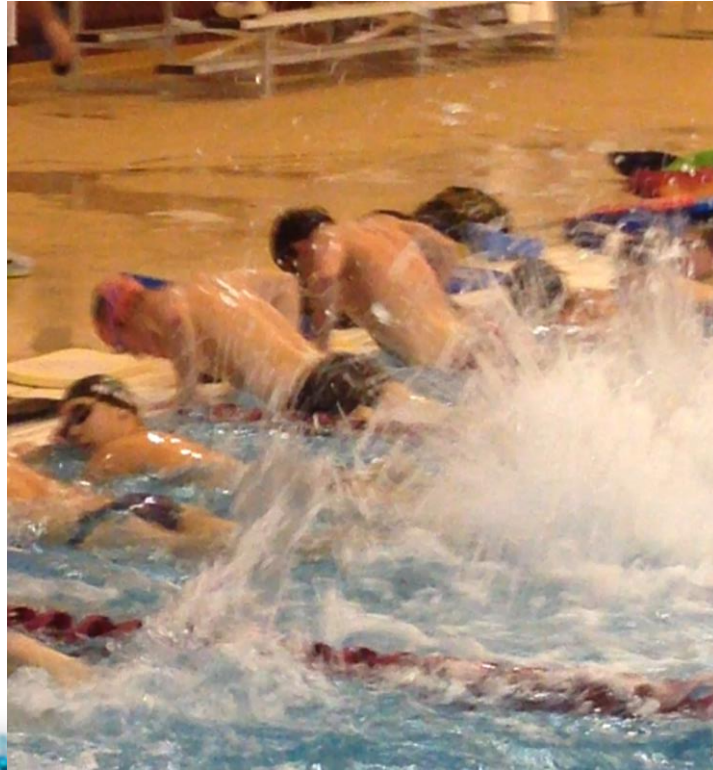


# Kicking Fast – Nothing Like It

Courtesy North Baltimore Aquatic Club



# Kicking Fast – “Showing Off”



# Kicking Fast – “In Position”



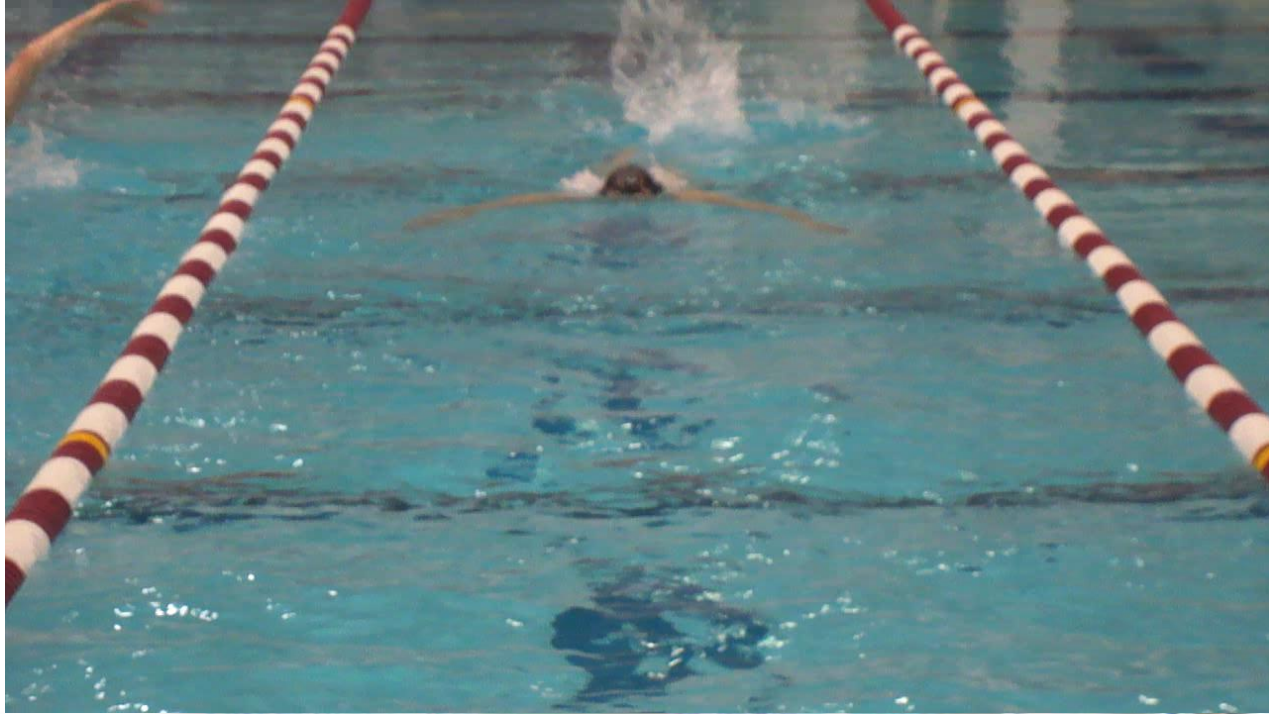
Courtesy Blue Ash YMCA



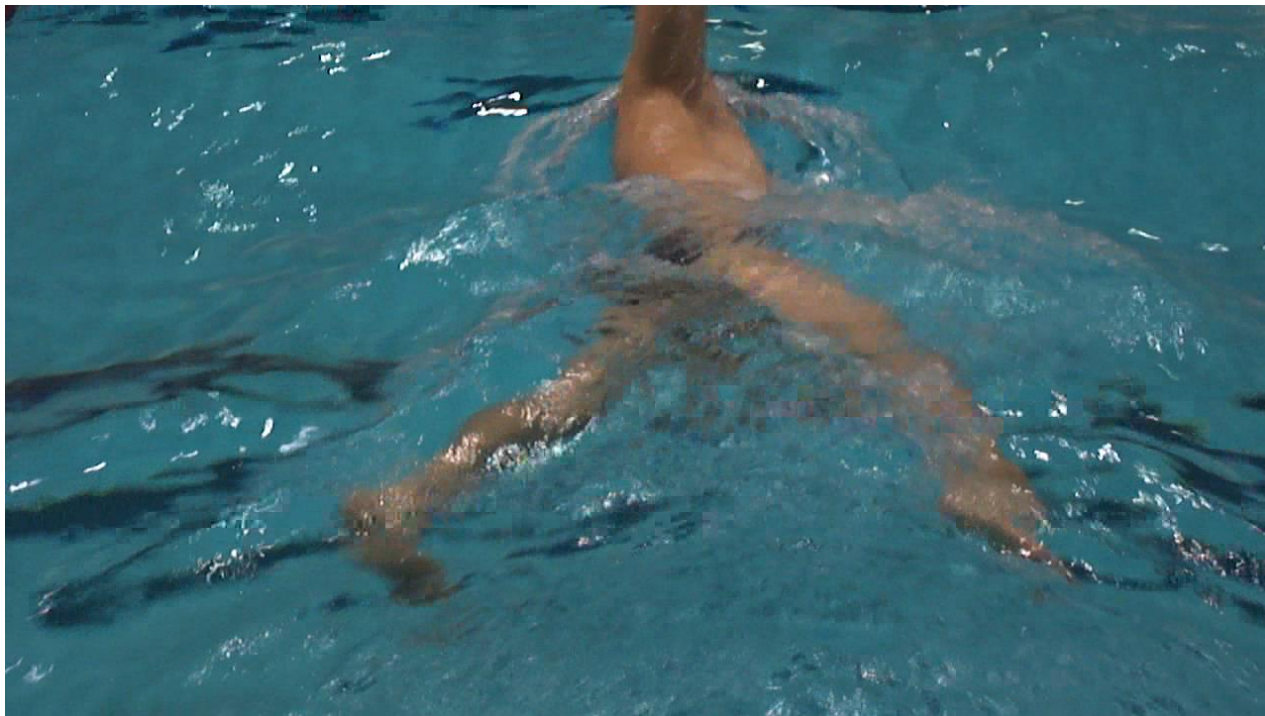
# Connectivity



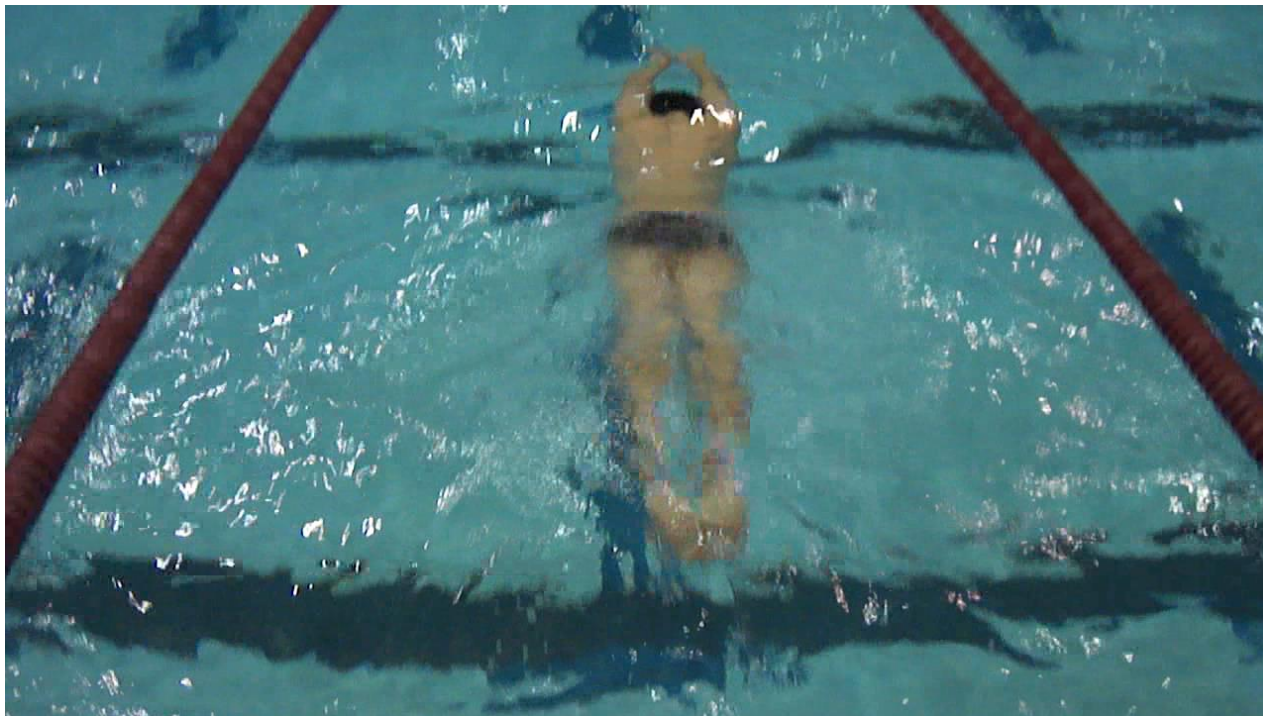
# Connectivity



# Connectivity



# Connectivity



# Two Technique Ways to go Faster

**Eliminate Resistance (swim streamlined)**

**Better Power Positions**



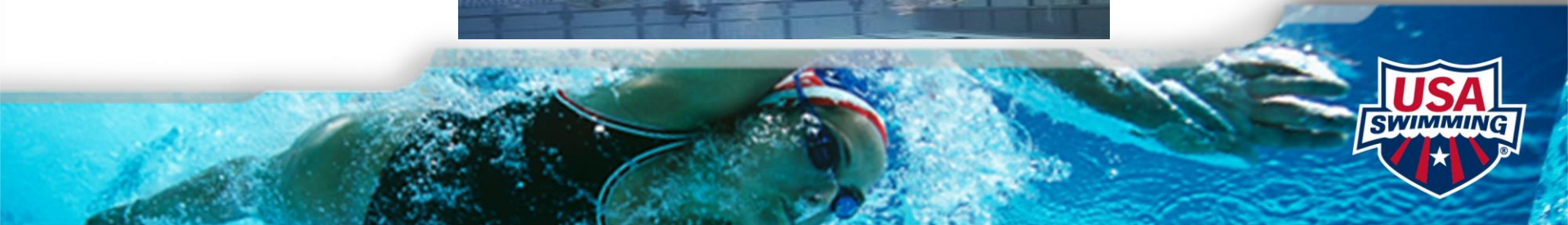


# Eliminate Resistance

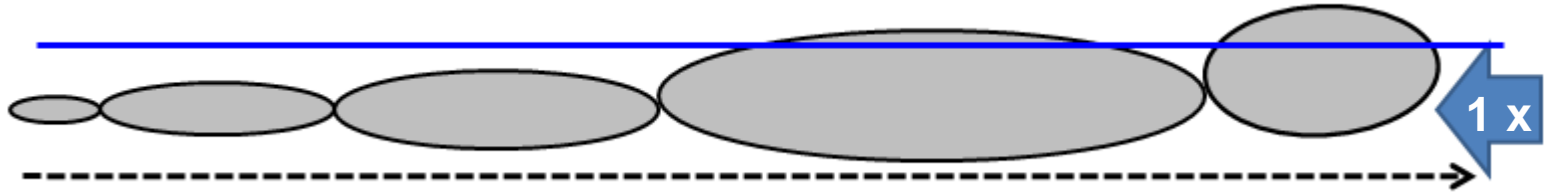
**Body Position (Front to Back Balance)**

**“Split” the water on “side”**

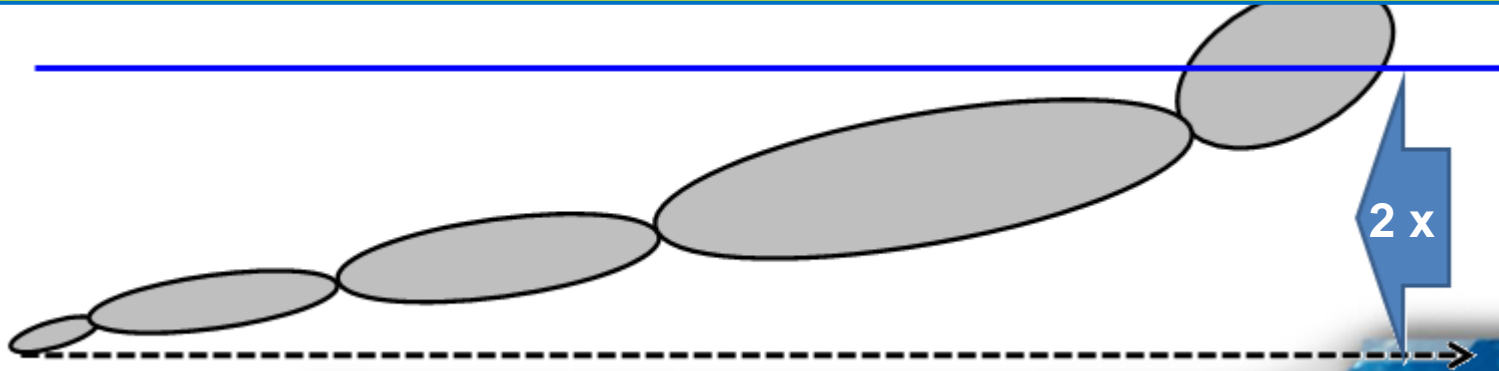
**The longer the vessel, the faster it goes**



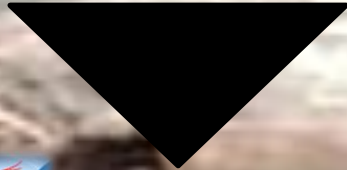
# Front-to-Back Balance (Body Position)



Double the resistance  4 times the energy to go the same speed!



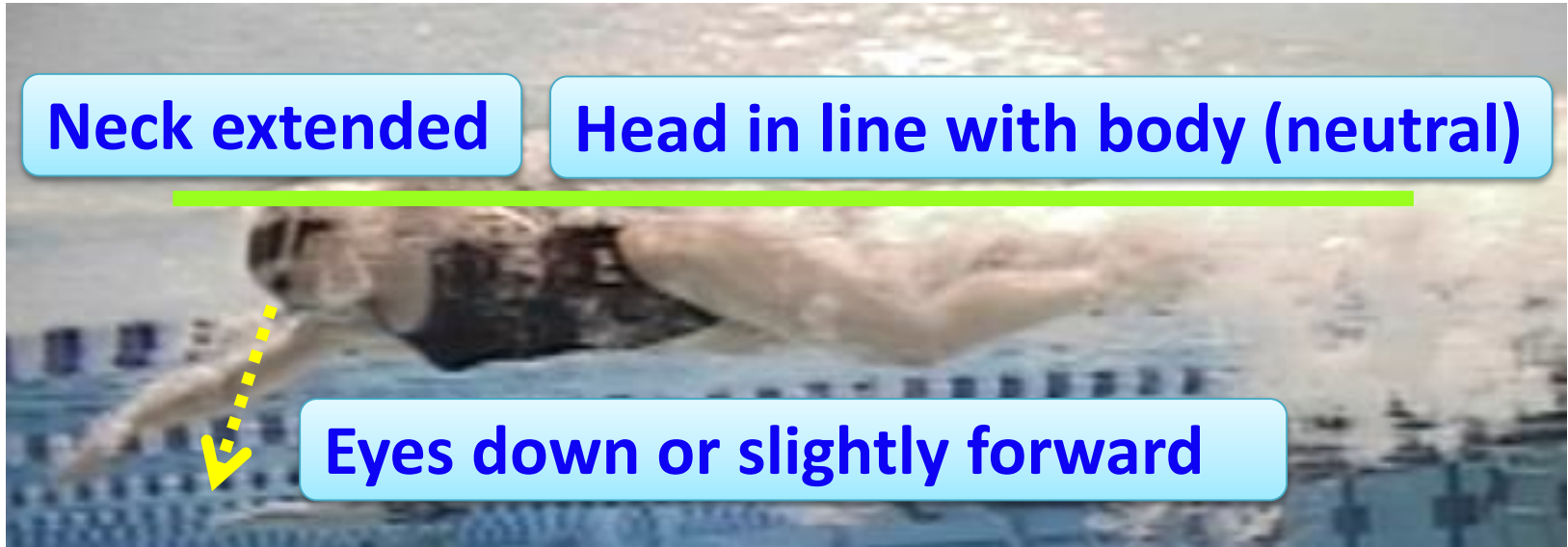
**Center of Gravity**



**Center of Floatation**



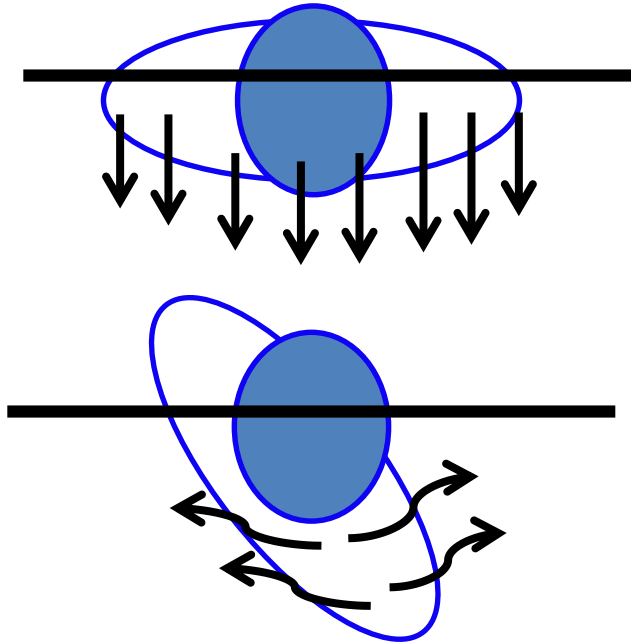
# Front-to-Back Balance (Body Position)



# Front-to-Back Balance (Body Position)



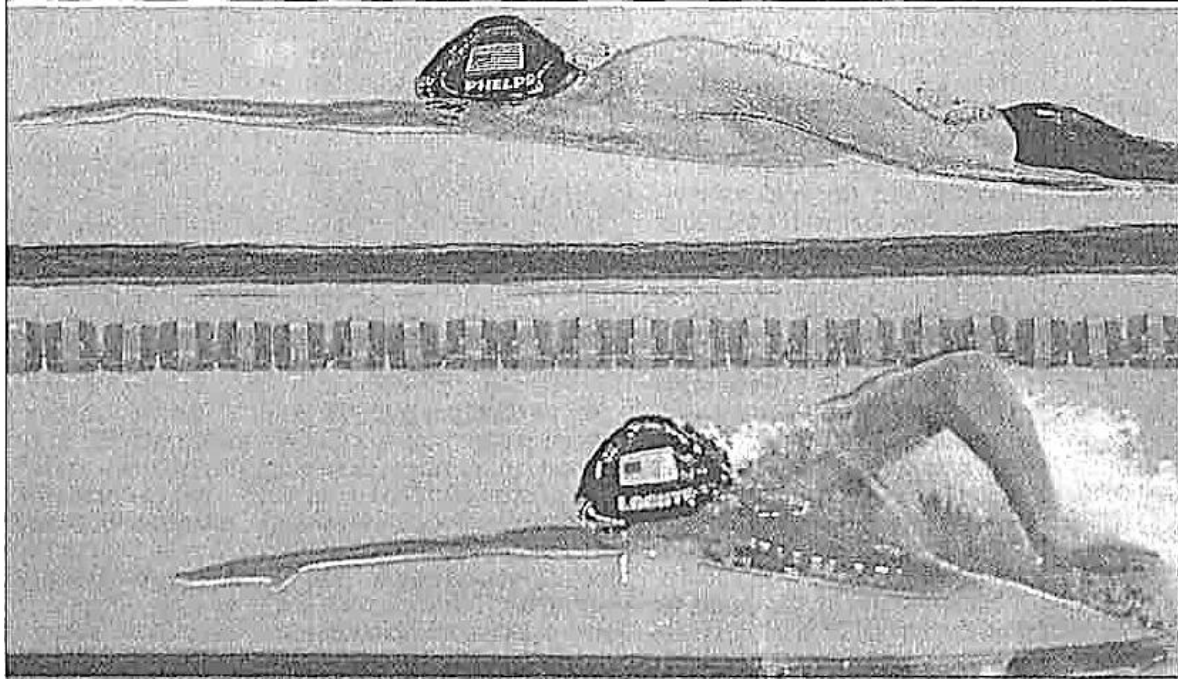
# “Active Streamlining”



Split water on 'side'



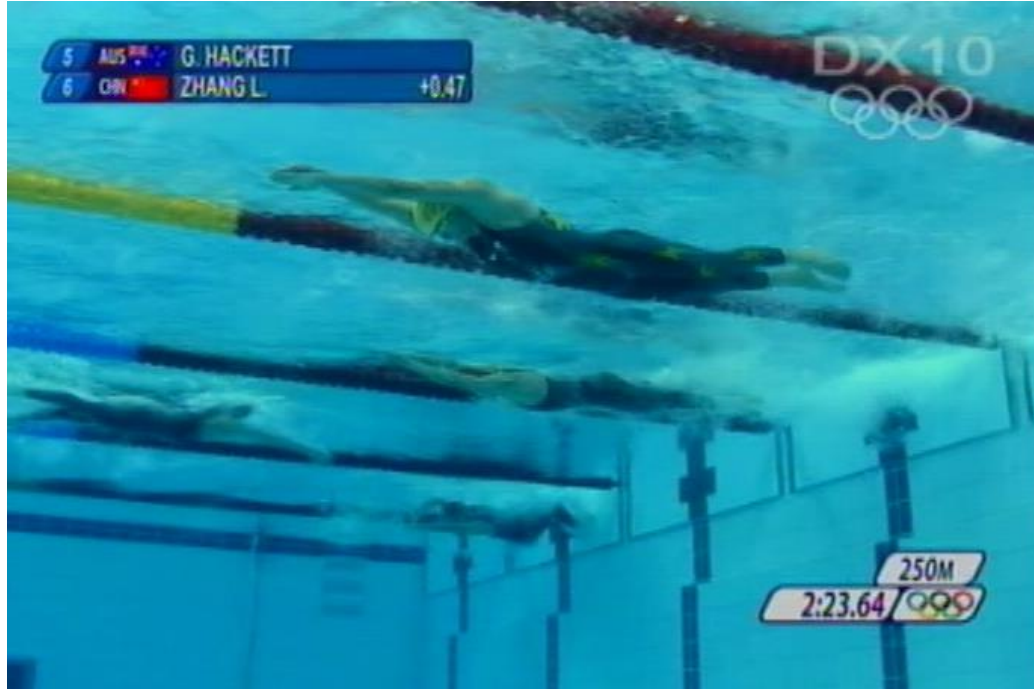
# Active Streamlining - “Swim Tall”



By Mark Raiston, Getty Images



# Keep it Long – “Swim Tall”





# Bilateral Breathing

**Symmetry: Increased balance**

**Shoulder health**

**Seeing the Competition**

**Every 3? Or by 25s?**



# Breathing

Rotate head along spinal axis

Breathe in “trough”

One goggle in, one out

Small movement to breathe “sneaky breath”

Get head back quickly before anchor begins

Anchor arm when head is back in line



# Breathing

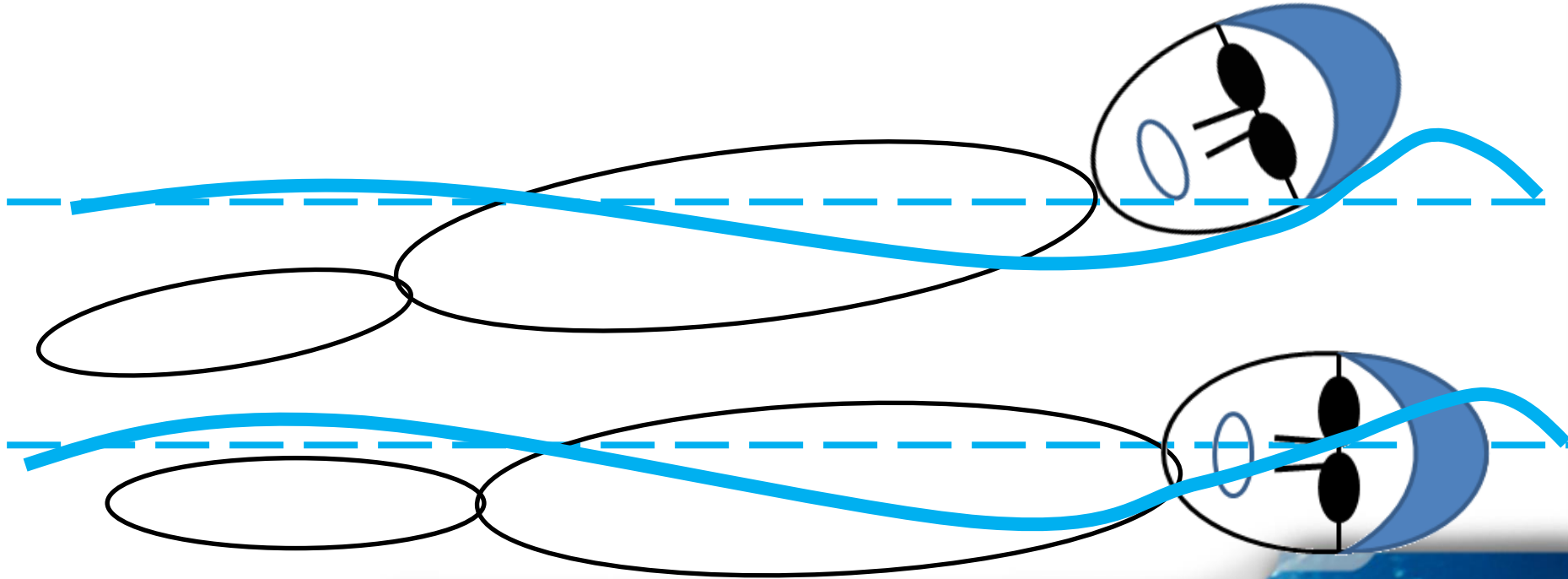
Breathing Pattern:

HAVE ONE!

2? 3? 4? 2,3? 2,4?



# One Goggle Up, One Under



# Breath Over-Rotation



# Breath Over-Rotation (Slo Mo)



# Breathe Behind the Wave



# Breathe Behind Bow Wave





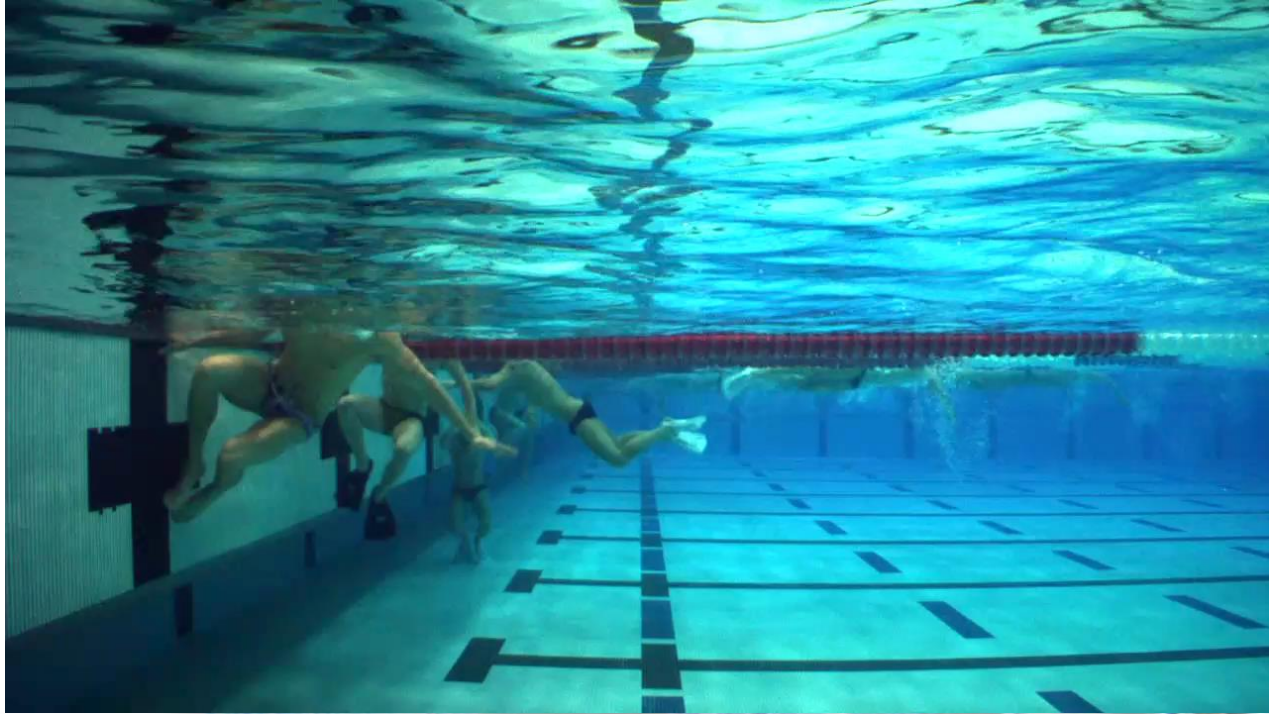
# Breathe Behind the Bow Wave



# Breathing Behind the Bow Wave



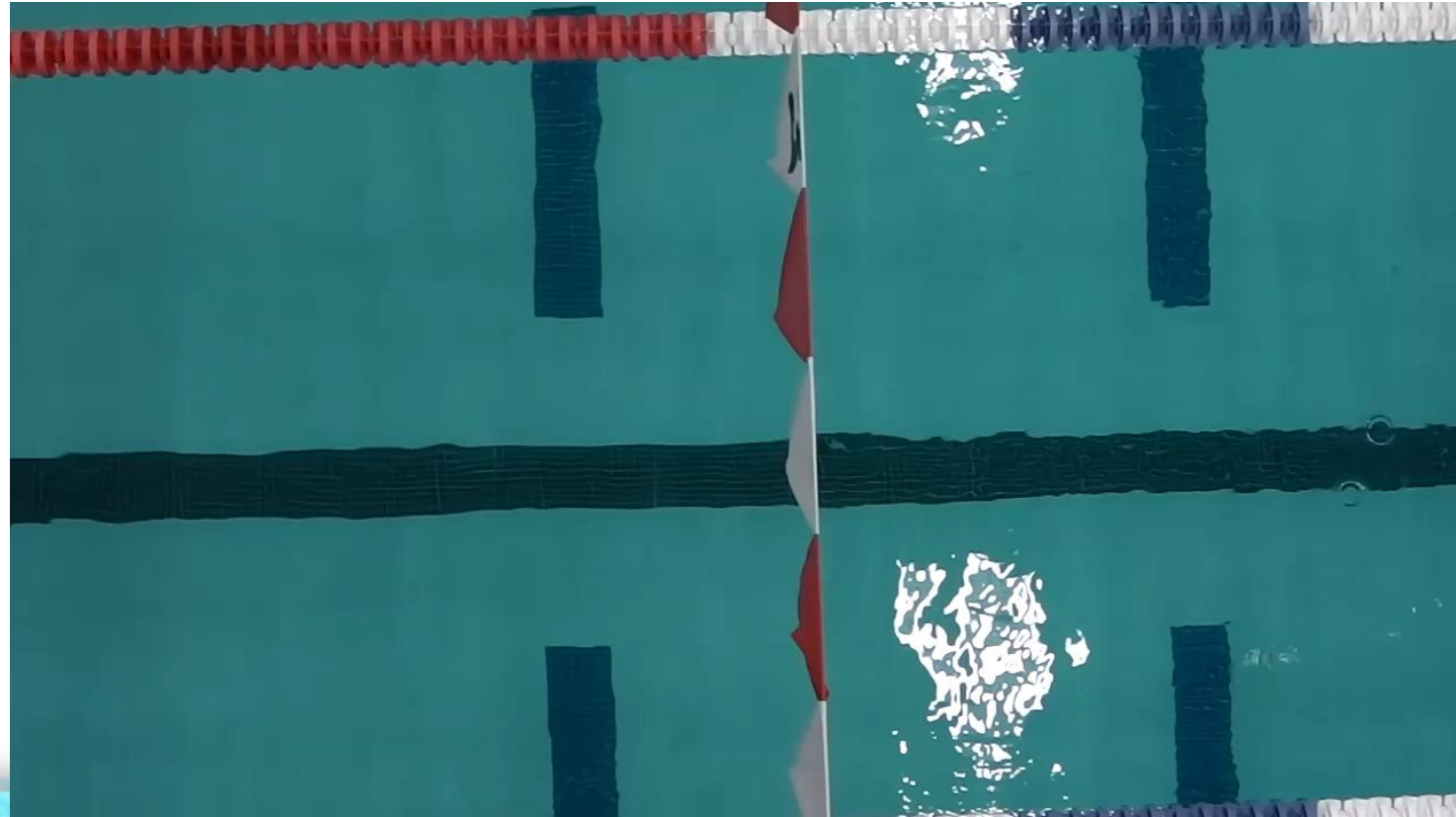
# Nathan Adrian



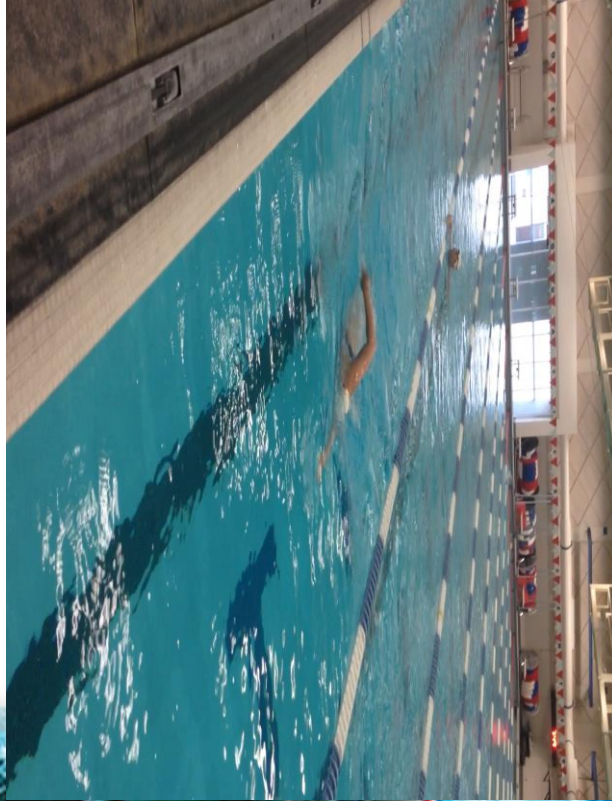
# Nathan Adrian



# Nathan Adrian



# Chloe Sutton Training



# Starts with Learn-To-Swim!!

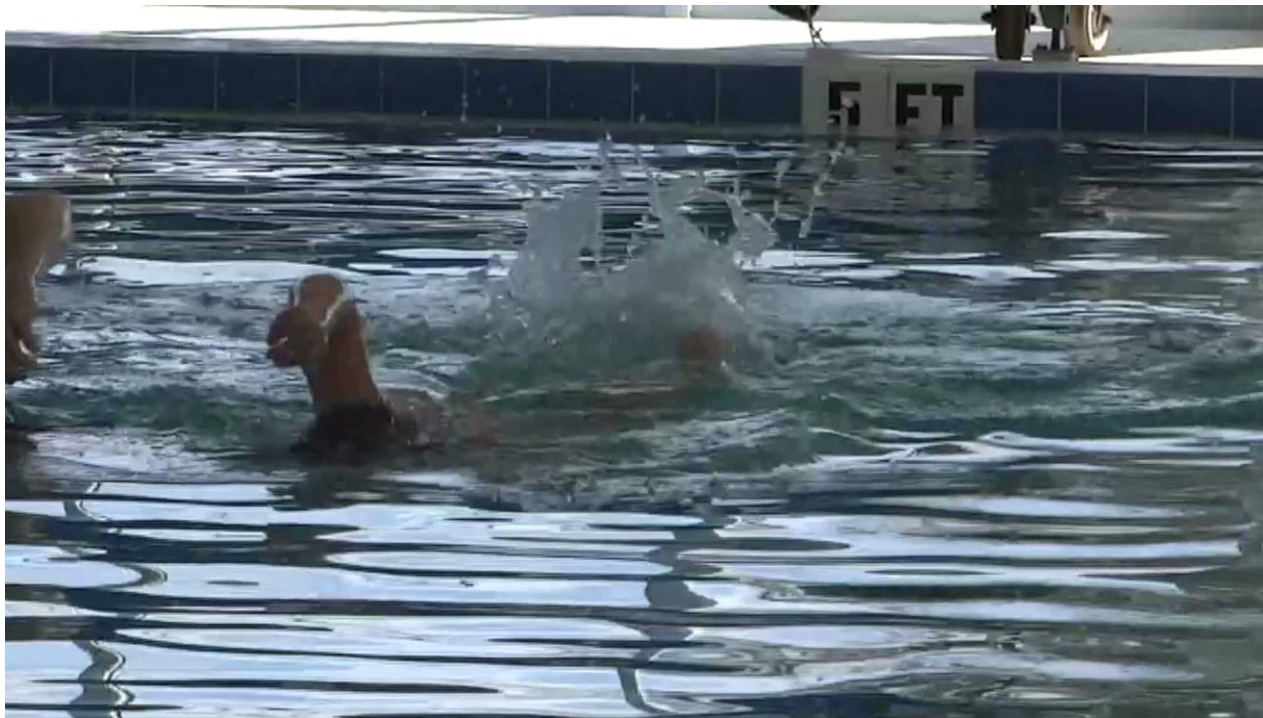


# Starts with Learn-To-Swim!!





# Starts with Learn-To-Swim!! (SloMo)



# Next Group



# Next Group



# Breathing Drill Step 1:

Quick, Sneaky Breath (8 year old)



# Breathing Drill Step 1:

Quick, Sneaky Breath (12 year old)



# Breathing Drill – Step 2

2 Strokes, Quick/Sneaky Breath, 6 kicks



# Breath Before Manipulation



# Breath Manipulation





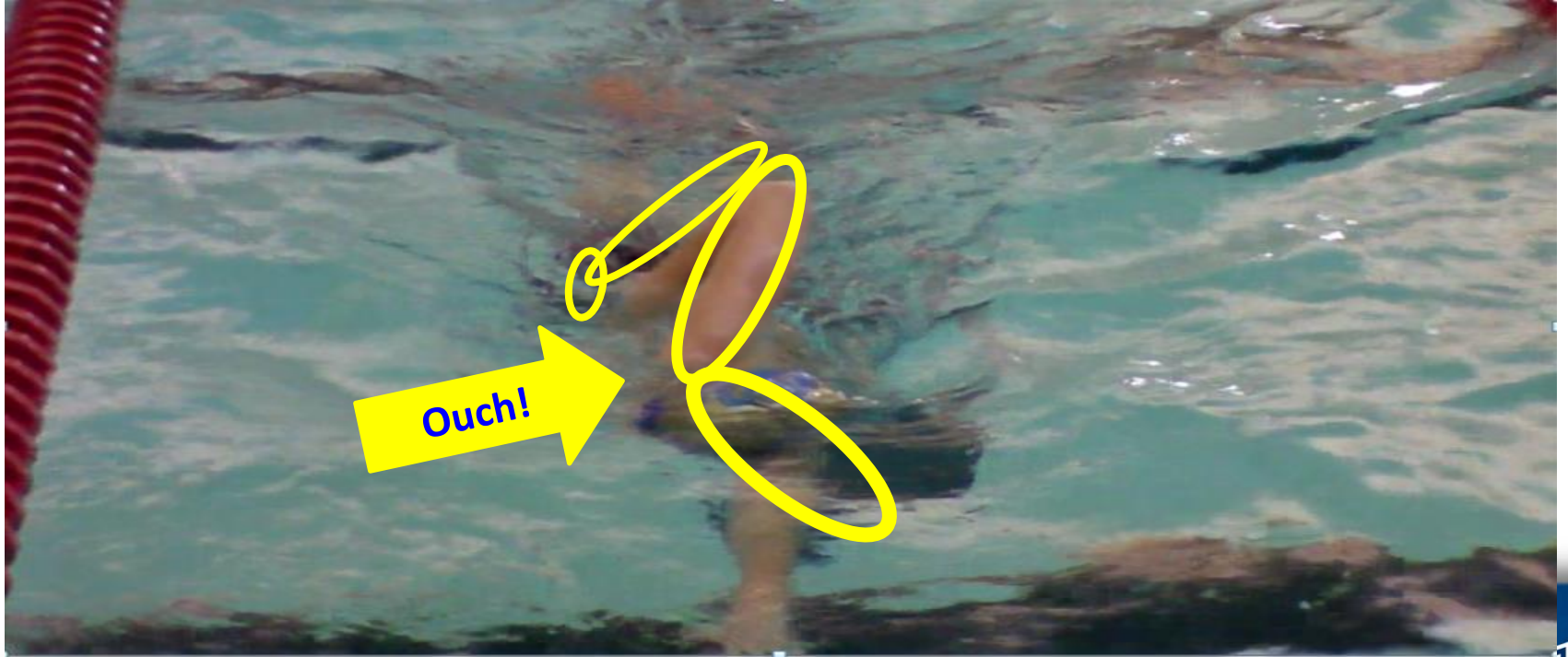
# Breath After Manipulation



# Arm Recovery



# Trouble with “Zipper Drill”



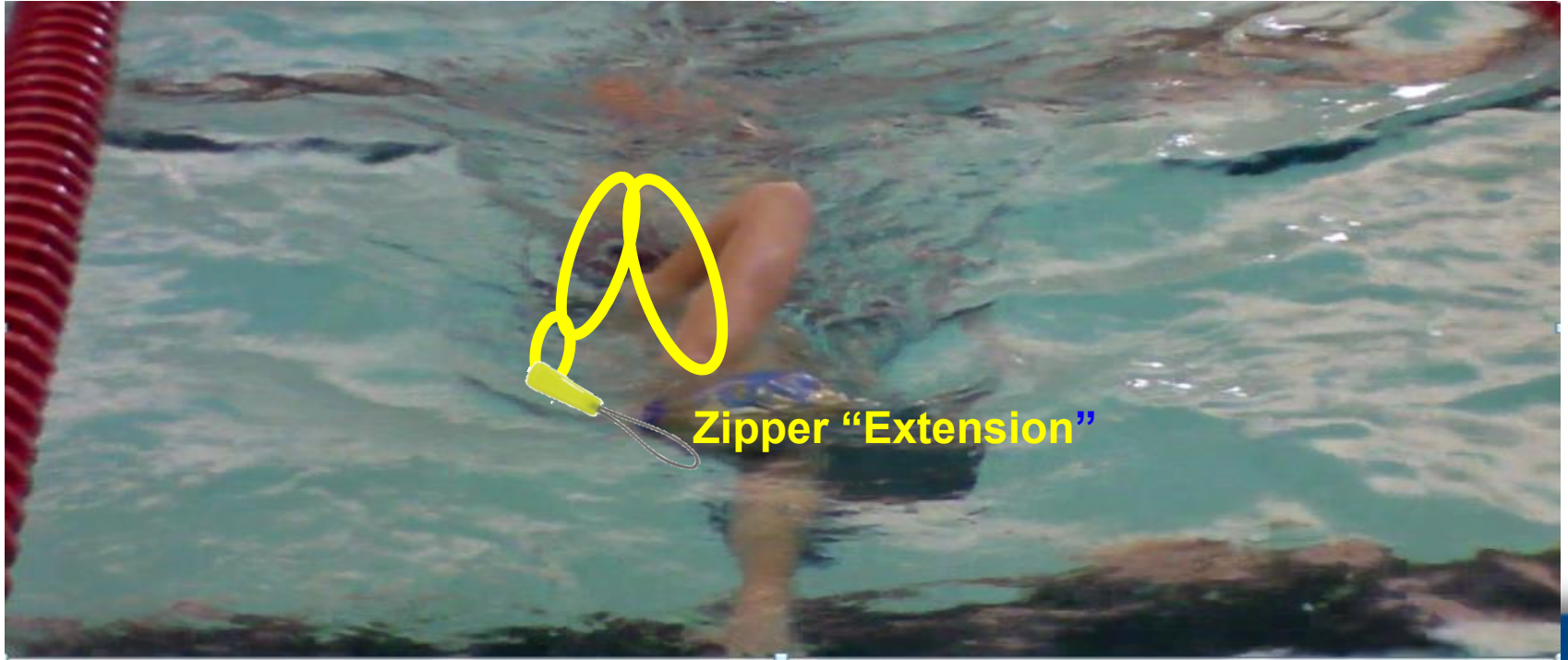
# Trouble with “Zipper Drill”



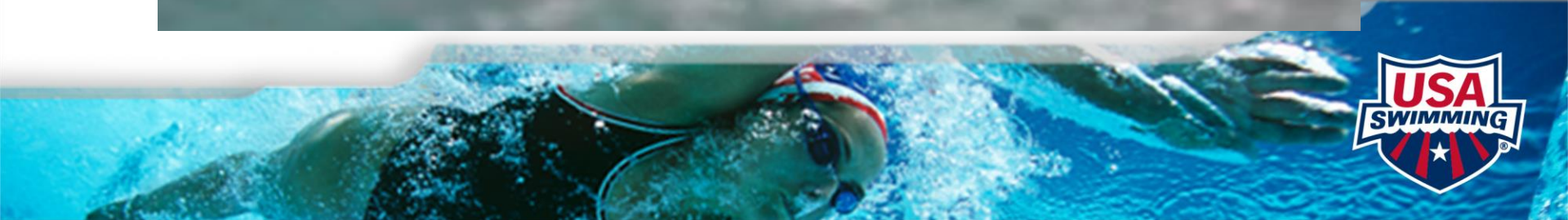
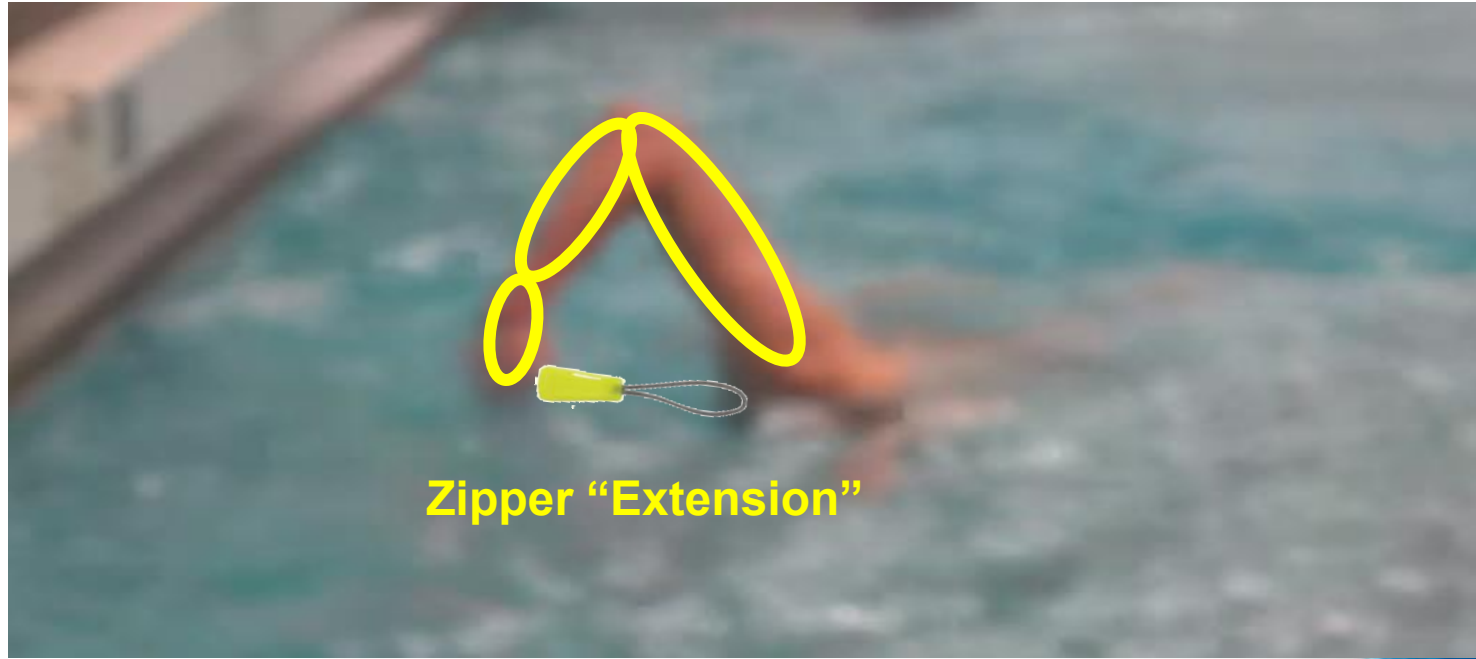
# Zipper Extension



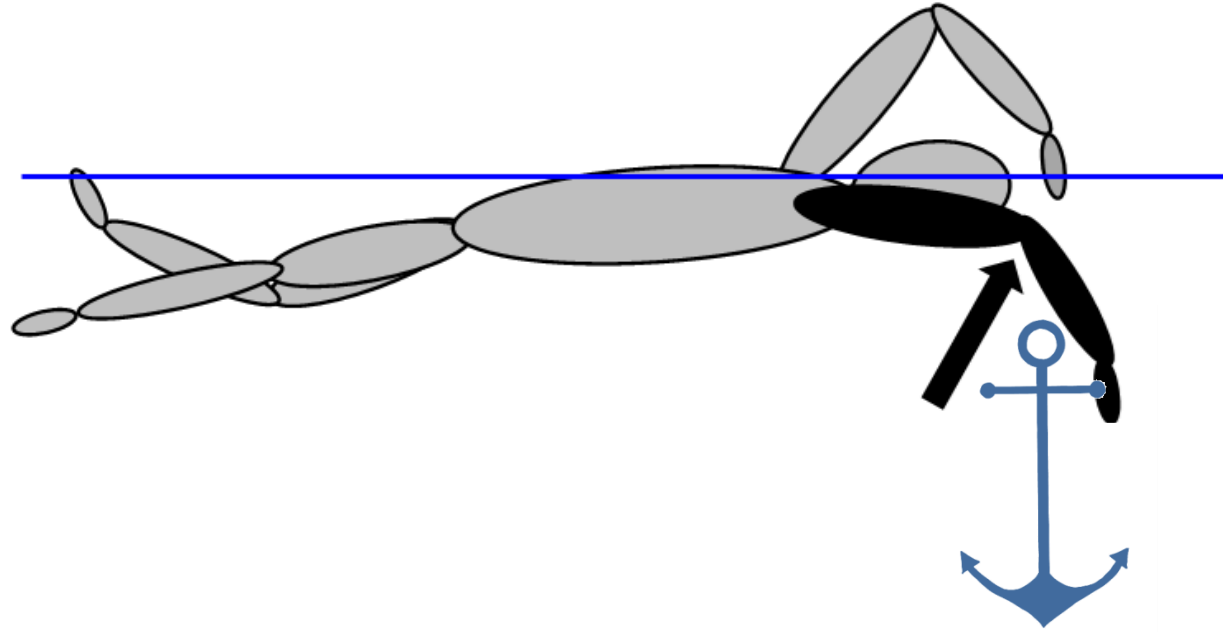
# Better “Zipper Drill”



# Better “Zipper Drill”



# Freestyle Power

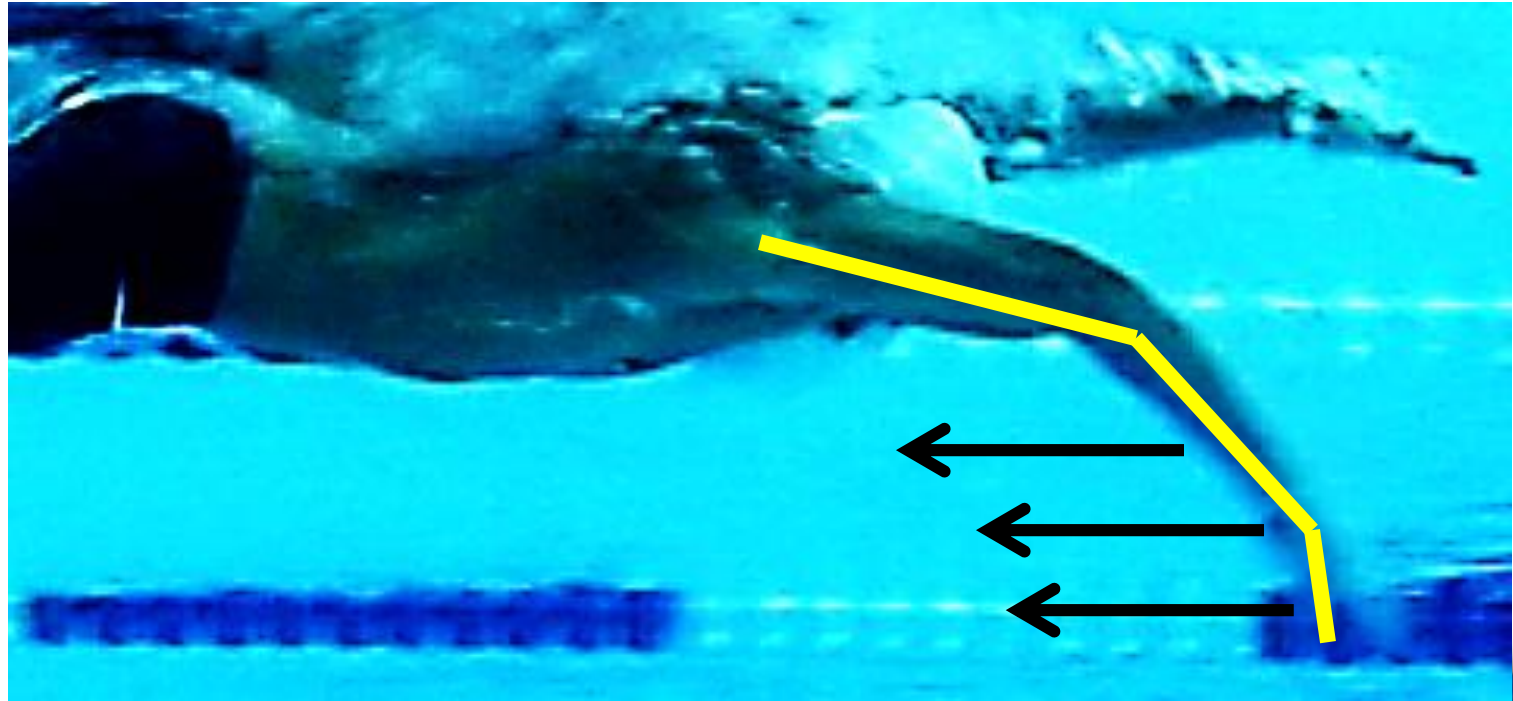




# Dropped Elbow



# Anchor = Catch



# Anchor/Catch

**Bend at the elbow/palm & forearm face feet**

**Disadvantage:**  
**Technically difficult**

**Advantage:**  
**Greatest stroking efficiency**



# Jason Lezak vs Alain Bernard

Unregistered HyperCam 2



## Number of Strokes

25's	Bernard	Lezak	DIFF
1	12	12	0
2	21	17	-4
3	18	15	-3
4	24	19	-5
<b>Total</b>	<b>75</b>	<b>63</b>	<b>-12</b>



# Rotation Timing

Key is able to rotate/extend and get a high elbow

When rotated, only two places to go:

1. Down (straight arm)

2. Across

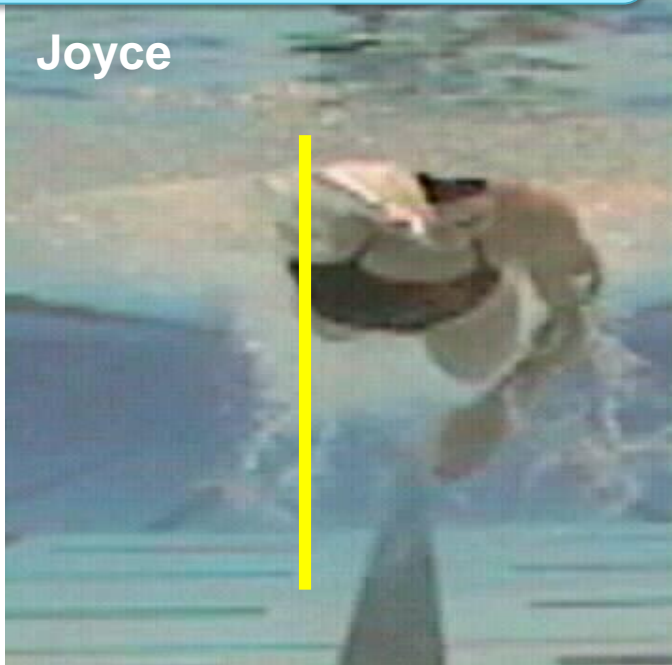
More rotation



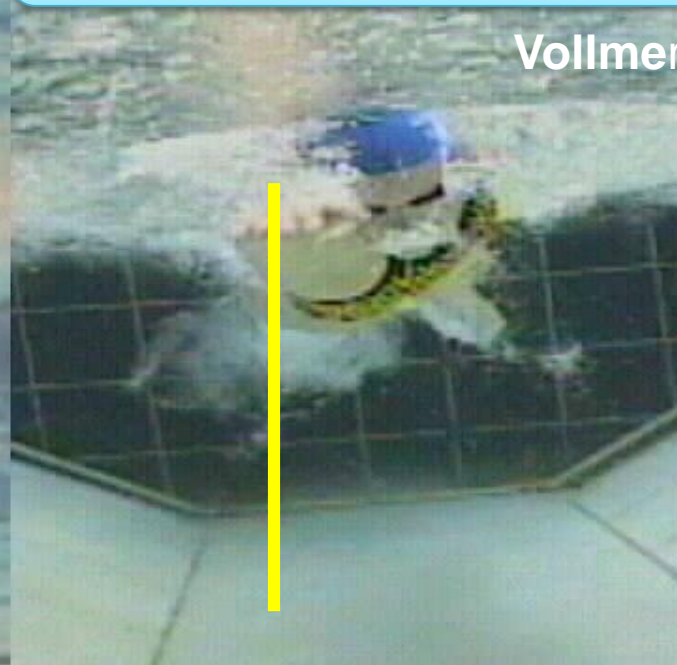
More catch-up stroke



# Straight Arm > Crossover



# High Elbow > Efficient



# One Paddle, One Fin

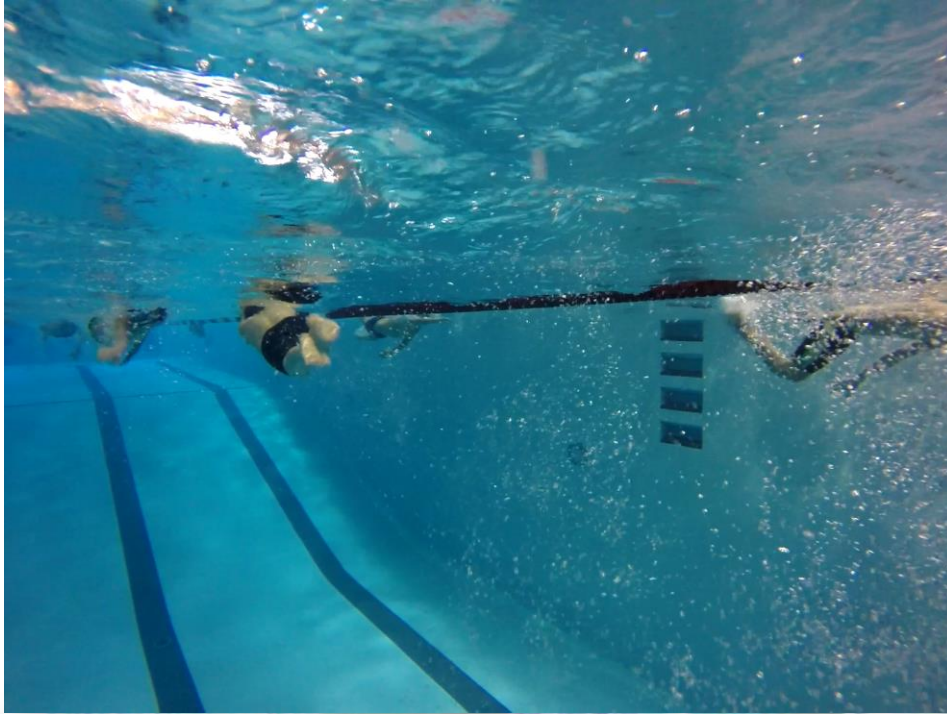


# Single Arm (“No Arm”)





# Single Arm (“No Arm”)



# Your Drills

1.

2.

3.

4.

5.

