



# Gold Medal Starts:

## A USA National Team Tradition



# “Rookie” Start



# *“Ancient Old School”*



# “Old School”



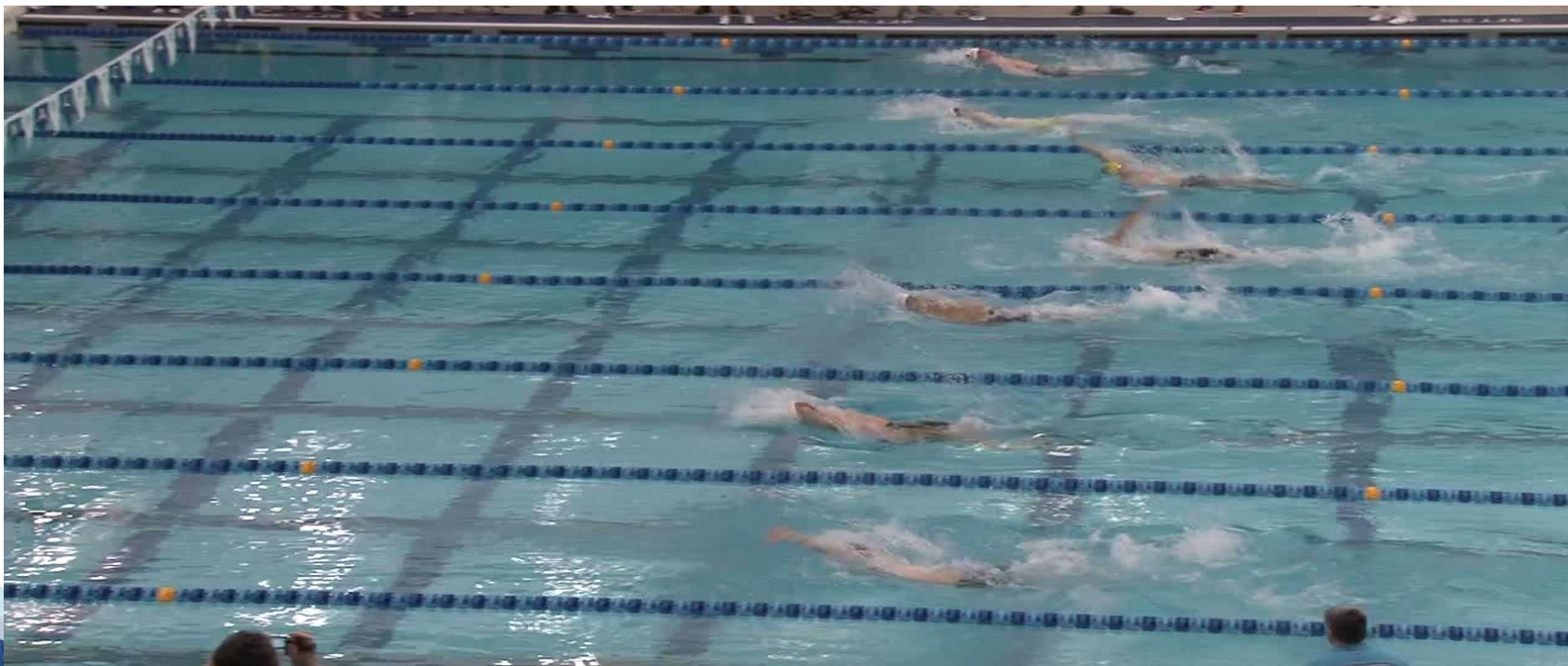
# Key to Japan's Success



# *A Bad Start Can Really Hurt*



# *A Bad Start Can Really Hurt*



# Safety First

USA Swimming Minimum Water Depth for teaching or practicing starts is – **6 Feet!**





# Teaching

## Step 1



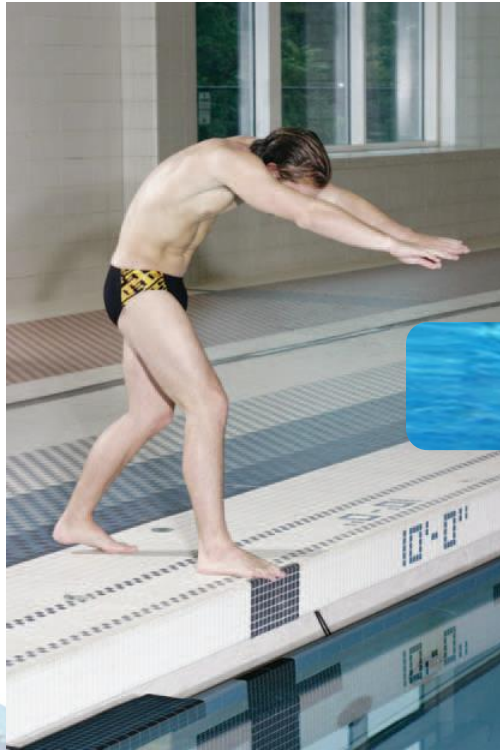
## Step 2



## Step 3



# Teaching



Step 4



# *Objective of the Start*

Carry maximum forward speed  
into the water

Push effectively off the block

Have a great entry

Maintain speed through the transitions



# Grab Start



Simplest start

Easier to control

Slower to take-off position



# Grab Start

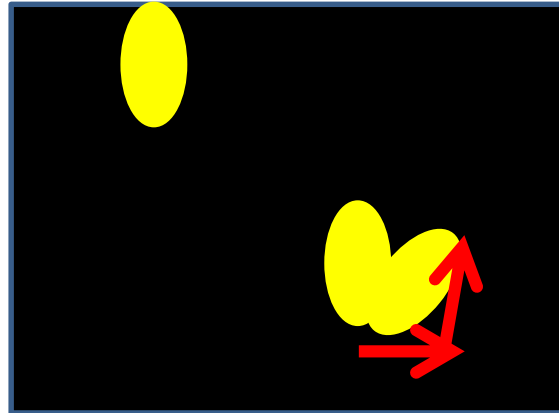
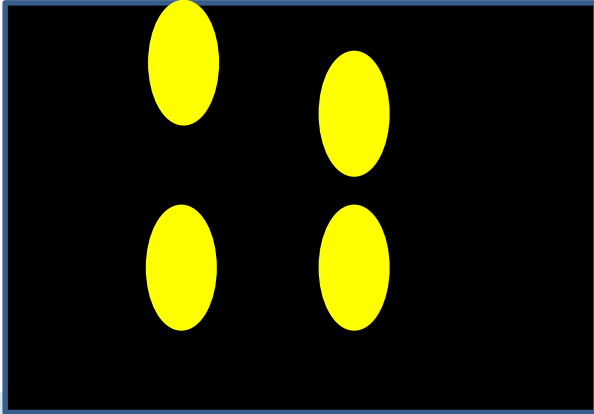


# 4 Keys To The Track Set-up



# *Track Start*

Feet hip width apart pointing forward



# Arms Must Be Used

Pull elbows towards ribs → arms follow

Gets upper body & hips moving forward

Keeps body low





# Leverage

Thumbs should be around block



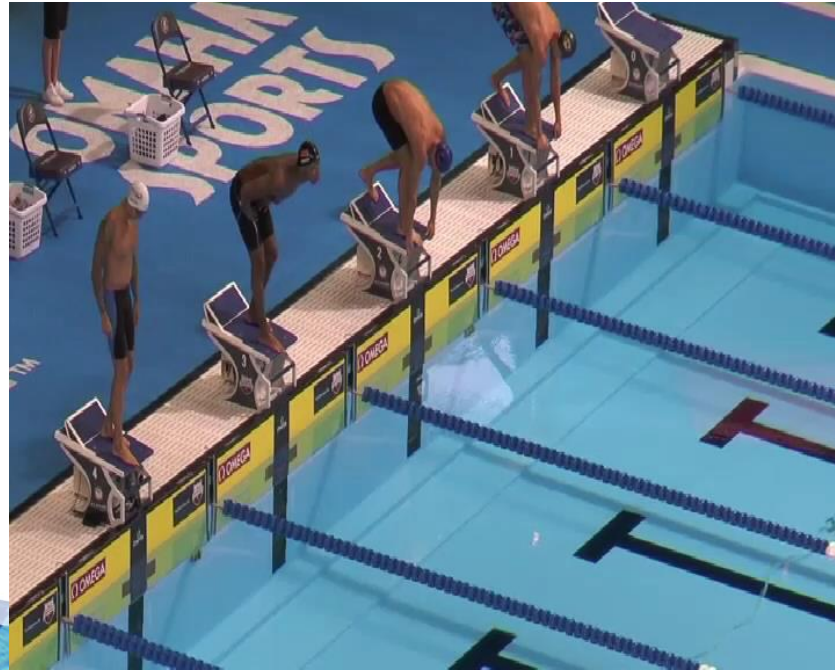
# *Eliminate Wasted Motion*

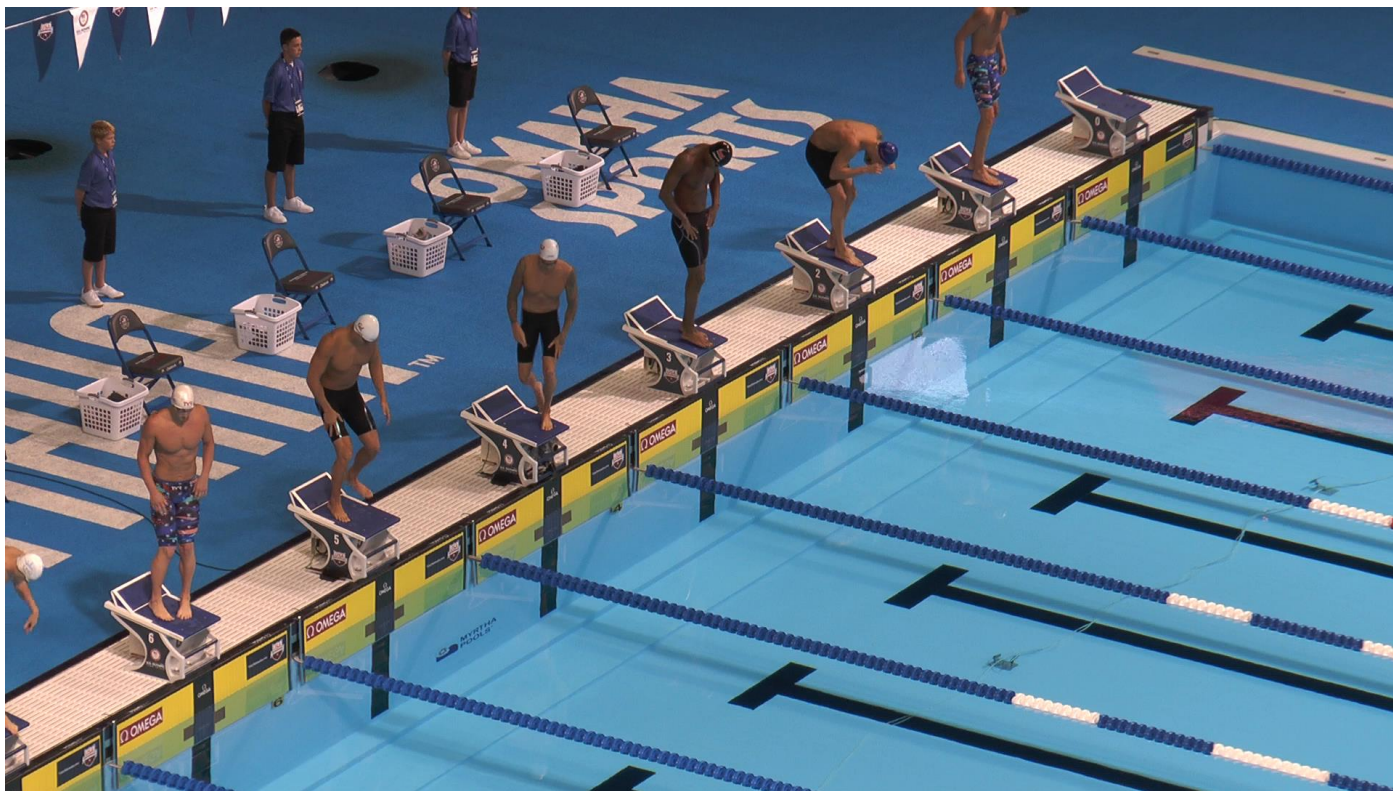
If starting with bent elbows, they should point backward not outward



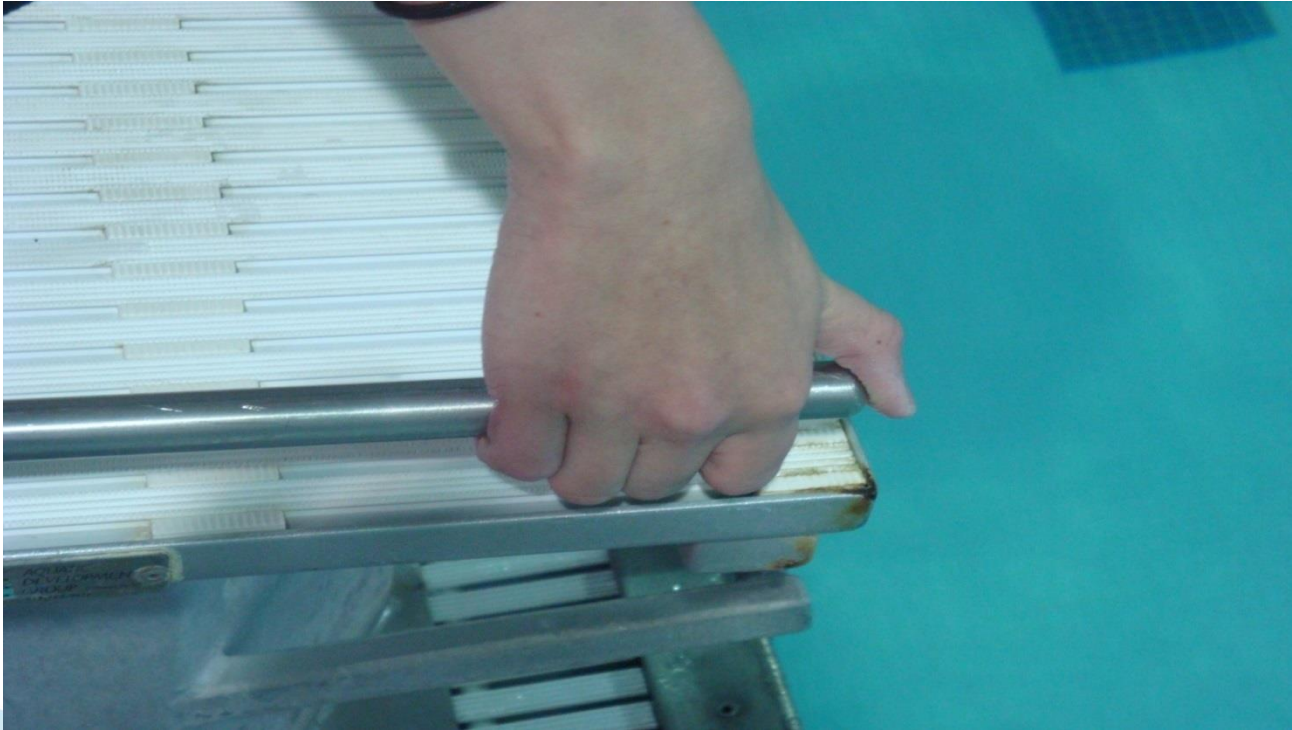
# *Eliminate Wasted Motion*

“Bend the block” toward you to load arms





# Side Rails?



# Start Drill



# *Start Drill On Block*

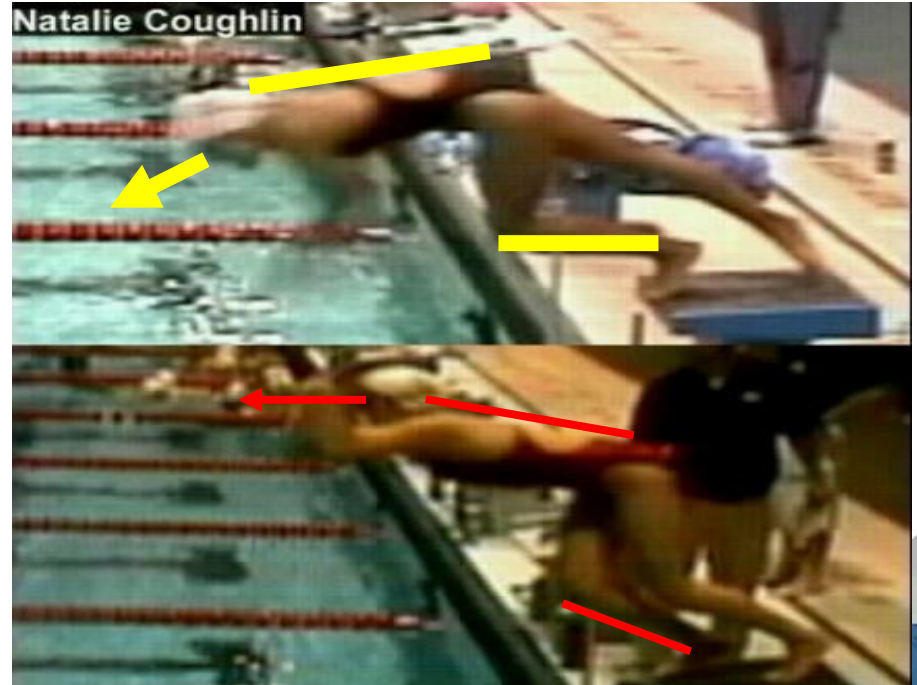


# *Jump Forward, Not Up!*

Keep your back flat & low

Push chin & chest forward

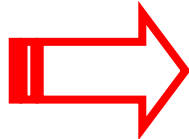
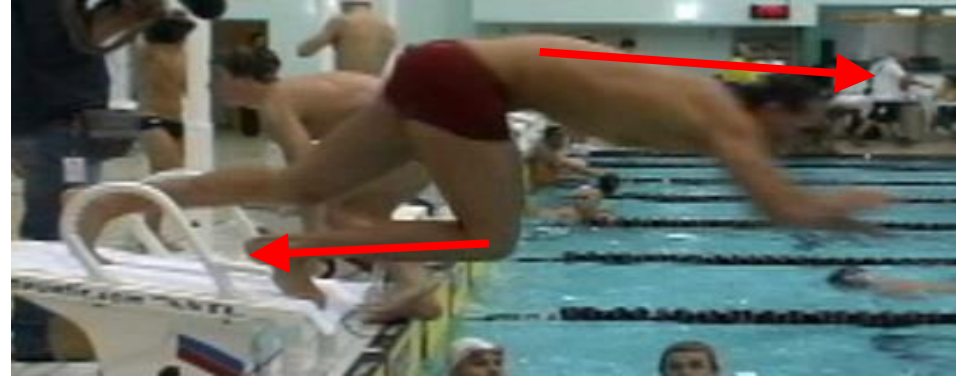
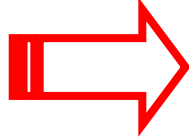
Look at your entry point





# Explode

Arm pull & rear leg push gets body to take-off position



# Flat, Low Back Optimizes Leg Push



# Take-off Angle



Natalie Coughlin



Ian Crocker



Cullen Jones



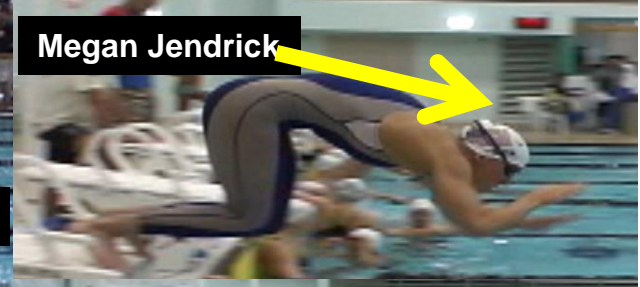
Whitney Myers



Brendan Hansen



Jason Lezak



Megan Jendrick



Amanda Weir

# *The Entry*

Great speed off the blocks doesn't mean a thing without a great entry



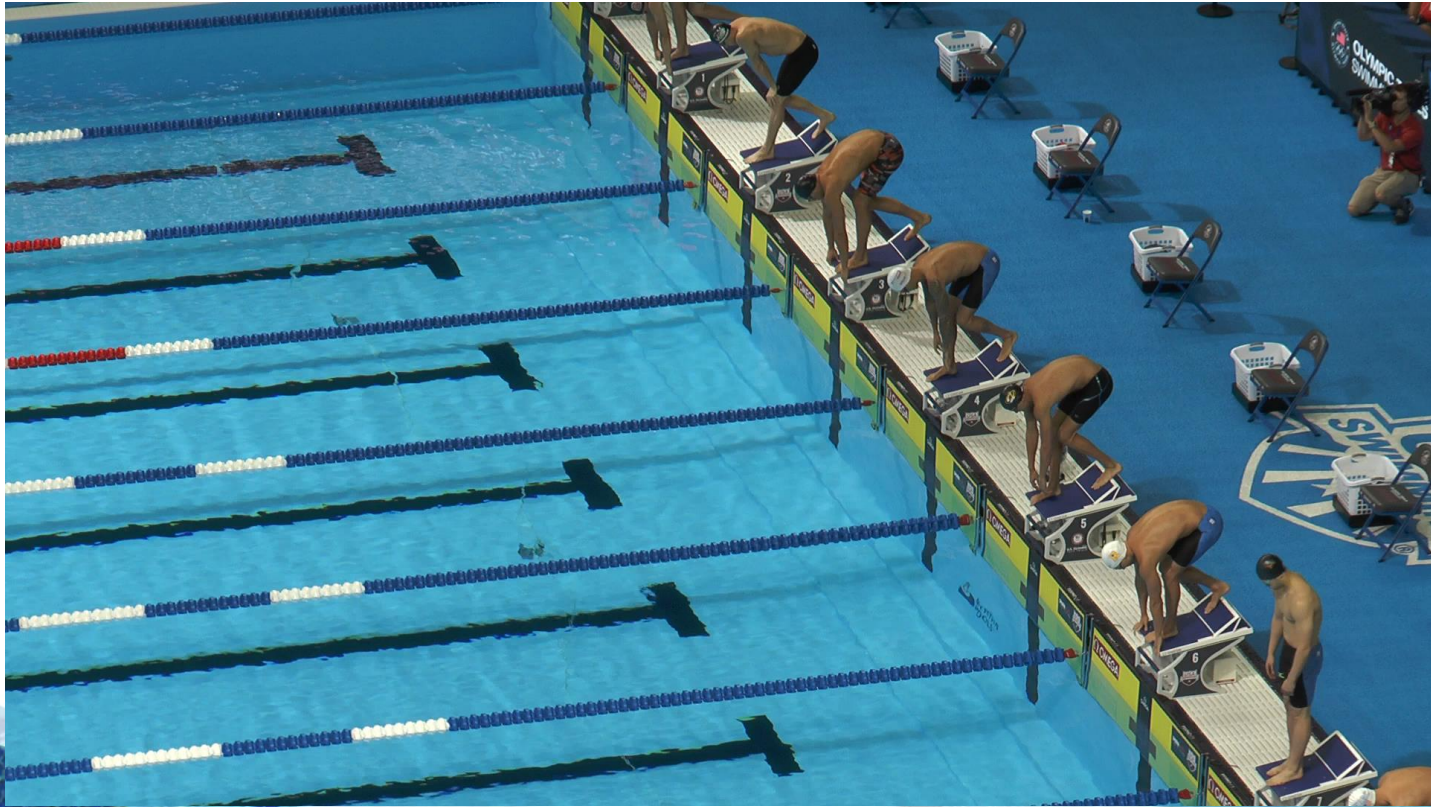


# *In the Water*

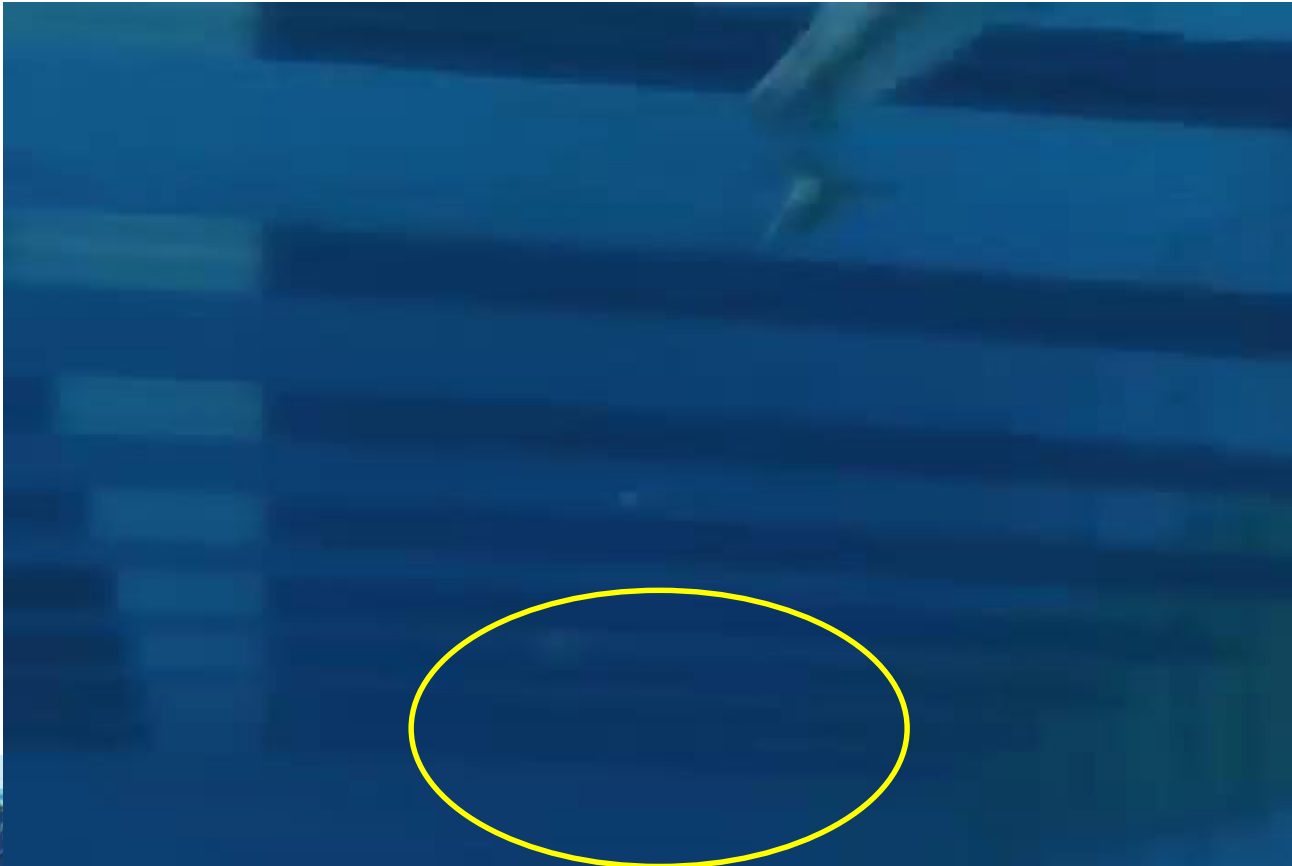
Holding body line through the core is crucial to create the perfect streamline



# *In the Water*



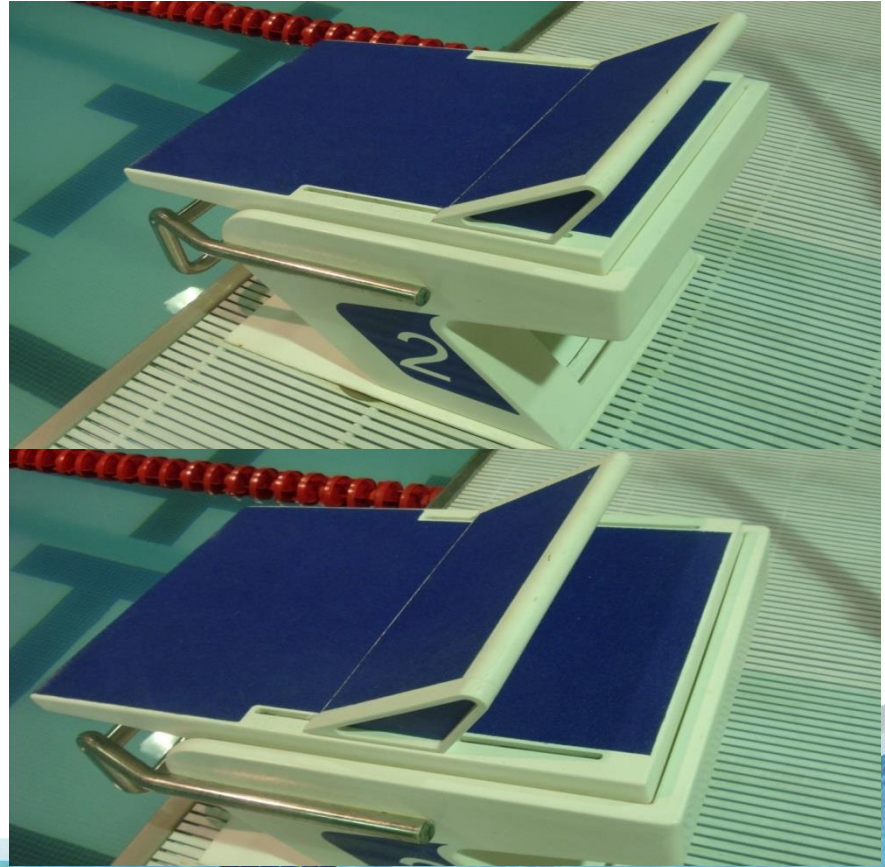
# *In the Water*



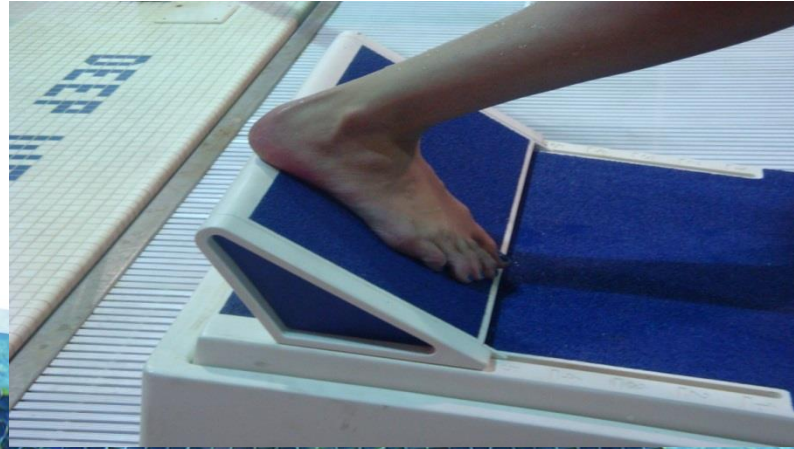


# Wedge Placement?

Place wedge as far forward as possible without compromising the four set-up keys



# Foot Placement?



# *With Wedge*

# *Without Wedge*



**Weighted  
toward front  
foot**

**Weight more  
balanced**



# Keys To A Great Start

Get comfortable on block & in the air: height, balance, head below hips, speed

Great set-up: High hips, eyes down, arms loaded, rear foot behind hips

Explode: Elbows to ribs, flat, low back, push chin & chest forward, JUMP

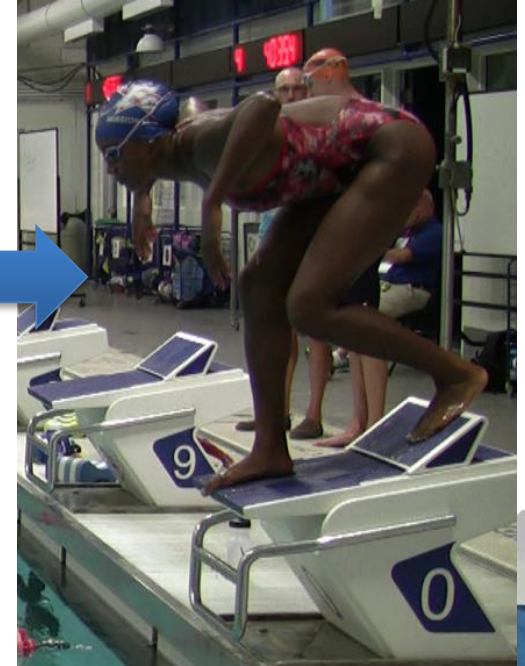




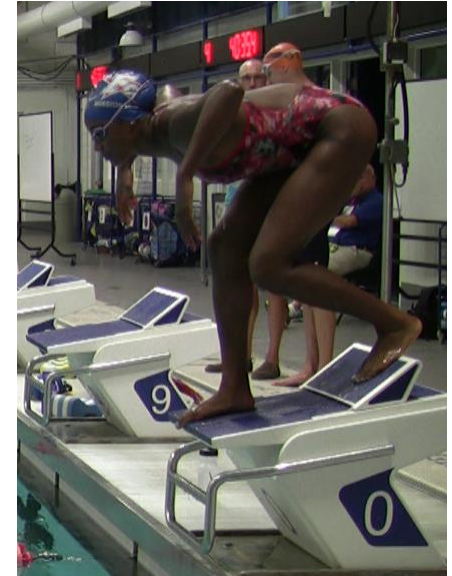
# *The Hard Part:*

Going from bent  
over to flat back...

While moving  
forward & staying  
low



# *Flat Back Drill Progression*



# Start Progression



Video courtesy of  
Coach Ryan Mallam  
Texas A & M Men





# Start Progression



Video courtesy of  
Coach Ryan Mallam  
Texas A & M Men



# Start Progression



Video courtesy of  
Coach Ryan Mallam  
Texas A & M Men



# Start Progression



Video courtesy of  
Coach Ryan Mallam  
Texas A & M Men



# *Doug Cornish – Hunterdon County Y*



# 4D Pro – Bolles School Sharks



Monkey Jumps/Dives

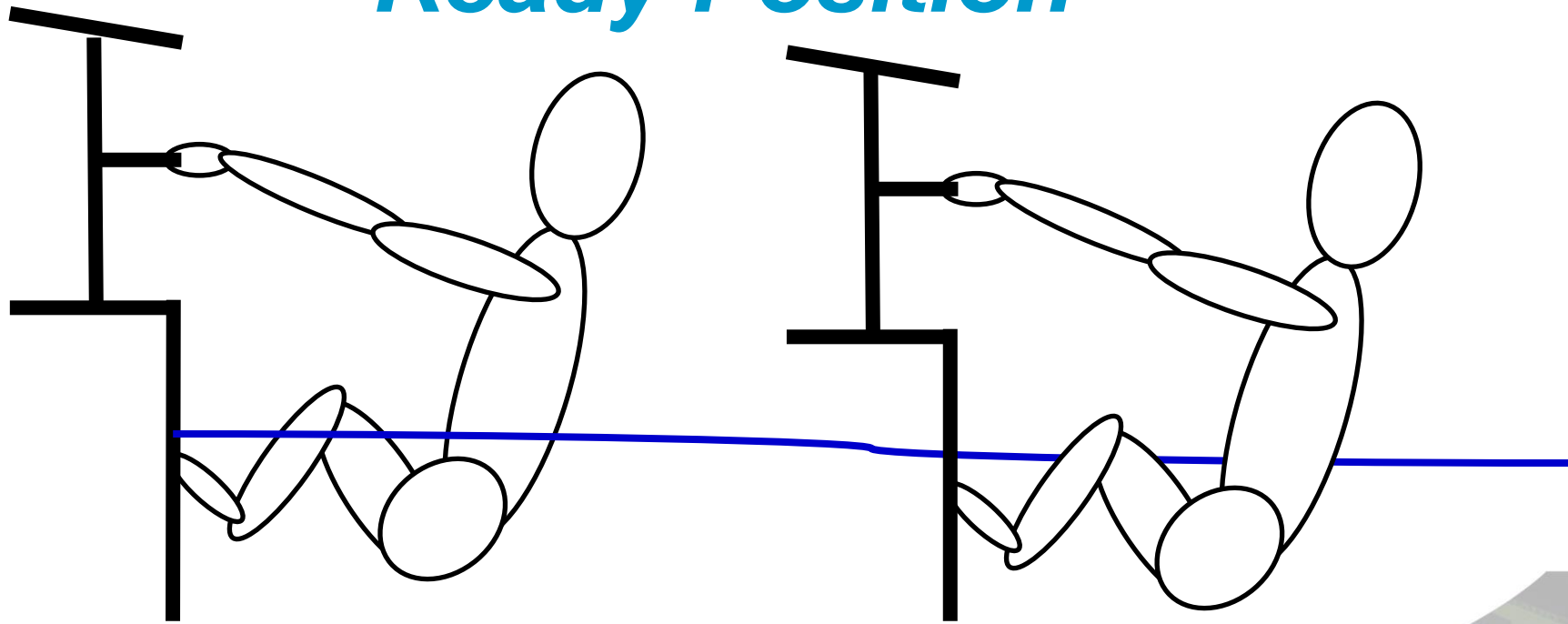


# *Backstroke*

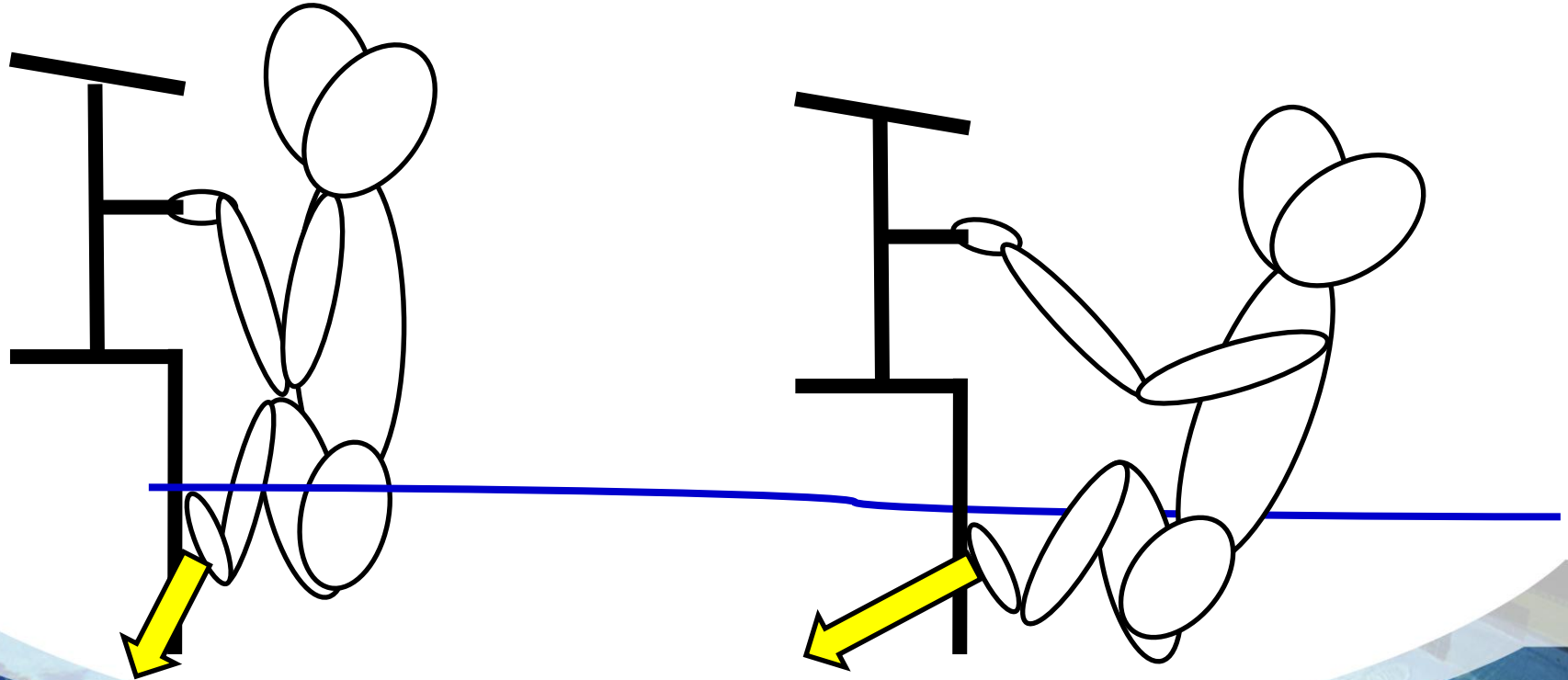
# *Start*



# Ready Position

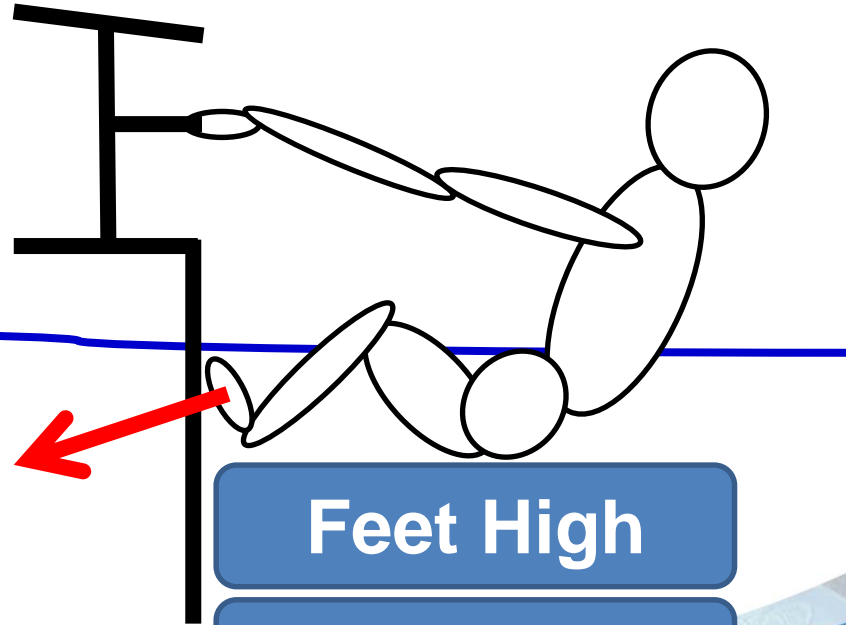
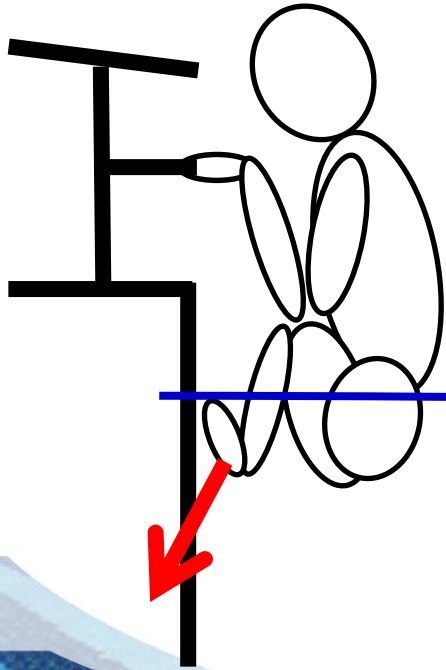


# *“Take Your Mark” Position*





# *“Take Your Mark” Position*

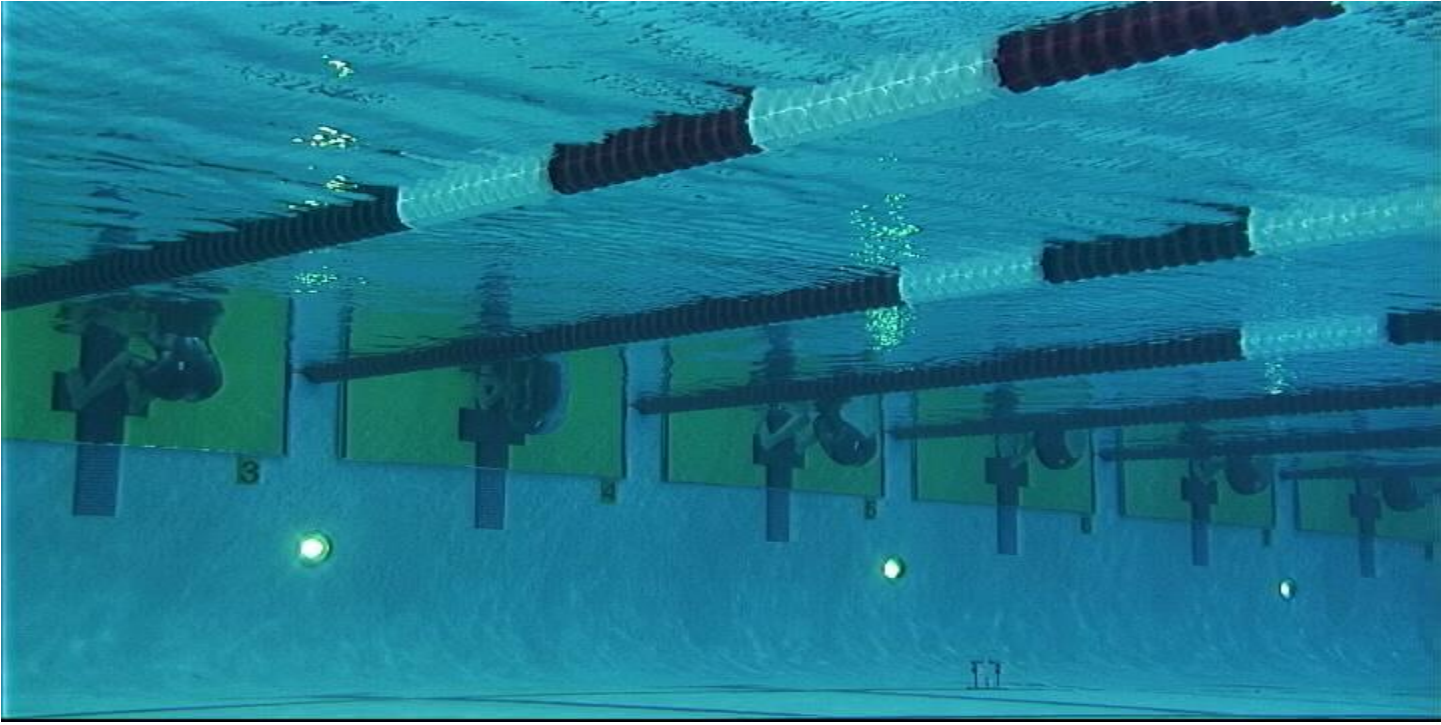


Feet High

Don't pull up



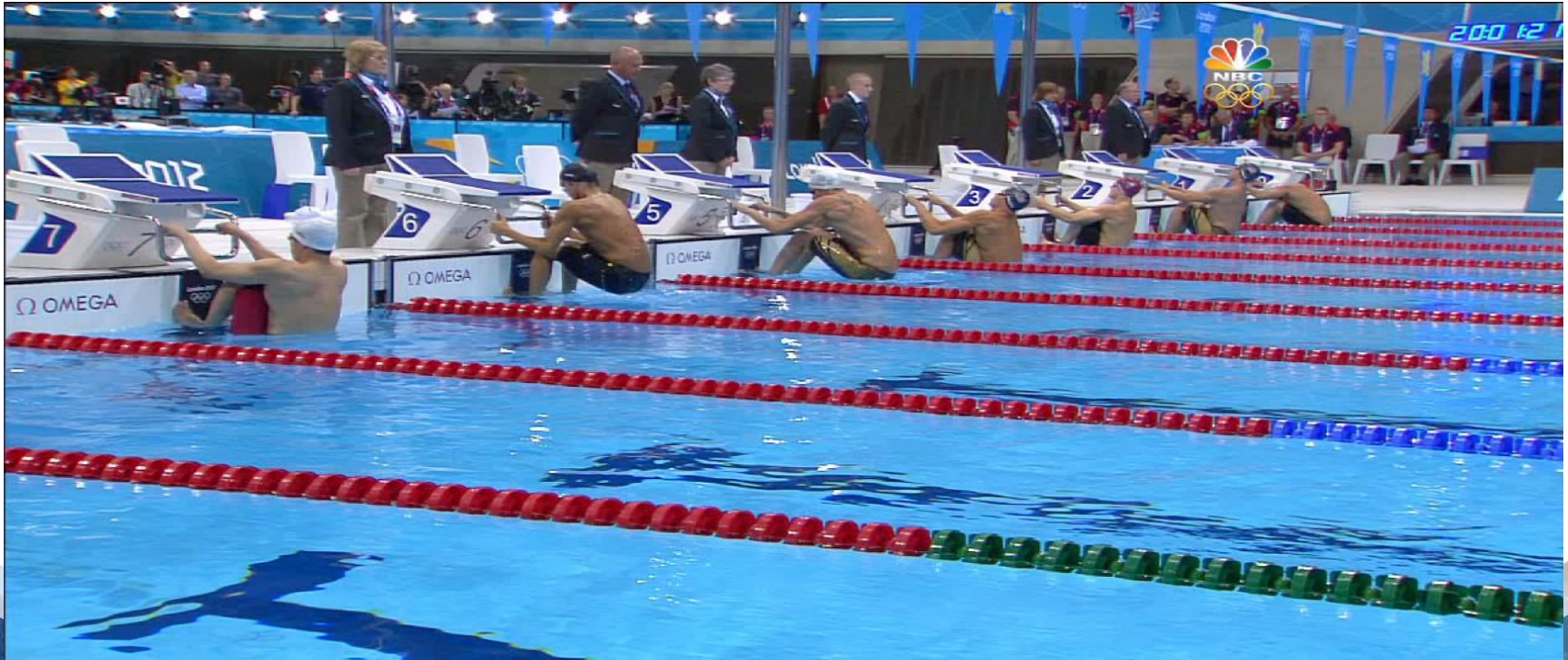




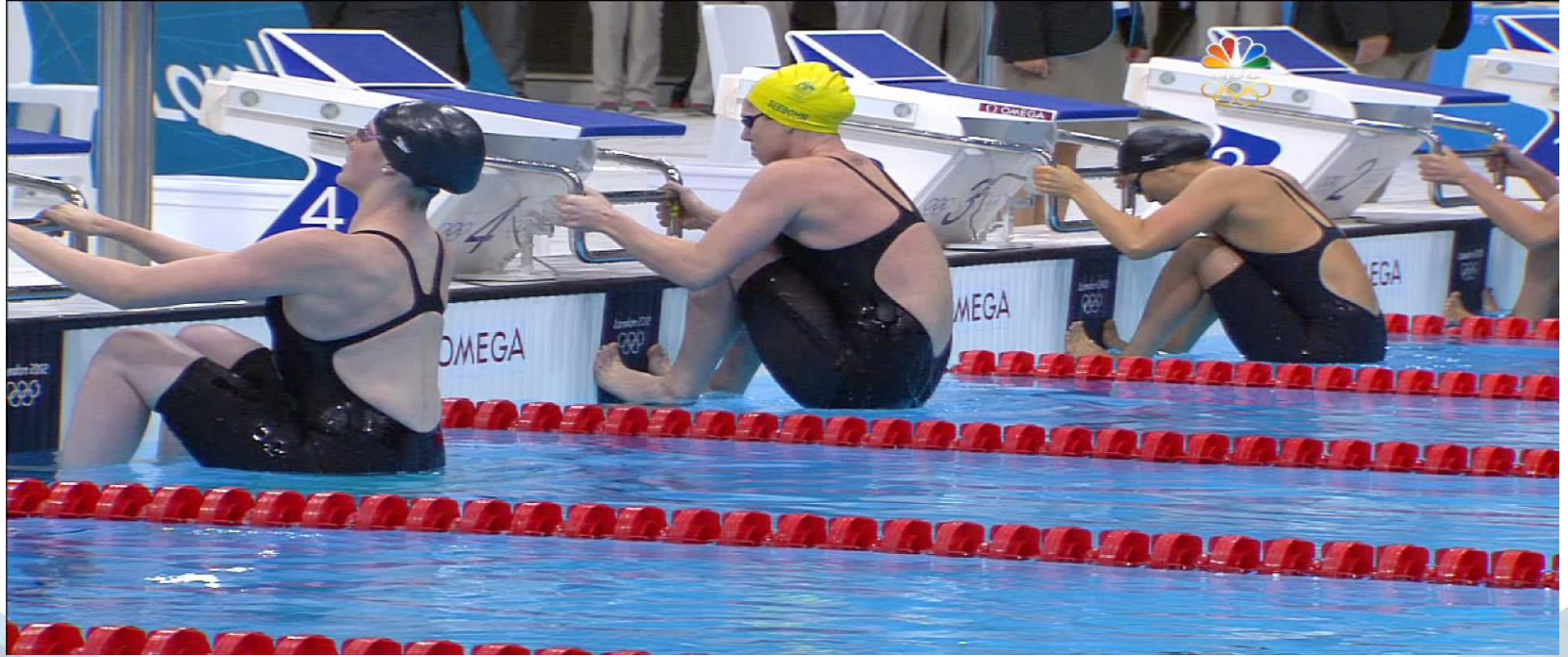
# *Backstroke Start Positions*



# Backstroke Start Positions



# Backstroke Start Positions



# *Backstroke Starts*



# Key Points

Load Hips

Throw hands

Push from the core

Triple Extension

- Hips
- Knees
- Ankles

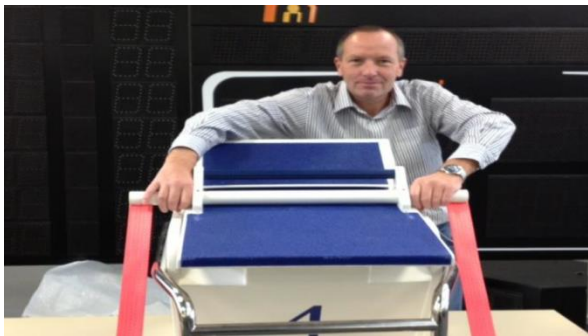
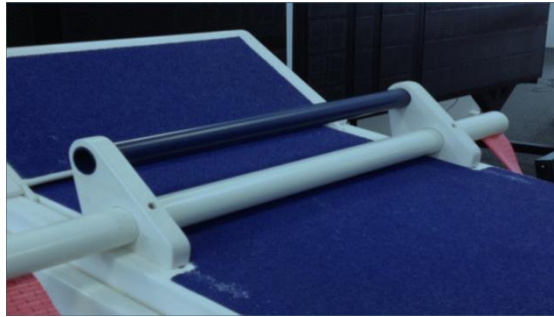
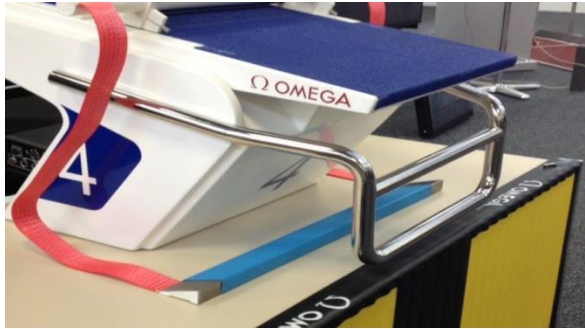




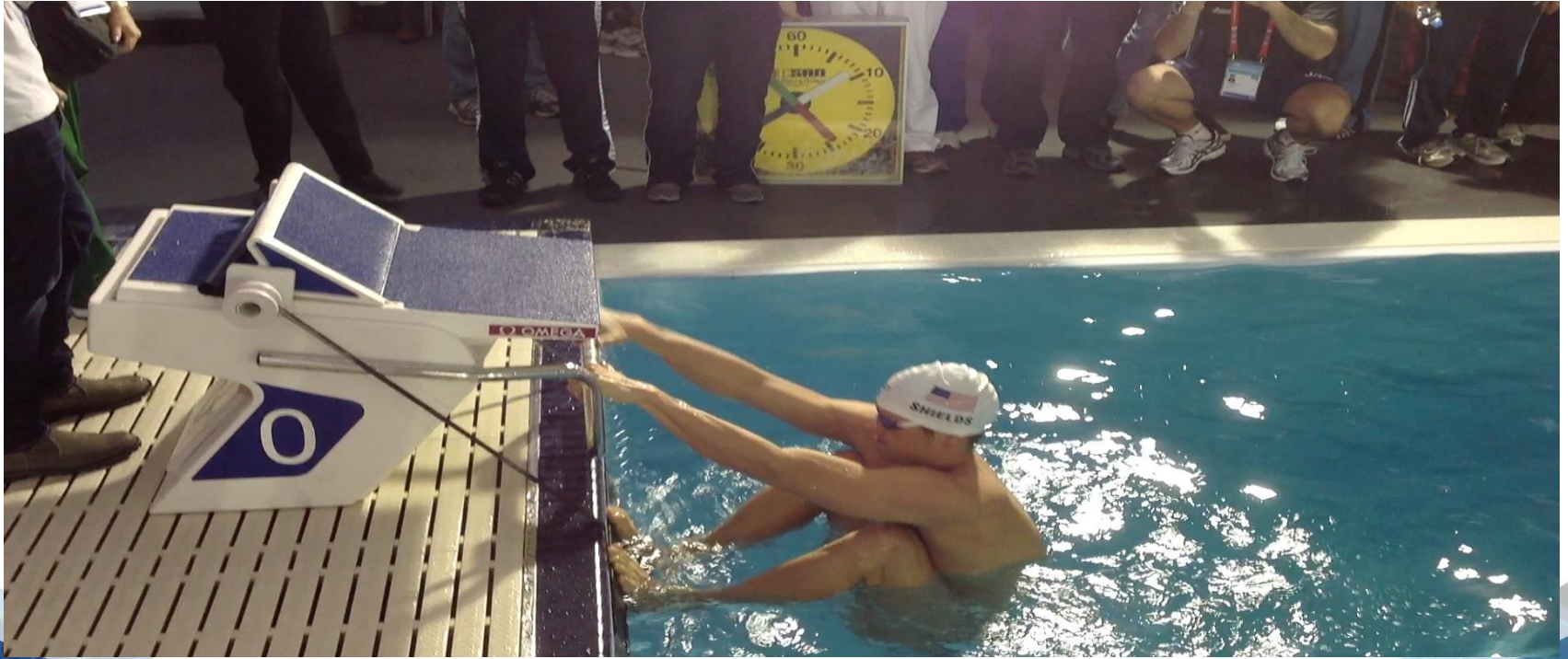
# Backstroke Starts



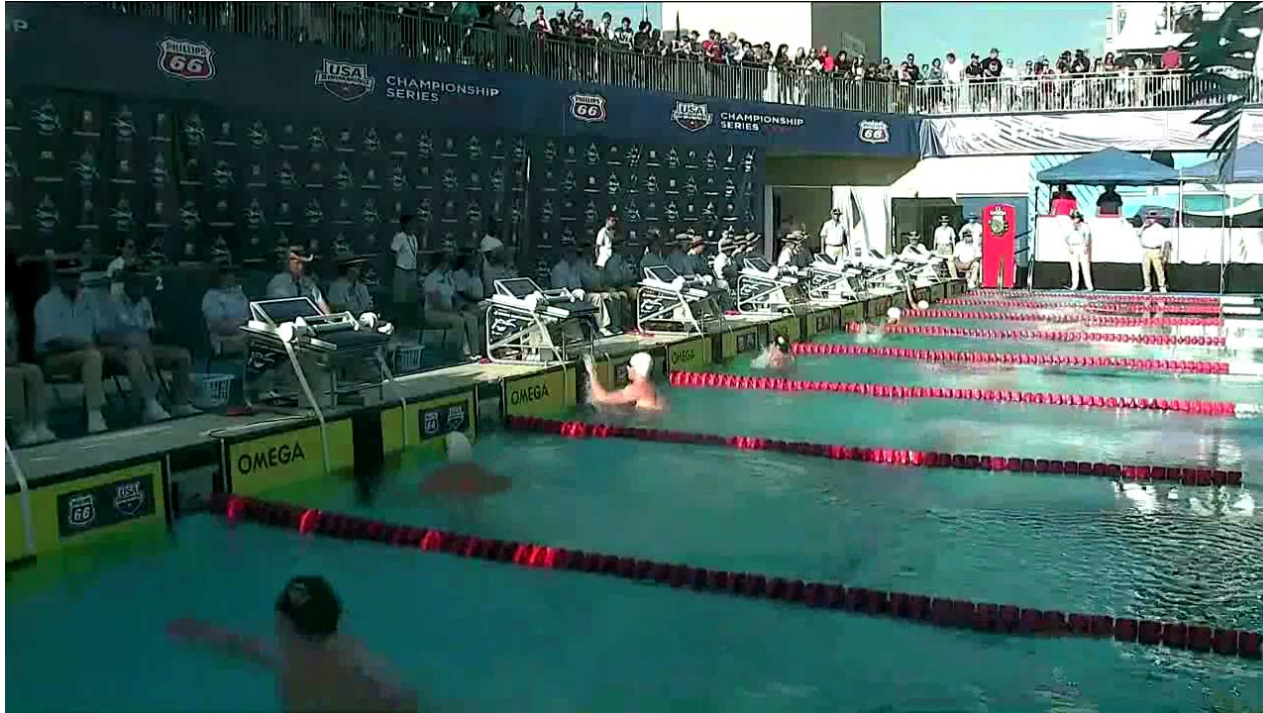
# Backstroke "Wedge"



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# Ledge at Phillips 66 Nationals



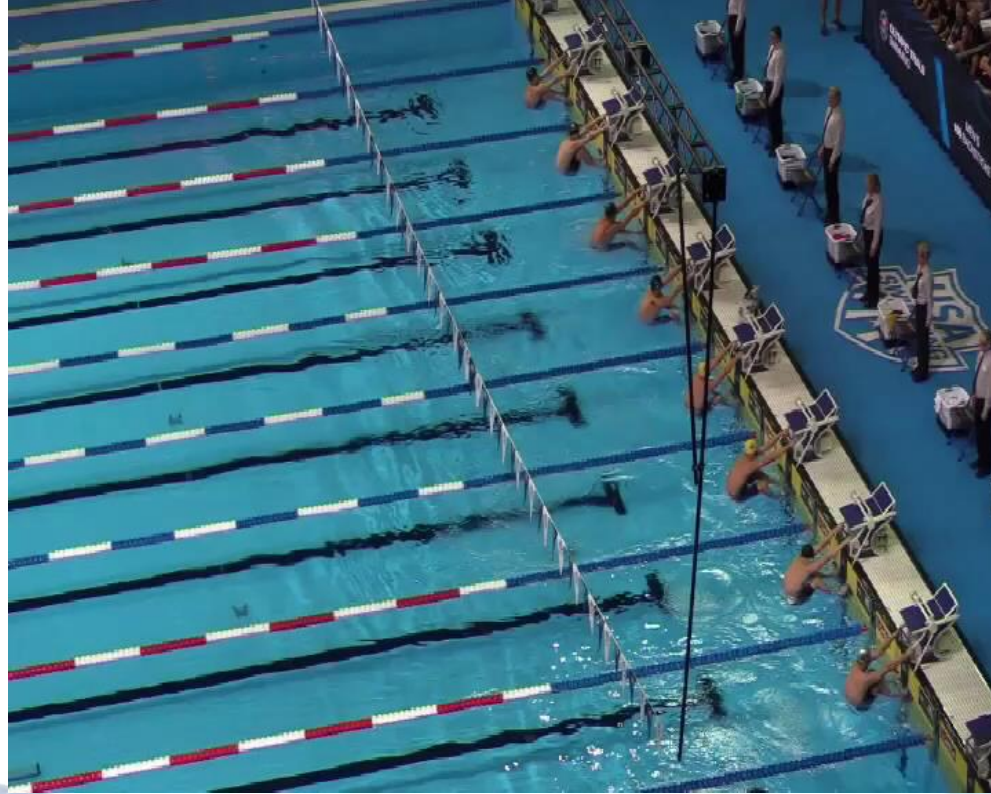
# Ledge at Phillips 66 Nationals



# Ledge at Trials



# *Ledge at Trials*



# *Backstroke Start*





# “Peanut”

Isokinetics Inc.™ Peanut Balls - Anti-Burst - 4 Sizes Available

<http://www.isokineticsinc.com/>



Product Code:  
**abpbgroup**  
Price: **From \$24**  
Quantity in Basket: *None*



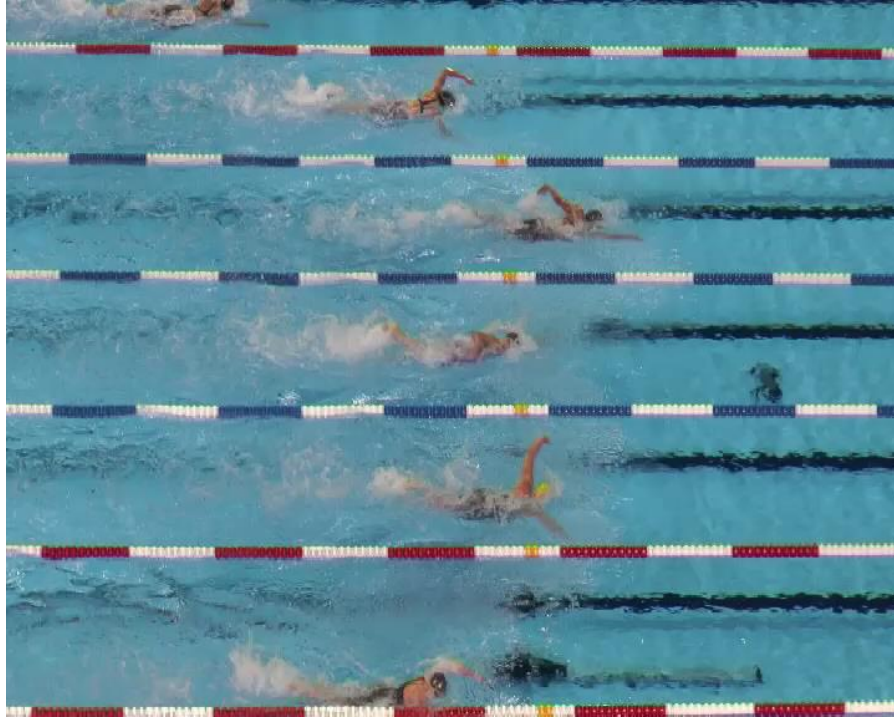
# *Start Young!*



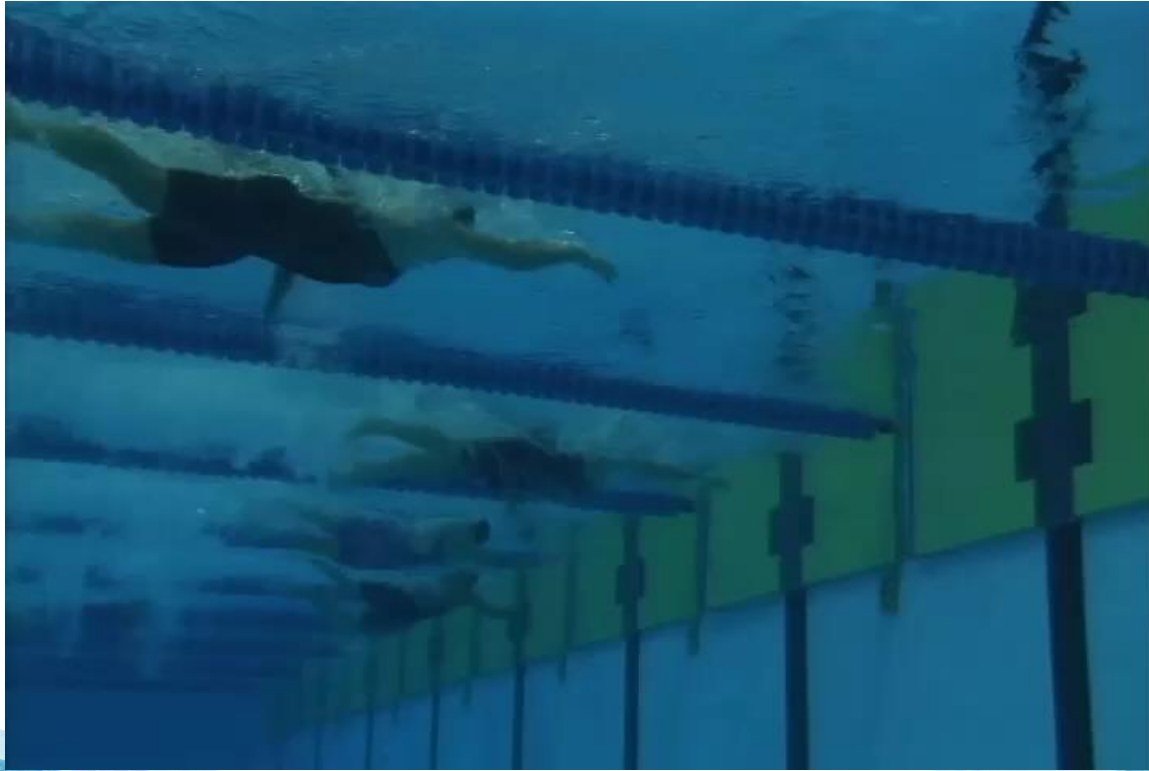
# *A Bad Start Can Really Hurt*



# *A Bad Finish Can Too*



# *A Bad Finish Can Too*



# *All Finishes...*

Focus narrows as the wall approaches

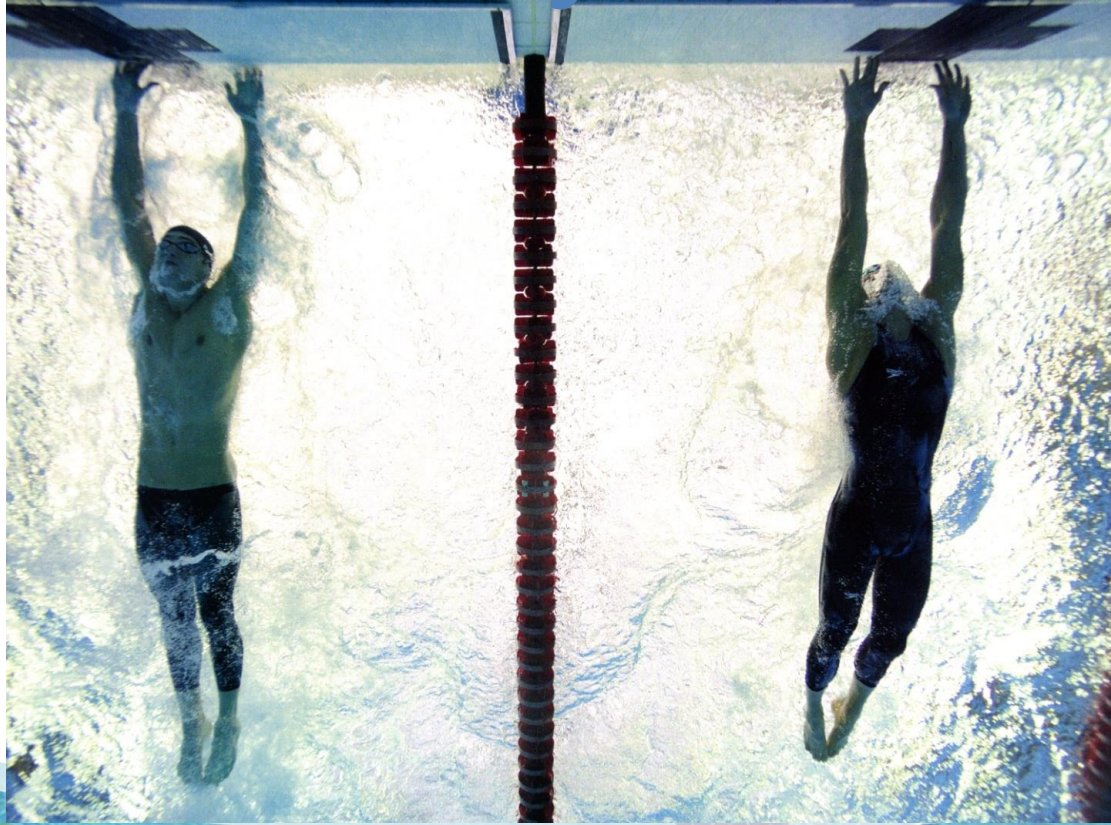
Judge how many strokes from the flags in.

Shortest distance between two points...

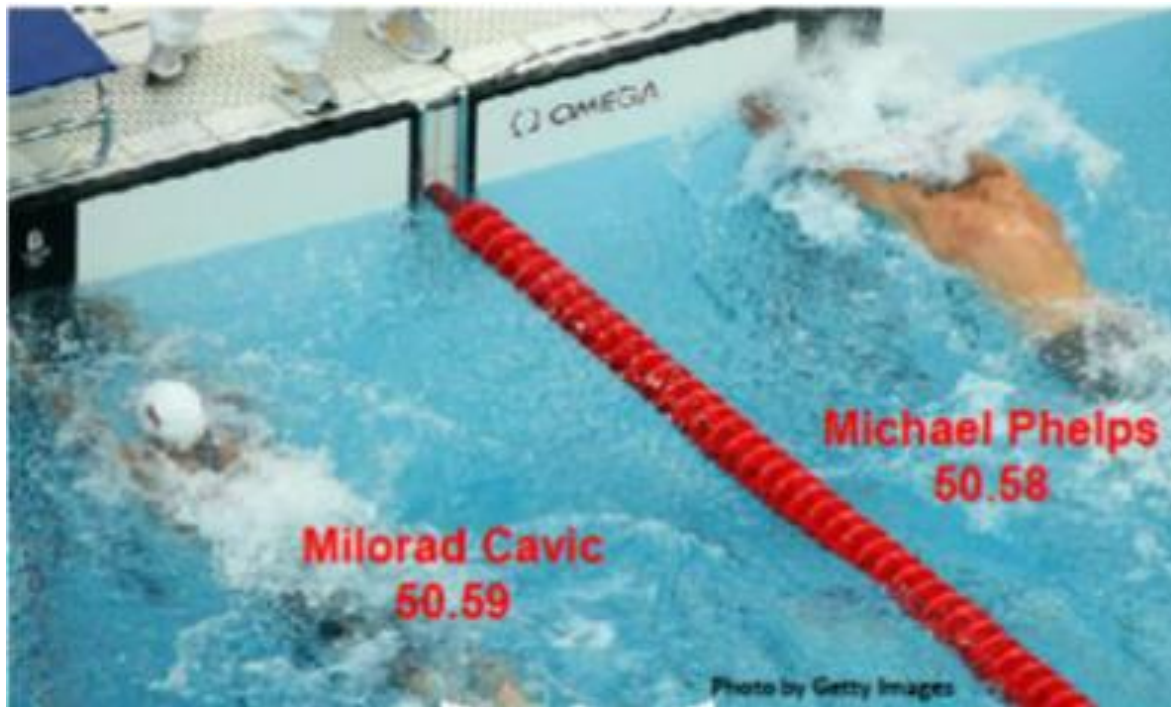
Break rhythm for the touch.



# *Finishes: Fly and Breast*

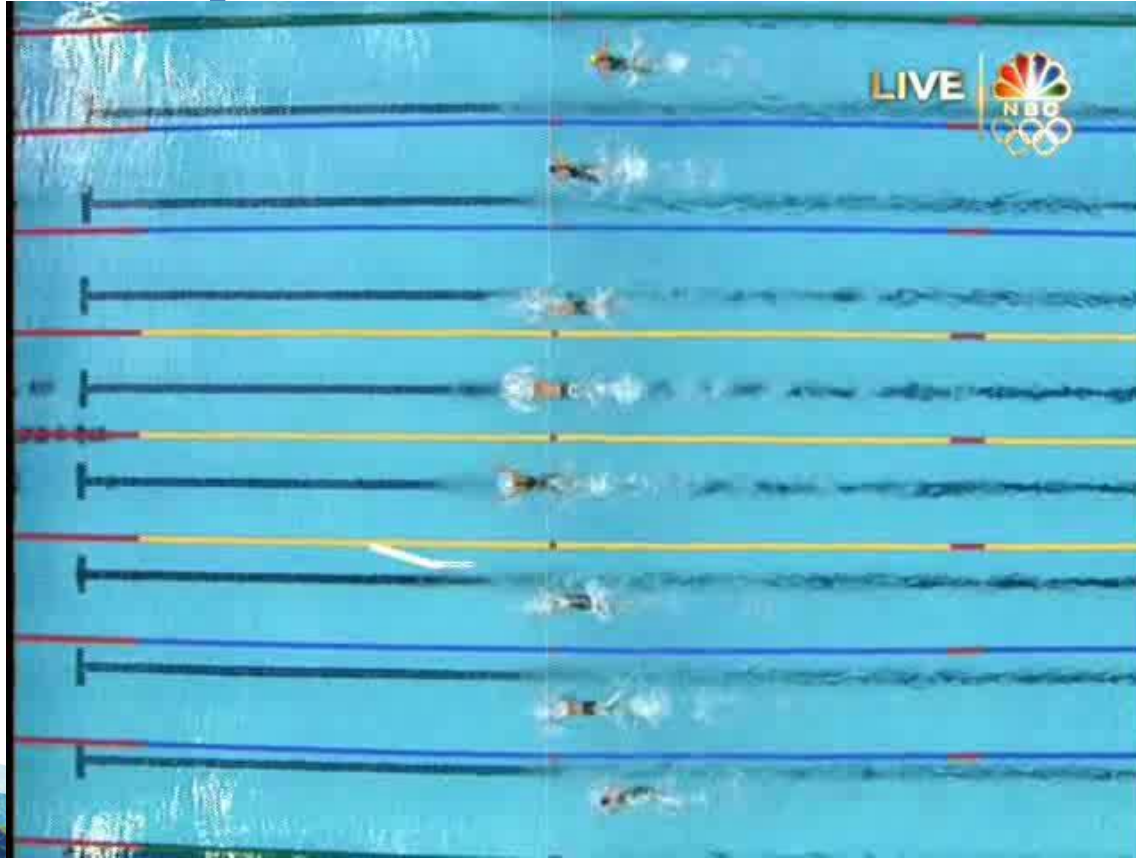


# Finishes





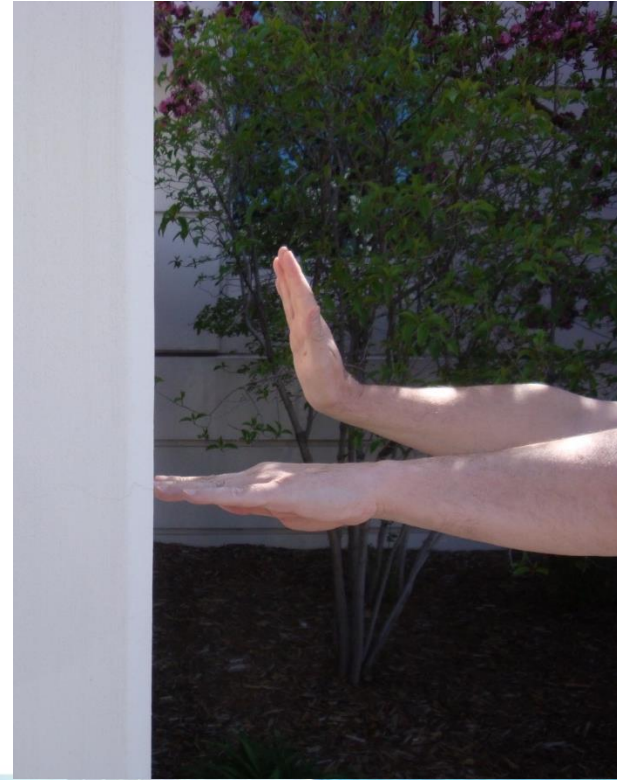
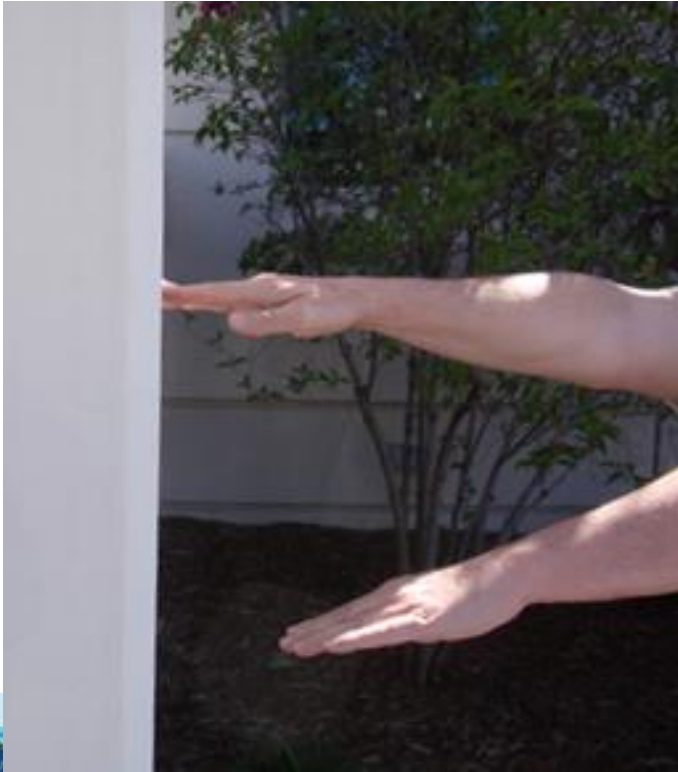
# *Phelps vs Cavic Finish*



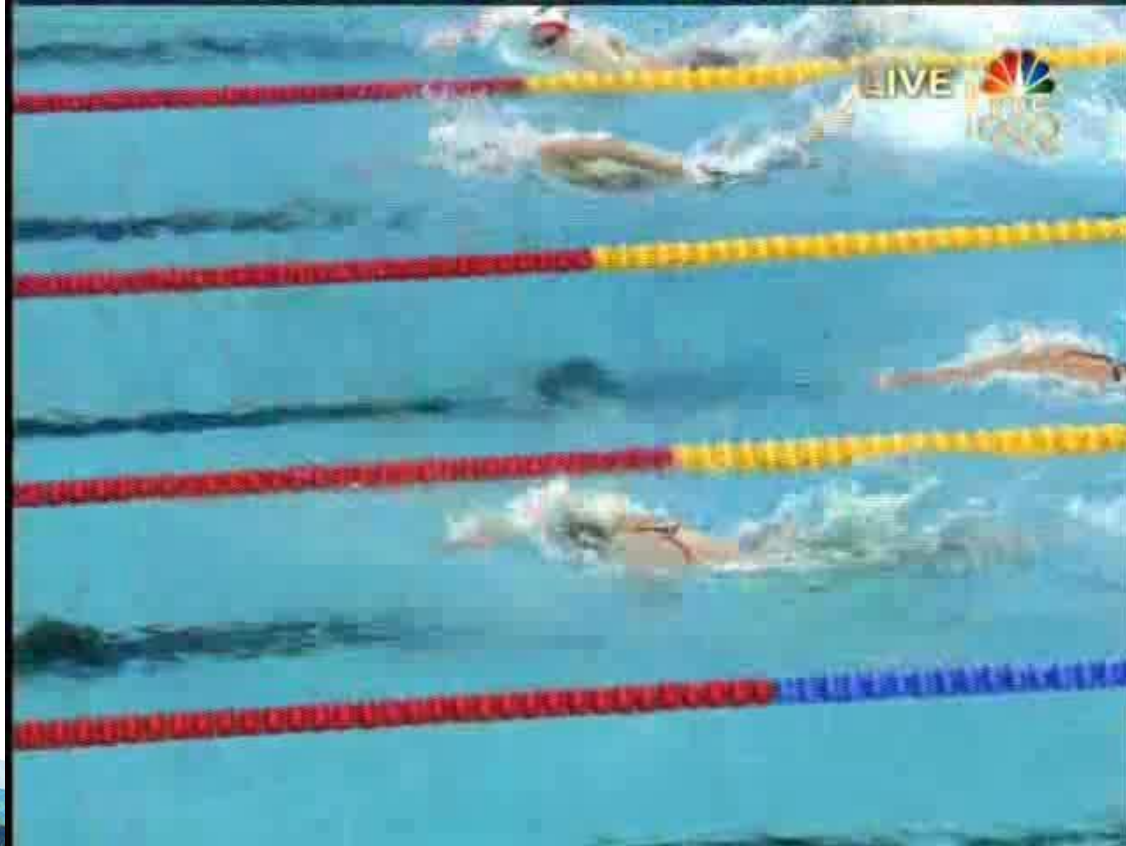
# *What Happened?*



# *Which Hand Finishes First?*



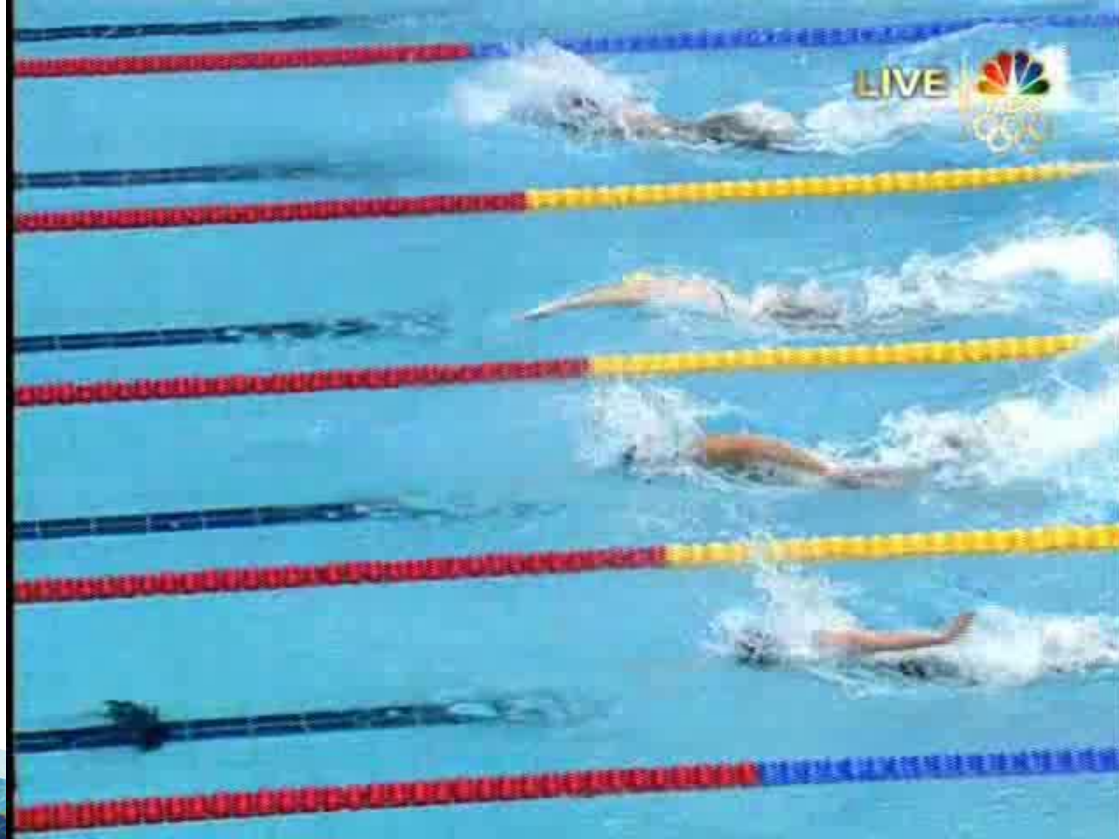
# *Hoff and Adlington Finish*



# *Lifts Head, Touches with Palm of Hand. Finishes Second.*



# Torres – Stephen 50 Free



# *Finish Drill: Free Step 0*



# *Finish Drill: Free Step 1*



CLUB DEVELOPMENT DIVISION



# *Finish Drill: Free Step 2*



CLUB DEVELOPMENT DIVISION

# *Backstroke Finishes*

Age groupers tend to lift head and feet sink.

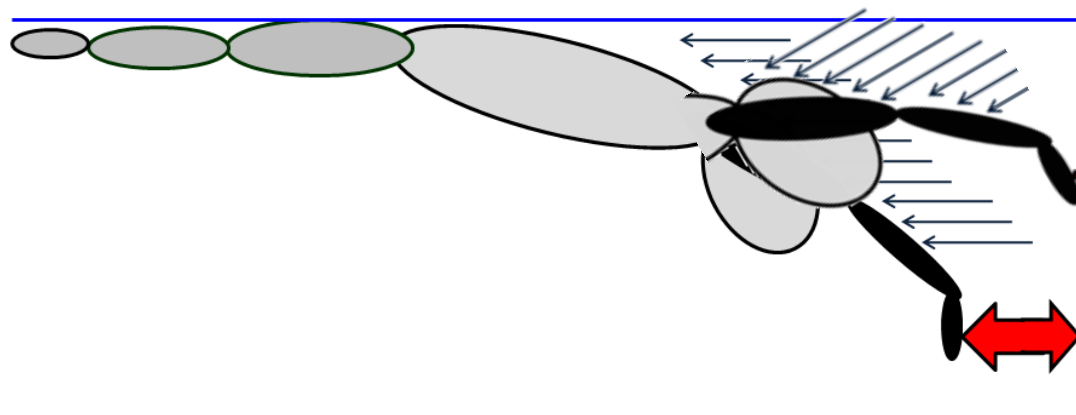
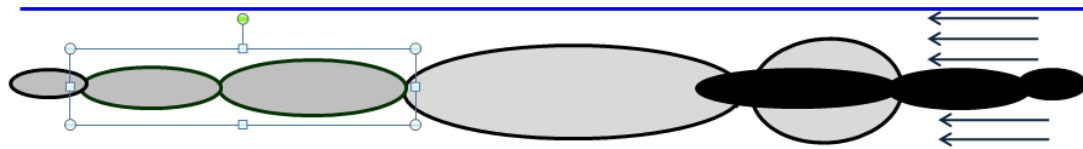
Count strokes/use angle

Shortest distance between two points...

**NO DIPSY DOODLES!!**



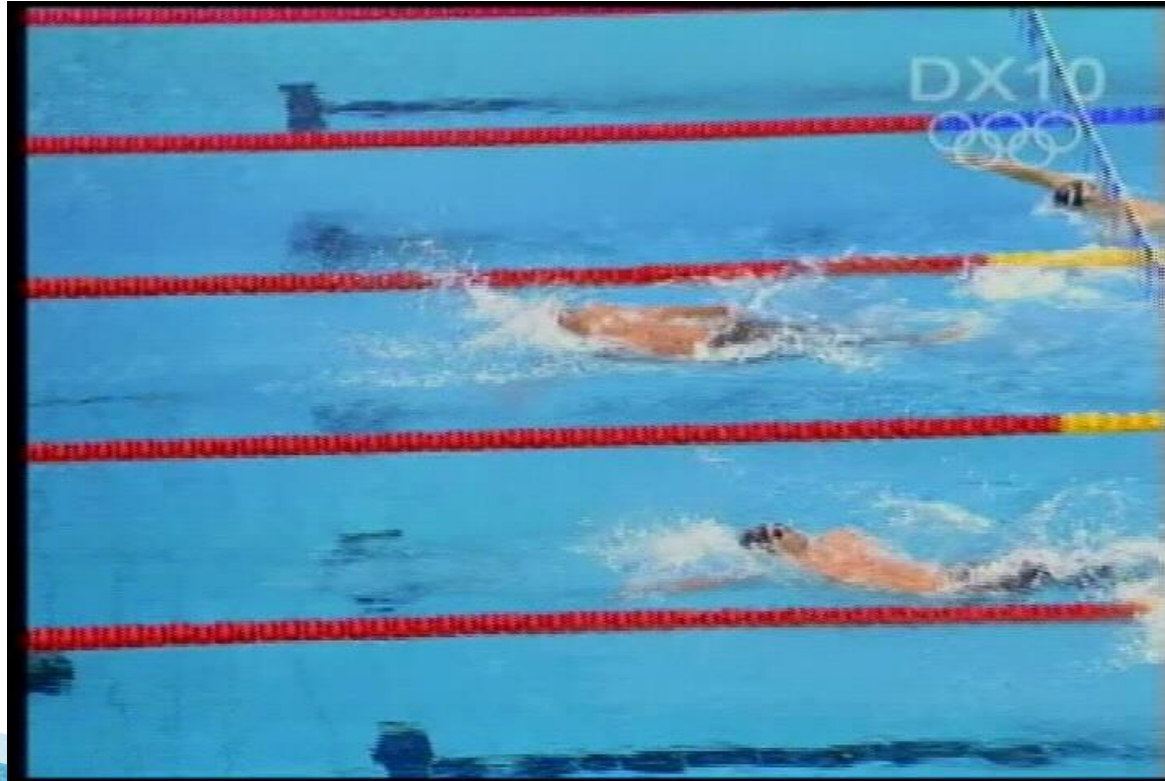
# *No Dipsy Doodles!*



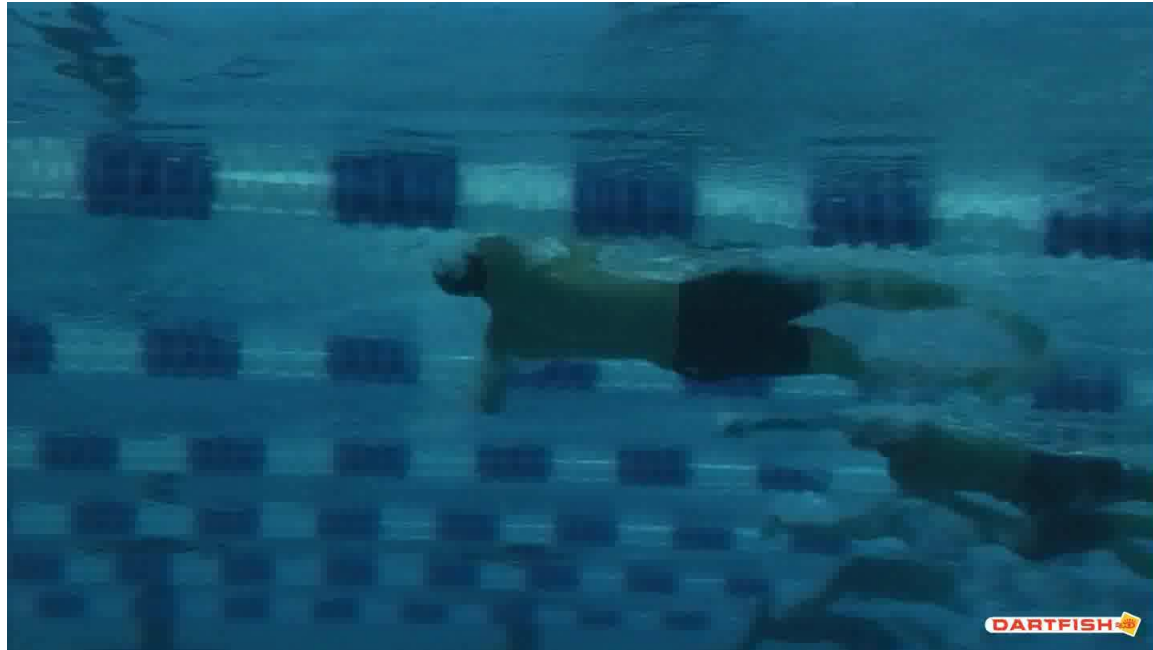
# *NO “Dipsy Doodles!”*



# *NO “Dipsy Doodles!”*



# *NO “Dipsy Doodles!”*



# *Backstroke Finish: Not Good*



# Backstroke Finish: Good



# *Finish Drill: Back Step 1*





# *Finish Drill: Back Step 2*



# *Finish Drill: Back Step 2*



# *Teaching Tips, Thoughts*

Why practice only 99% of the race?

Every finish in practice done poorly trains the brain to... finish poorly. MP 200 Fly 2012!

Head in line, hold breath, great kicking, drive through the wall fingertip touch slightly **BELOW** the water line



# *Teaching Tips, Thoughts*

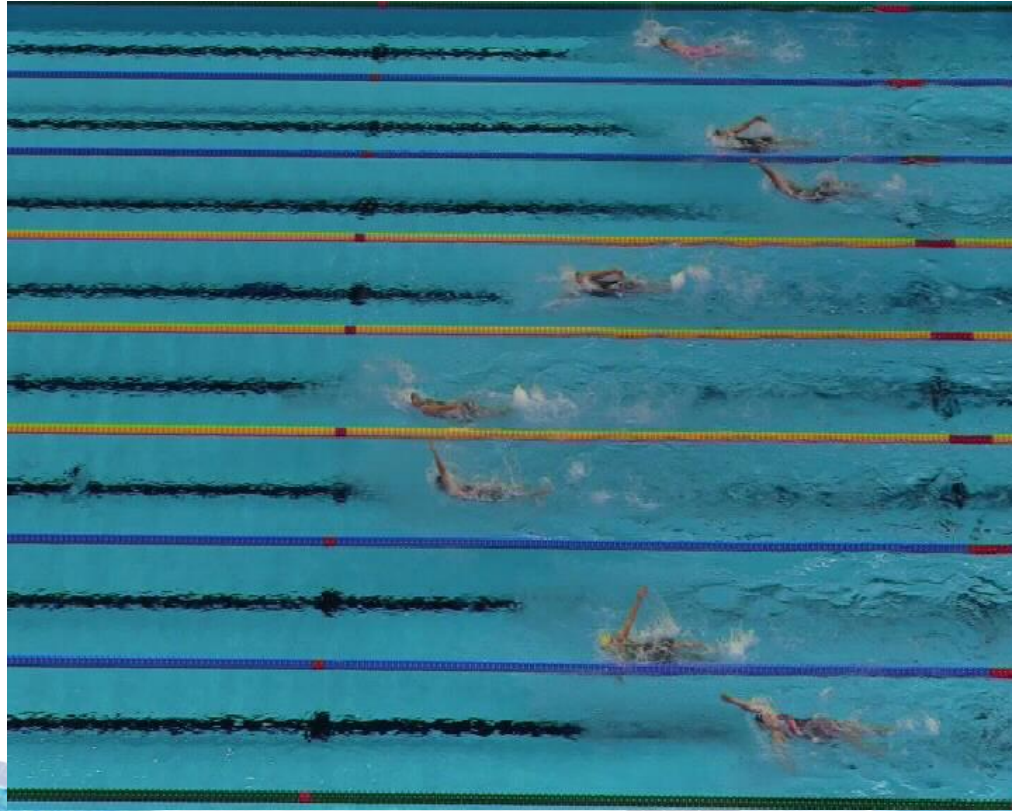
Line up on the deck and walk the finish to the fence or wall

Rehearse Championship finishes (with celebration)

Practice finishes in combination with starts – relays, odd lanes starts – evens finishes



# *Winner-Winner*



# *When You Put It All Together*

