# Going Fast Upside Down & Backwards





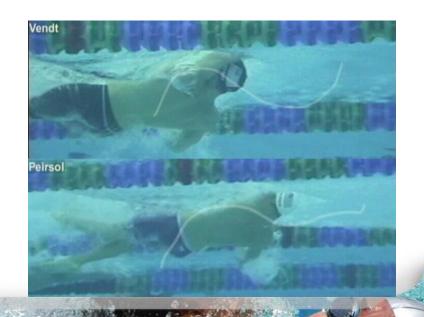
#### **Build the stroke around:**

#### **Body Position**



Timing of Rotation

#### **Anchor**

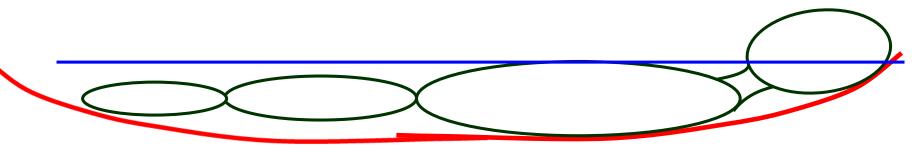




Long neck & slight head tilt

Relaxed arms & shoulders!

Rounded back & hips at surface

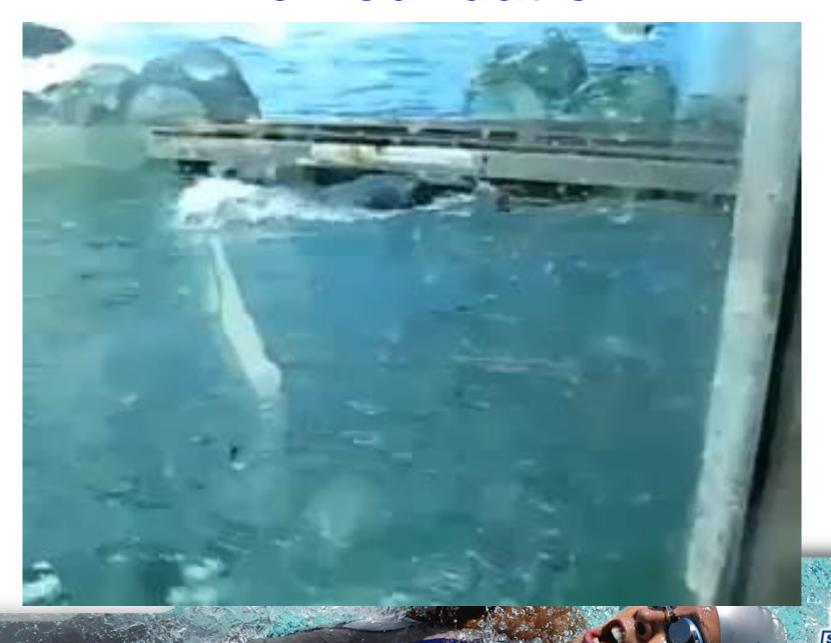


**Good (extended)** 



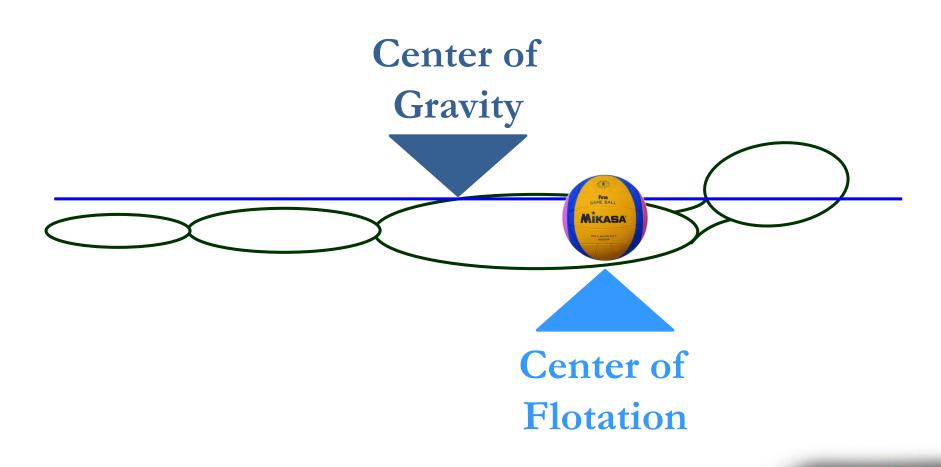








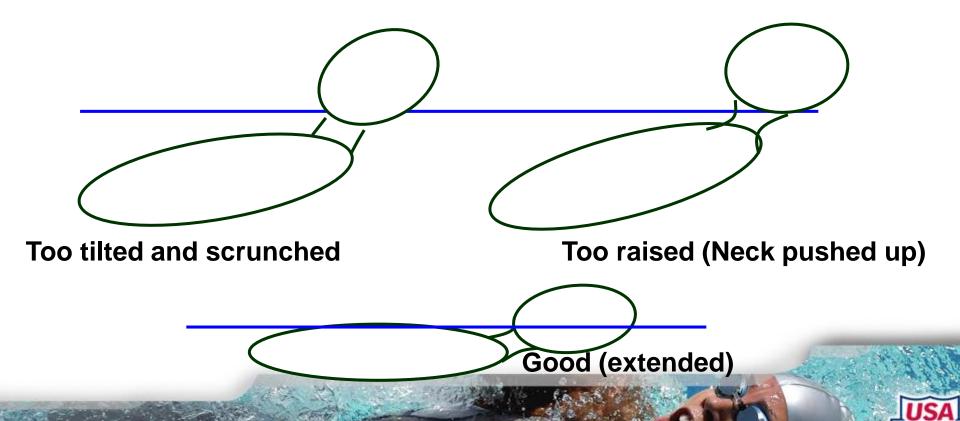




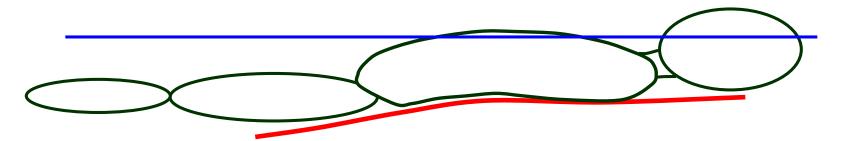
#### **Common Mistakes**

Tension in the neck & shoulders

Body position is compromised



#### **Common Mistakes**



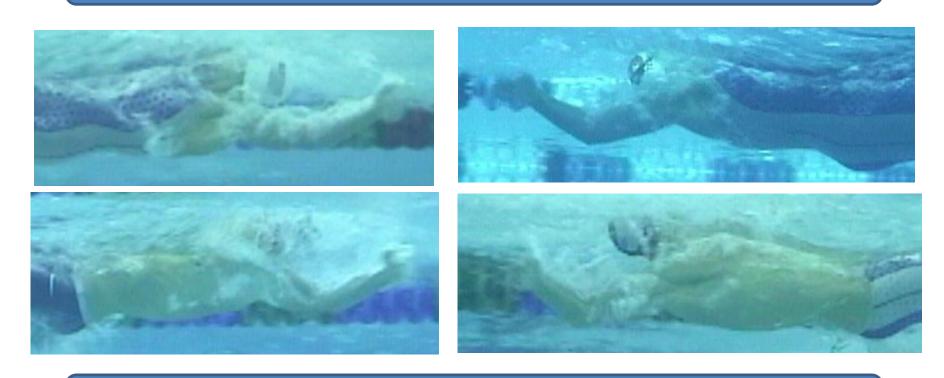
Tension in the neck & shoulders

Leg movement is restricted



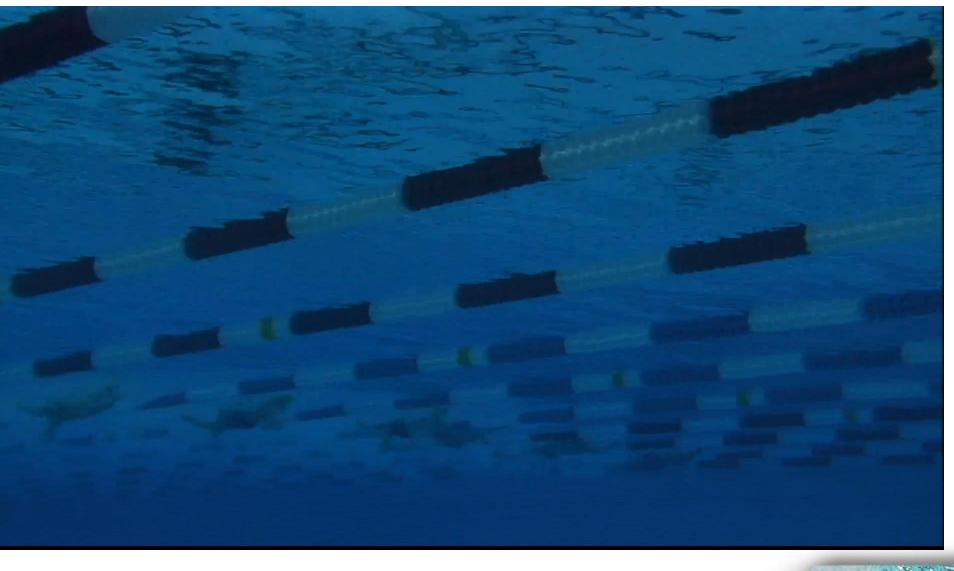
#### **Backstroke Anchor**

#### Anchor the arm as early as possible



Fingertips point toward the side wall



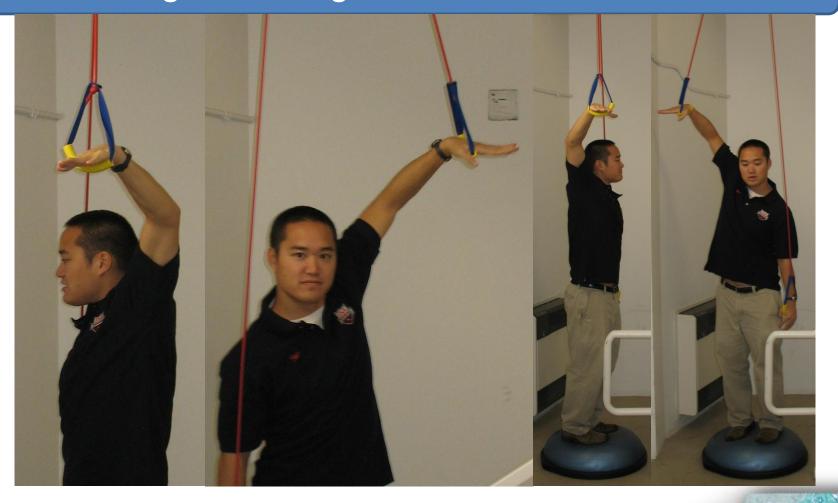






## **Backstroke Dryland**

Surgical tubing extended from above





#### **Poor Anchor**

Straight arm

Palm facing downward

Pushing down with the arm

The result of:

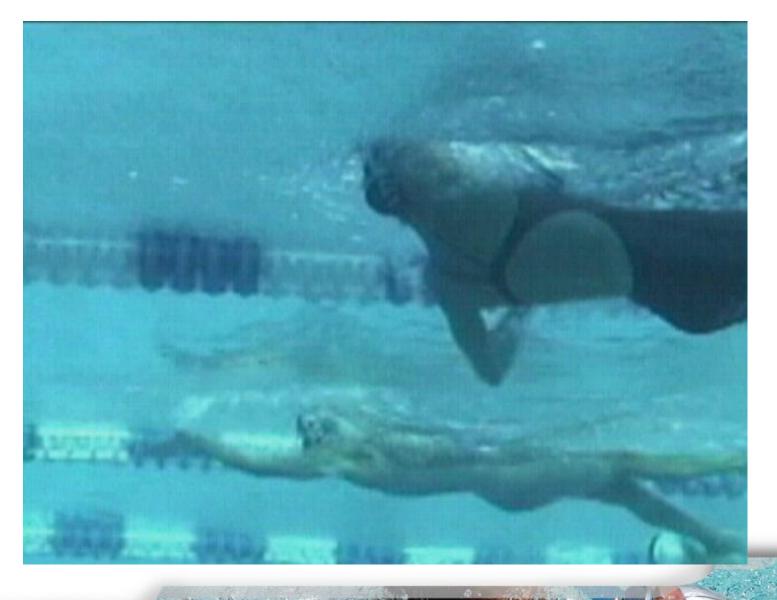
Intentionally trying to pull deep

Late rotation

"Reaching" for the wall

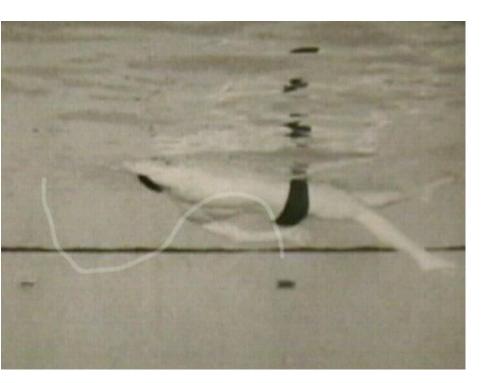
No rotation

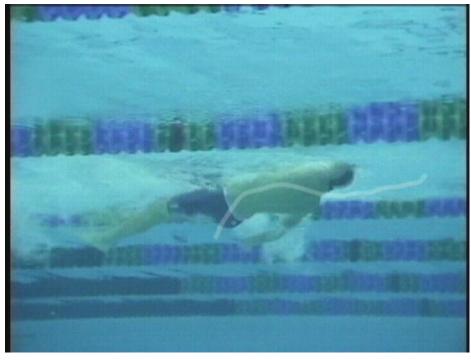
## **A Common Rotation Flaw**





## **Deep Anchor**



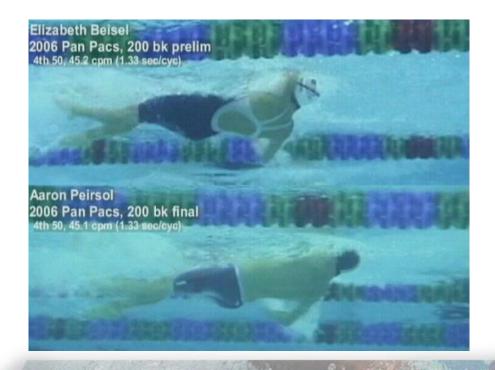




#### **Stroke Pattern**

Maintain natural angle of shoulder relative to the body

A shallower, flatter stroke is also the strongest stroke



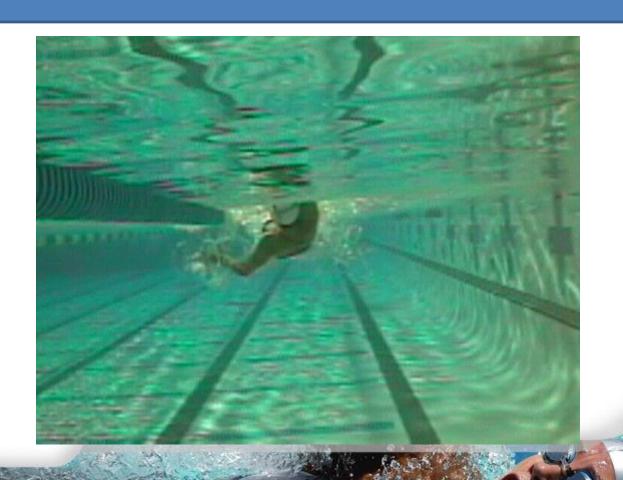


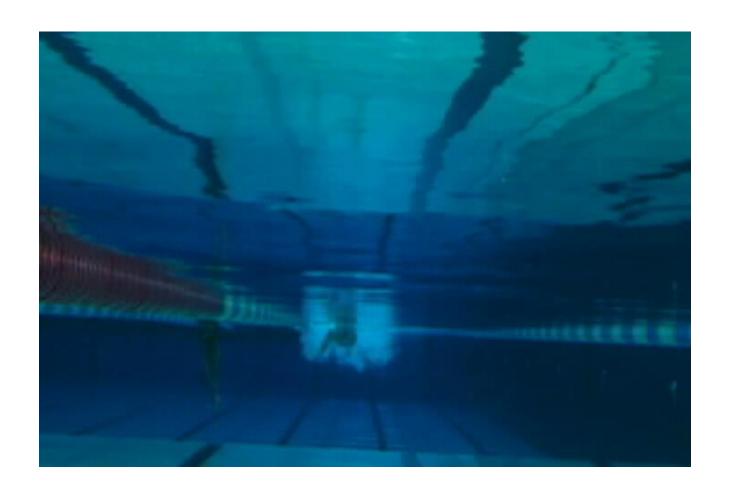
## **Backstroke Arm Stroke**



#### **Front View**

The arm is strongest when it remains to the side of the body & connected to the core







#### Rotation

Driven by the finish & entry combo

Enables quick anchor & strong stroke

Hips and shoulders rotate up (+ forward) together quickly

Timing more important than amount



### **Backstroke Arm Stroke**



Shoulder rotates forward as well as up & down



#### **Rotation: How Much?**

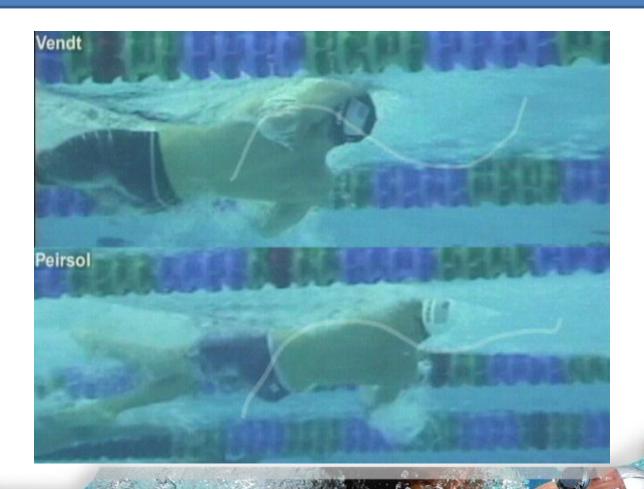
< 30 degrees +/- 10 to each side



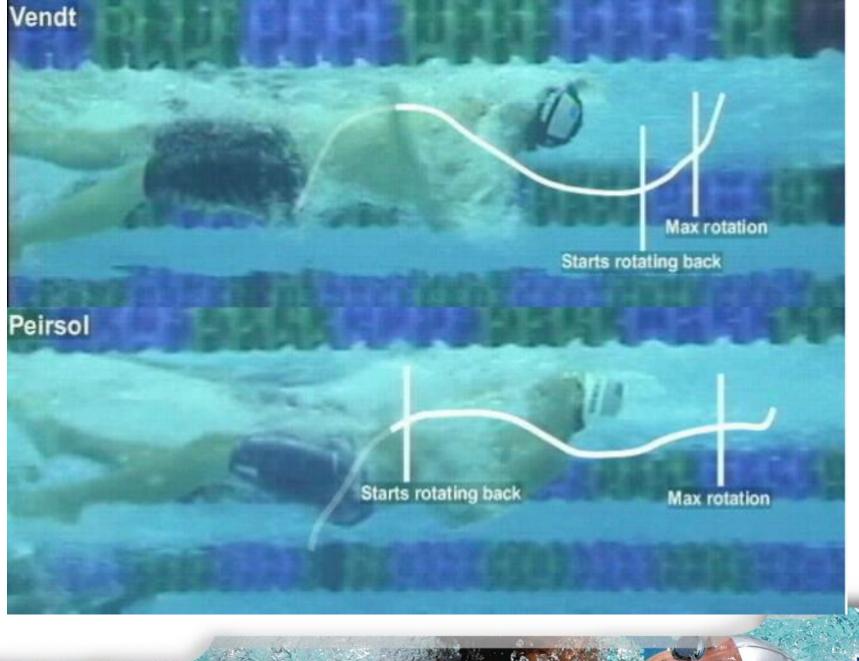


## **Rotation Timing**

Minimal rotation should occur between the catch and finish

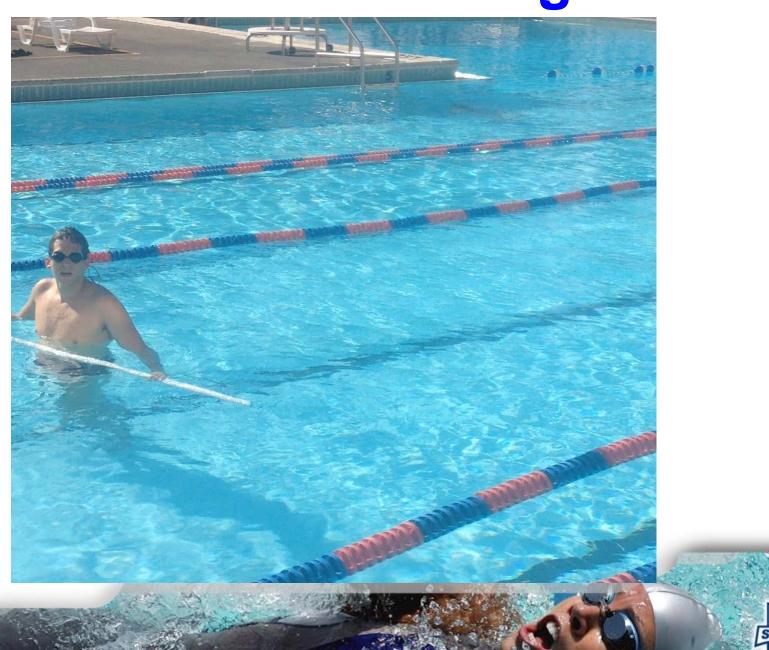








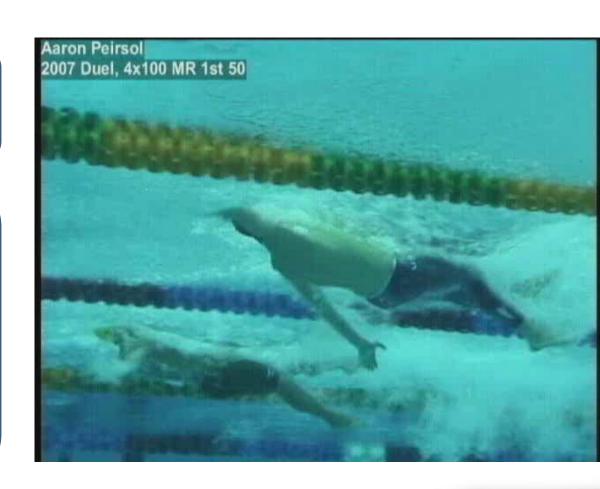
# **Stick Swimming**



## **Strong Legs!!**

Follow-through on kick is vital

Pay attention to water on the back of legs (corrects excessive knee bend)





#### **Backstroke Drills**

Six kicks per side

**Triple Switch** 

Long Axis Combo – 3 strokes free, 4 strokes backstroke

**Double arm** 



#### **Backstroke Drills**

Single arm backstroke

Combination Drills – 3 right arm, 3 left arm, 6 alternating

Backstroke Skipping – dryland or shallow water

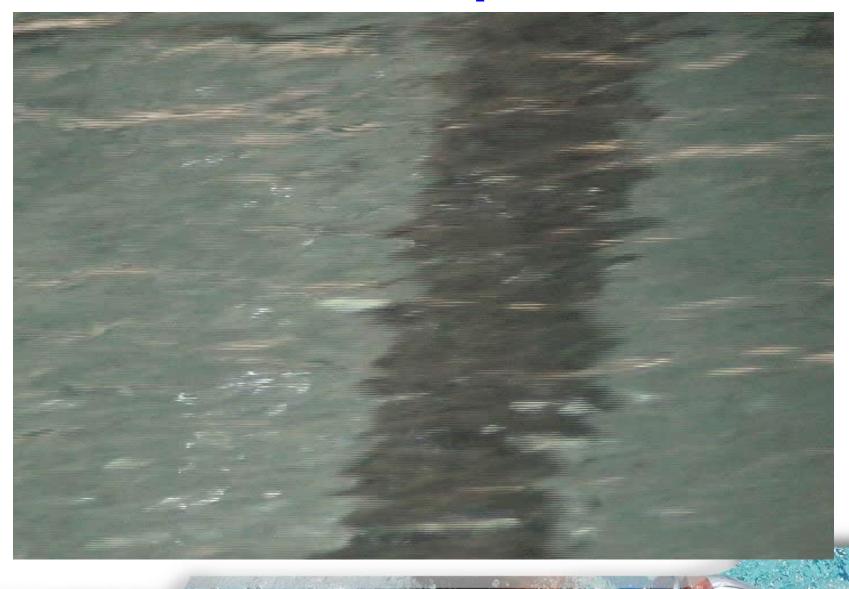
Drills that exaggerate the rotation



## **Rotation Drill**



# "Sweet Spot"



## **Kickboard Pull**





## **Your Drills?**



## The Very Best Haven't Changed Much



## **Backstroke Summary**

Head position: Relaxed; slightly tilted with extended neck

**Body position: Rounded back** 

Arm stroke: Early, shallow catch with hand/arm at side & palm always facing back

Rotation: Quick and 'snappy' connecting the entry and finish

