



# Freestyle

## *The Foundation*

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# Common Perceptions

- Kick with minimal knee bend
- Kick within the body line
- More rotation is better
- The hips lead the rotation
- Breathe with the body rotation



# Russell's Perspective

- Observe and gather info
- Teaching progression
- Freestyle- the most complex technique topic
  - Everything inter-related
- Maximize propulsion
  - Optimize propulsive movements
    - #1 Pull
    - #2 Kick
  - Shape the rest of the stroke around pull + kick



# Scope of Clinic

- ✓ Arm Mechanics
  - Everything else!
    - Kicking
    - Body/Head position
    - Rotation
    - Breathing



# Kicking

- The kick is propulsive
- Movement originates from the hip joint
  - Knee & leg moves forward
- The power comes from the extension of the legs (quads)
- Knee bend sets up the extension/power phase



# Kicking





# Extend then upkick





# Kicking

- Upkick is important
- Keep feet mostly in the water
- Ankle flexibility helps





# The Arm Stroke



- Arm extends in front of shoulder
- Hand path traces the side of the body
- Arm recovery swings to the side
- Arm entry drives forward



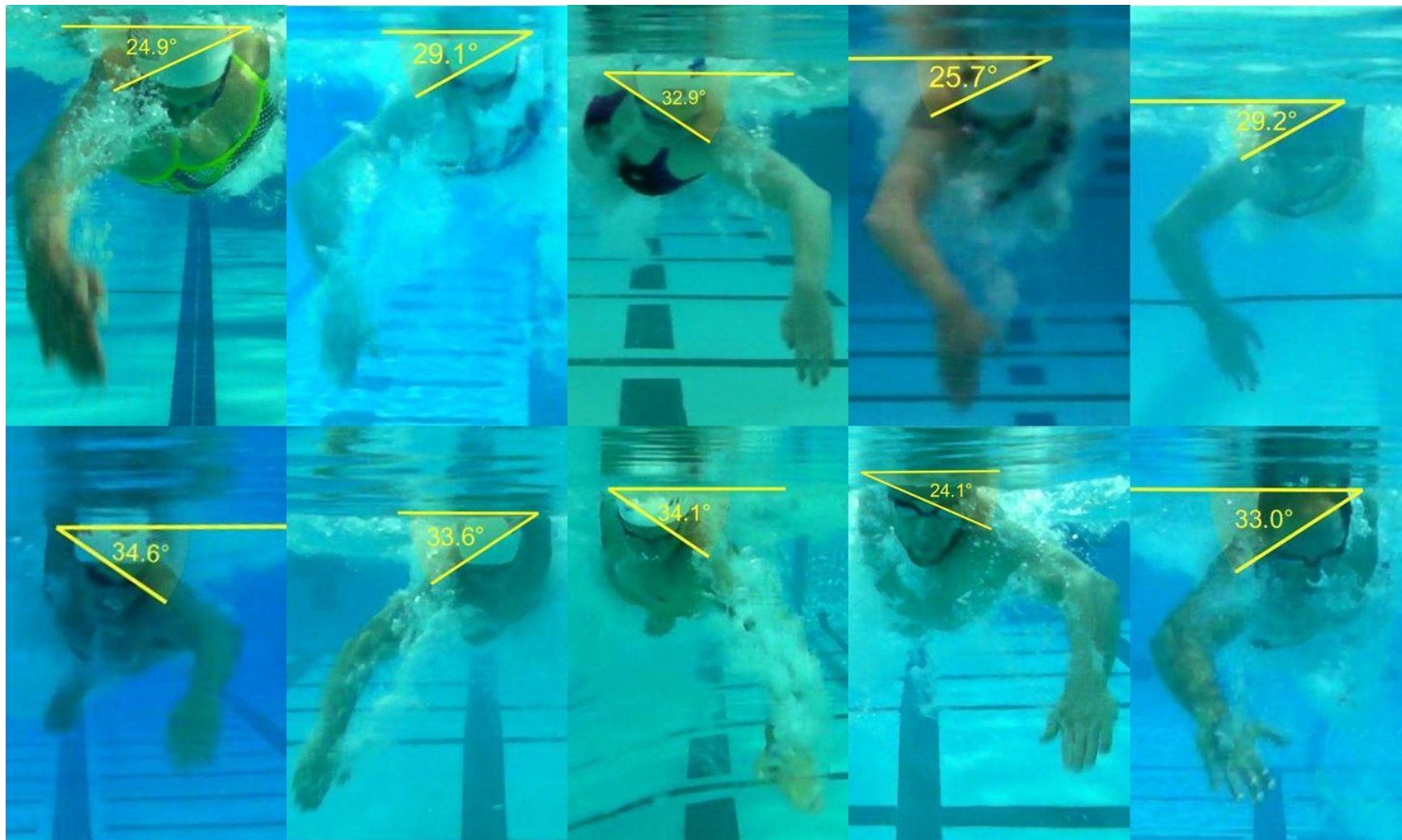
# Rotation

- Rotating onto your side
  - Does NOT reduce drag
  - Can HURT the kick and the arm stroke
- Rotate forward!
  - Not side to side
  - Tight pivot motion, not slow rotation
- Shoulder/Arm should stay to the side of face
- Hips rotate same amount & time as shoulders



# Rotation

About 30 degrees to each side underwater





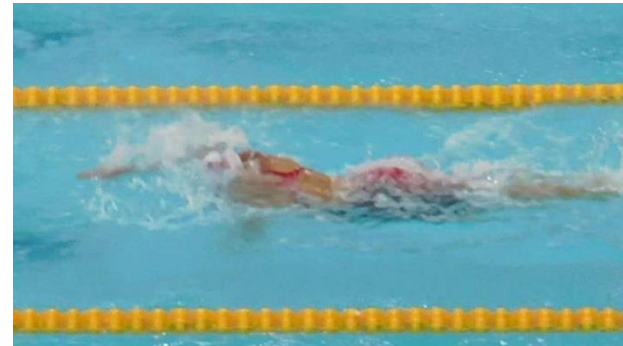
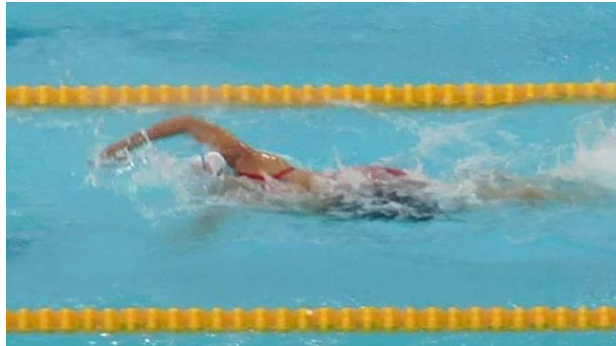
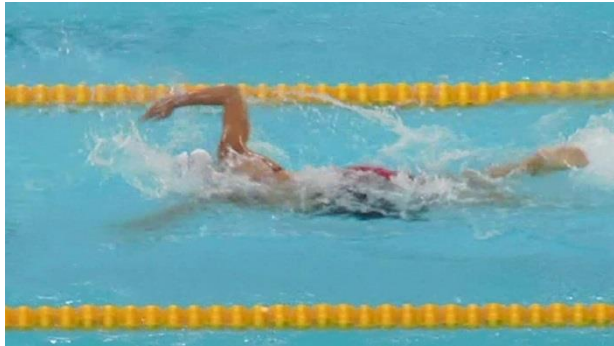
# Breathing

- Late breathing is the most common flaw that I see
- Most swimmers turn to breathe naturally when:
  - the non-breathing arm enters
  - the shoulders rotate
- That's late!!!

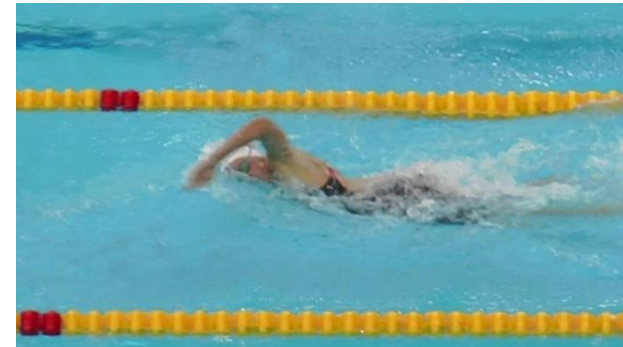
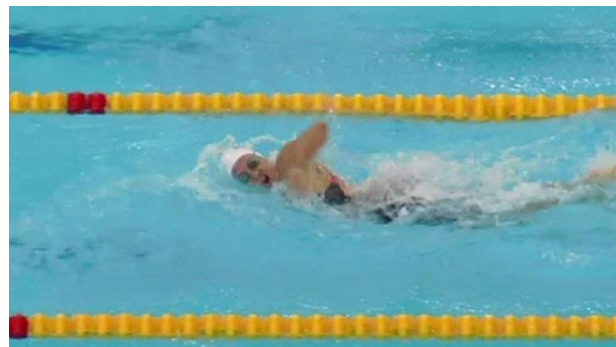
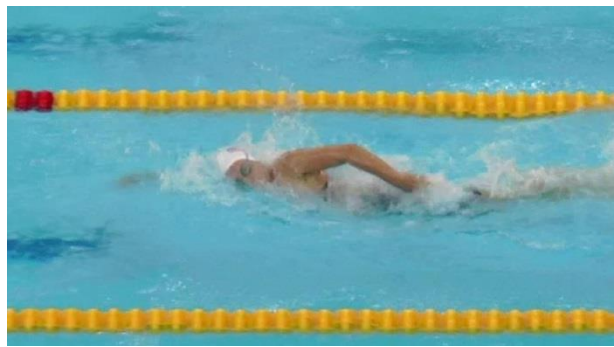


# The Late Breath

## Starting Late



## Returning Late





# Breathing

- Late breath leads to over-rotating on the non-breathing side
  - Bad catch
  - Kick hesitation



# Breathing

- The ideal breath:
  - Head stays low
  - Not leaning too much on non-breathing side
- Breathe early!
- Turn the head to lead the body rotation
  - Going into the breath
    - Initiate head turn before the opposite arm enters the water
  - Coming back from the breath
    - Head returns back in line with body before the breathing arm enters the water
    - Try to see the catch of the opposite arm
- Breath should not impact stroke tempo!



# Head & Body Position

- Hips at the surface
- Head in line with the body, at the surface, eyes looking down, water hits the top of the head
  - Difficult to do in crowded lanes
  - Most of the elite have eyes slightly forward
- Higher head position could benefit the entry and catch
  - Hip position should not be compromised



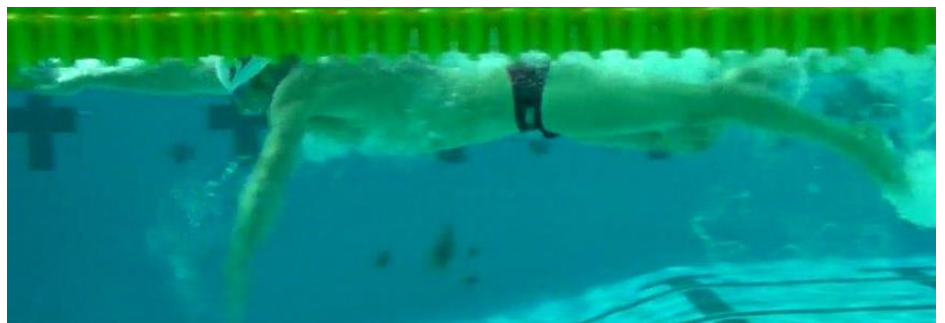


# Head Position





# Body Position





# Additional Resources

- Previous webinars
  - Freestyle Arm Stroke
  - Rotation

The screenshot shows the USA Swimming website's navigation menu. The 'MEMBER RESOURCES' tab is selected. Under the 'COACHES' section, the 'Clinics & Workshops' link is highlighted with a red box. Below the navigation menu, there is a section for 'UPCOMING CLINIC SCHEDULE' with a table listing the date, topic, and speaker for an upcoming clinic.

Date	Topic	Speaker
3/12/2014	<b>Freestyle Variations Part II: The Foundation</b> Your knees have to bend to kick fast. The best rotation stays more on your stomach than on your side. A late breath is the most common flaw in freestyle. Join Russell for a detailed look at	Russell Mark, USA Swimming's National Team High Performance Consultant



# Additional Resources

- The Race Club ([www.theraceclub.com](http://www.theraceclub.com))
- GoSwim ([www.goswim.tv](http://www.goswim.tv))
- Mike Bottom – Three Style Freestyle
- YouTube



# For more information:

- Tips & Training
- High Performance Tips

The screenshot shows the USA Swimming website with a dark blue header containing navigation links: HOME, ABOUT, MEMBER RESOURCES, TIPS & TRAINING, EVENTS, TIMES, NEWS, NATIONAL TEAM, OLYMPIC TRIALS, and FOUNDATION. A search bar is located in the top right corner. The main content area is divided into several sections:

- TIPS & TRAINING**: A list of links including High Performance Tips, In-Water Training Videos, Coaches In The Know Videos, Strength & Conditioning, Nutrition Center, Psychology of Swimming, Injury Prevention, and Doping Control.
- DIGITAL SPLASH**: A section for the digital edition of the March-April 2012 issue of Splash, available online and as a mobile app. It includes a "READ SPLASH NOW!" button.
- USA SWIMMING RSS FEED**: A section with an RSS icon and a "LEARN MORE" button.
- STAY CONNECTED**: A section for e-mail newsletters, including a "LEARN MORE" button.
- T-SHIRTS, JACKETS, BOOKS & DVDs, BAGS, SWEATSHIRTS, MEET SUPPLIES**: A section for merchandise, featuring a blue t-shirt with the text "WE POSSESS SUPER WATERSHOES".
- HIGH PERFORMANCE TIPS**: A sidebar menu with links to In-Water Training Videos, Coaches In The Know Videos, Strength & Conditioning, Nutrition Center, Psychology of Swimming, Injury Prevention, and Doping Control.
- FEATURED ARTICLE**: Two featured articles are shown. The first is "5/20/2013 World Performance Comparison: Is the U.S. Ready?" with a "READ MORE" button. The second is "5/13/2013 Following Routine: Should I Do a Wake-Up Swim?" with a "READ MORE" button and an image of a swimmer.
- LONG AXIS STROKES: FREESTYLE AND BACKSTROKE**: A section with a "MORE NEWS" button and a list of articles including "03/26/2013 Backstroke Hand Entries", "02/25/2013 Women's Freestyle Tempos", "02/19/2013 Men's Freestyle Stroke Tempos", "12/17/2012 Six-Beat Kicking a Distance Race", and "12/10/2012 1500 Freestyle: How the Best Swims It".
- SHORT AXIS STROKES: BREASTSTROKE AND BUTTERFLY**: A section with a "MORE NEWS" button and a list of articles including "01/22/2013 Butterfly Breathing Patterns", "11/26/2012 Breaststroke: Learn to Tempo Up", "10/22/2012 Breaststroke: Command Your Tempo", "05/29/2012 Butterfly: Pull Pattern", and "03/19/2012 Butterfly: Press Forward, Not Down".
- SKILLS: STARTS, TURNS, DOLPHIN KICK, FINISHES**: A section with a "MORE NEWS" button and a list of articles including "11/05/2012 Butterfly Breakouts: Think Out, Not Up" and "10/15/2012 Turns: Foot Placement on the Wall".