



Freestyle

Arm Stroke

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Russell's Perspective

- Observe and gather info
- Teaching progression
- Freestyle- the most complex technique topic
- Arm stroke vs. Pull
- Principle concept that drives the technique
 - To move forward, push water back
 - Apply direct force
 - Not lateral movements: side-to-side, S-shape pull



Scope of Clinic

- Arm Mechanics!
 - Catch
 - Width of stroke
 - Finish
 - Recovery
 - Hand/arm entry
- Everything else – related and important!
 - Body/Head position
 - Rotation (hips, shoulders, pivoting)
 - Kicking
 - Breathing



The Catch



- Some degree of elbow bend so that:
 - Fingers point down
 - Forearm is pitched downward (vertical)
 - The arm “hooks” the water
- Maximizes surface area to push water back



The Variations



- Sharper elbow bend
- Move more water back
- More efficient
- Longer to set-up (generally)
- Wider pull
- More distance-driven



- Less elbow bend
- Less water moved back
- Quicker to get into from entry
- More power
- More narrow pull
- More sprint-driven



Good Catch / Pull

- Extends in front of shoulder or slightly wider
- Hand path stays at shoulder width and traces the side of the body
- Elbow is wider than the hand
- Some rotation at the time of the catch



The Variations



- Much wider
- More catch-up timing
- Entry -> Extension -> Catch
- Less rotation at catch

- More narrow
- Deeper catch / pull
- Catch continues from entry
- More rotation at catch



The Finish

- After passing the shoulder:
 - Maintain pressure on forearm and palm
 - Start releasing water / leading with the elbow
- Hands sometimes go narrow -> due to rotation
- Don't over-do the finish
 - Can compromise the catch and/or shoulder
 - Keep forearm and palm pushing water back, not up
- More sprinters will be seen with “flick” finish but that's more of a product of transitioning to the recovery quickly (higher tempo)



The Recovery

- A controlled throw of the hand
- Traditional crawl recovery
 - Arm to the side
 - Hinged at the elbow, Led by the hand
 - Driving / rotating arm forward throughout
- Open recovery
 - Arm to the side
 - Hand is high at peak / middle of the recovery
 - Initially created from dynamic transition from finish
 - Drive hand / body forward & down
- Not a narrow recovery with hand close to body line



The Recovery

A Three-Dimensional Motion

1. Arm lifts up & Drives in(to water)
2. Swings to the side
3. Drives FORWARD! Dynamic motion!
 - Recovery arm shoulder shifts/rolls forward
 - Pulling arm shoulder shifts/rolls back



The Connection

- The recovery arm and pulling arm **HAVE TO** work together!!
- Connected through the **CORE**
- Pulling arm is always still in water when other arm enters
 - Sprinters and Distance swimmers
 - Pulling arm propels water back and body forward, but also drives recovery arm forward
 - Finish supports extension (distance) or entry (sprint)



The Entry

- Dynamic
- Always a forward-shifting component
- From traditional crawl recovery:
 - Hands / arm extend forward
 - Enter above head, just inside shoulder width
 - Palm pitched downward, maybe slight outward
- From open recovery
 - More downward attack on water
 - Arm extended, in line with shoulder
 - Palm pitched down, fingertips down



Additional Resources

- The Race Club (www.theraceclub.net)
- GoSwim (www.goswim.tv)
- Mike Bottom – Three Styles of Freestyle
- YouTube



For more information:

- Tips & Training
- High Performance Tips

The screenshot shows the USA Swimming website interface. At the top, there is a navigation bar with links for HOME, ABOUT, MEMBER RESOURCES, TIPS & TRAINING, EVENTS, TIMES, NEWS, NATIONAL TEAM, OLYMPIC TRIALS, and FOUNDATION. A search bar is also present. The main content area is divided into several sections:

- TIPS & TRAINING:** A sidebar menu listing categories such as 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.
- USA SWIMMING RSS FEED:** A section for subscribing to USA Swimming's RSS feed.
- STAY CONNECTED:** A section for e-mail newsletters for parents, swimmers, and coaches.
- PRODUCTS:** A section for merchandise including T-shirts, jackets, books & DVDs, bags, sweatshirts, and meet supplies.
- FEATURED ARTICLE:** A section for featured articles, including "5/20/2013 World Performance Comparison: Is the U.S. Ready?" and "5/13/2013 Following Routine: Should I Do a Wake-Up Swim?".
- LONG AXIS STROKES: FREESTYLE AND BACKSTROKE:** A section for news related to freestyle and backstroke, with a list of recent articles.
- SHORT AXIS STROKES: BREASTSTROKE AND BUTTERFLY:** A section for news related to breaststroke and butterfly, with a list of recent articles.
- SKILLS: STARTS, TURNS, DOLPHIN KICK, FINISHES:** A section for news related to swimming skills, with a list of recent articles.