

USA Coaches Clinic

Guy Edson - Stroke Development

Saturday, October 22, 2011

8:00 – 9:00 a.m.

Missoula, MT

## **FREESTYLE**

- \* Basic Description of Freestyle
  - Head position and alignment
  - Balance and rolling
  - Set-up
  - Roll, extension, catch, “EVF”
  - Elbow flexion. When? Does it change?
    - First pull action
    - Second pull action - is there one?
  - Hip action and exit
  - Recovery
  - Kick

## **Freestyle Variations**

- Front quadrant versus oppositional
  - What is front quadrant swimming? It is when your 2<sup>nd</sup> arm almost catches up to the 1<sup>st</sup> one during each stroke
  - Do swimmers naturally pick up one style?
    - Observing 9-10 year old boys in a third world country
  - Which is best?
    - Front quadrant is helpful in long races
    - Oppositional is effective in shorter races / sprints
  - Which do you teach?
- Lift versus drag
- Distance versus sprint
- Efficient versus Effective

## **Balance**

- Straight arm free recovery moves the mass of the arm away from the center of the body mass with decreased balance with increased unwanted movement.

### **What to Look for in Teaching Freestyle**

- Establish alignment and balance and a stabilizing kick at the beginning of every swim / drill
  - Head in line with spine
  - Steady kick, good alignment
  - Head steady
  - Recovery not affecting alignment
  - No splash entry
  - Length of stroke
  - Acceleration

### **Freestyle Keywords**

- Splash equals slow
- Reach, roll, breathe
- Fingers down
- Elbow up
- Slow.....quick
- Thumb your thigh
- Touch, turn, breathe
- Elbow high

### **Freestyle Progression**

- Practice the posture and movements on the deck before each drill
  - Kicking strength, with board
  - Streamlining
  - Streamlining with kicking, no board
  - Streamlining, one arm pull to sideglide
  - Sideglide
  - Sideglide with switching
  - Three strokes to sideglide, repeat
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9:00 – 10:00 a.m.

Does Your Club Do This?

Attributes of Successful Club Programs

Regional Coaches Clinic

USA Swimming Club Development Division

### **Common Attributes of Successful Club Programs (Dry Side)**

#### **1. Strong, consistent coach leadership**

- a. Creates the vision and sets the course
- b. Designs and implements program strategies, objectives, and policies
- c. Parent-owned, board governed and coach run
- d. Takes responsibility for all levels of program
- e. Quality communications are necessary

#### **2. Clearly Communicated vision and Mission**

- a. Why have a Mission Statement?
  - i. Make sure that all of your coaches and families know what it is
  - ii. Keep it short and concise
  - iii. On website
- b. Communicated formally or informally?
- c. How?
- d. When?
- e. Successful programs provide a clear picture of:
  1. Where the club is headed
  - ii. VISION
    1. Why do you exist
  - iii. MISSION
    1. What is expected
  - iv. Goals (5 years)
  - v. Objectives (2-3 years)
  - vi. Strategies (this month)
  - vii. Tactics (this month)

#### **3. Environment that Supports Excellence**

- a. Be demanding
- b. Have high expectations
- c. Communicate expectations
- d. Regularly challenge people to step out of their comfort zone

#### **4. Game Plan for Success**

- a. Vision-How will athletes succeed?
- b. Business / Organization Success Planning
- c. Swim Parents Education

- d. Coach education / development

**5. Distinguishing Trademark**

- a. Trademarks are a great source of pride
- b. More than the cap
- c. Consistent Theme
- d. What does yours stand for?
- e. What do people think when they see your logo (what about your own athletes / parents)

**6. Seize the Opportunity to Race**

- a. Great athletes love to race
- b. Race other great athletes – be challenged
- c. Race athletes at the next level
- d. Choose your competitions wisely
- e. Think about your meet schedule

**7. Provide and Experience with and Enduring Value**

- a. Develop core values
- b. Adversity is one of life's greatest teachers
- c. Achievement is a process

**Your Club's Wheel of Success**

**Development Commonalities of Successful Programs: (wet side)**

**1. Development of an Aerobic Base**

- a. Progressive
  - i. 8 and under
  - ii. 9-10 , 11-12
  - iii. 13-14, 15-18
- b. Track your results
- c. Aerobic indicator test sets
  - i. 2000, 3000, 10 X 300, T-5 or T-30
  - ii. Broken 1650
  - iii. 10 minute kick set

**2. Development of technical proficiency**

- a. Progressive throughout program
- b. Drill progression
- c. Common teaching language
- d. Consistent emphasis on technique daily
- e. Distance per cycle & stroke rate

**3. Emphasis on IM Training**

- a. Focus on development of all 4 strokes (not specialization)
- b. Less injuries

- c. More well rounded
- d. Better coordination
- e. Score more points
- f. More valuable to College coach
- g. More fun
- h. Example: IMX I.M. Extreme Challenge

**4. Development of Athleticism**

- a. Improve coordination
- b. Improve muscle synergies
- c. Improve strength
- d. Reduce injuries

**5. Development of Racing Skills**

- a. Compete at all distances, events within age group (IMX, IM Ready)
- b. Promote speed and pace work from the beginning of season
- c. Neuromuscular development
- d. Relays

**6. Defined Goal of Achieving the Highest Level Possible**

- a. Accountability
- b. Develop toughness
- c. Training design

\*\*\*\*\*Virtual Championship - swim meet with clubs around the nation

- 2 athletes per event
- Each athlete can only enter 4 events total
- All electronically scored with points
- Scored by Male / Female and Age of Swimmer

**7. Swimmer Progression Plan**

- a. Age and ability appropriate throughout entire program
- b. Allow for recovery
- c. Coaches have season plans and track training

**8. Creating an Environment Where Swimmers Want to Come to Practice**

- a. Minimize "low value" work
- b. Communicate training goals / purpose
- c. Work can be fun
- d. Success is family fun

**DECK PASS**

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**10:00 – 11:45 a.m.**

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**USA Swimming**

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### **Nutrition**

- Support the Body's Energy Needs
  - Consider volume and consider intensity
  - Eat to train, don't train to eat
- Transition Between Seasons
- Proper Fuel
  - Carbohydrates
    - Secondary fuel for easy activities
    - Primary fuel for moderate activities
    - Dominate fuel for high intensity activities
  - Protein
    - Build and repairs muscles
    - Produces hormones
    - Supports the immune system
    - Replaces red blood cells
    - Protein is NOT a source of energy
  - Well Balanced Diet
    - Carbohydrates - 60%
    - Protein - 15%
    - Fat - 25%
- Nutrition Foundations
  - Eat a variety of foods from all food groups
  - Eat colorful foods, including recovery
  - Eat early and often, including recovery
  - Drink early and often, including recovery
- Dehydration: Monitor Fluid Loss
  - Two ways:
    - Weigh in before practice and after practice (need 3 cups of fluid replacement per pound loss)

- Check the color of urine
  - Water is absorbed in the body the fastest
    - Next fluids would be powerade, Gatorade, chocolate milk
- Nutrition versus Supplement Facts
  - Nutrition items share what's in a product (approved)
  - Supplement facts are not guaranteed to have in the ingredient that it says it does (not approved)
- Hydration: How Much and When
  - Practice
    - 16-20 oz. of water two hours before
    - 8-10 oz. of water 10-20 minutes before
    - Every 15 minutes during
    - Replenish within two hours after
  - During the day
    - 16-20 oz. of water within two hours of walking
    - Avoid feeling thirsty during the day
    - 8-12 oz. before you fall asleep.
- Body Type and Genetics may not be fair
  - Body types
    - Endomorph - soft roundness
    - Mesomorph – muscular / prominent bones
    - Ectomorph – thin, little muscle
  - Genetic Traits
    - Height
    - Certain physical traits that affect training capacity
  - Genetics (NOT an absolute indicator)
    - Environment and motivation
    - Can impact up to 70%
- By Product Accumulation and Removal
  - By product accumulation
    - Impairs muscle function
    - Technique decay
    - Compromise energy production pathways
  - By product removal
    - Takes place in muscle, liver and kidneys
    - Lactate can be used for energy
    - Must be cleared for optimal performance
- How soon after you race or workout, should you be eating something to replace carbs you've lost?
  - 30 minute window of time
- How soon after your 30 minute window should you follow up with a meal?

- 1 hour window of time
  - Sample Recovery Foods
    - Granola, energy or breakfast bars
    - Bagels with peanut butter
    - Sports drinks
    - Recovery shakes
    - Sub sandwiches
    - Power bars
    - Fruits
    - Vegetables
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### Afternoon Session

1:00 – 2:00 p.m.

MJ - Diving / Starts

1. Jump Forward, not up!
  - a. Jumping forward is all about the take-off angle
- Take-off angle:
  - What to look for at take-off:
    - Back is lower than horizontal
    - Shin line is horizontal
    - Eyes looking at water
    - Knee low
  - What NOT to do:
    - Don't lift the head and arms too much
    - Don't stand up
    - Don't look up
- The Entry
  - Great speed off the blocks doesn't mean a thing without great entry
  - Enter through the smallest hole
  - Shallow angle
  - Perfect streamline
  - Hold your form
    - Common Mistakes that reduce speed:
      - Back bends on entry
      - Legs bend up
      - Legs drop down
      - Pike position
      - Legs aren't together



- Toes not pointed
  - **Start Position**
    - What start is best?
      - Grab start
        - Simplest start
        - Not very fast to take-off position
        - Tendency for too much focus on throwing the hands and head
        - Leads to jumping upward
      - Track Start (front weighted)
        - Generally faster reaction time than grab start
        - Rear leg push helps body get to take-off position
          - Feet should be shoulder width apart, pointing forward
          - Rear foot should be close to under the hips
        - Use arms to help pull the body forward AND down
          - Thumbs should be around block (not on top of it) to get the most pulling power
      - Track start, rear-weighted
        - A lot of forward velocity coming off the blocks
        - Rear leg push and arm pull gets body to take-off position
        - Pull with the arms, don't push
    - Front vs. Rear Weighted
      - Flexibility
      - Arm strength
      - Leg strength
    - Wedge Blocks
      - New for track start starts
  - **BACKSTROKE STARTS**
    - Push away from the wall
      - Flat wall more so than gutter walls
      - Higher foot placement allows better backward push
    - Hands / arms go over the top
    - Try different back angels on set-up
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Turns / Walls

2:15 –

1. Turns done well can enable an average swimmers to win
2. Turns can be a source of team pride
3. Turns require special teaching time
4. Turns require workout discipline
5. Turns require fitness, agility, core strength
6. Turns are fun to teach
7. Turns can be used for anaerobic and aerobic conditioning

Ideas to Consider

- Teach the fifth stroke first - - - underwater swimming
- Teach push-offs later, but not much later
- Insist on proper push-offs

Teaching concepts common to all turns:

- Depth of wall
- Kicking strength
- Leg strength (vertical leaping ability)
- Foot depth is related to push-off, angle / depth
- When to begin swimming off the wall?
- Streamlining - requires balance
- Feet quickness
- Core Strength
- The push-off position is common to all turns
  - How many turns are there? Seven

Push-offs from the Wall

- Sink, touch, push
- Streamline, kick, swim
- Dolphin kick off wall on free and back

Practice routines:

- Vertical jumps on the deck
- Vertical jumps from the side
- Blast off pushoffs (next slide)

Free Style Turns:

- Hands pull to hips, alternately; palms down

- Dolphin kick to help get over
- A nearly straight somersault, head goes just outside the knee
- Forehead to forearms.
- Hands are ready and pointing toward the end
- The feet hit the wall at a 45 degree angle
- The push-off is on the side

#### Freestyle Turns – Progression

- Learning to push-off on side
  - Learning to tuck and turn with hands in the proper position
  - Kickboard turn drill
  - Approach skills
  - In on the belly, off the wall on your side
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Guy Edson

Butterfly Presentation

5:00 p.m.

#### Butterfly Description

- Set up
- Hand entry width is dependent on strength
- Quick catch and drive (outsweep / insweep)
- Length of stroke depends on strength
- Drag dominated or lift dominated
- Exit of stroke more rounded these days, less push back
- End of stroke; elbows lead the hands
- Recovery
- Timing
  - Kick-in, kick-out
  - Head comes out before, in before
  - Chest before the hands
- Kicking up and down without too much flex up
- Some swimmers have a velocity peak on the upkick
- Sweeping wide then sweeping is slow
- It's about how much water the athlete can push backwards
- Match second kick with the exit of hands for a higher peak of velocity

#### Variations:

- Drag dominated versus lift dominated
- Even, steady kickers versus big kick, little kick

#### Basic Butterfly:

- Kick-in, kick-out
- Out before, in before
- Chest goes down, hips go up

#### Teaching Strategies:

- There is no straight line progression
- Teach all kinds of dolphin kicking all the time
  - Upside down, on the side
- Teach kicking first, arms later

#### Timing Progression

- First step: “pull up, stop”
  - No kick, maybe use pull buoy for the sinkers
  - One stroke at a time
  - Breathe every stroke
  - Goal is timing only maximum of 3 strokes
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