Preparing Age Group Swimmers for Senior Swimming

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Understanding Demands

- Physical
- Emotional
- Social
- Technical
Areas of Focus

- Focus areas to prepare Age Group athletes for the demands of Senior swimming
  - Heavy emphasis on technical advancements
    - Elimination of resistance and injury prevention
  - Training concepts
    - Aerobic development – Endurance base
    - IM Based
    - Dry-land/strength training/flexibility
  - Nutrition/Hydration
    - Thorough understanding for competitive swimmers
  - Mental Preparation – Character Development
    - Expect athletes to prioritize training/academics/develop social habits
  - Understanding Season Structure
    - Training Cycles
    - Competition (every meet has a purpose)
### Technical

#### Stroke Mechanics

- Elimination of Resistance
- Streamlined Body
- Balance
- Leg Drive
- Maintain stroke under stress/recovery
- Underwater

#### Oxygen Consumption

- Ability to generate energy within the body
- Aerobic Training
  - Key to future success
  - Provides options
  - Enables opportunity to develop form/technique
Prioritize Stroke Corrections

- Know the real cause of the flaw
  - Make appropriate correction
    - I build stroke from the inside - out
  - “Create a new extreme”
    - Sometimes overcorrecting to make a point of emphasis is helpful
    - Follow through and feedback
“With Oxygen” – Intends to improve the oxygen system. Refers to the use of oxygen in the body’s metabolic or energy generating process. Moderate level of intensity for extended periods of time.
Anaerobic Training

- Intense enough to trigger anaerobic metabolism. It is used by athletes to promote strength, speed, power. Muscles trained using anaerobic exercise develop differently compared to aerobic exercise leading to greater performance in short duration, high intensity activities, which last from mere seconds up to about 2 minutes.
"Maximal Oxygen Consumption" – Is the maximum capacity of an individual's body to transport and use oxygen during incremental exercise, which reflects the physical fitness of the individual.

- $V = \text{Volume per time}$
- $O_2 = \text{Oxygen}$
- $\text{Max} = \text{Maximum}$
General Overview

- Novice
  - 8-unders
  - Entry Level

- Intermediate/Pre Junior
  - 9-10 yrs
  - Basic technical background
  - Basic set structure

- Junior 10-11 yrs
  - More advanced technically
  - Aerobic set structure

- Pre Senior 11-13 yrs
  - Solid technical foundation
  - Aerobic set structure
Novice

- Love of Sport
  - All about enjoyment of learning
  - Being part of a team

- Foundation for all four strokes
  - Learning new skills/body balance and control
  - 4 legal strokes

- Recommended attendance
  - 3 sessions per week (45min)
Intermediate/Pre Junior

**Intermediate**

- Set based practice
- Skill emphasis
- Begin Aerobic development
- Recommended attendance
  - 4-5 sessions per week (60min)
- Yardage – up to 3,000

**Pre Junior**

- Added elements
  - Increased Aerobic work
  - Basic dryland work
    - Motor learning
    - More advanced technically
- Recommended Attendance
  - 5 sessions per week (90min)
- Yardage up to 4,000-4,500
Pre Senior

- Focus on Aerobic work
  - Yardage up to 5,000-6,000

- Continued Technical advancements

- Strong Dryland training

- Establish Racing Strategies

- Time Management

- Nutrition/Hydration

- Recommended attendance
  - 5 sessions per week / 6 when preparing to transition (120min)
Challenges

- Puberty
- Early/Late Development
- Differences between girls/boys
- Starting Late
- Conflict with other activities
Dry-Land

- **Strength Training – Age Group**
  - Train Movements, not muscles
  - Body Weight
    - Body weight exercises/Stretch Cordz
  - Core Strength before anything external
    - All exercises are core exercises
      - Hip/Abdomen/Back
  - Progressive
  - Key word is “Control”
    - Range of Motion
Circuit Training

Goals
- Develop improved motor skills
- Develop strength endurance
- Increase work capacity
- Can be done in large groups
- Target specific areas or physical qualities
  - I avoid swimming specific movements
Circuit Training

Construction Guidelines

- Designed to meet individual needs and rates of improvement
- Must be strenuous in order to be effective
- Must be simple because the skill level tends to break down when athlete becomes fatigued
- Complex movements early in the circuit
- Standardized exercise to measure progress
Objective

- To learn about the basic nutrients the body needs.
  - 6 basic nutrient groups/Energy yielding nutrients
- Swimming Specific
  - Endurance based sport
  - Implications on recovery
- Demonstrated Commitment to proper Nutrition/Hydration
Expectations

- **Communication**
  - Present solution, not problems

- **Academic and Family Priority** – self explanatory

- **Leadership**
  - Generous athletes supporting teammates success
  - Team performance over individual performance
  - Embodies Team established philosophy
Conclusion

- Questions
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Thank You