











# AQUA BITS AND PIECES by Melissa Layne

## BITS AND PIECES OVERVIEW

- The creation of moderate intensity choreography utilizing two 16 or 32 count phrases for an original class with anaerobic drills inserted.
- Review of energy systems
- Things to remember:
  - Work in all three planes
  - Supply options
  - Lead leg and lever changes
  - Change directions/travel to avoid boredom
  - Utilize all four levels
    - Rebounding, grounded (anchored), neutral, suspended

#### **Review of Energy Systems**

- Correct the myths and misconceptions
  - One does not "turn off" to let another "turn on"
  - All work together with one being dominant
  - Unless anaerobic, all caloric macronutrients contribute to the formation of ATP
  - Acetyl CoA from carbs and acetyl CoA from fats both enter the Krebs cycle simultaneously
  - Carbs are not burnt before fat or vice-versa
  - A small amount of protein is oxidized in well-fed participants

#### **Phosphagen System**

- Otherwise known as ATP-PC
  - Anaerobic, immediate, utilizes creatine as substrate
  - Short intense work, 5-8 seconds
  - Ten out of ten RPE
  - Occurs in cytoplasm of cell
  - Uncomfortable
  - FT muscle fibers

#### Aerobic Metabolism

- Consists of aerobic glycolysis and aerobic lipolysis
- Lower RPE, longer duration type of exercise
- Occurs in mitochondria
- Slow twitch fibers contain more mitochondria
- Consists of beta-oxidation, Krebs cycle and electron transport chain
  - Beta-oxidation is the conversion of fatty acids to acetyl Coa
  - Krebs cycle is the formation of citric acid from acetyl CoA from both fats and carbs
  - ETC is where the majority of ATP is produced in aerobic metabolism

# PLANES OF MOTION

- Sagittal
  - First plane that children move/neurons and synapses are created first in movement patterns
  - Progress to this plane after stationary warmup
- Frontal
  - Second plane that children move
- Transverse

# Progression and Regression OPTIONS

- Jumping jacks
  - Side jacks, crooked jacks, star jacks, double jacks
- Cross country
  - Triples with a tuck, power, with a beat, doubles
- Tucks
  - Tempo change, suspended, armless option
- Moguls
  - Add tucks, add direction. Suspended, frog style
- Rocking horse
  - Long lever, pull through, arm change
- Pendulum
  - Doubles, SSD, arm height

## DIRECTION/TRAVEL

- Standing still is a decrease in intensity
  - Face each wall for a block
  - Travel forward and back
    - Travel forward and do a half turn and travel forward again
  - Travel right and left
    - Travel right and do a half turn and travel left
  - Travel on a diagonal
  - Travel in a circle
    - Make sure you go both ways
  - Turn in a circle
    - Make sure you go both ways
  - Travel in a square
  - Turn in a figure 8
    - Make sure you go both ways

#### "LEVELS"

- Rebounding
  - Pushing against the pool surface
- Neutral
  - No pushing against surface, shoulders even with water level
- Anchored (grounded)
  - One of both feet are always in contact with pool bottom
- Suspended
  - No touching any surface of the pool limbs move to create turbulence to keep body afloat

#### Communication

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- Set choreography patterns
- Cue move and directional changes
  - Visually and verbally
  - 4, 3, 2 do
  - Motivate during drill pieces
    - Tell what you do what achieved
    - Avoid negatives
    - Allow them to sit out a drill if needed
    - Set the goal with time
      - "for 64 counts, I want you to give me a 9 out of 10"

## CROSS COUNTRY

- 8 cross country with 8 tuck jumps
- Add to combo number one
- Add a right and left travel
  - Cross country moves right to left in sagittal plane
  - Tuck jumps are stationary

ANAEROBIC DRILL BIT IS POWER CROSS COUNTRY (64 counts)

## FAME.....

- Four jacks moving in the frontal plane
- Turn a quarter and run 8 to start
- · Face front and four long lever kicks with V arms
- Add to Combo two of cross country
- ANAEROBIC DRILL BIT IS LONG LEVER KICKS WITH TWO TOUCHES (64 COUNTS)

## JUMP AROUND

- 2 side neutral squats, run forward 8 and run backward 8, 4 jumps
- Make 4 jumps in a circle
- Add 4 sets of 3 cross country with a tuck jump
- ANAEROBIC DRILL BIT IS ELBOW TO KNEE LIFTS IN TRANSVERSE PLANE (64COUNTS)

# POWERJACKS

- Run forward 8, two power jacks, run backward 8 and two power jacks
- Option to half turn second power jack and run forward
- ANAEROBIC DRILL BIT IS PENDULUM WITH HIP ROTATIONS AND BILATERAL CHEST PRESS

# FLEXIBILITY SEGMENT

- · Keep moving one body part while stretching another
- 3-5 minutes (depending on pool temp)
- Focus on
  - Hams and quads
  - Glutes and psoas group
  - Anterior and posterior delt
  - Calves and anterior tib
  - Pecs and lats/rhomboids