



### **Cardio Driver**

- Lower body does contribute the most to caloric expenditure
- Address lower body first





# **Upper Body Add On**

- Complementary to the main movement of the lower body
- Sometimes forgotten in our instructions
- Addition of strong, upper body movements contributes to:
  - Upper body strength
  - Flexibility
  - Gains in coordination
  - Enjoyment of exercise





### **Burn more calories with upper body?**

- "Making Sense of Calorie-burning Claims" by Robert A. Robergs, Ph.D., and Len Kravitz, Ph.D.
- Adding upper body moves to intense cardio-based lower body movement does not increase caloric expenditure
- BUT for clients who may not be able to maximize lower body intensity, adding upper body movement can be an important contributor to burn calories





### **Upper body moves in WIM**

- Increase:
  - Strength / Endurance
  - Flexibility
  - Fitness and skill levels
  - Fun
- After lower body cues, add upper body cues to:
  - Increase turbulence, strength, playfulness, and movement style



### **Accurate Cuing**

- Review upper body anatomy
- **Shoulder:** Shoulder Movements using sternoclavicular, acromioclavicular and glenohumeral joints:

Action Muscle

Flexion Biceps brachii, pectoralis major, anterior deltoid and

coracobrachialis

Extension Posterior deltoid, latissimus dorsi, teres major

Abduction Supraspinaturs, medial deltoid, trapezius, serratus anterior

Adduction Pectoralis major latissimus dorsi, teres major

Medial rotation Subscapulaties, pectoralis major, latissimus dorsi, teres

major, ant deltoid

Lateral rotation Infraspinatus, teres minor



### **More Anatomy**

Shoulder Girdle Movements (involving the clavicle and scapula)

Action Muscle

Elevation Rhomboids, trapezius, levator scapulae

Depression Trapezius, pectoralis minor

Retraction Infraspinatus, teres minor, teres major

Protraction Serratus anterior



## **More Anatomy**

Elbow movements

Action Muscle

• Elbow Flexion Brachialis, biceps brachii, brachioradialis

Elbow Ext.
 Triceps brachii, anconeus

PronationSupinationPronator teresSupinator



# Choreography Review This image cannot currently be displayed. Water Communication Co

# The Big Takeaway

- Teach lower body, primary moves first
- Then add the upper body movement
- After you cue the lower body muscles involved in a movement, mention the upper body muscles
- Know your upper body anatomy, deliver accurate information



