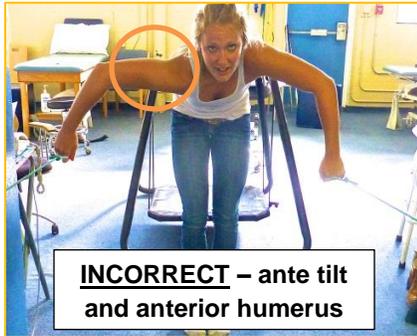
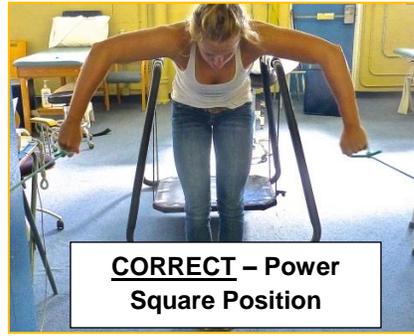




Swimmers' Scapular Re-Education Program



INCORRECT – ante tilt and anterior humerus



CORRECT – Power Square Position

This muscle re-education program is designed to improve dynamic control of the shoulder blades to optimize movement. Exercises should be performed in a smooth, controlled and precise manner with emphasis on perfect movement. Initial goal should be 3 sets of 12 reps with the ultimate goal of 3 sets of 20 reps, if form is deteriorating stop and rest.

Focus on – pain free, smooth movements; power square form; no ante-tilt

1. Basic Band Drills

Purpose: Warm up drill to emphasize proper muscle sequencing in three zones.

Instructions: Keeping arms straight, separate tubing with smooth controlled motion in three zones (4 exercises total):

a)Diaphragm b)Shoulder c)Forehead d)Transitions zone A↔C

Proper Form

- Shoulders square
- Smooth, precise movement
- Movement from shoulder (not elbow)
- Wrists in neutral position
- Core Set

Poor Form:

- Forward tilt/poke of shoulder
- Shoulder hike
- Lack of control with release
- Band drifting non-purposefully between zones



Recommended Prescription: 3 sets of 20 reps at each zone

2. Kayak Band Drills with reach

Purpose: Warm up drill for muscle sequencing, lower trap engagement, functional movement

Instructions: Offset arms at 45°, separate band with one arm going up and one down. At end of range, reach up with top arm (keeping shoulder blade down and engaged)

Proper Form

- Shoulders square
- Smooth, precise movement
- Arms moving at same speed (level band)
- Wrists in neutral position
- Core Set

Poor Form:

- Shoulder hike
- Lack of control
- Movement coming from elbows (vs. shoulder)



Recommended Prescription: 3 sets of 20 reps each side



3. Co-Contraction

Purpose: Re-train muscle sequencing of shoulder blade in combined upward and outward movement

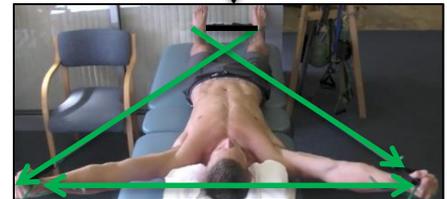
Instructions: Start with arms above shoulders; simultaneously separate tubing up and out with smooth controlled motion; tension all 3 bands at the same time; keep arms straight. Slowly release

Proper Form

- Smooth, precise movement
- Movement from shoulder (not elbow)
- Wrists in neutral position
- Core Set

Poor Form:

- Forward tilt/poke of shoulder
- Shoulder hike
- Lack of control with release
- Irregular, catching movement



Recommended Prescription: 3 sets of 20 reps

4. Divers Drill

Purpose: Re-train muscle sequencing of shoulder blade to optimize stability with upward/downward movement

Instructions: Hook handles around feet and grasp bands with two hands at the midline of the body. Keeping elbow pointing towards feet and the band close to the body, raise band overhead. Release slowly and with control

Proper Form

- Smooth, precise movement
- Elbows pointing towards feet
- Wrists in neutral position
- Band low to body
- Core Set

Poor Form:

- Shoulder hike
- Lack of control with release
- Irregular, catching movement
- Arching through low back



Recommended Prescription: 3 sets of 20 reps

5. D2 Diagonal Patterns

Purpose: Pattern of cross body movement with trunk rotation which incorporates scapular stability

Instructions: Start with arms overhead, thumbs pointing up; bring one arm across body to opposite hip leading with the thumb; reverse direction bringing weight from hip back overhead. Alternate arms.

Proper Form

- Smooth, precise movement
- Diagonal pattern
- Wrists in neutral position
- Core Set

Poor Form:

- Forward tilt/poke of shoulder
- Shoulder hike



Recommended Prescription: 3 sets of 20 reps each arm



6. Wipers with Core

Purpose: Incorporate lower body movements and core control with shoulder stabilization

Instructions: Start with weight over shoulders, lifted up towards ceiling, and knees over hip. Bring legs and arms out to sides in opposite directions, ensuring smooth motion (photo 1). Also, bring arms overhead while lowering legs towards the ground (photo 2)

Proper Form

- Smooth, precise, synchronized leg/arm movement
- Both hands on weight, arms straight
- Core set, neutral spine

Poor Form:

- Shoulder hike
- Lack of control with release
- Uncoordinated motion
- Excessive arching of lower back
- Loose arms/legs

Recommended Prescription: 3 sets of 20 reps each direction/pattern



7. Hayden Flies

Purpose: Co-ordinate scapular control with lateral movement

Instructions: Start with weights above shoulders, palms facing in; open arms, lowering weights slowly towards the ground. Emphasis on smooth controlled motion.

Proper Form

- Smooth, precise, synchronized movement
- Control speed of descent
- Wrists in neutral position
- Core set

Poor Form:

- Shoulder hike
- Uncoordinated motion
- Shoulder blade not engaged

Recommended Prescription: 3 sets of 20 reps



8. Lateral Plank with motion

Purpose: promote stability and postural alignment

Instructions: Start lying on side with elbow under shoulder. Engage shoulder blade and push up into a lateral plank. Ensure shoulders are square and spine is straight (photo 1). Can add motion, by lowering upper arm towards the bed in hugging motion, keeping neutral spine and square shoulders (photo 2).

Proper Form

- Shoulders in power square
- Straight spine, hips in neutral
- Core set
- Smooth, precise movement with hugging motion

Poor Form:

- Shoulder hike
- Forward tilt/poke of shoulder
- Rotation of spine, hips dropping
- Shoulder blade not engaged
- Mal-alignment of head/neck



Recommended Prescription: start with 15-20 second holds x 5. Add motion 3- 5 times per hold.



9. V-Plank with motion

Purpose: Compression to re-boot joint with decreased position sense (proprioception)

Instructions: Start on all 4s with hands under shoulders and knees under hips. Push up into V-plank engaging shoulder blade and keeping back flat. Perform single arm holds, ensuring that supporting arm is firm. Add motion by opening up to the side in power square position – look towards side, rotating spine and keeping neck in neutral. Don't let hips drift towards opposite side



Proper Form

- Back in swim posture – neutral spine
- Shoulder blades engaged, flat on upper back
- Head in neutral position
- Core set
- With motion, shoulders in power square position with smooth precise movement

Poor Form:

- Shoulder blades “winging” on upper back
- Deltoids not engaged
- Mal-alignment of head/neck
- Shoulder hike or forward tilt/poke of shoulder with motion
- Hips drifting or collapsing to opposite side with motion

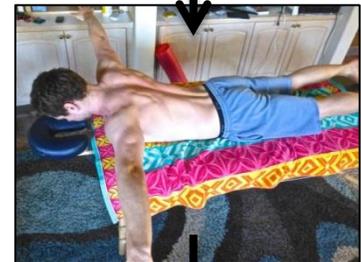


Recommended Prescription: hold 10-15 seconds x 5. Open up 5 times to each side

10. Prone Series of 3

Purpose: Postural drill working on proper engagement of shoulder blade in streamline position

Instructions: Start lying on stomach with hands on bum, palms up. Reach for feet, lifting head and chest off bed. Take tension off and bring arms up to shoulder height (“T” position) with thumbs pointing forward. Squeeze shoulder blades together. Release tension and bring arms overhead, pull shoulder blades down and in, towards opposite hip. Relax head and return to start position ****Throughout drill ensure neck is in neutral – “look towards the bottom of the pool” ****



Proper Form

- Brief hold at each posture
- Maintain streamline posture – spine neutral, blades engaged
- Head/neck in neutral position
- Core set
- Release tension between 3 positions
- Smooth, controlled motion between zones – control shoulder blade

Poor Form:

- Head/neck lifting forward or up
- Shoulder hike
- Forward tilt/poke of shoulder with motion
- Motion coming from lower back
- Keeping tension on between positions

Recommended Prescription: repeat sequence 12 times, brief hold at each position



11. Prone Stick Drills – Wide & Narrow

Purpose: Postural drill working on proper engagement of shoulder blade in streamline position

Instructions: Start lying on stomach with head off edge of bed, neck in neutral, and holding onto hockey stick with wide grip. Have partner give you perturbations in different zones, moving from arms below shoulders up to arms overhead. Ensure shoulder blades are engaged throughout. Repeat with arms in narrow grip, elbows in diamond position.

Proper Form

- Maintain streamline posture – spine neutral, blades engaged
- Head/neck in neutral position
- Blades flat on upper back
- Core set
- Smooth, controlled motion

Poor Form:

- Head/neck lifting forward or up
- Shoulder hike
- Forward tilt/poke of shoulder with motion
- Blades “winging” on upper back



Recommended Prescription: 5-10second hold in each zone

12. Prone Power Square Drill with Weights

Purpose: Postural drill emphasizing middle traps in power square posture

Instructions: Start lying on stomach with head off edge of bed, neck in neutral, holding onto weights. Raise arms into power square position, engaging scapular muscles to pull shoulder blades toward midline.

Proper Form

- Maintain neutral spine
- Head/neck in neutral position
- Blades flat on upper back
- Core set
- Smooth, controlled motion

Poor Form:

- Head/neck lifting forward or up
- Shoulder hike
- Forward tilt/poke of shoulder with motion
- Blades “winging” on upper back



Recommended Prescription: 3 sets of 15 reps



13. Superman's in Streamline

Purpose: Postural drill emphasizing lower traps in streamline posture

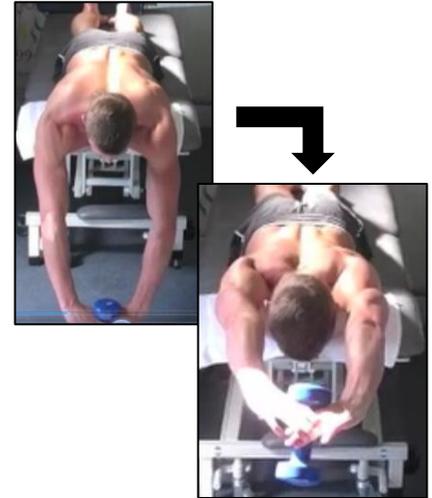
Instructions: Start lying on stomach with head off edge of bed, neck in neutral, holding onto weight with both hands. Raise weight up to horizontal, engaging shoulder blade.

Proper Form

- Maintain neutral spine
- Head/neck in neutral position
- Blades flat on upper back
- Core set
- Smooth, controlled motion

Poor Form:

- Head/neck lifting forward or up
- Shoulder hike
- Forward tilt/poke of shoulder with motion
- Blades "winging" on upper back



Recommended Prescription: 3 sets of 15 reps

14. Blades

Purpose: Dynamic, rhythmic stabilization in swimming postures

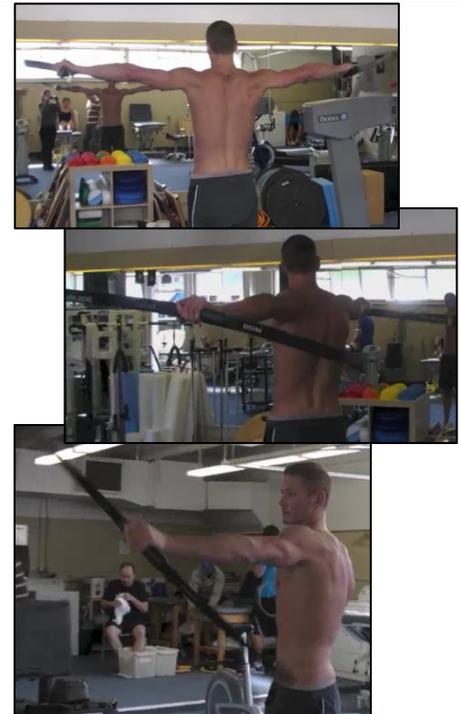
Instructions: Get body blades moving in neutral posture at side, move through zones at shoulder and overhead. Ensure blade continues to vibrate. Progress to completing one arm swim motions, with eventual goal of two arm swim motions.

Proper Form

- Shoulders in power square position
- Maintain neutral spine
- Head/neck in neutral position
- Blades flat on upper back
- Core set
- Smooth, controlled motion

Poor Form:

- Shoulder hike
- Forward tilt/poke of shoulder with motion
- Shoulder blades "winging" on upper back
- Body blades not moving with consistent speed



Recommended Prescription: 30 to 60 seconds of movement, 5 times.