

# BETTER BACKS FOR LIFE



**Better Backs For Life - Part II**  
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**Brief Recap of Part I:** In general, all training or exercise sessions include:

1. an appropriate warm up and stretch cool down
2. sports, activity and muscle specific conditioning,
3. progressive strength and endurance (refer to priorities for training and training pyramid)
4. daily flexibility and posture awareness (may require specific training)

## POWER POSTURE SEQUENCE

- \* Chin retraction
- \* Shoulder - "Scapular Set"
- \* "Hip-Rib" Check
- \* "Glut Max" Squeeze

Once the "power posture sequence" is learned and the body has developed an appropriate level of muscle strength and endurance to maintain the posture, then it is time to focus on "Active Range of Motion". Keep in mind that maintenance of power posture requires ongoing practice.

## Part II - ACTIVE RANGE OF MOTION SEQUENCE (AROM) Utilizing Muscle to Achieve Full Mobility - Adapted for Water by C. Kopansky

Following are a series of exercises which will promote development of muscular strength and endurance during movement. Perform the following movements once the body is warmed up. For most of the following exercises it is recommended to perform movements in an anchored stance. If this is too challenging, add a light bounce, such that the move is buoyancy assisted. Remember to manipulate speed of motion to change exercise intensity. Decreasing speed of motion, will decrease pressure drag, thus decreasing work done or intensity.

- a) Standing back extension: Perform this action during the stretch and relaxation phase. Hold on to the pool wall for assistance, or perform free standing.
- anchor feet on pool bottom, comfortably apart
  - activate abs
  - look slightly up and back, reach torso out of the hips, lift chest up and away from hips
  - notice a gentle comfortable arch in low back, lumbar region
  - maintain lifted posture and active abs
  - mentally focus on strong erector spinae muscles
  - listen to your body and maintain a zone

- of comfort
- hold for 8 to 16 counts (whatever feels good)
- repeat 2 to 8 times

b) Hip extension - standing/upright: Perform this action (CALA 'skater' or skate ski - anchored, repeater) during the muscle conditioning phase.

- anchor body, chest deep or deep water (advanced), feet shoulder width apart
- activate abs, maintain level pelvis (headlights forward, showing the way!)
- activate gluteus maximus and hamstring muscles, lift leg straight back
- keep pelvis level at all time and abs active
- feel the work of the hip extensors (gluts and hams)
- repeat 8 to 32 times on one side then change sides
- if keeping warm is a problem, do a light bounce jogmarch in between each side
- hold onto pool edge if necessary, progress to adding arms... lift both arms away from body (shoulder flexion - unison cross country ski arms) as hip extends (lifts to the back); return arms to side of body as leg is returning to standing - start position

c) Hip-Hinge I - Perform during muscle conditioning phase. Remain anchored. (Avoid bouncing or bobbing.)

- as per usual, keep abs active and pelvis level
- gently plantar or dorsi flex foot, keep leg straight\* and lift leg to front (hip flexion)
- \* use a bent knee, to shorten the lever, for an easier version of this exercise, progress to straight leg
- focus on power posture position, hold for a count of 4 - 8
- slowly lower leg (hip extension), past standing position and continue to lift leg behind body (comfortable hip hyperextension, with level pelvis, active abs, gluts and hams)

d) Hip-Hinge II - start as in Hip-Hinge I: Note: when instructed to hold, pay attention to water temperature and comfort level. Avoid holding if cold, unstable or feeling weak.

- Perform during muscle conditioning phase. Remain anchored.
- hold on to pool wall or use complementary arms during leg action
  - at height of hip extension, secure the body into a stable position with strong isometric muscle action, feel powerful and hold for 4 - 16 counts
  - slowly lower chest towards water, keeping the leg lifted, move to a comfortable position without bending at the waist and hold for 4 - 16 counts
  - use complete control, feel balanced and strong
  - hold this position for 4 - 16 counts, water temperature and physical condition permitting

- slowly return back to upright posture maintaining leg lift
- then slowly return leg to start, standing position

e) Hip flexion/extension combo conditioner

- Perform during muscle conditioning phase. Remain anchored. This move is most effective in arm pit depth water. Add complementary arms such as unison cross country ski arms when ready. Use wall for support if necessary.
- assume power posture position
- do CALA repeater narrow leg swing (rpt n leg swg)
- control the height of the leg lift on hip flexion and extension, find your zone of comfort
- avoid rocking or swaying upper body while moving leg
- focus on strong back and abdominal activation
- repeat 4 - 32 counts on each leg, do a transitional move such as jumping jack arms and legs, between the right and left sides, to keep body warm

f) Seated core push-pull conditioner - Perform during muscle conditioning phase. Remain anchored. This move is suspended with use of a flotation device.

- assume power posture position, in a seated position with legs and torso forming an "L" shape
- do CALA unison or alternate narrow or wide quad kick (uni/alt n/w qd k) or CALA sitting unison or alternate narrow or wide hamstring curl (sit uni/alt n/w ham crl)
- keep upper body and hips "still", move at knee joint
- focus on strong back and abdominal activation
- repeat 8 - 32 counts, do a transitional movement between right and left sides such as pendulum arms and legs, to keep body warm
- to travel during this move, add arms such as CALA unison breast stroke arms or unison reverse breast stroke arms
- remain stationary for extra intensity by working arms as hard as legs such that body remains on the spot, this will generate significant power

Always repeat the Power Posture Sequence to reinforce the proper position reflecting good alignment. Movement during exercise and daily living become safer when the power posture becomes a habit.

There are more exercises in this Active Range of Motion Series that will appear in a future Wavelink issue. Stay tuned...

See Carol Weerdenburg, MSc., at CALA 2000: L'EAU ZONE June 10, Dollard des Ormeaux, PQ, for in depth knowledge about Back Rehabilitation in Water, leaders and participants are welcome to register. Call CALA for details.

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