

wave

L I L I N K



*Tanned, & loving every minute!
New leaders practice their on
deck teaching skills!*

was drawn. A complementary CALA MEMBERSHIP is your reward for visiting the CALA Booth.

OPPORTUNITY KNOCKS. We have been inundated with requests for certified leaders. If you would like your name and phone number to be provided to prospective employees, please send in a letter authorizing CALA to do so. Include your name and phone number. Membership and certification must be current to take advantage of this new service.

CONFERENCE PRESENTERS... exciting choreography, ground breaking aquatic rehab information... new ideas... we want it all and so do our members. Send your bio, photo, session descriptions including goals and objectives; length of lecture and or pool time; deep and/or chest deep, equipment needed. Deadline for submissions is November 15, 2000.

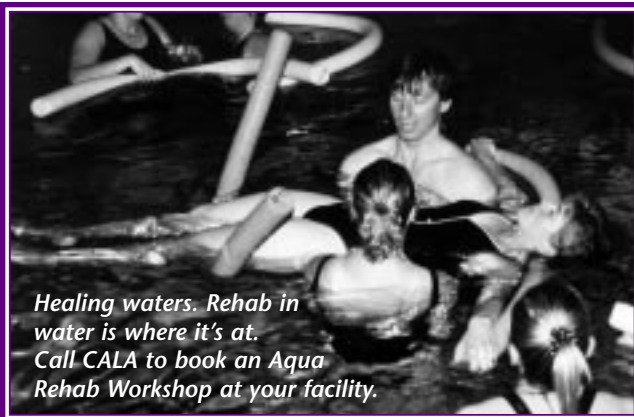
ANNOUNCEMENTS

The CANFITPRO/ CALA CONVENTION was an interesting experience. While the feedback about the presenters was favorable, there is a little bit of work to be done on the logistics. The event was sold out, a plus for CALA and for CFP. It just goes to show you how popular aquafit-

ness is becoming. Thank you to the presenters including: Tina D'Angelo, Mark Hillier, Connie Jasinskas, Charlene Kopansky, Donna Read, Pat Richards, Karen Sampson, Lisa Refausse, Julie See and Carol Weerdenburg. The volunteers worked very hard. Special mention to Jackie, you are a gem.

CENTRE OF POWER - AQUA-KICK BOX - is official! This one day specialty course was launched in Whitehorse, Yukon, and will be offered again in Ottawa on October 28.

CONGRATULATIONS to Christina Pridmore, CALA/CANFITPRO 2000 conference delegate! Your name



*Healing waters. Rehab in
water is where it's at.
Call CALA to book an Aqua
Rehab Workshop at your facility.*



LETTER FROM THE EDITOR

Planning for 2001: What do you think about another CALA convention in Guelph Ontario, next spring? I would like to hear from you regarding your ideas for:

- 1) session topics - be specific
- 2) length of each session
- 3) amount of water time within a session
- 4) specific presenters
- 5) offering the specialty courses
- 6) offering the Fast Track Course
- 7) offering the Aqua Arthritis course
- 8) time of year
- 9) number of days for the event
- 10) evening activities (ie murder mystery dinner for Saturday evening)
- 11) master classes, yes or no? themes? presenters
- 12) cost per workshop, per day, per conference
- 13) offer a solo convention? offer one and align with other organizations as well?
- 14) theme for the event, yes or no? if yes, list some ideas
- 15) should we involve a charity event, yes or no? if yes, any suggestions?

Submit your ideas regarding a potential CALA conference 2001, via fax, email or snail mail, on or before October 15.

One name will be drawn from all submissions for a very special gift from CALA. In order to qualify you must respond to all 15 points above. Also, feel free to add other stuff. Be sure to include your name and contact details on your submission.

Looking forward to the autumn: November 16 - 19, 2000, is the new scheduled date for the T for T. It will be held at NAV Canada in Cornwall, Ontario. The retreat will feature the release of the CALA Trainers Kit which will aid trainers in their design and delivery of future courses and workshops. Another new item on the agenda is the introduction of the new Specialties. If you cannot see yourself training the CALA course or other workshops, but are specifically intrigued by the idea of training one of the Specialties (Aqua for Older Adults, Aqua Pre and Post Natal, Aquajogging Training

Program and Centre of Power - Aqua Kick Box) then you should plan to attend the retreat.

Enjoying the present: At the moment of writing, I am in Calgary, preparing to educate and motivate over 50 registrants in the Aquajogger Specialty course. Thanks to Marilyn Sawford and her team who worked diligently to spread the news about the course to Physios; Marathon runners; Personal Trainers; Ironman athletes; Fitness Specialists and Aquafitness instructors.

Savouring the summer past: I had the great pleasure to hike in the New Denver and Rossland areas of B.C. I share my thoughts with you.

Reflections of Ruby Creek Lodge, July 2000.

Ruby Creek Lodge, hiking in the mountains, New Denver B.C. Pristine beauty!



With the brilliant sunshine as our constant companion, we were afforded the opportunity to enjoy...

lush green valleys
forest floors abundant with moss and varied vegetation
alpine meadows teeming with yellow, red, white, pink, and gold
wind in our hair, caressing the body
soft sounds of snow underfoot
songs of the thrushes
whistles of the marmots
brushes of friendly fir against our bodies
musical shale under foot
babbling brooks speaking the language of the mountains

The flowers, oh so delicate, the views spectacular and exhilarating.

A circle of mountains seemed to embrace our group,
snow-clad tops kissing the clear blue skies

And the full moon to light the night.

All was awesome! Thanks for the experiences.

Charlene

FEEDBACK

My name is Nayman Ben-Mallah, I am a Cala graduate. I'm looking forward to being evaluated on the 23rd of August, 2000. I am also a YMCA certified Aquafitness instructor.

I want to take this opportunity to say a few words of praise for Ms. Helen Eng. The mentorship course that Ms. Eng developed helped me understand the discipline, building my confidence and developing an integrated knowledge of the Cala moves and the aquafitness programs. Ms. Eng has been very supportive and inspiring. I'm grateful to the Cala course I took and to the Cala professionals that trained me. Cala made me a better candidate and prepared me to obtain my certification with the YMCA.

Regards, Nayman

Another letter:

I recently completed my qualifications to become a CALA Aquafitness Instructor in Ottawa. I would like to comment on the four week refresher course called "Getting There" presented by Helen Eng.

Helen decided to run the course after being contacted by several students after a weekend CALA course in May at the YMCA.

The course ran for four weeks during the month of June - every Friday evening for three hours. It was a combination of classroom and practical work.

The course included a review of muscles, properties of water as well as homework assignments followed by a practical component reviewing basic moves, cuing, components of a class etc. Helen brought her professional expertise to the course and was always there to encourage and offer suggestions to help us achieve our goal and complete the qualifications necessary to become CALA certified. At the end of the four week program, she organized our written and practical exam.

I would highly recommend this course to anyone having that "What now?" feeling after completing the course. It certainly helped me gain the confidence and commitment to become a certified Aquafitness instructor.

Diane Robertson

Helen Eng is offering the Mentorship Course through her company called RewEng. Contact Helen at (613) 722-4578 for more information.

The Assignment!

"I was having problems with what muscles were where and what each muscle does..."

Following is an excerpt from "Aquafit - The Wonderful Water Workout", a CALA Theory Assignment submitted by Sarah Van Sligtenhorst.

Congratulations Sarah, it was a pleasure to read.

"This project was a challenge that I was at first a little hesitant to take. But as I decided to buckle down and give it my best effort I found it was an interesting and enjoyable task. As I have already been leading some classes, I found this project began to flow. I began to write ideas down everywhere I was, and the project took shape.

This was a great project for me to do since I was having problems with what muscles were where and what each muscle does. I found the best way for me to learn was to get in the water and see which muscles were working during each movement. So I did!

I soon had most of the major muscles figured out and that part of the project became much easier. The knowledge that I learned was soon put to good use in my classes as I was

now more able to identify to my participants which muscles they were using.

This project was a challenge, but one I am glad I undertook. I learned more about my own body as well as how our human bodies and water react together. It was a great learning experience that I really needed. I definitely feel that I can teach each of my classes a lot better with the knowledge that I have gained from taking the CALA course and completing this project.

I am looking forward to many years of teaching aquafit and growing with CALA!!

Sarah Van Sligtenhorst.



Helen, right front, focuses on power posture & verticality getting set for Aquajogging.

BETTER BACKS FOR LIFE - PART IV

Maureen Hagan, BSc PT (Physiotherapy), BA PE; Charlene Kopansky, BSc, HK., BEd.

Brief Recap of Part I & II & III

POWER POSTURE SEQUENCE

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

ACTIVE RANGE OF MOTION SEQUENCE

(AROM) Utilizing Muscle to Achieve Full Mobility - Adapted for Water by C. Kopansky

- * Standing back extension
- * Hip extension - standing/upright
- * Hip-Hinge I
- * Hip-Hinge II
- * Hip flexion/extension combo conditioner
- * Seated core push-pull conditioner
- * Hamstring stretch
- * Standing dynamic torso spiral stretch

Wow, we are really building a wonderful series of effective back exercises. By progressing through all the stages in building a better back, one also has an excellent opportunity to improve body awareness. The back is a big winner in the series. However, other muscles in the body will also become both stronger and more supple by repeating the exercises in the sequence that have been presented in this ongoing series.

The following exercise is fun as it has definite progressions that require time and effort to achieve. As you progress from Level One to Four, celebrate your development and recognize the way in which your body is moving towards improved health and well being.

The key to all levels is slow controlled active range of motion. There is no hurry.

In fact the slower the better for developing back strength.

"Scapular Opening Stretches"

One knee tuck scapular opening; progress to tucked scapular push-up; progress to rock climber back extension; progress to prone long bridge.

- This stretch progresses from basic beginner to highly advanced which is suitable for a participant with excellent body awareness and a well conditioned body.
- Select the option that is most suitable and use in deep water, suspended with a flotation belt.

Level One: One knee tuck scapular opening:

It is recommended that everyone start at Level One regardless of fitness level. This will ensure correct exercise execution. A warm pool (87 degrees plus) is most suit-

C.A.L.A. AQUABELTS

AQUABELT SIZES:

Size	Width	Length	Fits Waist
• Medium	4 5/8"	32"	26" - 35"
• Large	4 5/8"	33"	36" - 42"
• X-Large	4 1/4"	35"	38" - 45"

AQUABELT PRICES:

- Members**
- Medium \$24.00 + S&H + Tx
 - Large \$26.00 + S&H + Tx
 - X-Large \$28.00 + S&H + Tx

- Non-Members**
- All Sizes \$30.00 + S&H + Tx
- Shipping and Handling
- \$5.00 per belt for orders under 10 belts
 - \$10.00 + \$1.00 per belt for orders over 10 belts.

REPLACEMENT STRAPS:

- All Sizes \$5.00 + \$1.00 per strap (S&H) + Tx.
- *** All belts come with straps included.
- *** Belts are not approved for use as lifesaving personal flotation devices.

For more information about our Aquabelts and to place an order please contact the CALA office at 1-888-751-9823.



able for this stretch - active range of motion (AROM) exercise.

Technique:

- Assume a vertical "floating" position with body core gently activated.
- Bring one knee slowly towards the chest, keep other leg relaxed and fully extended directly underneath body.
- As knee reaches maximum height, assist the stretch by hugging the front of shin with both arms.
- Reach knee towards chest and simultaneously reach chest towards knee. The body may move slightly forward of vertical.
- Visualize the low back opening. Relax the lower leg and foot.
- Focus on the area between shoulder blades. Open up both scapula by actively pushing rhomboid muscles up towards where wall meets ceiling. Feel the work and the release in area between shoulder blades.
- Hold for 8 - 32 seconds, depending on the temperature of the water.
- Retract from the hug position gently. Slowly open body and return to start position, hanging vertically in water with both legs long and relaxed.
- To keep body warm consider performing a slow, full range of motion cross country ski action. Then change sides and bring the other knee towards chest.

Level Two: Progression to tucked scapular push-up:

Technique:

The only thing that changes in level two, is both knees are lifted to chest simultaneously, instead of one at a time.

When in the tuck position, embrace a 'womb like' feeling of security and safety. Open the middle back to positive energy. Feel the water cradling your body.

Level Three: Progression to rock climber back extension:

Technique:

- Start vertical, bring both knees to chest, perform the scapular push up, then gently tilt body forward to a prone position keeping knees tucked to chest and scapula open.
- Slowly extend both legs to a diagonal prone position.
- Keep abs active and scapula open until legs are fully extending and body is in a straight line.
- Perform a gently arch in the lower back region, maintaining abdominal activation throughout and hold for 8 - 32 seconds as thermal comfort allows.
- Gently tuck both knees to chest and open scapula and return to vertical start position.

Level Four: Progress to prone long bridge:

Technique:

The only thing that changes in Level Four is the body is completely prone on one end, and completely supine on the other end of the movement sequence.

The key to all levels is slow controlled active range of motion. There is no hurry. In fact the slower the better for developing back strength.

Look for the Prone power quadriceps stretch for Better Backs in the next issue of Wavelink.



AQUA ARTHRITIS - A MAGICAL PARTNERSHIP: FOCUS ON MOVEMENT

by Peggy Stirling

Arthritis, or rheumatic disease, is a chronic condition that will affect 1 out of every 7 individuals.

Dealing with clients with Arthritis:

At some point in your career as an aquatic fitness professional you will probably come in contact with a participant experiencing pain and stiffness. As your clientele ages, you will likely hear more and more complaints of painful, aching joints. Arthritis, or rheumatic disease, is a chronic condition that will affect 1 out of every 7 individuals.

History of the Aqua Arthritis Course:

Since 1998, CALA has been offering a comprehensive Aqua Arthritis Training and Certification course to enable instructors to offer safe programs geared towards this spe-

cial population. The course materials include an Arthritis Catalogue featuring a wide variety of moves and a current manual. The moves form a foundation upon which instructors can design and develop safe aquatic exercise programs suited to individuals experiencing arthritis of some form.

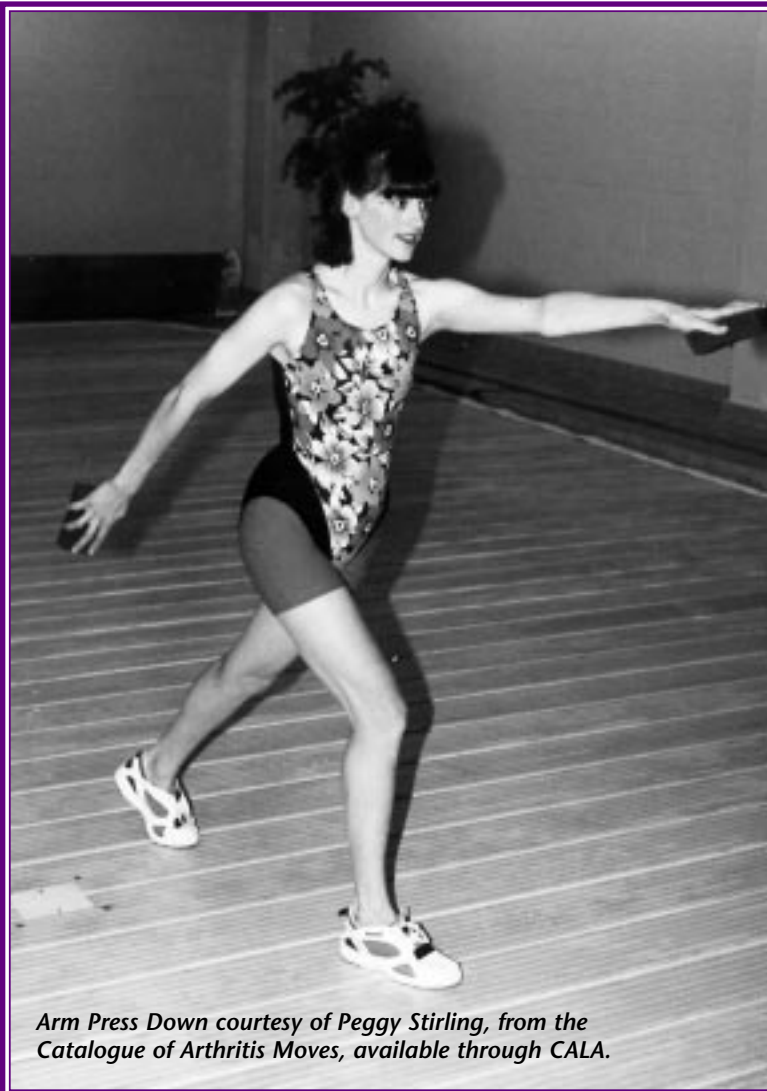
International Recognition:

This Aqua Arthritis Training and Certification course is widely accepted across Canada, the United States, in South Africa and in Great Britain. It is impressive that the creators of this program are two CALA trainers: Sheralee Beebe and Peggy Stirling. Both individuals have had considerable aquatic experience in working with participants who have arthritis and in areas of general rehabilitation. The original manual has grown in depth with the

help of physiotherapists and exercise physiologists associated with ATRI (Aquatic Therapy and Rehabilitation Institute) and other CALA trainers including Connie Jasinskis and Carol Weerdenburg. Peggy and Sheralee continue to embrace feedback as the manual and course are molded to suit the growing needs of health care givers, including fitness professionals.

University Accreditation:

University of Stellenbosch, South Africa, a prestigious and leading academic organization has offered the CALA Aqua Arthritis course in conjunction with other pertinent areas of water rehabilitation including such topics as Cardiac Rehabilitation; Joint Replacement; The Healing Power of Exercise; Common Sports Injuries; and Back Splash (to name a few). The Human Movement Sciences Department working together with the Medical Faculty have offered this program to third and fourth year students for two consecutive years. The university is finalizing plans to accredit the



Arm Press Down courtesy of Peggy Stirling, from the Catalogue of Arthritis Moves, available through CALA.

course within the curriculum. Congratulations are in order for all who have made this project work.

Benefits of Aqua Arthritis Moves:

It is important to understand the suitability of certain movements for specific conditions. Each movement can be modified by integrating levels of progression. This enables the leader to use most of the moves in a manner that will suit the needs of every individual. In some cases, certain moves in the catalogue are not appropriate. Through the course, leaders are taught how to work together with other health care professionals and the client in determining the suitability of each move.

Featured Aqua Arthritis Movement: The Arm Press-down

This move is an excellent trunk stabilization exercise.

Description: *This movement may be performed in chest deep or deep water.*

- Reach arms to front at chest level, in chest deep water, squat with one leg in front of the other, knees bent, body upright and lift arms to height of shoulders.
- Ensure shoulders are submerged.
- Hold one sponge in each hand with palms facing down.
- Move one arm down and allow it to extend past the hip towards the back as far as is comfortable.
- As the arm moves forward to the front, return to the start position, move the other arm, in a swinging motion, to the back.
- Keep pelvis in "neutral" or level, throughout the arm action.
- Keep rib cage lifted, back long, feel tall.
- Keep abdominals activated.
- Avoid any rotational action at hips.
- Maintain a symmetrical arm pattern.

Benefits: *This move has many interesting benefits.*

1. Improves range of motion (ROM) at the shoulder joint.
Modification: Bend elbows, keeping them bent at a 90° angle throughout the move. This will decrease the intensity of the movement making it easier.
2. Improves strength and condition of the muscles associated with the shoulder, upper back, neck and chest.

Modification: To increase or decrease the intensity of this move, alter one or more of the following:

- lever length;
 - ROM;
 - hand position (slice, fold, cup, flat);
 - add equipment such as a sponge or wand;
 - alter speed of motion (SOM).
3. Improves strength and condition of core stabilizers including the abdominal and erector spinae muscles.
Technique Tip: Ensure the client keeps hips and shoulders steady and facing forward. If the torso remains still while the arms are moving, the body is challenged to stay securely on the spot without turning and twisting in response to the properties of turbulence and buoyancy. The trunk muscles are activated to stabilize the body. In deep water the arm movement alone will challenge the stabilizers if the trunk is effectively resisting the body's tendency to twist. (Newton's Law of action and reaction).
 4. Add low intensity locomotor movements such as cross country ski or ski stop, performed with a light bounce or anchored (no bounce) with the Arm Press-down move (alternate cross country ski arms) to improve cardiovascular endurance.
 5. Add equipment such as wands whereby participants work in partners by holding on to the end of one another's wand. This will increase social interaction and two way communication.

Point of interest: People with Ankylosing Spondylitis, benefit from partner work with wands while performing the Arm Press-down move. The increase in ROM may help to prevent or retard the tendency of the spine to fuse in a forward bent or kyphotic position. In cases where clients have Ankylosing Spondylitis (AS) it is essential to emphasize a tall back position with activated abdominal muscles, while allowing the spine to gently rotate on its axis. This can be done by pulling the bent elbows back as far as the individual is capable, within the zone of comfort. When doing partner work, ensure the clients are matched for size, strength and ROM.

* Note: The "Arm Press-down" move is D:3 in the Catalogue of Moves Manual written by Peggy Stirling.

WHY 45 MINUTES?

Connie Jasinkas, M.Sc., CALA Trainer

When asked to recommend an ideal class length, CALA trainers and aquafitness leaders often suggest 45 minutes. Participants who are used to a 55 to 60 minute class format may wonder about the motivation for this shorter time frame. This article explains many of the excellent reasons why pool programmers, aquafitness leaders, and many participants prefer a 45 minute aquafitness class.

* **The effectiveness of aquafitness exercise** is highly dependent upon proper movement execution and participant effort. A time span of longer than 45 minutes is difficult for most participants to maintain full concentration and controlled, powerful movements, thereby limiting the training effect. The more complex the movement sequences, the higher the demands on concentration. Thus, the shorter the effective attention span. A well planned and executed 45 minute class presents sufficient challenge to both mind and body for both the novice and elite participant.

* **Dehydration Due to Immersion:**

- When standing in chest deep water, or staying vertical in neck deep water, the water exerts pressure (hydrostatic pressure) on the body.
- Hydrostatic pressure increases with depth of immersion. Therefore, when standing neck deep in water hydrostatic pressure is much greater at the feet than at the shoulders.
- The body is effectively squeezed like a toothpaste tube, from the bottom up. Bodily fluids are moved upward, and blood volume in the trunk increases at the shoulders.
- The body is effectively squeezed like a toothpaste tube, from the bottom up. Bodily fluids are moved upward, and blood volume in the trunk increases dramatically.
- Enhanced blood volume in the chest causes pressure receptors in the heart to increase kidney activity by over 600%! This effect is more profound with neck deep (as opposed to chest deep) immersion.
- While hydrostatic pressure contributes to lower exercise heart rates due to improved cardiac function, two problems result from the upward shift of bodily fluids and increased kidney function:

1. Participants may need to leave the pool for a 'nature break'.
 - + The shorter, 45 minute class format is more likely to be within the capabilities of the most bladders.
2. The longer participants are immersed in the pool, the greater their dehydration.
 - + Participants will be able to work their bodies more effectively and with less likelihood of muscle cramping if they are not dehydrated.

* **Longer class formats require substantial endurance.** Otherwise, participants may fatigue toward the end of the class and be unable to maintain the intensity of their effort. At recreational pool temperatures of 84 to 86 degrees F. lack of vigorous muscle can lead to cold, tense muscles. When this happens toward the end of a longer class, muscle stretching can be difficult or uncomfortable (tense shivering muscles are not pliable).

* **Static Stretches** (still stretches which are held for 10 - 30 seconds) are not purposeful or required in the warm up of a recreational aquafitness class. A class length of 45 minutes is more than adequate to include:

- 5 - 10 minutes of vigorous activity to warm the body and lubricate the joints
- 15 - 25 minutes of cardiovascular exercise, using large muscle groups rhythmically
- 10 minutes of specific muscle focus work for muscle strength and endurance
- 5 - 10 minutes of deep, static stretching and relaxation

* **Transition time between classes** or other programs in the pool is more generous, allowing staff and clientele to enter or exit the pool area at a safer, more leisurely pace. This time can be used by participants to socialize with one other, reducing or eliminating the need to chat rather than concentrate during class.

* **Facilities may wish to offer a lane for aqua walking/jogging** during the recreational swims which take place before or after the aquafitness class. Anyone desiring more pool time to warm up or cool down may do so independently.

AQUAJOGGING: HIGH VALUE FITNESS PART III

David K. Brennan M.Ed. and Charlene Kopansky BSc. H.K., BEd.

Aquajogging has become a popular alternative to land based running for athletes and fitness enthusiasts seeking a low impact training activity.

Running for the sake of running satisfies a primal need in humans.

Aquajogging provides the opportunity to enhance running form while working in a safe, resistance based, low impact, high energy environment.

It (aquajogging) works, ask Carl Lewis, Leroy Burrell, Ben Johnston, and Peter Fonseca (Canadian, Olympic marathoner).

It is very important to develop movement patterns in the water that closely resemble land based running form.

Many runners do not take the time to develop the correct movement patterns and fail to maximize the benefits of this low impact highly specific cross training activity.

There does appear to be some transfer of training effect in maximum oxygen consumption from deep water running and cycling to land based running although the transfer effects never exceeds the effects of running itself.

For an injured runner seeking to maintain fitness during a recovery period, deep water running and cycling offer greater specificity of training than swimming.

Part I and II of this ongoing series of articles on Aquajogging focused on the techniques of effective running form and methods to monitor intensity using the "Graded Wilder Exercise Test". This article will discuss orientation to equipment and specific training sessions that will maximize the benefits of water training, cross training and shallow water aquajogging.

The Orientation

There are several important aspects of the orientation process. The participants must first

be oriented to the aquatic environment to ensure comfort and safety. This orientation involves establishing a comfort zone with respect to the way water affects the body while moving. Buoyancy, turbulence, hydrostatic pressure, resistance and thermal conductivity will affect movement and comfort level. Ensure participants know how to 'return to vertical' from a prone, supine or side lying position. This is often referred to "recovery" in lifesaving terms.

The second phase of orientation involves establishing comfort with the use of equipment. Adding equipment such as a buoyancy belt, hitch, aqua booties, or versa floats (supplemental buoyancy added to the belt) will alter the way the body moves in water. Once comfortable, participants have created a strong foundation from which to develop a successful Aquajogging experience.



Aquajogging

The Correct Fit

Athletes and fitness enthusiasts alike must be outfitted with the correct flotation in order to ensure comfort when Aquajogging. If the client is constantly struggling with the position of the flotation belt then proper running form and exercise intensity are compromised.

Fit the belt snugly around the waist to prevent the belt from sliding up upon entering the water and moving vigorously. Adjustments need to be made until a comfortable fit is attained. Herein lies a good reason to purchase your own flotation belt. There are many brands on the market. The Aquajogger was specifically designed for deep water running, although for some people, other belts may be more comfortable. The belt should not ride up during water exercise, it should remain in place.

* *The Aquajogger Belt comes in a variety of sizes and shapes. CALA also distributes a flotation belt which is a uniform thickness from front to back. Call CALA for more information on these products.*

The Specific Gravity Test

Once in the water, a 'specific gravity-centre of buoyancy test' is performed. The participant assumes a vertical position and then remains motionless. In this vertical posture, the water level should be just at or slightly above the shoulders. If the water is at chin level, breathing will be impaired and the individual who is "sinking" will generally compromise running form to keep the head above water. In this case extra flotation is required. Aquajogger provides Versa floats that can be added to the front or back of the belt in order to enhance floatability. Some people also choose to add flotation booties for extra buoyancy. These booties are only recommended for athletic, fit individuals who require the extra flotation. The booties are not meant to increase exercise intensity during Aquajogging.

Once the amount of flotation is appropriate, observe whether the body is tilting or turning around the centre of buoyancy. This is called a "torque or turning affect" and is the body attempting to line up its centre of gravity and centre of buoyancy in a perpendicular line. If the body is tilting or rotating, try changing the orientation by sliding the belt around the body, often to the point where the belt is posi-

tioned back to front. If this does not stop the turning or tilting, then try rearranging the Versa floats. From time to time, lack of strength in the postural muscles will contribute to lack of "verticality". Constant reminders to activate the abdominals, open the chest, lengthen the back and retract the chin may help to stabilize the body.

Once the equipment is properly fitted and the participant is comfortable, the familiarization sessions can begin. Part I and II of this series outlined the technique tips for correct running form which is an essential skill that must be learned, before introducing the specific training sessions. (CALA Wavelink - Spring Issue: March/April 2000 and Summer Issue: July/August 2000)

Specific Training Sessions

Running is a vital aspect of most sports activities. Running for the sake of running satisfies a primal need in humans. Reflect on your last experience with running that brought you physical and emotional joy. Aquajogging provides the opportunity to enhance running form while working in a safe, resistance based, low impact, high energy environment. Other physical benefits, include training the stabilizing muscles of the body core. Performing movements in water provides the ultimate in body balance.

When flexing at the shoulder joint, during the forward pendular arm action of running, the anterior deltoid, long head of the biceps, and pectorals are working, using a strong concentric muscle action. On the shoulder extension phase of the arm action, the posterior deltoid, long head of the triceps and trapezius muscles (to name a few) are worked in a strong concentric muscle action. With resistance of water, the work done increases substantially. The fuller the range of motion (within the guidelines of running arm action) and the faster the movement (while maintaining range of motion and proper form) the more effective the training will be for the shoulder, upper back and chest regions of the body. Naturally the four abdominal muscles and all the erector spinae muscles are acting isometrically to maintain the correct body posture for running. It is magic, more people need to be doing this! It works, ask Carl Lewis, Leroy Burrell, Ben Johnston, and Peter Fonseca (Canadian, Olympic marathoner), to name a few.

Running Economy Training

To train the body to be more efficient in the use of oxygen and fuel which drives the body, requires an intensity of 65 - 75% of max. (Remember that training heart rate in water is about 10% lower than on land due to the affect of hydrostatic pressure, buoyancy, turbulence and thermal conductivity.)

LSD (long slow distance) sessions allow the body to free the mind from stress and the mind to free the body from stress.

Low intensity training sessions will improve "running economy". These sessions involve continuous easy jogging at an RPE of 1.0 - 2.0 for 20 to 60 minutes duration. During this type of session, conversation is encouraged while exercising. The focus is on familiarization to deep water running and fine tuning the running form. This low level training is ideal for a low intensity "active recovery" workout between hard land based workouts. Also, if the participant is at the beginning phase of a running program, it is recommended that this low intensity aquajogging workout occurs three times per week for the first 4-6 weeks of the program.

Lactate Threshold Training

To train the ability of the body to tolerate, process and reuse lactic acid requires an inten-

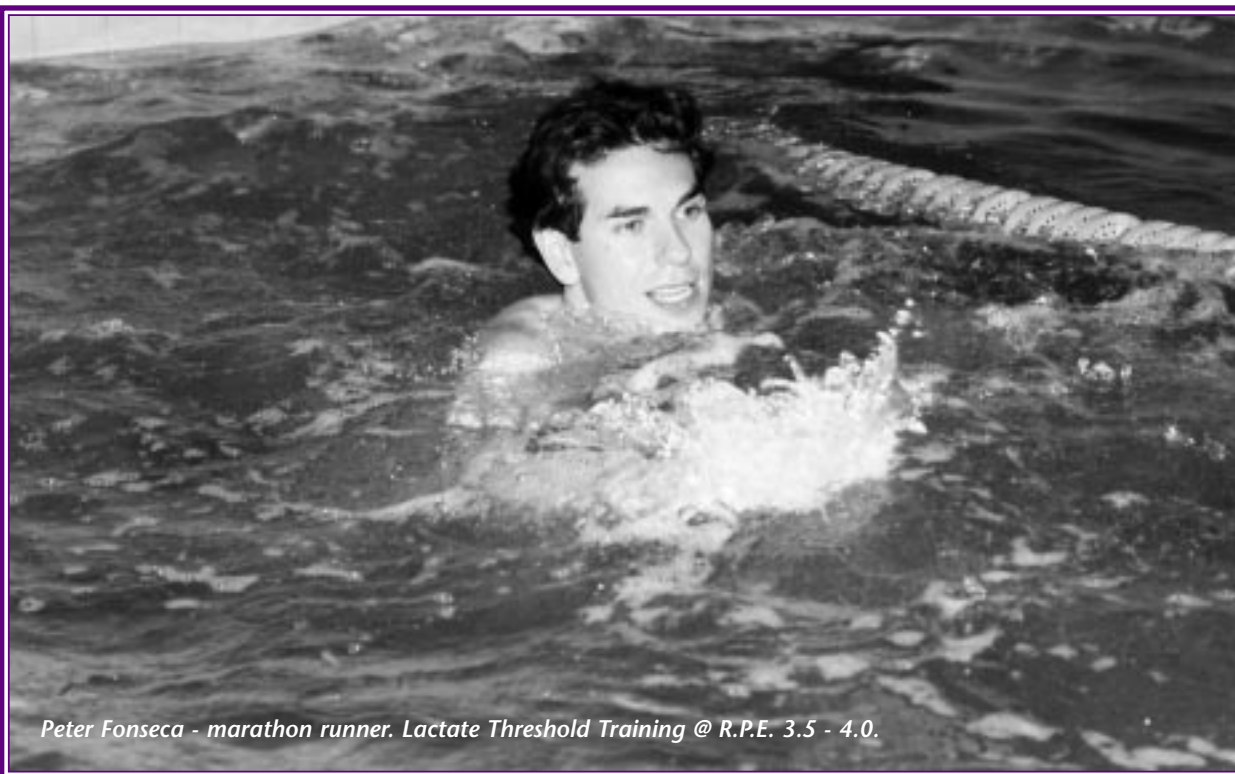
sity of 75 - 85% of maximum heart rate. This type of training will increase the lactate threshold, enabling fitness enthusiasts to effectively run hills or increase speed and effort at a certain point in a run or during any activity, without debilitating the body or "bonking" or feeling incredibly sore the following day.

You know, incredibly sore... like when you have to walk backwards up the stairs, the day after completing your first marathon.

Medium intensity training sessions will improve lactate threshold. This medium intensity session involves training with specific periods of work (repetition) followed by a limited period of rest (recovery). Repetitions will vary in number, duration, and intensity depending on the training or rehabilitation objectives. Try bursts of activity for 3 to 5 minutes at an RPE level of 3.0 - 4.0. Take a 30 to 60 second recovery period between each interval to catch your breath. Repeat 6 to 10 times depending on your present fitness level. Total recommended workout time is 30 to 45 minutes.

V02max Training

To train the body to deliver oxygen more effectively at high levels of activity with quick, relatively painless recovery, requires aquajogging at 85 - 99% of maximum heart rate.



Peter Fonseca - marathon runner. Lactate Threshold Training @ R.P.E. 3.5 - 4.0.

Maintenance of running form is essential at all levels of training. It is more difficult to keep good form at very high intensity, but must be done for maximum training results.

High intensity training sessions involve short, hard intervals ranging from 30 seconds to 2 minutes in duration at an RPE of 4.0 - 5.0. The recovery period is 15 to 60 seconds. Repeat 15 to 20 times for a total workout time of 25 to 35 minutes. Only try this high intensity session if you are in good physical condition. One of these workouts each week is sufficient. Build a base by doing low and medium intensity sessions over a 4 to 8 week period before inserting this high intensity session into a program.

Naturally, before beginning any training program it is absolutely essential to get the 'go ahead' from your doctor. Let the doctor know the training you are planning to do and then it can be determined whether or not this type of training is recommended.

As usual, include a warm up before and after each aquajogging session. More on warm ups and stretch cool downs in a future Aquajogging article.

Water is a kind and gentle training environment from an impact point of view. Once orientation to the equipment and good running form is established in the pool, plus techniques for monitoring heart rate, RPE and cadence are perfected, water running can be a valuable tool for preventing injuries, rehabilitating and/or improving fitness and the ability to run. Using various training formats will enable Aquajoggers to meet specific training goals to improve running economy; lactate threshold and/or VO2max.

A list of references was included with Part I and II.

CALA and Aquajogger are looking forward to booking a course at your facility.

UPCOMING COURSES:

- OTTAWA, OCTOBER 29, 2000, hosted by the YM-YWCA of Ottawa.

To register or for inquiries: Call CALA at 1-888-751-9823 or email: cala@interlog.com

A T T E N T I O N

ALBERTA AQUAFITNESS INSTRUCTORS

DO YOU have people in your class with ACUTE CHRONIC pain, injuries, pre-post surgery, arthritis or other health concerns?

DO YOU know where to refer them if they need rehabilitation aquatic exercise therapy?

Water Moves Aqua Therapy offers aquatic exercise therapy, for the individual or in a group setting.

Classes are taught by CALA trained instructors, massage therapists and kinesiologists with a background in rehab.

For more information, contact:

Judy Doyle, Program Director

403-815-3256 (Calgary)

e-mail: wmat@home.com • internet: www.members.home.net

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CALA AQUA MATT

A Must for all aquafitness leaders!

Details about the mat: It's a cellular urethane pool deck mat that comes in two sizes: 1.0 metre and 1.7 metres, easily portable, non-slip surface, ultra violet, chemical resistant & odourless, no maintenance required, immediate return to original thickness following rapid & repetitious impact.

Why buy it? Aqua Matt protects your most valuable asset - "you" - from damage to your joints and loss of earnings. Designed for the safety of the pool deck Aqua instructor, Aqua Matt provides maximum shock absorption for cushioning and protecting against impact and vibration and a non-slip surface to guarantee sure footing even when wet.

Sizes available and cost:

1.0 metre mat: \$115.00 + \$20.00 S&H + applicable taxes

1.7 metre mat: \$165.00 + \$20.00 S&H + applicable taxes



LOW FAT RECIPE - BEEF OR SALMON CARPACCIO (SERVES 4 - 6)

Courtesy of Teri Gentes-Kasouf, Infinite Vitality

- 6 oz of carpaccio sliced beef tenderloin (ask your butcher) or 8 oz of smoked salmon
- 2 t good quality Dijon mustard (flavoured is fine)
- 2 T capers
- 2 T minced onions
- 3 T chopped parsley
- 1 t minced garlic
- 2 T freshly squeezed lemon juice
- 2 T caper juice
- 3 T virgin oil
- 6-8 large lettuce finely slivered salt and freshly ground pepper

Garnish for Beef: freshly shaved Parmesan cheese sprinkled over entire plate, lemon wedges and additional black pepper
Garnish for Salmon: 2 T fresh dill, lemon wedges, thinly sliced red onion, black pepper

Prepare dressing by shaking together Dijon, lemon juice, capers, caper juice, chopped parsley and red onion in a small jar with a tightly fitting lid. Slowly drizzle in olive oil whisking with a fork until thickened. You may want to add

additional lemon or caper juice if vinaigrette seems too thick. Season with salt and pepper and set aside.

Layer lettuce to completely cover the bottom of a round or oblong serving platter. Layer the paper thin beef or salmon in attractive rows overlapping slightly. Drizzle with the dressing then top with the appropriate garnish and serve with warm fresh baguette, slices and endive, radicchio or romaine leaves.

This is not a science - it's sense!

AIDS/NOURISHMENT

SPLASH SENSATION: FOR POOL ADMINISTRATORS & PROGRAMMERS

Connie Jasinkas, M.Sc., CALA Trainer

If you are responsible for setting the agenda at your pool, the following ideas may be of benefit. The ideas will help you make more productive use of pool space, save wear and tear on instructors, and result in a more satisfied clientele. Who could ask for more?

First, if you are not already doing so, consider offering 45 minute, rather than 55 or 60 minute aquafitness classes. This time span offers more flexibility in scheduling and has many advantages for the client as well. Be sure to explain to your aquafitness participants the benefits of this class length. The article included in this issue of Wavelink, is entitled: Why 45 minutes? It will be useful for to educate staff and clients.

Second, we know that the effectiveness of aquafitness training depends upon proper movement execution and participant effort. Often, in large classes, instructors have difficulty assessing and coaching new clients effectively. A learning period is required, and this is best accomplished in a small group or one-on-one with a CALA certified instructor. New participants need to see how movements in water look, when demonstrated by the instructor on deck and when executed properly in the water. Visual and verbal cues can be demonstrated and explained during this learning period. Further, novice 'aquafitters' benefit from being carefully observed and kindly corrected as they attempt stable, purposeful aquatic movement. An intimate, small group setting allows new participants to share health information and ask questions while the instructor gets to know their name and learning style. This is important for safety, as well as client retention.

How do you accomplish valuable contact between instructors and clients?

Create an 'Introduction to Aquafitness' class! You might have a more interesting name, like: "Getting Your Feet Wet"; "Splashing With Purpose"; "All the Right Moves"; "Seahorse Riding Lessons"; "Making Waves"; "Drive Don't Drift"... let imagination and the clientele be your guide. This class would ideally be offered frequently at the start of each new program session and occasionally throughout

the aquafitness program. It could be scheduled a number of different ways:

- * **Aqua Personal Training***
This could involve a booking system where by a client schedules a private session with a qualified, certified instructor.
- * **Introduction to Aquafitness Class***
Small groups of individuals may sign up for this special class.
- * **15 Minute Splash & Learn** or Technique Quick Tip Splash & Learn*
This mini class could be offered just before a regular aquafitness class starts. Try offering this mini session on a daily basis during the first week of the session, and during specified classes after that. This 15 minute time block will be available if your facility is offering 45 minute aquafitness classes.

Both clients and instructors will benefit from this preparatory training, making the facility run smoother. Happier clients, and happier instructors create a thriving environment.



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INDIVIDUALS WITH QUALITY, INTEGRITY AND COMMITMENT

CALA COURSE GRADUATES FROM CALA FAST TRACK AND TOTAL TRACK MAY, 2000 - AUGUST 31, 2000

MADEIRA PARK, BC BCRPA / CALA DUAL TOTAL TRACK - MAY, 2000

Crystal Barton
Sara Disney
Nicole Fleury
Sharlene Gamble
Emma Munro
Laureina Nichols
Shelagh Noonan
Kim Watts
Trainer: Dianne Levy

OTTAWA, ON YMCA-YWCA / CALA DUAL FAST TRACK- MAY, 2000

Christina Anglin
Louise Aubé
Janet Baxter
Nayman Benmellah
Manon Breau

Debbie Coleman
Shelley Douglas
Marina Finateri
Yasmin Fudakowska-Gow
Karen Hirshhorn
Marnie Jones
Kinda Kaip
Marie Nadree Lalonde
Rachelle Landry
Michelle Lapierre
Shawn Lecompte
Kari Leroux
Laura Longpre
Antonia McGuire
Hiromi McPhail
Julie Melancon
Joanne Morgan
Carrie Murray
Anne Marie Paquet
Chandra Prater
Diane Robertson

Kathy Roy
Candace Swick
Jenn Tayler
Trainer: Carol Weerdenburg

DOLLARD-DES ORMEAUX, PQ CALA FAST TRACK- JUNE, 2000

Sharon Cohen
Rachelle George-Bernard
Robin Glance
Amanda Klein
Lyane LeGrand
Gillian Whitfield
Trainers: Catherine Morisset,
Line Marr,
Carol Weerdenburg

SARNIA, ON CALA SHORT TRACK - JUNE, 2000

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Leslie Beneteau

Emmy Bortolin
Liana MacDougall
Lydia Paulino-Racine
Judy Sopel
Marg Stewart
Sandra Stover
Collette Watts
Trainer: Connie Jasinskas

TRAIL, BC BCRPA / CALA DUAL TOTAL TRACK - JULY, 2000

Karen Scott
Patricia Chernenkoff
Helen Barbe-Lattanzio
Lynn Kenneway
Nicole Norman
Trainer: Pam Nelson

CALA COURSE GRADUATES FROM CALA SPECIALTY COURSE (CENTRE OF POWER - AQUA KICK BOX, PRE & POST NATAL, OLDER ADULTS AND AQUAJOGGER) MAY 1 - AUGUST 31, 2000

DOLLARD-DES-ORMEAUX, PQ CALA AQUA OLDER ADULTS - JUNE, 2000

Susan Anderson
Melissa Atwood
Judy Laughton
Monique Messier
Sabine Simpson
Edith Tremblay
Trainer: Catherine Morisset

DOLLARD-DES-ORMEAUX, PQ CALA AQUA PRE & POST NATAL - JUNE, 2000

Penny Basset
Andrea Childhose
Cristina Degano
My-Linh Diep
Shirley Hamm
Marie-Claude Leblanc
Dawn Magwood
Lisa Nelligan
Sylvia Wieser-Picciano
Trainer: Connie Jasinskas

DOLLARD-DES-ORMEAUX, PQ CALA AQUAJOGGER TRAINING COURSE - JUNE, 2000

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Liliane Brunetti
Christine Clark
Helen Eng
Marue-Sylvie Fortier
Elizabeth Fox
Pia Francis
Monica Giacomini
Cynthia Hewitt
Jacqueline Jacques
Monique Lambert
Michelle Linke
Gerry McCready
Kelly Paradis
Natalie Plouffe
Natalie Plourd
Jani Quarles
Annalie Rak
Linda Rampen
Colleen Santini
Nancy Shannon

Peter Turton
Corinna Wong
Trainers: Charlene Kopansky,
David Brennan

WHITEHORSE, YT CALA CENTRE OF POWER- AQUA KICK BOX - JUNE, 2000

Richele Bauer
Edith Belanger
Brad Coxford
Sharon Denton
Sarah Kent
Lois Moore
Sarah Neill
Kelly Patrick
Krista Prevost
Sasha Sywulsky
Laurie Tremblay
Trainer: Charlene Kopansky

PORT ALBERNI, BC CALA AQUAJOGGER - JULY, 2000

Allison Buna

Vicky Straw
Chantal Gosselin
Kim Callewaert
Shirley McLeod
Terry-Lynn Vint
Suzanne Hoveland
Margaret Graham
Steven Robinson
Trainer: Charlene Kopansky

PORT ALBERNI, BC CALA CENTRE OF POWER - AQUA KICK BOX - JULY, 2000

Vicky Straw
Chantal Gosselin
Kim Callewaert
Cher Sullivan
Georgia-Anne Parsons
Suzanne Hoveland
Allison Thompson
Steven Robinson
Lisa Storey
Trainer: Charlene Kopansky

CONGRATULATIONS ON BECOMING CALA CERTIFIED AND RECERTIFIED!

Carolyn Aesie
Christinea Anglin
Melissa Atwood
Marie-Chistine Charette
Judi Cova
Tracey Cox
Marie Andree Despatis
Sara Disney
Anine Engelbrecht
Yasmin Fudakowska-Gow

Jo Geary
Stefan Hellmis
Tara Horsman
Lyane LeGrand
Julie Melancon
Sabine Meyer
Emma Munro
Laureina Nichols
Shelagh Noonan
Katja Noras

Kelly Paradis
Anne Parr
Andrea Pielen
Jani Quarles
Diane Robertson
Sabine Simpson
Sarah VanSligtenhorst
Kim Watts
Natascha Woithe

CALA RECERTIFIED

Maryvonne Berthoult
Jocelyn Bornstein
Heather Bryce
Mary Kloosterman
Line Marr
Diane Whalen

Congratulations to Pam Nelson of Trail, B.C. who has earned full trainer status with CALA.

CERTIFICATION

AQUAFITNESS WORKSHOPS, TRAINING COURSES AND TRAINERS RETREAT

TRAINING COURSES (BY REGION):

BRITISH COLUMBIA: (BCRPA Recognized)

Burnaby Location: Simon Fraser University
CALA Basic Fitness Theory & Aquafitness Specialty (TT)
September 29, 30, Oct. 1, 13, 14, 15

Ladysmith Location: Frank Jameson Community Centre
CALA Aquafitness Specialty (FT)
October 13,14,15

Ladysmith Location: Frank Jameson Community Centre
CALA Basic Fitness Theory & Aquafitness Specialty (TT)
October 13,14,15, October 20,21,22, 2000

ONTARIO: (OFC Recognized)

Ottawa Location: Lower Town Pool
Aqua Older Adults Specialty Certification Course
September 30, 2000

Toronto Location: Cumber Park Fitness Centre
CALA Aquafitness Specialty (FT)
September 29, 30, October 1, 2000

Toronto Location: Cumber Park Fitness Centre
CALA Basic Fitness Theory & Aquafitness Specialty (TT)
September 29, 30 October 1 and October 27, 28, 29,

Ottawa Location: Champagne Pool
CALA Aqua Kick Box Specialty Certification Course
October 28, 2000

Ottawa Location: Metro Central YMCA
CALA AquaJogger™ Specialty Certification Course
October 29, 2000

Guelph Location: University of Guelph
CALA Aquafitness Specialty (FT)
October 27, 28, 29, 2000

Guelph Location: University of Guelph
CALA Basic Fitness Theory & AquaFitness Specialty (TT)
October 27, 28, 29, November 3, 4, 5, 2000

Ottawa Location: Ottawa Fitness Club
CALA Aquafitness Specialty (FT)
November 10, 11, 12, 2000

Timmins Location: Sportsplex Pool, City of Timmins
CALA Aquafitness Specialty (FT)
November 24, 25, 26, 2000

PRINCE EDWARD ISLAND:

Charlottetown
Location: Charlottetown Community Recreation Centre
CALA Aquafitness Specialty (FT)
November 3, 4, 5, 2000

Charlottetown
Location: Charlottetown Community Recreation Centre
CALA Basic Fitness Theory & Aquafitness Specialty (TT)
November 3, 4, 5 and 10, 11, 12, 2000

TRAINERS RETREAT (T4T):

ONTARIO: Cornwall

Training for Trainers - New trainers are welcome!
November 16, 17, 18, 19, 2000 Location: NAV Canada Centre

Please note: Immediate registration for Training for Trainers is imperative

Book a training event at your facility! Contact CALA!

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