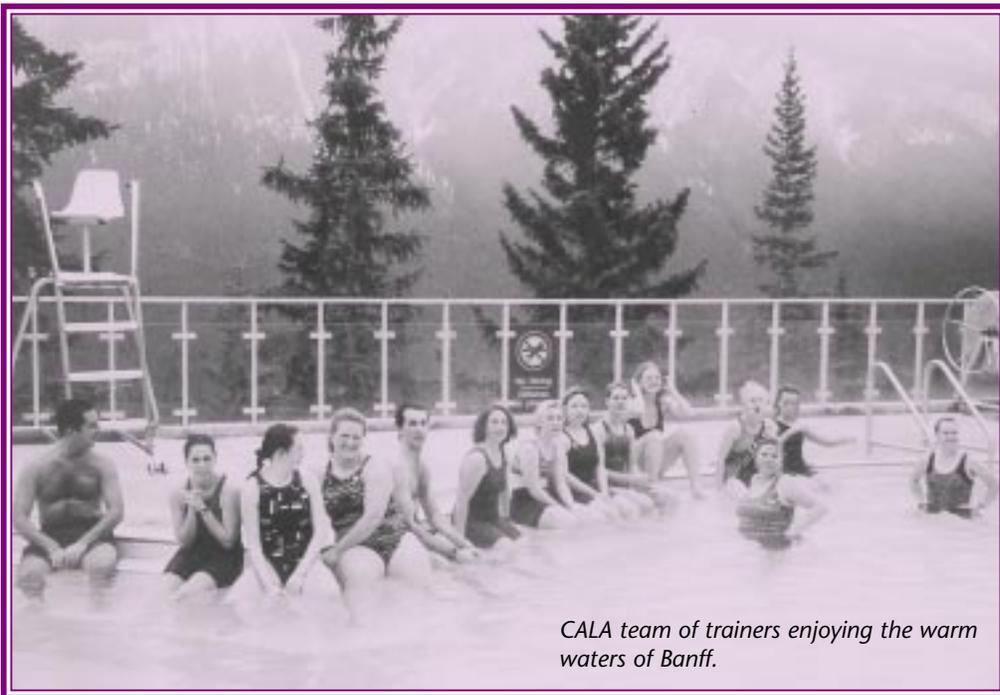


wave

L I L I A N K



CALA team of trainers enjoying the warm waters of Banff.

CALA is premiering a one weekend set of Specialty Certification Courses. These FOUR new courses will be 7 hours in length and will be taught over a two day period. Two of these courses will be facilitated on the first day while the second two will be taught the next day. This allows the participants to participate in two of the four courses at one summit. At the conclusion of these courses there will be an optional opportunity for certification. CALA is excited to announce that the first group of Specialty Certification Courses will be:

1) Aquajogger™ Training Program, 2) Aqua Pre & Post Natal, 3) Centre of Power: Aqua Kick Box and 4) Golden Tide (Aqua Older Adults). We already have Specialty Certification Summits booked all across Canada! Call the CALA office for information about a Specialty Summit in your area. REACH FOR THE TOP!

ANNOUNCEMENTS

• CALA 2000: L'EAU ZONE - CALA is pleased to announce its first ever, completely bilingual conference! This conference will be held June 9th-11th, 2000 at the Aquatic Association of Dollard-Des-Ormeaux in Dollard-Des-Ormeaux, QC. This event will feature a Fast Track Aquafitness Training Course (in French), three Specialty Courses (Aquajogger™, Aqua Pre & Post Natal and Aqua Older Adults), Aerobic & Aqua Parties, a cooking show and much, much more. For more details see the brochure included in this issue.

• AQUAJOGGER™ & POWER MUSIC - EXCLUSIVE SPONSORS OF OUR CALA

2000: L'EAU ZONE CONFERENCE - Yes, that's right; both Aquajogger™ (one of North America's best Aquafitness equipment companies) and Power Music Canada (Nationally recognised aerobic & aquafitness music company) have become the exclusive equipment and music sponsors of our first, fully bilingual conference. As well, CALA has formed affiliations with both companies that will prove extremely beneficial to all organizations. You can look for CALA member benefits at upcoming CALA events!

• CALA SPECIALTY CERTIFICATION SUMMITS - Coming soon to every province!



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LETTER FROM THE EDITOR

Wow, the year 2000 is well underway, and at CALA we are super charged about the projects we have lined up for the new millennium.

What an interesting journey it has been to plan and pull together the brochure for our first bilingual convention - CALA 2000: L'EAU ZONE. Together with Maryvonne Berthault, our translator and Cynthia Grahame, our convention coordinator, we have created an outstanding brochure filled with the top presenters and the hottest workshop topics. With the support of the Aquatic staff at Dollard-des-Ormeaux, this is sure to be an awesome event. The Aqua Party Friday evening class will feature a team of Quebecois leaders who are sure to get you revved up for the weekend. If you are into Aerobics, you can party with Darin Dieterich, all the way from Germany. (Darin wouldn't miss this conference!).

Brochures were mailed on Feb 15. We have included an extra brochure with this newsletter. Please share news of the convention with others. The more the merrier!

"The CALA Educational Specialty Course Training Summit" will focus on specialty aquafitness activities for the healthy population. By the way, we welcome leaders and participants to attend these courses. Education is for everyone. So if you know of a keen participant who wants to know more, tell them about our convention and our summit. Give them our contact details. We welcome their inquiries.

The Summit includes:

- Aquajogger Training Program (AJTP)
- Centre of Power: Aqua Kick Box
- Pre and Post Natal Aquafitness
- Catch the Golden Tide: Aquafitness for Healthy Older Adults

This is just the start. We will be adding more topics to this summit in the future. We plan to offer an Aqua Personal Training Specialty Course. Hold on, it is coming!

The current courses on offer include an 8 hour day with theoretical, leadership and practical components. Plan to get educated, motivated and stimulated with water and land sessions to keep you pumped. Certification is optional and there is no recertification required. You will earn 7 CALA Cec's per course which counts towards your CALA Aquafitness recertification. Credits will be awarded from other organizations as well. You will receive a graduate letter from CALA, at the completion of the specialty course.



Also, "Healing Waters" will be back with one day specialties. Look forward to sessions about Aqua and Joint Replacement, Arthritis, Cardiac Challenges, Back Care, and Cancer. Stay tuned.

We are happy to see an increase in the number of people who are deciding to complete their certification. If you are unsure about getting certified, call CALA to discuss your options. CALA Certified Means Clearly Qualified!!!

And guess what, yes we are having our Summit in Toronto. Stay tuned.

Why not enjoy springtime in Montreal, come to the convention, get tons of credits, learn lots, reconnect with other passionate aqua people and have fun. Our Quebec team of volunteers assure us that a good time will be had by all.

I am currently in South Africa for two months spreading the good news about CALA. Next stop is Germany, then England and Ireland. I will have lots of great stories to tell.

We really need your support in promoting our events. Call us about the Regional Rep program or simply make a commitment to promote CALA at every opportunity.

Remember certification is not required in order to join in on the fun and learning.

See you when the tulips are blossoming,

Charlene

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BETTER BACKS FOR LIFE



Better Backs For Life - Part II
Maureen Hagan, BSc PT (Physiotherapy), BA PE; Charlene Kopansky, BSc, HK., BEd.

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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(Leaders please copy for your participants with CALA logo and address intact)

A WARNING RELATED TO BREAST CANCER

Ladies - some awareness! Gentleman - pass on to the ladies in your life! Some time ago, I attended a Breast Cancer Awareness seminar put on by Terry Birk with support from Dan Sullivan. During the Q&A period, I asked why the most common area for Breast Cancer was near the armpit. My question could not be answered at that time.

This email was sent to me, and I believe my question has been answered. I challenge you to rethink your every day use of a product that could ultimately lead to a terminal illness. As of today, I will change my use. A friend forwarded this email to me. I showed it to a friend going through chemotherapy and she said she had recently learned about this fact in a support group session.

The leading cause of breast cancer is the use of antiperspirant. A concentration of toxins leads to cell mutations: a.k.a. CANCER. Yes, ANTIPERSPIRANT. Most of the products out there are an antiperspirant/deodorant combination. Go check your product.

Deodorant is fine, antiperspirant is not. Here's why: The human body has a few areas that it uses to purge toxins; behind the knees, behind the ears, groin area, and armpits.

The toxins are purged in the form of perspiration. Antiperspirant, as the name clearly indicates, prevents you from perspiring, thereby inhibiting the body from purging toxins from below the armpits. These toxins do not just magically disappear. Instead, the body deposits

them in the lymph nodes below the arms since it cannot sweat them out. Nearly all breast cancer tumors occur in the upper outside quadrant of the breast area.

This is precisely where the lymph nodes are located. Additionally, men are less likely (but not completely exempt) to develop breast cancer prompted by antiperspirant usage because most of the antiperspirant product is caught in their hair and is not directly applied to the skin. Women who apply antiperspirant right after shaving increase the risk further because shaving causes almost imperceptible nicks in the skin which give the chemicals entrance into the body from the armpit area.

PLEASE pass this along to anyone you feel should know. Breast cancer is becoming frighteningly common. This awareness may save lives. If you are skeptical about these findings, I urge you to do some research for yourself. You will arrive at the same conclusions, I assure you.

Thank you,

Katrina Scott

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University of Maryland
P.O. Box 295
Cole Field House/Campus Drive
College Park, MD 20741-0295

Please note that the opinions expressed in this article are those of the author and not of CALA or its associates.

MUSCLE THE METABOLIC STIMULANT

by Frances Michaelson

"After the age of thirty, I found fat starting to accumulate in different areas of my body. I used to be able to eat whatever I wanted, but now my metabolism seems to be much slower."

You have probably heard this type of comment. Perhaps you have even shared these thoughts. It is true that the average 35 year old male gains about a pound of fat each year. Women often gain more. The reason is not an aging metabolism. The main reason for creeping obesity seems to be a LOSS OF MUSCLE.

The more muscle mass an individual has, the higher the resting metabolic rate (RMR or BMR). Muscle tissue is very active and requires a great deal more maintenance from the body than body fat. Muscle tissue is also eight times heavier than body fat and takes up less space! (This is the reason that you may experience weight gain after adding weight training to your exercise program. The positive side is, you will be a smaller size, have toned muscles, be stronger and have more endurance to do the activities you love to do without excess fatigue.)

A gradual decrease in the metabolic rate with advancing age was traditionally considered a "biomarker" for the aging process. Most recent research indicates that this decrease is not a "biomarker" of aging, but one of INACTIVITY! The average sedentary adult loses 6.6 lbs of muscle with each decade after age 25. This loss accelerates

after age 45. At the same time, the fat to muscle ratio doubles (this is aggravated by overeating and taking in too much dietary fat). One pound of muscle lost equals a decrease in the metabolism of 50 calories per day. This translates into a gain of up to 5 pounds of body fat per year. By maintaining and/or increasing muscle mass, one can offset the effects of inactivity. As muscle mass decreases, due to lack of physical activity, so does the RMR.

How do we increase muscle mass? This happens primarily through resistance training. Muscular based exercise will increase metabolic activity and energy expenditure by increasing muscle mass. Resistance training keeps your metabolic fires burning strongly!

Editors note: It is vitally important that fitness professionals promote cross training. Water can be an awesome environment for enhancing muscle tissue if movement is performed correctly, with purpose and with effort. Land based weight training is an excellent addition to water based training because of the effects of gravity. On June 11, at the CALA 2000: L'EAU ZONE Convention, a comprehensive three hour workshop session called Millennium Muscle will focus on building muscular strength and endurance in water. Call CALA to register.

MEMBERS SPEAK: A GREAT EXAMPLE OF CALA LEADERSHIP

Recently, I was asked by one of the pools in the city to evaluate their aquafitness instructors as part of their employee performance evaluations. (Their fitness coordinator does not teach aquafit). I used the standard BCRPA assessment forms as a guideline for their evaluations. There was one instructor who I considered the best of the whole team by several miles. Within about 10 seconds of the start of her class I could tell she had done some sort of CALA workshop or training. (I found out after her class that she was a graduate from the CALA-BCRPA Aquafitness Specialty course offered in Ladysmith, October 1999.)

This is what I noticed about her class:

- She commanded the attention of the class right from the very beginning.

- All her movements were performed with excellent control and were clearly demonstrated with purpose.
- Her muscle strength and endurance portion was controlled, well cued and functional!

It was a great class! Some of the participants came up to me after the class and told me how they loved her, and said "she is very clear and supportive, we will be sorry to see her leave" (she is going on a 6 month trip to Australia).

This was just another example of the high quality of instructors that graduate from the CALA courses. Kudos' to you, Charlene and your CALA team, for a great program!

Allison Buna, CALA Certified, CALA Apprentice Trainer, Victoria, B.C.



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We have had an exceptional response to our call for Regional Representatives.

We are still open for more candidates who want to see CALA grow ever stronger.

Responsibilities:

- 1) To promote CALA events in your region.
- 2) To spread the good news about our high quality programs.
- 3) To encourage CALA graduates to complete certification.

Rewards:

- 1) For every person you register for a CALA event, you will receive a certain number of CALA "Sand Dollars".
- 2) For each facility in which you organize a CALA event, you will get free registration to the event and CALA "Sand Dollars".

These CALA "Sand Dollars" can be used to purchase CALA merchandise or register for CALA events.

Call us if you like to interact with other aqua enthusiasts and are interested in helping to promote CALA.

MEMBERS SPEAK

21ST CENTURY PREVENTION

Dr. Guy F. Fain, III

Dr. Fain is a board-certified family physician with the Galen Medical Group in Chattanooga, Tennessee. He is a graduate of Wake Forest University School of Medicine in North Carolina, and has served as Chief of Family Practice and Chief of Staff at East Ridge Hospital in Chattanooga and on the board of Directors of the Chattanooga-Hamilton County Medical Society, the Galen Medical Group and the Chattanooga Healthcare Network.

Here at the dawn of the 21st Century, despite all of our great medical advances, more North Americans are dying of diseases like coronary heart disease, stroke, and cancer than ever before. At current rates, 50% of us will develop some form of cardiovascular disease in our lifetime, 33% of us some form of cancer.

The worst part is that these diseases are preventable.

Not only are we dying from preventable diseases, but we are also suffering from things that don't kill us but make us miserable, conditions like osteoarthritis and macular degeneration and as overall weakening of our immune systems that leads to infections and autoimmune conditions. These diseases - degenerative diseases - are not a normal part of growing old, or at least they don't have to be. They are quite preventable by lifestyle changes, and especially by good nutrition.

The Culprit: Oxidative Stress

There is one process that causes every one of these things I've just mentioned. It's called oxidative stress. "Oxidation" is the process by which our body turns fuel to energy, producing toxic by-products called "free radicals". "Oxidative stress" is the gradual destruction of our bodies over time by these free radicals. When our bodies metabolize food it produces free radicals. When we exercise we produce free radicals. When we smoke or breathe polluted air we produce free radicals. Even exposure to sunlight produces free radicals.

The process of oxidation - and the resulting oxidative stress - occurs throughout our body all of our lives, eventually wearing the various parts of our body down. When it occurs in the eye, we often get something called macular degeneration, the leading cause of blindness in people 65 and older.

When it wears away at the cartilage in our joints, we eventually get degenerative arthritis. When it happens in the skin, we get wrinkles and various kinds of skin cancer. When it occurs in the blood vessels, we get atherosclerosis and strokes. When it occurs in our chromosomes, we get cancer. And so on.

The Antidote: Fruits and Vegetables

There is one clear, simple antidote for oxidative stress that reduces your risk of getting every one of these diseases or conditions. It's a nutritional antidote: fruits and vegetables. There is nothing real complicated here. The same thing your great grandmother was telling your parents or grandparents at the beginning of the 20th century is what medical science is starting to prove to us at the end of the century: eat your fruits and vegetables.

Why are fruits and vegetables so important? Because they contain natural antioxidants that help fight the effects of oxidation in the body. Well-known antioxidants like Vitamin C and beta-carotene. Lesser known antioxidants like alpha-carotene, lycopene, lutein and zeaxanthin. And thousands of other different antioxidants and natural plant chemicals (phytochemicals) that help support one another in ways we have just begun to understand. Too much of one, not enough of another, and none at all of hundreds or thousands of others won't get the job done.

Fruits and vegetables provide a wide array of antioxi-

dants and other nutrients found only in their natural "whole food" balance.

In addition, many antioxidants appear to be tissue-specific or organ-specific in their effects. For example, lutein and zeaxanthin seem to have an especially positive impact on the macula of the eye, thus helping to prevent macular degeneration. Lycopene appears to be particularly helpful in reducing the risk of prostate cancer.

A wide variety of different fruits and vegetables thus provides an even wider array of antioxidants.

How much? How many?

The leading medical associations all recommend that we eat at least 5-9 servings of fresh, raw fruits and vegetables a day.

You can survive on less. That is what the RDA's (Recommended Daily Allowances) of certain vitamins/antioxidants you see on food labels are all about. The recommended daily allowance of Vitamin C, for example, represents how much Vitamin C it takes to keep you from getting scurvy. I don't know about you, but I want to live a little above scurvy.

So we need to eat five to nine servings of fruits and vegetables. Every day. Fresh and raw for maximum nutrition. Not frozen, because conventional freezing destroys nutrients. Not cooked, because that does too. Not irradiated, like much of our store produce is today, for the same reason.

The 21st Century Solution

If there is anything I have learned from 16 years of practicing medicine, it is to be a realist. And it is simply unrealistic today to expect most people to eat 5-9 servings of fresh, raw fruits and vegetables every day. Most don't eat 5-9 servings of fruits and vegetables, period (even counting french fries). Almost no one meets the criteria when you add "fresh and raw" to the mix. Even if I could PROMISE my patients that they would live 10 years longer (and I obviously can't), most of them still wouldn't do it on a consistent basis, day-in and day-out.

Fortunately, there is a 21st century solution. It's a wonderful product called Juice Plus+® ... 17 different fruits and vegetables, juiced to their nutritional essence, dried under carefully controlled temperatures to eliminate most of the salt, sugar and calories, and put into a capsule for everyone to take. Whole food-based nutrition. The fruits and vegetables are vine-ripened, non-irradiated and tested to be sure they are herbicide and pesticide free.

What makes Juice Plus+® so unique? Juice Plus+® was developed based on solid scientific evidence that whole food-based nutrition from fresh fruits and vegetables is key in helping prevent many of our most serious health problems today. Juice Plus+® is backed by solid third-party scientific research of its own. And Juice Plus+® is being recommended by medical professionals like myself in growing numbers. I recommended Juice Plus+® to all of my patients, because everyone needs more nutrition from fruits and vegetables.

There is not another nutritional supplement on the market today that meets this criteria. My colleague Dr. Mitra Ray, a world-renowned research biochemist, puts it best: Juice Plus+® is the most scientifically documented nutritional supplement in history.

Here at the dawn of the 21st Century, North Americans are suffering and dying from too many diseases that can be prevented by good nutrition. Fortunately, we already have a 21st Century solution to the problem: Juice Plus+®.

For more information on Juice Plus+® contact: Sherry Chodan Toll-Free: 1-877-760-3535 and visit their website at: www.juiceplus.com/users/SC70116.asp

CALORIE CONSUMPTION:



It seems that people are still concerned with the number of calories they consume while exercising. I believe people are obsessed with these kinds of numbers. In fact we all know that the number of calories consumed during an aquafitness class is highly effort dependent. We also know that calorie expenditure is only one component in the overall issue of health and well being.

Use the following information wisely. Dana Sullivan reports:

Activity	Kilocalories burned per minute
1) Aerobic Dance	6.2 - 6.6
2) Aquatic Exercise	5.7 - 6.5
3) Walking on land	4.5 - 5.4
4) Deep water walking	8.8
5) Jogging on land	8.0
6) Deep Water Jogging	11.5

Reference: "Take the Plunge", written by Dana Sullivan, Weight Watchers Magazine, Special Collectors Issue, VOL 32, NO 5, June 1999.

REACHING THE SUMMIT

Hey CALA what an impressive way to launch into the new millennium...

CALA 2000: L'EAU ZONE - the first completely bilingual CALA convention ever.

The CALA EDUCATIONAL SPECIALTY COURSE SUMMIT

Currently on offer: Four, one day Aquafitness Specialty Courses including:

AQUAJOGGER TRAINING PROGRAM (AJTP)

CENTRE OF POWER - AQUA KICK BOX

PRE AND POST NATAL AQUAFITNESS

THE GOLDEN TIDE - AQUAFITNESS FOR HEALTHY OLDER ADULTS

Details:

- Training involves an 8 hour day with theoretical, leadership and practical components.
- A comprehensive manual accompanies each course.
- A graduate letter is awarded after completion of each course.
- Certification is optional.
- No recertification is required.
- Cec's, recertification and renewal credits available with other organizations.
- CALA awards 7 Cec's per specialty course.
- You do not have to be certified with CALA to bank these credits for future use.

- See Wavelink upcoming courses and flyers for dates and locations of the Summit.

Opportunities exist to host one or more of the specialty courses at your facility. Call us.



AQUAJOGGING: HIGH VALUE FITNESS

Part I of a Four Part Series, David K. Brennan M.Ed.

Aquajogging has become a popular alternative to land based running for athletes and fitness enthusiasts seeking a low impact training activity. It is a fact that 66% of all runners will experience a running related injury over any given 12 month period. [1] A significant amount of these injuries can be attributed to poor selection of training volumes and intensities (training errors). Research has show that running 30 miles per week increases the chance of injury by more than 55%. Depending on running speed and stride length, a runner will typically hit the ground between 800-2000 times per mile with ground reaction forces of up to 4 times their body weight. [2]

All runners appear to have a maximum amount of weekly mileage they run before beginning to breakdown. This "magic" number of miles is often referred to as one's "orthopedic limit". A runner's ability to withstand both the vertical force and repetitive motion associated with distance running is dependent on a number variables including present fitness level, inherent biomechanics, previous history of injury and genetics. If injury prone, it would make sense to gradually build weekly mileage by no more than 10% per week and set an upper limit of 25-30 miles per week. It is recommended that any increases in training volume beyond the "orthopedic limit" be in the form of low or non impact cross training activities.

Aquajogging permits the runner to increase weekly "mileage" yet eliminate the increased risk associated with repetitive impact during land based running. Many runners now use Aquajogging for low intensity "active recovery" between two land based workouts. [3]

Physiological Responses to Water Running

Significant differences exist in the physiological responses to water running and land based running. Several studies have compared maximal deep water running and treadmill running. They have concluded:

- Maximal oxygen consumption (VO₂ Max) values during deep water running ranged from 83-89% of those maximum values obtained while running on a treadmill. [4-10]
- Heart rates during all out deep water running ranged from about 90-95% of maximal heart rates obtained during treadmill running. [11]
- Higher blood lactate measurements (2.4 mmol/L) for similar heart rates and VO₂ values during maximal deep water running when compared with land based values. [12]
- For submaximal deep water running at similar levels of exertion, heart rates and oxygen consumption levels tend to be lower in the water compared to land based running. [11]
- Runners restricted to a deep water running regime for up to 8 weeks can maintain or even improve aerobic fitness. [13-16]

Aquarunning Form

It is very important to develop movement patterns in the water that closely resemble land based running form. To this end it is next to impossible to maintain

good running form in the deep water without the use of a flotation device. About 2-3 sessions are required to familiarize a runner to Aquarunning mechanics. 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. [17]



Consider the motion that your head, arms, trunk, legs and feet naturally move through with each stride. View the running motion using three directions or planes of motion including horizontal (forward and back), vertical (up and down) and lateral (side to side).

Tips to help accomplish good form in the pool. Follow and execute these tips in the order listed:

- * Begin slowly performing less than 60 cadence: cycles per minute (cpm).
- * Always focus on maintaining the correct movement patterns for running.
- * Have a fellow runner or instructor observe the first few sessions, checking posture and providing verbal feedback.
- * Ensure the spine assumes a position slightly forward of vertical (2-3 degrees.)
- * Keep eyes looking out and ahead rather than down.
- * Position the head so that the ears are aligned vertically with the shoulders.

- * Keep the shoulders down and relaxed.
- * Move the arms close to the body line with most of the movement occurring at the shoulder joint.
- * Keep the elbows bent at 80-90 degrees.
- * Make a light fist with thumbs on top.
- * Start the movement of the hand at a point 5 cm from the water and 15-20 cm away from the chest.
- * Lead with the elbow and move the hand back and down so that the elbow, wrist and then thumb all pass the hip close to the body in a pendulum like action. Remember to maintain elbow flexion at 80-90 degrees.
- * Avoid any crossover or finning type motion (excessive shoulder or elbow internal/external rotation) with the forearm or hands while remaining relaxed smooth and streamlined.
- * Continue to focus on coordinating the arms with legs.
- * Start the leg motion with the thigh moved forward and up (approximately 70 degrees hip flexion) with the knee at a right angle (90 degrees).
- * Keep the foot flat using minor activation of the anterior tibialis.
- * Position the foot directly below the knee.
- * As the thigh moves downward and backward (hip extension) push the foot down with a "stomp like" action directly below the body.
- * Once the leg is fully extended (knee is almost straight) move the thigh behind the body (a slight hip hyper-extension).
- * Lift the heel toward the gluteals (buttocks), with the knee flexed.
- * Return the thigh to the forward and up starting position.
- * Avoid over striding (lower leg moving in front of the knee).
- * Focus on the up and down motion of the legs while maintaining an erect posture.
- * Ignore forward momentum through the water.
- * Focus on leg speed (cadence per minute) which is more important than horizontal speed (forward travel).
- * Imagine running on a treadmill.
- * Use a metronome or count leg turnover rate, (cycles per minute) to control leg speed.
- * Get in tune with the feeling of moving in the water.
- * Enjoy the multidirectional resistance and the non-impact workout!

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Biography of an interesting and knowledgeable individual

David Brennan M.Ed. is President of the Houston International Running Center. David competed for the University of Houston in track and cross-country accomplishing All-American Status for the 1500m run in 1976. He is an assistant professor at Baylor College of Medicine, Department of Physical Medicine and Rehabilitation and founder of the Aquarunning deep water exercise program. Brennan has a private practice in Aquatic Rehabilitation at The Houstonian in Houston, Texas and is a certified American College of Sports Medicine Health and Fitness Instructor.

An aside from Charlene: Things you need to know!

David is a valuable part of the team currently putting the finishing touches on the AquaJogger Training Program manual. David has used water running to train elite athletes including Carl Lewis and Leroy Burrell, to name a few. David will be co-presenting the AJTP Specialty Course at "CALA 2000:L'EAU ZONE", Dollard Des Ormeaux, June 9. Enrollment is limited in this training program. You will want to see David in action! He is brimming with valuable information coupled with a deep passion for water training that is wonderfully contagious. David is truly the expert in this field. I have had the sheer pleasure of working with David in Oregon while creating and writing the AJTP manual.

THE SPIRIT SOARS AS THE BODY MOVES

and the Mind Discovers - Training for Dragon Boat Racing for Survivors of Breast Cancer.

By: Pat Richards, BPHE, CALA Trainer, University of Guelph

October 1997, Chatelaine: "This year over 17,000 women will be diagnosed with breast Cancer, one of the leading causes of death in Canadian women between 35 and 55 years of age."

"Meet a team of breast cancer survivors who are determined to beat the disease." This article refers to a team called "A breast in a boat", the first team in Canada to compete in Dragon Boat racing from Vancouver. "They rebel against medical advise to take it easy. They push themselves physically and heal themselves emotionally. And once you've watched this hearty crew at play, you'll want to stand and cheer."

Approximately 2 million women in North America are survivors of breast cancer. All have varying degrees of problems associated with the operations and therapies required to treat the disease. Common therapies include: chemotherapy, radiation, removal of lymph nodes, severing of pectoralis and associated muscles, removal of lumps from the breasts and removal of the entire breast(s). These treatments all lead to compounding problems.

The lack of research involving the post - treatment phase of breast cancer means physicians tend to err on the side of caution. Since 1882, the first radical mastectomy for carcinoma of the breast by Halsted, physicians have warned women about using the affected side of their body. Women were instructed not to lift objects or do repetitive movements. As a consequence of this advice, their everyday lives changed drastically. Many women were inhibited from any form of rehabilitation that would return them to a normal daily living regime.

Today, many women are concerned about a condition referred to as 'lymphedema'. From my research it appears that lymphedema is swelling of the involved area and the chest area due to the combined effects of removal of lymph nodes from the axilla and radiation. Lymphedema can develop at any time following breast cancer surgery - from within one month after treatment to 30 years later.

According to Susan Harris, "Why the Dragon Boat Experience is Important for Women Living with Breast Cancer"; "Well - meaning physicians and physiotherapists often caution these women to refrain from lifting more than 10 - 15 lbs with the involved upper extremity; to avoid certain sports, such as canoeing, water-ski-

ing and specific swimming strokes, such as breast stroke or butterfly; and to refrain from repetitive activities, such as knitting or raking. These contra-indications limit both the quality and enjoyment of life for women who otherwise feel and look quite healthy - and there is, as yet, no research to suggest whether or not these activities actually lead to lymphedema."

According to my sources ... activity should help prevent lymphedema, not promote it.

Dr. Don McKenzie, University of British Columbia, a one time competitor with the Canadian Olympic canoe team, is presently studying the effects of strenuous activity on survivors of breast cancer. He started the dragon boat race concept.

I have often wondered... "Why Dragon Boat Racing? This is a very demanding sport, anaerobic in nature, with 22 people in a boat!:

According to Don McKenzie this event is a traditional Chinese sport that requires 22 participants, including drummer and steers person, to paddle a giant dragon - head canoe. Demanding teamwork and upper body motion, it has long spiritual traditions. In ancient China, dragon boat races were held to commemorate the suicide of poet, Qu Yuan. One legend has it that the racers were supposed to search for the spirit of the poet and move their boats through the water from the north, the region of the death, to the realm of life in the south. Dragon Boat racing has always been popular in Hong Kong and came to Canada in 1986, during Vancouver's expo. Now there are Dragon Boat festivals all across the continent. It seems like an ideal sport to test the resilience of breast cancer survivors.

This is the year of the Dragon for the Chinese culture, and for me as well. I have accepted the task of coaching and training the Guelph/Wellington Dragon Boat team of breast cancer survivors. My training bias is water to initiate the physical conditioning sessions. At the appropriate time, paddling and specific strength training will be integrated into the schedule along with aquafitness training.

My team of 30 breast cancer survivors, are an interesting group who are eager to see what lies ahead; as am I.

If you have any suggestions or comments to help the team please forward them to me at the following email: prichard@ath.uoguelph.ca. Thank you.

Stay tuned for training ideas and the the progress of this unique group.

You have 4 choices to access information about "CALA 2000: L'EAU ZONE", June 9, 10, 11, 2000 at Dollard Des Ormeaux, Quebec: Matt and Nelia, at CALA headquarters look forward to meeting your needs:

- 1)phone: 1-888-751-9823 or in Toronto, 416-751-9823
- 2)fax: 416-755-1832
- 3)email: cala@interlog.com or snail mail: CALA 125 Lilian Dr. TO, On, Can., M1R 3W6
- 4)visit our web page for full convention details: www.calainc.org



CALA

WATCH FOR MIRACLES

Do we need to see someone walking on water or on air to believe in miracles? I believe that walking on the earth everyday is a miracle for all of us. Miracles which we often do not see or recognize occur everyday. Let us remember, who we are, where we are and what we are capable of doing.

Take a moment from your busy life and write down on a piece of paper your miracles of everyday, then savour these moments by reliving every one of them.

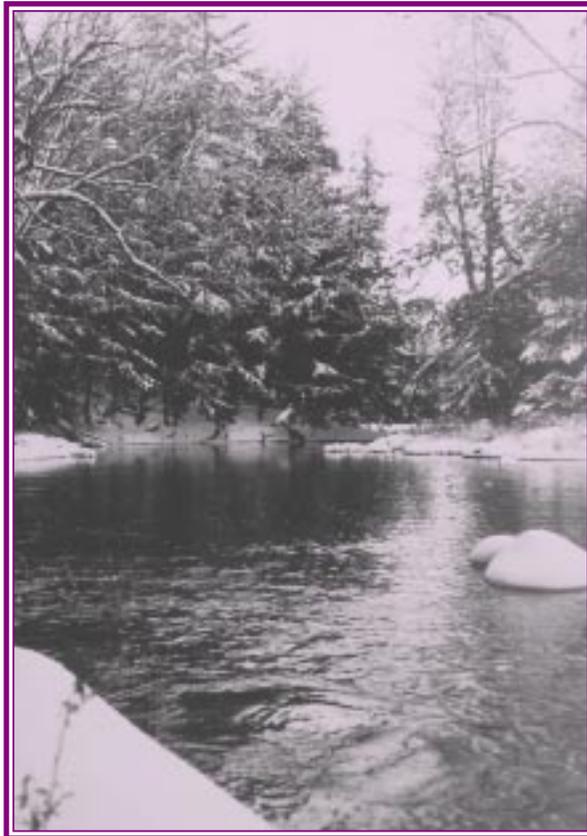
MY MIRACLE LIST, I SHARE WITH YOU.

- * A bright new day with a complete 24 hours of opportunities, choices and attitudes....it cannot be exchanged, replaced or refunded. A unique gift.
- * The anticipation of picking up a loved one at the airport, that very present moment, that embrace, that emotional high.
- * Enjoying the beautiful sound of Sarah Brightman's angelic voice singing "Anytime, Anywhere" from her CD "Eden"... pure joy and a true inspiration.
- * A beautiful moment looking at fresh snow covering the trees as the sun reigns over it with a crystal sheen.
- * A strong cup of coffee in the early hours of the day.
- * The taste of maple syrup on snow, on a beautiful warm, sunny spring day.
- * "Fresh tracks" on a down hill ski run, before anyone could get to the hills... the sensation of fresh powder snow under skies, gliding over the horizon. A unique sense of power.
- * Reliving and carrying on family traditions.
- * Going swimming with friends in the late hours of the night under a full moon.

Everyone has a miracle list, make one up for your self. Try putting it on your fridge or beside your bathroom mirror. This making and posting of your list is part of the journey to get you to actually experience miracles everyday.

Ginetta Mountain Dreamer

Ginette Deslaurier... CALA Certified, will be presenting a unique "NRCHI" session at CALA 2000: L'EAU ZONE, Dollard Des Ormeaux, on June 10. This unique workshop, a part of a comprehensive convention, will highlight the development of soul through a blend of T'ai Chi and water motion. Call CALA for info.



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Water Fitness Products

SPIRIT SOUVENIRS

NEW OLDER ADULT SPECIALTY TRAINING COURSE

Friday, June 9, 2000, Dollard des Ormeaux - Montreal (Que)

An integral part of the CALA Summit is a full day bilingual Older Adult Specialty Training Course, based on recent scientific research and international older adult exercise guidelines. Resources such as ACSM (American College of Sports Medicine) ACE (American Council on Exercise), Health Canada and ALCOA were used to design this course.

Course Description

Essential scientific information about the aging process and clarification of goals and objectives for older adults will establish the foundation for aquafitness class design and delivery. Course participants will learn how to educate and motivate older adults engaging a meaningful and user-friendly leadership approach. The mission and mandate of this course is to learn to teach adults, through aquafitness, how to improve and maintain health and fitness into and throughout old age.

Course goals and objectives:

- To discuss the significance of integrating the fitness components into an Aquafitness class for older adults
- To overview and understand the implications of current research regarding older adults and class design and delivery
- To understand the relationship between muscular and skeletal strength and regeneration of muscle tissue and improvement of bone density
- To design and deliver specific movements and sequences of exercises which enhance the components of balance, coordination, agility, muscular endurance and flexibility, in the prevention of falls
- To design and deliver exercise routines which enhance cardiovascular endurance
- To learn how to conduct a basic fitness level assessment of older participants
- To know the exercise guidelines for older adults
- To learn exercise modifications which will accommodate the special needs of older adults with certain physical limitations
- To develop educational and motivational leadership techniques which enhance the aquafitness experience for older adults

Chronological Age is not Biological Age

Until quite recently, life expectancy and life expectations over the age of 50 were limited.

Most fitness programs focused on easy range of motion movements and their physical and psychological benefits including improved mood, enhanced sleep, better appetite, maintenance of mobility, and keeping older adults busy and socially engaged.

The progressive increase in life expectancy has changed fitness goals for older adults. Life after retirement is now longer than ever, and older adults expect to lead a full and enjoyable life.

Muscular strength training complements cardiovascular endurance training

Scientific research indicates that fitness for older adults must focus on reversing life-long habits of inactivity, by providing exercises geared at improving functional mobility and quality of life. Fitness professionals must design exercise programs that meet the needs of older adults for a life expectancy of almost 30 years after the

age of retirement. Research points to muscular strength as being the key biomarker for a superior quality of life into later years. Muscular strength has surpassed cardiovascular endurance as a bio-marker for active daily living

Key components to enrich the lives of Older Adults

Muscular strength and flexibility are the key components to a successful older adult Aquafitness program. Participants will improve physical, mental and psychological health, as they feel their new strength translate. This feeling results in renewed vigor and a youthful spring in their step. Soon older adults begin to realize that the process of aging is not one of progressive disability.

Many people - young and old alike - have grown to expect old age to include progressive disability and finally, care and shelter provided in the form of a nursing home. The reality is that less than 10% of all older adults ever live in a nursing home. Most remain mobile and healthy into their later years. Recent research clearly indicates that biological age may be quite different from the date shown on a birth certificate. The key ingredient to staying healthy - physically, mentally and psychologically - is regular and challenging physical activity.

Facts about aging:

- Adults aged 35 and over start losing muscle mass - and therefore muscle strength - at the rate of 5-7 lb. per decade. This loss is cumulative and is somewhat accelerated after the age of 50. The average 65 year old adult has lost 40% of his/her 35 year -old muscle mass, leading to helplessness, poor body image and decreased self-efficacy and self-esteem.
- A decrease in muscle tissue can be prevented or recovered at any age. Studies such as Fiatarone et al (1990, 1991) indicate that muscle mass and muscle strength can be regained successfully in people aged over 90, leading to dramatic improvements in mobility and quality of life.
- Women may be more at risk than men in the aging process. Women tend to live longer than men, have comparatively smaller muscles and may be choose less strenuous sports and physical activities during their adult lives. These factors lead to a faster and more debilitating loss of muscle tissue, accompanied by a substantial loss in bone mass and density. The loss in bone density is closely related to the decrease



in muscle tissue (National Institute of General Medical Sciences; Megatrends for Women, 1992).

- Recent statistics show that a woman aged 50 today, with no cancer or heart disease, can expect to reach her 92th birthday (Statistical Abstracts, 1990). A man has to wait to reach his 65th birthday to have the same prognosis (idem). These are the clients who need Aquafitness to fully live their next 30 or 40 years of life.
- Half of all drugs prescribed in Canada today are for adults aged over 65, and more than 50% of retired Canadians suffer from at least two health problems brought on by poor lifestyle habits and side-effects from medications.
- The increased life expectancy (51-52 years old in 1900; 75-81 years old in 2000 - Health Canada 2000), the empowerment brought on by new generations of more educated older adults, as well as the new research, point to lifestyle habits making the most significant contribution to slowing down the aging process.
- Close to half of all deaths in North America are caused by lifestyle habits. People die because they do not eat properly, are sedentary, smoke, drink too much alcohol and drive recklessly. Yet improvements in lifestyle habits can be made at any age and under most life circumstances.
- Aquafitness can help older adults to regain control over life-long habits, through a new body awareness, social integration with new friendships in a physically active environment.

- Aquafitness changes people. It makes people feel young again. It gives them hope that there is life after retirement. They realize they can grow stronger and feel better at any age.
- People who look after themselves by keeping active enjoy healthier lives, as old age unfolds progressively in front of them,. They can realize their dreams of family time, leisure and travel.

The Place of Aquafitness in the Older Adult Fitness Boom
Older adult fitness is now booming. This is the result of the large number of people who have reached the golden years. This population is encouraging new research on normal and pathological aging processes.

The Canadian population over the age of 65 is expected to double within the next 30 years. By the year 2030, 23% of the Canadian population will be over 65. If you learn about older adult Aquafitness now you will have the ability to help older adult participants to live young to a ripe old age.

This particular Older Adult Training Course to be launched June 9 – 11, is prepared and presented by Catherine Morisset, YMCA-YWCA national instructor trainer; CALA trainer; CFC (CSEP); Personal Trainer (YMCA-YWCA, Can-Fit-Pro, SPI); national consultant for the Institute for Positive Health for Seniors and; Active Seniors Program Consultant for the region of Ottawa-Carleton. Catherine has worked with older adults for many years, and has successfully created and designed several older adult programs. She has a personal training business in Ottawa, specializing in mature and older adults with special needs.

NUTRITION

Joann Willes, owner of Chantilly's catering has 20 years experience in the food service industry. Having explored many areas of culinary arts, in the past 10 years. Joann has focused on the nutritional aspects of food and how to make healthy eating choices as enticing and appetizing as they are good for you.

Here is a recipe for a terrific winter salad. Since lettuce prices in the winter tend to be sky high, this is a wonderful way to get the goodness of a fresh salad at a reasonable cost. To make it into a full meal you could add strips of cooked, cooled boneless chicken breast, chick peas, finely diced firm tofu, canned tuna or salmon, or strips of cooked ham. The dressing keeps for up to a week in the fridge, and is wonderful on other mixed greens. Enjoy!

Sunny Spinach Salad

- 1 - 10 oz. bag spinach, washed, dried & torn
- 1 8 oz. pkg. mushrooms, thinly sliced
- 1 small can mandarin sections, drained, juice reserved
- 1/2 red pepper, sliced very thinly in lengthwise strips
- 1/2 red onion, sliced very thinly in rings
- 1/2 cup toasted sliced almonds

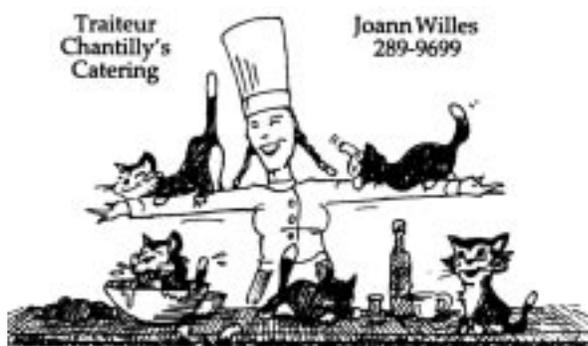
Dressing:

- Reserved juice from mandarins plus enough orange juice to make one cup
- 1 tbsp. soya sauce
- 3 tbsp. olive or canola oil
- 1 tsp. fresh ground pepper

- 2 tsp. poppy seeds
- grated rind from one lime
- juice from the above lime

Whisk dressing ingredients together and set aside. Place all salad ingredients, except almonds, in large bowl. Add 1/2 cup dressing, or to taste, and toss well. Place on plates and top with toasted almond slices. Garnish with fresh clementine or orange slices if desired. Serves 4 generously.

Joann is the chef and caterer at the Creative Cooking Show on Sunday June 11, 2000 at "CALA 2000: L'EAU ZONE", Dollard Des Ormeaux, PQ. Convention delegates will watch how Joann prepared the food they are eating. Featuring a nutritional analysis of the foods served, preparation tips and Joann's passion for food, this lunch and learn show will nourish your body, mind and soul.



THE AQUAJOGGER® STORY

In the beginning...the AquaJogger® was conceived in Eugene, Oregon USA as a way to take the impact out of running for world class runners like Mary Decker Slaney. Mary's coach, Dick Brown, in addition to training elite runners, was also working with Dr. Bruce Becker in designing water rehabilitation programs for pre and post surgery patients. Unhappy with the various flotation vests and water ski belts available, Dick began to search for something better.

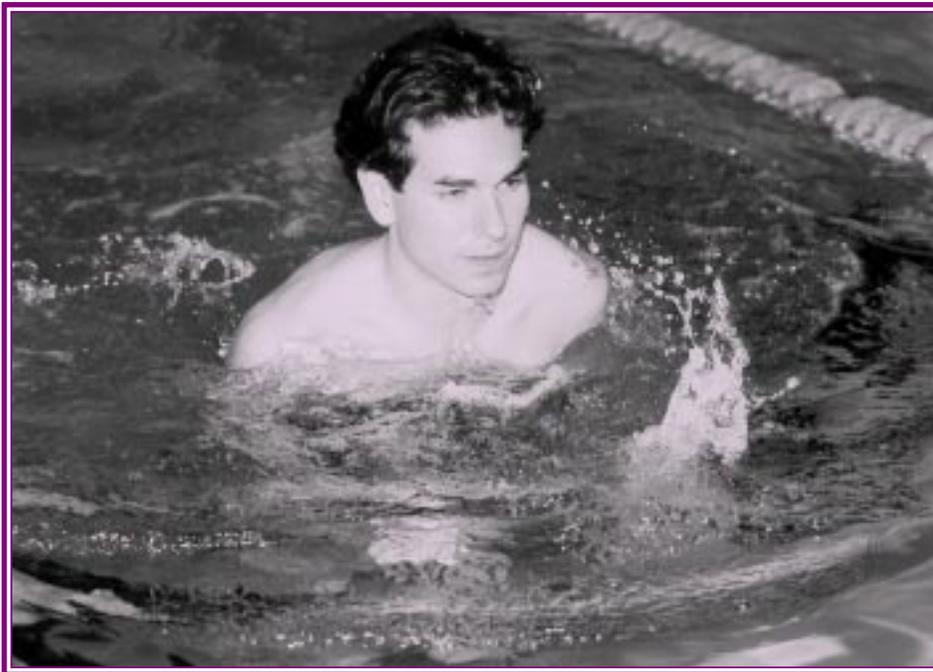
In 1987 a collaboration between Dick Brown, Dianne Bedortha, a water exercise specialist and myself, the president of Excel Sports Science, resulted in a flotation belt design now known as the AquaJogger® Classic. This unique and affordable flotation device soon captured the attention of athletes, fitness instructors and medical professionals around the world and "AquaJogging" was born.

The AquaJogger® is a tool that provides access the many benefits of deep water exercise. Running, jogging, and walking play an integral part in activities, sports as well as in daily living. People of all ages and levels of fitness are now able to escape the effects of exercising on land. Gravity loads the body causing stress through impact and compression on the joints, bones and muscles. Running and exercise in deep water eliminates the affects of gravity and frees the body to cross train in an effective and safe way.

The AquaJogger® Train-ing Program (AJTP) will launch in Canada at "CALA 2000: L'EAU ZONE" - a bilingual convention offered by the Canadian Aquafitness Leaders Alliance Inc. This convention to be held at Dollard Des Ormeaux (Montreal, Quebec) on June 9, 10 and 11, 2000 will feature the AquaJogger Training Program which is designed to provide the best information available on using the AquaJogger® products to reach health and fitness goals.

David Brennan, Juliana Larson, Charlene Kopansky, Lyle Laver and myself have formed a dynamic team to develop and launch "AJTP" in Canada and internationally. I am happy to contribute to making this program available. My sincere hope is that it will in some way take impact out of life's journey and improve the quality of life for many.

Lew Thorne President & C.E.O.



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.



CALA

ASK THE SEAHORSE



Jennifer Oman asked a question about including stretching during the warm up phase of a class.

Response:

Stretching at the beginning of a class, or after a warm up is not currently recommended on land. Add the thermal conductivity of water and you have an even stronger case against pausing to stretch. A pause to stretch would allow the muscles which have just been warmed up to

get cold. Then trying to get the muscles to stretch seems like a juxtaposition. We all know the relationship between cold muscle tissue and the ability to stretch. Also, the energy level which is built during the warm up to motivate and focus the participants may slip if a stretch portion is added.

Include 1/2 tempo* and, or 1/4 tempo full range of motion movements in the warm up along with tempo movements. During the 1/2 and 1/4 tempo, dynamic stretching can be integrated. For example, large full range of motion walking at 1/4 tempo, with a cue to keep the heel on the pool bottom for as long as possible (within the music) before starting the next step. Encourage toe-ball-heel landing and you will have designed a dynamic stretch of the gastrocnemius and soleus muscle in the calf region.

*Tempo guidelines are based on music between 118 and 126 beats per minute. A Tidal Wave - Volume I Music Tape, 90 minutes of the correct tempo, suitable for Aquafitness, step, gentle aerobics and muscle conditioning is available for purchase through CALA.

Dear Charlene: I need some advice on water depth... In each group, I always have 5 participants who are short compared to the other 20. They have a lot of trouble handling the water, which is about to their neck. If I lower the floor (it's a one level pool with a moving floor), the other 20 participants have water about to the chest, even lower for some.

Last week, I adjusted the water to the shoulder level of the short people, but the tall ones didn't have enough water to work with. Moves like TARZAN and the FLASHER didn't work for the taller people. Some participants bent their knees, and others hunched their shoulders forward in order to do the moves with their arms under the water. Neither of these alterations are safe or effective for my participants.

Should I adjust to the chest of the shorter people, so that everyone can enjoy the class? Or should I maintain the level higher of water and penalize the shorter people?

My-Linh Diep, CALA graduate

Dear My-Linh:

My recommendation is to keep the floor at a level where the majority of the class is armpit depth and all arm moves work well for them. Give the 5 shorter people a deep water belt. With the flotation belt they can perform the movements suspended and water depth is no longer an issue. However, you will have to offer choices for deep and chest deep movements, when leading. As you know the 'horse' and 'pendulum' moves do not work in deep water, so you will have to instruct the people who are suspended to do other moves which work in deep water like cross country ski or jumping jack. If you do not have aqua belts, then the participants can order some from CALA, or the facility can place an order. I have found that many participants appreciate the opportunity to have their own flotation belt and feel proud to bring it to class.

I hope this helps you. I like the question and believe it is a common problem with pool depth and varying heights of participants. Good luck!

CALA AQUA MATT

A Must for all aquafitness leaders!

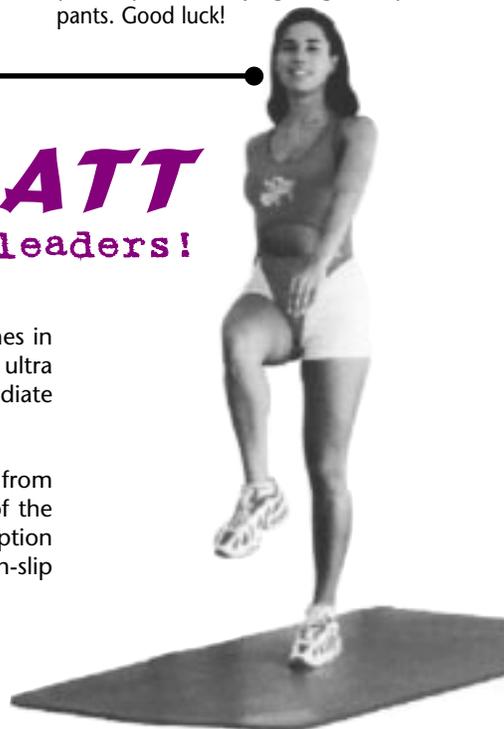
Details about the mat: It's a cellular urethane pool deck mat that comes in two sizes: 1.0 metre and 1.7 metres, easily portable, non-slip surface, ultra violet, chemical resistant & odourless, no maintenance required, immediate return to original thickness following rapid & repetitious impact.

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



ASK THE SEAHORSE

UPCOMING CALA COURSES & WORKSHOPS:

If already certified, you can earn CEC's for recertification.

All course registrations handled by CALA office unless otherwise noted.

ALBERTA: (6 BCRPA Renewal Credits)
Calgary Location: Calgary Winter Club
 AquaJogger Specialty Certification Course
 September 2000 - Date to be confirmed

BRITISH COLUMBIA: (6 BCRPA Renewal Credits)
Madeira Park Location: Pender Harbour Aquatic & Fitness Centre
 CALA/BCRPA Basic Fitness Theory & Aquafitness Specialty (TT)
 May 5, 6, 7 and May 12, 13, 14, 2000

Kelowna YM/YWCA - CALA Conference
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 Deep Water Circuit Style Sports Splash
 New Moves and Grooves
 Programming Your Pool for the Millennium
 ABS-olutely
 Aqua Muscle
 Brazilian Calypso Aquafitness
 May 27, 28, 2000
 Contact: Karlene Sewell Tel: 250-765-5916 x 211

Port Alberni Location: Echo Aquatic & Fitness Centre
 AquaJogger Specialty Certification Course
 Aqua Box Specialty Certification Course
 July 8, 9, 2000

Trail Location: Echo Aquatic & Fitness Centre
 Basic Fitness Theory & Aquafitness Specialty
 July 21, 22, 23, 28, 29 30, 2000

ONTARIO: (OFC CEC's)
Waterloo Location: Waterloo Swimplex
 CALA Aquafitness Specialty (FT only)
 April 2, 9, 16, 30, May 7, 14 6:00 pm - 10:00 pm

Toronto Location: Cumer Park Fitness Centre
 CALA Aquafitness Specialty (FT only) April 7, 8, 9, 2000

Ottawa Location: YM-YWCA of d'Ottawa Carleton
 CALA YM-YWCA Aquafitness Specialty (FT only)
 May 26, 27, 28, 2000

Mississauga Location: Glenforest Pool
 Noodles are Fun! Workshop
 May 13, 2000 5:30 pm - 8:30 pm

Cornwall Location: NAV Canada
 CALA Training for Trainers June 1, 2, 3, 4, 2000

Mississauga Location: To be confirmed
 Basic Fitness Theory & Aquafitness Specialty
 September 8, 9, 10, 15, 16, 17, 2000

QUEBEC:
Pointe Claire Location: West Island YMCA
 CALA Aqua Arthritis Training Course (English only)
 April 14, 15, 16, 2000

Montreal June 9, 10, 11, 2000
 Location: Association Aquatique Dollard-des-Ormeaux
 CALA Aquafitness Specialty (FT only) (French only)

CONGRATULATIONS ON BECOMING CALA CERTIFIED!

Jenna Adema
 Judy Chu
 Jill Greczmiel
 Shelli McLeod
 Corinna Smith

Tami-Lyn Alexander
 Kimberley Cox
 Natasha Hollett
 Susan Minaker
 Frey Wensel

Cindy Baker
 Hamdi El-Batoul
 Mary-Ann Hoover
 Nancy Movrin

Anne Catellier
 Leah Goldstein
 Outi Leis
 Darcie Simmonds

CALA Recertied

Cindy Blake
 Patrick Lévesque
 Donnalee Woodford-Copetti

Vivian Cormack
 Beverly Litman
 Barbara ZoBell

Suzanne Fahie
 Heather MacLeod

Judy Gerber
 Liane Sanderson

CALA CONVENTION

Montreal, Quebec June 9, 10, 11, 2000
 CALA 2000: L'EAU ZONE (bilingual convention)

- Exciting aquatic workshops including:
 - Circuit Style Sport Splash
 - On Deck Teaching & Power Motivation
 - Awesome Music, Advanced Moves III
 - Aqua Personal Training, A Rehab Perspective
 - Navy Seal Boot Camp
 - Aqua Kick Box

- Previewing our ONE DAY Specialty Certification Courses:

- AquaJogger™
- Aquatic Pre/Post Natal
- Aquatic Older Adults

Ensure you are on our mailing list to receive a convention brochure!

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