

# Aquatic Therapy & Rehab



I N S T I T U T E

**ATRI Newsletter SPRING 2015 Volume 8 Issue 1**

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## Featured Topic:

# Obesity a global epidemic, considerations and recommendation for exercise in water

By Lynda Keane MSc.

More than 2.1 billion people – nearly 30% of the global population are overweight or obese. The global economic impact amounts to \$2 trillion annually with the problem rapidly getting worse. Latest predictions state that almost half the world's adult population will be overweight or obese by 2030 (Dobbs et al 2014). -With 34.9% of US adults overweight an increase in physical activity is an essential intervention (American Heart Association 2014) .

The disease process of obesity has been researched extensively. Relatively new findings have reported the development of obesity is influenced by hormonal mechanisms in the control of appetite and satiation. Leptin and Gherlin are two of the hormones that have significant influence on appetite and the regulation of food intake and satisfaction. These plus other appetite related hormones act on the hypothalamus. Leptin induces satiation (a feeling of fullness) whereas gherlin levels increase prior to meals to stimulate appetite and decreases after meals (Klok et. al. 2006). Therefore;

- Leptin deficiency or resistance results in overeating
- Excessive Gherlin also leads to overeating

Obesity can be measured using the Body Mass Index (BMI) formula

$$\text{BMI} = \text{Weight (kg)} \div \text{Height}^2 \text{ (m)}$$

However BMI is a general measurement and does not separate fat mass and fat-free mass yet is sufficiently accurate when waist measurement is taken, thus providing a fuller picture of an individual's health status.

	<b>Principal cut-off points. BMI</b>	<b>Additional cut-off points. BMI</b>
<b>Overweight</b>	<b>≥ 25.00</b>	<b>≥ 25.00</b>
Pre-obese	25.00 – 29.99	25.00 – 27.49
		27.50 – 29.99
<b>Obese</b>	<b>≥30.00</b>	<b>≥30.00</b>
Obese class 1	30.00 – 34.99	30.00 – 32.49
		32.50 – 34.99
Obese class 2	35.00 – 39.99	35.00 – 37.49
		37.50 – 39.99
Obese class 3	≥ 40.00	≥ 40.00

International classification of overweight and obesity according to BMI, (WHO) 2007.

Recent evidence has highlighted the variance between risk attributed to a given BMI value and a client's ethnic background. There is evidence that ethnically-based variations in genetic predeterminations of obesity, adipose tissue placement and dietary behaviour change the risk. Research carried out on Caucasian individuals has resulted

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## Obesity a global epidemic

*Continued*

in data being generalised across the populations. Current evidence suggests a cut-off point be modified to 27kg/m<sup>2</sup> for Afro-Caribbean and some Asian groups (NICE 2011). It is important to make a client aware of the potential for inaccuracy with BMI score values, plus when discussing diet to not place a standard westernised diet on everyone.

Obesity is also the underpinning medical condition for many potential co-morbidities and as an instructor there are many considerations/precautions that need to be taken into account when planning a suitable exercise programme for a client referred with these co-morbidities such as:

- Excess sweating - Ensure easy access to drinking water.
- Stress incontinence – Ensure easy access to a toilet, train pelvic floor muscles.
- Breathlessness – Refer back to health provider to check for Asthma. Do not over exert client, increase cardiovascular training appropriately to clients ability.
- Obstructive sleep apnoea – Refer back to health provider check client is sleeping well, if client appears tired and sleep deprived take this into consideration during the session. Modify a session if client is unable to sustain the whole session.
- Hypoventilation – Refer back health provider. Train at suitable levels do not over exert.
- Stroke – Only work with this client if suitably qualified.
- High Blood pressure - No valsalva manouvres, limit isometric contractions.
- Thrombosis- Refer back to health provider.
- Varicose veins – No high impact exercises or exercises which compress the vein. Do not allow client to kneel down and sit on the heels.
- Oedema – wear loose clothing over the oedema, work on ranges of movement, avoid compressing the joint above oedema. Avoid isometric contractions in involved limb. Should it be a new condition refer to health provider.
- Depression – Maintain positive motivation, encouragement and feedback, review goals and positive achievements regularly.
- Type 2 diabetes – Carry a glucose pack for emergency, Ensure client takes readings prior, during and post exercise for first three sessions. Recommend shoes due to possible foot pathology (AHA. 2014., NICE. 2011., WHO. 2014., Wright foundation 2013.) .
- 

Acute symptoms of Obesity: Shortness of breath (dyspnea); Inability to sustain sudden exertion (fatigue); Excessive everyday tiredness, leg, joint and back pain; low self-concept (esteem, confidence, worth etc).

Chronic symptoms of Obesity: Headaches, Blurred vision, Dizziness, and Chest pain (Hypertension, CHD, Angina pectoris); High Blood cholesterol (hypercholesterolaemia); Severe joint pain (osteoarthritis); Intense thirst, excessive urination, and fatigue (type2 diabetes mellitus); Reduced life expectancy.

The main treatment for obesity is the energy balance equation. Energy balance is when an individual consumes more calories than they expend in a given period, the only exception is when significant pathology is present.

Intake > Expenditure = positive energy balance ↑ body fat

Intake = Expenditure = neutral energy balance, body fat remains the same

Intake < Expenditure = negative energy balance ↓ body fat (ACSM 2008).

Regular physical activity has a positive effect on fat distribution by promoting visceral abdominal fat loss, this will also reduce the risk of cardiovascular disease and its variations. Therefore a calorie controlled diet plus exercise is

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# Obesity a global epidemic

Continued

the optimal way forward for many clients (Wright foundation 2013).

Considerations for water exercise in obese clients:

1. Obese individuals may be self-conscious about wearing swim attire, allow them to come to poolside wearing a towel and slip into the pool close by.
2. Obese individuals may not be able to use ladder steps therefore ensure there is easy access.
3. Obese individuals may want to stay in deeper water as they will feel less exposed, however, fat floats and they need gravity to execute exercise with good form and sufficient speed.

<b>Considerations for exercise with obese individuals</b>	
LAND	WATER
Less tolerant of internal body heat.	Reduction of internal body heat through conduction.
Affected by ambient heat mainly due to the insulating effect from layers of fat.	An average pool is 28-30°, naked skin temperature is approximately 32 -33° (Freitas 2011), clients will feel cooler working out in the pool; this will result in the ability to exercise for longer.
Excess levels of fat restrict movement.	Fat floats. Constantly cue and correct posture.
Balance may be an issue resulting in a fear of falling.	Balance can be retrained with more confidence.
Vary upper and lower body exercises due to fatigue.	Vary exercise due to fatigue however due to buoyancy the body will weigh less (up to 75%) clients can exercise for longer.
Upper body will be weaker than lower as lower body carries the excess weight.	Water provides resistance 100% of the time this will vary with different exercises resulting in a symmetrically balanced workout.
Full range of movement may be an issue due to excessive fat.	Buoyancy will assist in range of movement (ROM) as fat depletes ROM will increase.
Machines may not be large enough for an obese individual to sit in comfortably. Therefore free weights may be easier to use.	Use drag equipment over buoyancy equipment initially as clients have sufficient buoyancy of their own.
Obese individual may experience difficulty in breathing and feel they are having an asthma attack, this is generally not the case but could act as a barrier to exercise.	Teach about hydrostatic pressure against the body; Include some Ai Chi to help individuals relax and relearn to breathe. This also helps with focus.
Pain may be felt in the joints when exercising.	Buoyancy will increase joint space and reduce pain.

Continued...

# Obesity a global epidemic

Continued

An obese client will often have atrophy of the muscles and localised weakness resulting in low endurance and a fear of falling.	An obese client can exercise for longer providing an endurance workout building weaker muscles without a fear of falling. This will also burn more calories. Accelerating moves and increasing intensity will also provide strength gains.
Circuit training is a good way to start exercising on land as clients will be distracted from the effort of exercise by a variety of changes occurring within a class.	Aerobic, Circuit & interval training. Most forms of exercise are achievable in water as clients will work at their own level.

Example for aquatic circuit.

(SET 1)

<b>Station 1</b>	X Country Speed variant's	<b>Station 3</b>	Boxing arms blocking, right, left, both.
<b>Station 2</b>	Boxing arms, upper cut, roundhouse speed variant's	<b>Station 4</b>	Shuttle run/walk across pool this is

(TRANSITION) Stations 1 & 3: & 2 & 4 Switch positions forwards and back ending back were started  
Stations 1 & 2: 3 & 4 Switch positions perform that exercise (SET 2)

(TRANSITION) Stations 1 & 2: & 3 & 4 Switch positions forwards and back  
Stations 1 & 3: 2 & 4 Switch positions perform that exercise (SET3)

(TRANSITION) Repeat set 2 movements final position. (SET 4)

## REFERENCES:

ACSM Health – Related Physical Fitness Assessment Manual (2008).

American Heart Association. (2014). Obesity Information. Available from: [www.heart.org/HEARTORG/getting\\_healthy/weightmanagement/obesity/obesity-information\\_UCM\\_307908\\_Article.jsp#](http://www.heart.org/HEARTORG/getting_healthy/weightmanagement/obesity/obesity-information_UCM_307908_Article.jsp#)

Dobbs, R., Sawers, C., Thompson, F., Anyika, J., Woetzel, J., Child, P., McKenna, S., Spatharou, A., (2014). How the world could better fight obesity. Insight & Publications. McKinsey Global Institute. Available from: [www.mckinsley.com/insight/economics\\_studies/how\\_the\\_world\\_could\\_better\\_fight\\_obesity](http://www.mckinsley.com/insight/economics_studies/how_the_world_could_better_fight_obesity).

Freitas, R. A., Jr., (2001). Functional Navigation., Thermography of the Human Body. Nanomedicine. Available from: [www.hypertextbook.com/facts/2001/AbantyFarzana.shtml](http://www.hypertextbook.com/facts/2001/AbantyFarzana.shtml)

Klok. M.D., Jakobsdottir. S., & Drent. M. L. (2006). The role of leptin and ghrelin in the regulation of food intake and body weight in humans: a review. Obesity Reviews. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-789X.2006.00270.x/full>

National Institute for Health and Clinical Excellence (NICE). (2011). Assessing body mass index and waist circumference thresholds for intervening to prevent ill health and premature death among adults from black, Asian and other minority ethnic groups in the UK. Public health Draft Guidance. Available from: <http://www.nice.org.uk/guidance/ph46/documents/bmi-and-waist-circumference-black-and-minority-ethnic-groups-draft-guidance2>

WHO (2007). Obesity and overweight. Fact sheet N°311. Updated August 2014. Available from: <http://www.who.int/mediacentre/factsheets/fs311/en/>

Wright foundation manual (gp referral) (2013). Physiological effects of Obesity

# Diabetes/Obesity Treatment & Precautions

Mary LeBarre, PT DPT

Despite increased public awareness, over 1/3 of US citizens are obese (1). Obesity not only contributes to increased risk of death, but can lead to many chronic medical conditions such as heart disease, stroke, arthritis, low back pain, type 2 diabetes and certain types of cancer. According to the CDC, 29.1 million people in the US have diabetes (90-95% of all cases Type 2 or adult onset diabetes (2)). With childhood obesity rates raising, it should not be a surprise that 1/3 of all newly diagnosed Type 2 diabetes cases are in individuals less than 18 years old. In 2008, the estimated medical costs for treating obese patients was \$147 billion (\$1429 higher per patient than non-obese patients).

**Treatment:** For both adults and children with diabetes one of the best types of treatment is lifestyle modification, including exercise. According to the American Diabetes Association (ADA) and the American College of Sports Medicine (ACSM), individuals with diabetes should perform aerobic exercise for 30-60 minutes per day (3-5x/week for adults, daily exercise for children). Often complications from obesity and diabetes, such as peripheral neuropathy, joint pain and back pain, limit a person's ability to exercise on land. Water exercise, through formal aquatic physical therapy or aquatic fitness classes, is a great way for individuals with diabetes and obesity to get a good workout and improve their health.

**Precautions:** There are some precautions when working with this patient population. ACSM recommends that individuals with diabetes keep blood glucose levels in the 100-300 range for exercise. Individuals are encouraged to check glucose levels before and after exercise and to bring a fast acting sugar (glucose tablets or juice/snacks) to exercise sessions. If peripheral neuropathy is an issue, individuals are strongly encouraged to wear protective footwear in the water to protect from cuts and for improved traction and balance. Water temperature is another factor to consider with these populations. If joint pain or low back pain is an issue, individuals may benefit from exercise in warmer water to encourage muscle relaxation, improve range of motion/strength and improve mobility. However, if your goal is aerobic activity to burn calories, exercise should be performed in a cooler pool (80-86°F) to prevent overheating. It is also important to remember that the glucose lowering effect of exercise can last 24-48 hours after the exercise session. For those individuals with diabetes, insulin or other medication dosages may have to be adjusted as needed.

**Treatment Hints:** If a patient is *new to exercise*, I will often start the patient with water walking variations (such as BackHab™) for dynamic strength, balance and improved confidence in aquatic environment.

*To increase the aerobic intensity* but protect painful joints from aggravation, I will use deep water cadence training.

I always incorporate *core stabilization* and upper/lower extremity strengthening with my patients.

A great way to *keep individuals from getting bored* is by doing a circuit (1-2 minutes of leg exercises, followed by water walking for a lap, 1-2 minutes arm exercises, walk another lap, etc.) The individual gets a great workout and is often surprised at how much more they can do.

## BIBLIOGRAPHY

- (1) Centers for Disease Control and Prevention. Adult Obesity Facts. Accessed 1/6/15. <http://www.cdc.gov/obesity/data/adult.html>
- (2) Centers for Disease Control – National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation. National Diabetes Statistics Report, 2014. Accessed 1/6/15. <http://www.cdc.gov/diabetes/pubs/statsreport14/national-diabetes-report-web.pdf>.
- (3) Exercise and Age Related Weight Gain. American College of Sports and Medicine. Accessed May 23, 2012. <http://www.acsm.org/docs/current-comments/exerciseandweightgain.pdf>
- (4) Exercise and Type 2 Diabetes: American College of Sports Medicine and the American Diabetes Association: Joint Position Statement. *Medicine & Science in Sports & Exercise*. 2010; 42(12): 2282-2303.
- (5) Tucker ME. New Guidelines Address Type 2 Diabetes in Youth. Accessed June 24, 2013. <http://www.medscape.com/viewarticle/77830>

# Diabetes and Aquatics – From One of Us

Sally Brindle, ATRIC

In April 2005, the day after my best friend died, I was diagnosed with Type 2 diabetes. My diabetes was part hereditary, part obesity, and part couch potato. I was the Aquatic Program Coordinator at a not for profit gym, teaching swimming lessons and Arthritis Foundation Aquatics, but not doing much that was very active. I also was just beginning my journey with ATRI and AEA. These two activities have proven to probably be life savers for me.

When I was first diagnosed, my doctor told me that I had to get more active and lose weight. My A1c was 7.1 in the beginning, my weight 40 plus pounds over the obesity scale. A person without diabetes has an A1c less than 6, and a person with Type 2 should be between 6.1 and 6.4 per my physician. He sent me to a diabetes class to learn about counting carbs and how to lose weight, exercise, and eat right to bring down my glucose.

I absolutely hate to work out on land. I sweat like a pig. One of my bosses once told me that women don't sweat they glisten. I laugh whenever I think of that. Learning how to do and teach aquatic aerobics, I found an activity I could enjoy. I didn't sweat, my joints did not hurt (yes, I had arthritis on top of all else), and no one was watching me to see how silly I looked while exercising. It didn't ever bother me how I looked in a swim suit as I had worked in one most of my life and also was overweight most of my life. I felt so good doing it, I became involved in ATRI to help others as well as myself. I became AEA and ATRI certified. I also became a National Trainer for the Arthritis Foundation Aquatic Program.

It took several years, but with Weight Watchers and working out daily in the water, I lost 30 lbs, and my last three A1c's have been 5.8, 6.1, and 5.8. Between my obesity, my arthritis, and my hared of working out on land, I would never would have gotten where I am now without the water. Unfortunately, I got a new hip last year and gained back a lot of the weight while recovering. I got a new job as the Director of Aquatics in a hospital setting and am in the water doing aerobics and "therapy-type" things much of the day. It is thanks to the water that, even though I need to get back on track with my weight, my diabetes is still under control.

## 10 Questions & Answers on Diabetes

### 1. Are older people more likely to have diabetes?

*Yes, approximately 27% of people aged 65 or older have diabetes, compared with about 11% of people aged 20 or older (Ruder 2011).*

### 2. What countries around the world have the most people (20–79 years old) with diabetes?

*According to the IDF (2014), countries that have the most people with diabetes are (in order) China, India, United States, Brazil and the Russian Federation.*

### 3. What and when is World Diabetes Day?

*World Diabetes Day was created in 1991 by the International Diabetes Federation and the World Health Organization. The United Nations passed a resolution in 2007 declaring November 14 (birthday of Frederick Banting, co-developer of insulin) as World Diabetes Day. On this day, U.N. member countries promote diabetes awareness with 5 radio and television programs, sports events, free screenings for diabetes, public information meetings, events for children, and walks, runs and more.*

### 4. What do I do if a diabetic client is experiencing hypoglycemia?

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## Diabetes and Aquatics - 10 Questions

*Continued*

*Hypoglycemia is defined as blood glucose below 70 mg/dL (ADA 2014b). Symptoms can include shakiness, nervousness, anxiety, sweating, chills, irritability, confusion, rapid resting heartbeat, light-headedness, dizziness, hunger, nausea, blurred/ impaired vision, tingling in the lips or tongue, headache, weakness and lack of coordination. The ADA recommends the following treatment for hypoglycemia:*

- Consume 15–20 g of glucose or some simple carbohydrates (examples: 2 tablespoons of raisins; 1/2 cup of juice or regular soda [not diet]; 1 tablespoon of sugar, honey or corn syrup; or 8 ounces of nonfat or 1% milk).
- Retest blood glucose after 15 minutes.
- If hypoglycemia continues, repeat first step.
- Once blood glucose has returned to normal, eat a small snack if the next planned meal or snack is more than an hour or two away.

### 5. What is diabetic ketoacidosis?

*When muscle cells become deficient in glucose uptake, the body burns more fat than usual for energy. This metabolic imbalance produces ketone byproducts from the fat metabolism. When these ketones continually build up, they become toxic acids in the bloodstream. symptoms include those observed with diabetes as well as nausea, vomiting, abdominal pain, difficulty breathing and a fruity odor to the breath (ADA 2014c). The condition is serious and requires medical attention.*

### 6. What type of diet is best for the prevention and management of diabetes?

*Evidence suggests that a Mediterranean-inspired diet may help prevent type 2 diabetes and improve glucose utilization. This type of diet generally consists of moderate consumption of fish, poultry, vegetables, cereals, fruit, legumes, whole grains, olive oil and wine, and relatively low consumption of red meat (Esposito 2011).*

### 7. Does yoga help people with type 2 diabetes?

*Yes. Gordon et al. (2008) had 77 adult diabetic subjects (average age 64) complete hathayoga exercise at least 1 day a week for 6 months. Subjects improved their fasting blood glucose and lipid profiles, indicating that hatha yoga may be a safe and viable therapy for type 2 diabetes mellitus. Although these findings are promising, more research is needed in this area.*

### 8. How should teenagers with type 2 diabetes exercise?

*The ADA (2014d) recommends aerobic exercise, resistance training and recreational activities. With aerobic exercise, start with 10 minutes per day, and progress gradually to 1 hour each day. Resistance training three to four times a week is a target goal. ADA encourages teens to stay active recreationally by dancing, hiking, walking and playing sports with friends and family.*

### 9. Will eating too much sugar cause diabetes?

*According to the AFA (2014e), evidence suggests that drinking sugary beverages is linked to type 2 diabetes. To prevent the disease, the organization recommends limiting intake of regular soda, fruit punch, fruit drinks, energy drinks, sports drinks, sweet tea and other sugary drinks.*

### 10. Should people with diabetes avoid starchy foods?

*According to the ADA (2014e), evidence suggests that drinking sugary beverages is linked to type 2 diabetes. To prevent the disease, the organization recommends limiting intake of regular soda, fruit punch, fruit drinks, energy drinks, sports drinks, sweet tea and other sugary drinks.*

*Continued...*

## Planning for the Ai Chi 20th Birthday in June!

Many of you who teach Ai Chi have heard great feedback from your clients. You have heard about how Ai Chi has helped them daily and how it has improved their Quality of Life in so many ways.

You can help with the promotion and success of this Ai Chi celebration by sending us their wonderful stories!

All you need to do is forward us a short e-mail - you could write it or you could even ask your participants to send us a short description about how Ai Chi has helped them.

As well, how about submitting a short video clip of your class? Each class is unique and everyone can learn from your experiences!

Please e-mail your photos, articles and video clips by February 15<sup>th</sup> to Jane Ohberg at: [jane@trainingforhealth.ca](mailto:jane@trainingforhealth.ca)

For more information about the celebration go to <http://www.atri.org/Sanibel%20June%2015.htm>. Our celebration, with the originator of Ai Chi (Jun Konno), is in the middle of the ATRI conference.

## Diabetes and Aquatics - 10 Questions

*Continued*

### REFERENCES

- ADA. 2014c. DKA (ketoacidosis) & ketones. [www.diabetes.org/living-with-diabetes/complications/detoacidosis-dka.html?loc=lwd-slab-nav](http://www.diabetes.org/living-with-diabetes/complications/detoacidosis-dka.html?loc=lwd-slab-nav); accessed June 6, 2014.
- ADA. 2014d. Children and type 2 diabetes. [www.diabetes.org/living-with-diabetes/parents-and-kids/children-and-type-2](http://www.diabetes.org/living-with-diabetes/parents-and-kids/children-and-type-2); accessed June 6, 2014.
- ADA. 2014e. Diabetes myths. [www.diatetes.org/diabetes-basics/myths/](http://www.diatetes.org/diabetes-basics/myths/); accessed June
- Esposito, K., et al. 2011. Prevention and control of type 2 diabetes by Mediterranean diet: A systematic review. *Diabetes Voice*, 56 (1), 29-31.
- Gordon, L.A., et al. 2008. Effect of exercise therapy on lipid profile and oxidative stress indicators in patients with type 2 diabetes. *BMC Complementary and Alternative Medicine*, 8 (21). doi:10.1186/1472-6882-8-21.
- IDF (International Diabetes Federation). 2014. Types of diabetes. [www.idf.org/types-diabetes](http://www.idf.org/types-diabetes); accessed June 7, 2014.
- Ruder, K. 2011. *American Diabetes Association Complete Guide to Diabetes*. Alexandria, VA: American Diabetes Association.

We have another article at [www.atri.org](http://www.atri.org) on Diabetes.

Click on Articles of Interest in the left column, then scroll down until you see it.

# Obesity & Hypermobility - How Two Become One

By Lynda Keane MSc.

**H**ypermobility is the term used to describe the ability to move joints beyond their normal range of movement (ROM) and is often misdiagnosed, unrecognised and poorly managed. It is a multi systemic Hereditary Connective Tissue Disorder (NHS. 2014). Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health (WHO 2014). It is possible both conditions can be present in one individual. This article will highlight some of the shared symptoms of these two conditions and review how an individual can successfully exercise in water.

<b>Condition comparison</b>	
<b>Obesity</b>	<b>Hypermobility</b>
<b>Signs &amp; symptoms</b>	<b>Signs &amp; Symptoms</b>
Fatigue	Fatigue
Joint Pain	Joint Pain
Chronic headaches	Headaches
Blurred vision	Possible eye pathology
Dizziness	POTS, Dizziness/fainting
chest pain	Heart palpitations
Sweating	Sweating
Incontinence/Urinary frequency	Urinary incontinence
<b>Progression of condition</b>	<b>Progression of condition</b>
OA	OA

Shared signs and symptoms between obesity (Wright foundation. 2013) and hypermobility (Gastori et al. 2011., Hakim. 2013)

Hypermobility can present with or without pain. When a client is hypermobile with extensive pain there can be an issue with exercise. Many hypermobile clients do not like to exercise for fear of subluxation, dislocation or increased pain. As a result these individuals may potentially become or already be obese.

With pain, poor proprioception and lack of joint stability water becomes an ideal medium for obese/hypermobile clients to exercise. The properties of water including buoyancy, viscosity, hydrostatic pressure and water's conduction of heat away from the body (Reducing the effect of sweating), clients are able to exercise for longer with minimal impact but maximum benefit. Strength and endurance can be successfully targeted to maximize exercise affect.

A suitably qualified instructor can reduce/remove potential risk of injury. With the multiple benefits of water exercise these clients will potentially improve every aspect of life. This will also help reduce the cost of additional medication and medical attention needed from the Health Services (NHS. 2013., Wright foundation. 2013). With decreased weight the client will reduce pain levels in all joints and increase mobility, stability and ROM which will also potentially reduce the risk of early onset osteoarthritis and potentially joint replacement. Additional benefits can include self-confidence, improved quality of life and a decreased risk of potential future injury.

30 minutes of exercise 5 x per week is optimal for this population, start slowly then increase intensity when client is ready (ASO. 2011).

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# Obesity & Hypermobility

*Continued*

Suggested class format plus 6 week progression.

Week 1: 30 minute class

Component	Length of time	Exercise	Focus
Warm Up	7 minutes	Ai Chi	Breath & Movement control
Interval: Strength/Endurance	7 minutes	Large muscle groups mid range of movement due to hypermobility	Good quality movement, high repetitions no equipment
Interval: Aerobic	7 minutes	Walking in water is excellent for both populations	Posture, core stability, joint stability, balance
Warm down	8 minutes	Ai Chi	Control, self focusing,

Exercise time increasing as appropriate.

Week 6 progression: 45 minute class

Component	Length of time	Exercise	Focus
Warm Up	7 minutes	Walking, forwards, backwards, sideways.	Movement control, body preparation for exercise. ↑ Heart rate.
Interval: Strength/Endurance lower body	7 minutes Lower body tends to be stronger due to carrying excess body weight.	X country = quads and hamstrings ensuring feet stay on the floor preventing impact & hypermobility	Good quality mid ROM, high repetitions no equipment, core + leg strength and endurance.
Interval: Strength/Endurance upper body	8 minutes	Breast stroke arms thumbs up for Rhomboids, Traps, Reverse breast stroke for pectorals and bicep. Lateral Bicep/tricep scoop, side rock.	Ensure client sees hands out of the corner of their eye ensuring no hyperextension. Scapula depression and retraction. Side rock with scapula depression. Ensure shoulder does not lead the move.

*Continued...*

# Obesity & Hypermobility

Continued

Interval: Aerobic	15 minutes	Knees narrow lift 90/90° hips and knees to ensure control of hypermobility. Heel flicks towards bottom, Keep knees pointing to pool bottom, engage abdominals.	Posture, core stability, joint stability, balance
Warm down	8 minutes	Ai Chi	Balance, breathing self focusing, returning to pre exercise state.

## REFERENCES:

Association for the study of obesity (ASO). (2011). New UK wide physical activity guidelines. Available from: [www.dh.gov.uk/en/Aboutus/Features/DH\\_128215](http://www.dh.gov.uk/en/Aboutus/Features/DH_128215). The report.

Gastori. M, Sperduti I, Celletti C, Camerota F, Grammatico P. (2011). Symptom and joint mobility progression in the joint hypermobility syndrome (Ehlers-Danlos syndrome, hypermobility type). Clinical and Experimental Rheumatology. Available from: <http://www.ncbi.nlm.nih.gov/>

Hakim. A. J. (2013). Joint Hypermobility Syndrome (JHS) and Ehlers-Danlos Syndrome Hypermobility Type (EDS-HM) A Brief Guide for Medical Professionals on Presentation, Diagnosis, and Treatment. Clinical guidelines to JHS HMSA. Available from: <http://hypermobility.org/>

NHS choices. (2014). Joint hypermobility – Symptoms. NHS choices, your health, your choices. Available from: <http://www.nhs.uk/Conditions/Joint-hypermobility/Pages/Symptoms.aspx>

WHO (2014). Obesity and overweight Fact sheet N°311. Available from: <http://www.who.int/mediacentre/factsheets/fs311/en/>

Wright foundation (gp referral) Manual. (2013) Obesity.

Lynda Keane MSc.

[www.bodyactif.co.uk](http://www.bodyactif.co.uk)

[lynda@bodyactif.co.uk](mailto:lynda@bodyactif.co.uk)



## Check us out on Facebook

If you have been to our Facebook page, come back and if you haven't – check us out. We have some great new photo albums posted and we will be adding more weekly. Find us at:

<http://www.facebook.com/pages/Aquatic-Therapy-Rehab-Institute/179253248781779>

<https://www.facebook.com/pages/AquaStretch/325327940865268>

# UPCOMING EVENTS...

## **2015 National Aquatic Therapy Conferences**

See [www.atri.org](http://www.atri.org) for detailed information.

**ATRI Certification Exam offered at all National Conferences.  
Offered Online Anytime!**

**Featured Specialty Certificate Programs, plus PLENTY of General Education!**

**March 12-15 • Washington, DC**

**April 30-May 3 • Chicago, IL**

**June 23-26 • Sanibel, FL**

**September TBA • City TBA**

**November 12-15 • Chicago, IL**

## **2015 Professional Development Days**

***February 28-March 1 • Omaha, NE***

***March 21-22 • Dallas, TX***

***April 11-12 • Seattle, WA***

***April 18-19 • Morgantown, WV***

***September 26-27 • Tucson, AZ***

***October 3-4 • Boston (Canton), MA***

***October 10-11 • Birmingham, AL***

***October 17-18 • Allentown, PA***

# A Closer Look at 2015 National Aquatic Therapy Conferences...

## **March 21-22 • Washington, DC**

- Intro. to Aquatic Therapy and Rehab
- Low Back Pain Strategies
- Intro to Aquatic Warrior
- Adult Neurological Applications Specialty Certificate Program
- Clinical AquaStretch™ for Orthopedic Diagnoses Specialty Certificate Program
- Aquatic Rehab for Non-Therapists
- Shoulder Strategies and Progressions
- Mental Health and Aquatics
- Pediatrics: 3 months to 6 years
- Treatment for Chronic Pain and Addiction
- Sensory Integrated Imagery
- Functional Core Balance
- Spinal Injury Techniques
- ATRI Certification QuickPrep
- Modifications and Progressions for Orthopedic Issues
- Neuromuscular Conditioning

## **April 30-May 3 • Chicago, IL**

- Intro. to Aquatic Therapy and Rehab
- AquaStretch™ Essentials and Review
- Adult Neurological Applications Specialty Certificate Program
- Clinical AquaStretch™ for Orthopedic Diagnoses Specialty Certificate Program
- Dynamic Stability with Pilates
- Manual Options for the Hand and Wrist
- Integrated Balance
- Treatment for Complex Medical Patient
- Bad Ragaz for Neuromuscular Re-education
- ACL Rehab
- Neuro Bootcamp
- ATRI Certification QuickPrep
- Inflammation and Aquatics
- Parkinson's Disease: Improving Functional Mobility

## **June 23-26 • Sanibel, FL**

**Celebrating 20 Years of Ai Chi! Earn an ATRI Specialty Certificate by taking all six Ai Chi courses offered below:**

- Intro. to Aquatic Therapy and Rehab
- Functional Core Balance
- **Ai Chi International**
- Orthopedic Functional Progressions
- Pediatrics: 3 months to 6 years
- **The Fatherland: Ai Chi from Japan**
- LBP and the Pilates Concept
- Low Back Pain Strategies
- **Ai Chi Basic and Development**
- ROM, Stabilization, Balance for Endurance and Strength
- Neurospine Warrior Rehab
- Manual Options for the Hand and Wrist
- **Clinical Applications of Ai Chi**
- Gait, Balance, Proprioception and Coordination
- Trunk-Centered Movement
- COREssentials for Abs & Back
- **Fitness Applications of Ai Chi**
- Integrated Balance
- Improving Outcomes for Chronic Pain Patients
- Shoulder Strategies and Progressions
- Treating Complex Conditions and Secondary Issues
- COREssentials for Knees & Hips
- **Body/Mind Ai Chi**
- ATRI Certification QuickPrep
- Water Roundtable
- COREssentials for Balance
- AquaStretch™ in the Home Exercise and Group Setting

*Continued...*

## A Closer Look at 2015 Professional Development Days...

*Continued*

### **February 28-March 1 • Omaha, NE**

- Intro. to Aquatic Therapy and Rehab
- Interactive Posture: Improving Dynamic Alignment and Function
- AquaStretch™ Basics: An Active Aquatic Release Technique
- Aquatic Applications for the Neck and Shoulder

### **March 21-22 • Dallas, TX**

- Intro. to Aquatic Therapy and Rehab
- Ortho and Neuro Techniques
- Neurological Strategies
- Bad Ragaz for Neuromuscular Re-education
- Corrective Core
- Spinal Injury Techniques

### **April 11-12 • Seattle, WA**

- Intro. to Aquatic Therapy and Rehab
- Integrated Balance
- Inflammation and Aquatics
- PiYoChi Cardio Intervals
- Balance Progressions for Ortho and Neuro Deficits
- Safety and Liability Protocols
- BackHab

### **April 18-19 • Morgantown, WV**

- Intro. to Aquatic Therapy and Rehab
- Progressions for the Back and Neck
- BackHab Certification
- Stoke Rehabilitation
- Tackling the Lower Leg and Foot

## 2015 Equipment Suppliers and Sponsors

**S**pecial Thank You to our 2015 Equipment Suppliers and Sponsors. Please be sure to visit their websites and check out what they have to offer. Watch the weekly e-list and Facebook posting for special discounts on their products.

<b>Kiefer</b>	<a href="http://www.kiefer.com">www.kiefer.com</a>
<b>AquaJogger</b>	<a href="http://www.aquajogger.com">www.aquajogger.com</a>
<b>Nekdoodle</b>	<a href="http://www.nekdoodle.com">www.nekdoodle.com</a>
<b>AquaLogix</b>	<a href="http://www.aqualogixfitness.com">www.aqualogixfitness.com</a>
<b>NZ Manufacturing</b>	<a href="http://www.nzmfg.com">www.nzmfg.com</a>
<b>H2Owear</b>	<a href="http://www.h2owear.com">www.h2owear.com</a>
<b>Stepin2now</b>	<a href="http://www.stepin2now.com">www.stepin2now.com</a>

Do you have a product or service you want to promote? Consider partnering with ATRI as an equipment supplier or sponsor. We have varied opportunities for all budgets. Check out the details online at <http://www.atri.org/Promo.htm> or contact Monica at [mgunn@atri.org](mailto:mgunn@atri.org) for more information.

## Featured Colleague:

### Adam Wilson

By Stephanie Rammel



Adam Wilson, a native Texan, grew up in Houston Texas and received his Masters Degree from Texas State University.

After becoming certified as a CTRS, Adam moved to Europe where he practiced as a Recreation Therapist while exploring Europe. He chose Recreation Therapy, because he felt that recreation and leisure are key motivators for clients to stay healthy and have well-being. Aquatics is a component of RT and has always been part of Adam's life. He used aquatics to help clients physically, recreationally, and functionally.

One of Adam's accomplishments in his career includes researching for and writing adaptive recreation grants for his SCI population at Rancho Los Amigos National Rehabilitation Center. He feels his best accomplishment is the creation of the Adaptive Ski program. It provided 8 newly injured SCI patients an opportunity to learn how to ski in Crested Butte, Colorado for 7 days. The best part of the experience was the opportunity for those less fortunate to experience something they might not be able to otherwise. To this day, the Adaptive Ski program is still functioning at Rancho.

Adam has lived and worked in Texas and Colorado; and currently resides in Orange County, CA with his wife and 2 boys. Adam has been facilitating Aquatic Rehabilitation for 15 years. Presently, he works as a CTRS with Physical Rehabilitation populations, including SCI, Stroke, TBI, Parkinson's, and MS. Adam tries to implement Aquatics into all appropriate treatments.

He is new to the ATRI faculty and will be teaching at the Washington DC conference March 12 – 15 and at the Chicago conference April 30-May 3. Look for his courses. He's a very popular teacher.



# 2015 Volunteer Opportunities

We have a great line up of events this year, and we need help to make them a success. Consider attending one of the conferences as a volunteer and receive a greatly reduced rate on the registration fee.

Regular Complete Conference Rate (Thu - Sun) \$795-\$925

Volunteer Discounted Rate \$575

Regular Specialty Certificate Program Rate \$565-\$655

Volunteer Discounted Rate \$350

Regular Full-Day Rate \$325

Volunteer Discounted Rate \$225

Volunteer positions are filled on a first come basis.

## **VOLUNTEERS RECEIVE THE SAME EDUCATIONAL OPPORTUNITY AS A REGULAR ATTENDEE.**

Volunteers select the courses they wish to attend. They are present for both the classroom and pool sessions of those courses and they receive full CEC/CEU credit.

## **WHAT DO THEY DO?**

Volunteers serve as liaisons between the classroom and the staff. They pick up the necessary materials for each course from the registration office. They check itineraries to ensure attendees are in the right place, collect signatures for the course rosters and make the necessary announcements at the start of each course. Volunteers distribute and collect course evaluations which we rely on for future planning of conferences. They assist in monitoring the time to ensure timely transitions from classroom to pool.

The volunteer application and registration forms are on the website:

[http://www.atri.org/volunteers\\_2015-NATC%20Spring.htm](http://www.atri.org/volunteers_2015-NATC%20Spring.htm)

You can contact us directly by email at [mgunn@atri.org](mailto:mgunn@atri.org)  
or call 712-480-0050.



## **QUOTE FROM ONE OF OUR VOLUNTEERS:**

"Being a volunteer gave me the opportunity to learn more about ATRI on a personal level and I feel I am giving back to the staff and instructors for all their hard work."

## *Featured New Course:*

### **FEATURED NEW COURSE**

## **Adult Neurological Applications Specialty Certificate Program**

**Washington, DC / Thursday-Friday, March 12-13, 2015 – 15.0 credit hours**

**Faculty:** Beth Scalone, PT, DPT, OCS, ATRIC

Adam Wilson, MS, CTRS

Mary Wykle, PhD, ATRIC

**Chicago, IL / Thursday-Friday, April 30-May 1, 2015 – 15.0 credit hours**

**Faculty:** Beth Scalone, PT, DPT, OCS, ATRIC

Adam Wilson, MS, CTRS

### **COURSE DESCRIPTION:**

One of the largest groups of individuals seeking rehabilitative services are those with neurological-related diagnoses. For these individuals, the unique properties of water provide an ideal environment for successful rehabilitation. This 15-hour course will present aquatic therapy tools addressing the myriad of impairments found in individuals with neurological dysfunction and providing progression ideas throughout the rehabilitation process with focus on achieving the highest level of function possible.

This course presents aquatic techniques and progressions related to treating neurological impairments and improving functional mobility progressions (transfers, gait and balance, and cognitive issues impacting motor skills). Discussions on specific diagnoses such as MS, Parkinson's, post CVA, TBI and SCI will include precautions/contraindications, current evidence and clinical pearls with focus on treatment application. A review of the unique benefits to the aquatic environment will provide the clinician with wording for documenting medical necessity and justification for aquatic interventions in individuals with neurological impairments.

### **COURSE OBJECTIVES:**

Upon completion of this course the participant will be able to:

- 1) Progress a client with neurological impairment through an aquatic therapy treatment plan throughout the recovery process with focus on improved function.
- 2) Introduce options to improve motor skills using dual tasking progressions.
- 3) Examine the benefits of the aquatic environment and various aquatic therapy techniques specific to neurological rehabilitation.
- 4) Apply current research to enhance clinical decision making in respect to neurological rehabilitation.
- 5) Safely and effectively apply aquatic therapy equipment to enhance the rehabilitation of individuals with neurological dysfunction.
- 6) Explore the factors that influence movement and the subsystems that contribute to normal postural control.
- 7) Recognize the benefits and challenges that the aquatic environment presents when working with individuals with impaired balance, proprioception and postural control.
- 8) State precautions, contraindications and treatment modifications/considerations in respect to patients with a variety of neurological diagnoses.

*Continued...*

## Featured New Course

*Continued*

### EXCERPT FROM COURSE:

## *Clinical applications for Neurological impairments*

### 1/2 kneeling position and weight shifting

When working on functional transfers it is important to encourage weight bearing through the heels for sit to stand and to work on transferring to affected side to facilitate normal movement patterns and reestablish righting and equilibrium reactions. The ½ kneeling position allows for both with focus on hip and trunk control without having to worry as much about knee stability.

#### ½ kneeling

Unaffected leg forward: encourage affected side WB, weight shifts, balance and trunk

Unaffected leg forward: weight shift forward and back to encourage hip extension

Affected leg forward: shift weight forward and back, encourage WB through heel, increased proprioceptive feedback.



\*use care with rough pool bottoms, have the client wear a neoprene knee sleeve or place a towel under the knee to protect the skin.

The therapist should face the patient and with the patient's hands on their shoulders, this will provide feedback for midline and encourage trunk symmetry. Additionally the patient can be cued to push through arms and trunk along with the weight shift forward.

### Postural work: pectoral stretch

Poor Trunk Control can lead to Kyphosis. Increased kyphosis leads to compression of rib cage, reducing lung volume, adding to fatigue and difficulty with full lung expansion. The kyphotic position also reduces the effectiveness of the abdominals. Trunk musculature plays an important function in fixating the thorax, lumbar spine and pelvis to stabilize the proximal attachment of the shoulder muscles when the arms are moving. In other words, important with upper extremity function.

With stretching always perform slowly and take care to avoid stress to joints especially the shoulder

#### Pec minor (pool side or mid pool)

Posterior tilt the scapula with manual pressure at the inferior border of the scapula and superior lateral pressure on the anterior aspect of the shoulder.

Performed unilaterally supine or sitting. It can be stretch bilaterally in sitting with back against wall. Hold for 30—60 seconds and repeated 3 time each side.



*Continued...*

## Featured New Course

*Continued*

Pec minor/ major: client's back against the wall, therapist's hands are providing a retraction force with their hands on the anterior aspect of the shoulder. Once stretch is felt in the pectorals have client externally rotate arm placing the back of their hands on the wall and squeezing their shoulder blades back and down. Have the client gradually bring arms up into abduction without losing the contact of their hand on the pool wall. Add to the stretch have the client exhale forcefully this will bring the rib cage down and add to the stretch.



Hold 30-60 seconds, repeat at least 3 times.

To encourage postural muscle activation and reinforce proprioceptive improved alignment thus maximizing the benefit of the stretch and ensure greater carryover, follow up the stretch with postural work including scapular retractions, deep breathing in good alignment and walking backwards (preferably mid chest deep)

### FACULTY:

**Beth Scalone, PT, DPT, OCS, ATRIC**, is a licensed physical therapist with over 18 years of experience in orthopedic and aquatic therapy. As the owner of North County Water and Sports Therapy Center in San Diego, she continues with hands-on clinical care in addition to her role as educator. Since graduating from the University of Connecticut in 1991, Beth has belonged to the American Physical Therapy Association and has achieved certification as a Clinical Specialist in Orthopedic Physical Therapy. In January 2006, she graduated from Boston University with a Doctor of Physical Therapy degree. Additional certifications include Certified STOTT Pilates™ instructor and Master Instructor for the Burdenko Method.

Beth not only provides continuing education for health care professionals, she is an adjunct faculty in the San Diego Mesa College PTA program, teaching Orthopedic Rehabilitation and Introduction to Pathology courses. She also provides the learning module/instruction on aquatic therapy to the University of St. Augustine San Diego Campus DPT program.

**Adam Wilson, MS, CTRS**, has been practicing as a recreation therapist for 15 years, working with all patient populations, including geriatrics, pediatrics, and those with developmental disabilities. He has used aquatic therapy techniques with all populations, including spinal cord injury as a specialty. After graduating from Texas State University in San Marcos, TX, Adam moved to Europe where he practiced as a recreation therapist. After working and traveling Europe, Adam worked in Texas, Colorado, and now works in Orange County, CA as a CTRS with physical rehabilitation populations. He tries to implement aquatics into all appropriate treatments.

**Mary O. Wykle, PhD, ATRIC**, presents for ATRI and AEA. Course development includes aquatic re-conditioning programs for the Army and USMC. Additional programs include Aqua Pi-Yo-Chi™, Core Stabilization and Safety Training. Aquatic recognitions include: AEA Global Award for Lifetime Achievement (2010); ISHOF Adapted Aquatics Award (2007); ATRI Aquatic Professional of the Year (2006); ATRI Tsunami Spirit Award (2004) and ATRI Dolphin Award (2002).

## Marketing: It Can Be Simple and Inexpensive

Jim McCormack, of Marketplace Communications in Chicago, said, “Every type of entrepreneurial enterprise requires marketing. There are no exceptions. It is not possible to succeed without marketing. It may be true that you will not need advertising. But you will require marketing. A word-of-mouth campaign is marketing. So are business cards. Your location. And even the clothes you wear. Every component that helps you sell your business is marketing. No item is too insignificant to be included.”

### SELLING THE SERVICE

Three types of items can be marketed: a service, a person, and a product. The aquatic therapy practitioner sells a service. Here are some ways to sell your service...

#### Competition

First, you must know your competition. Competition should be analyzed. Find out what other services are in the area, what they are doing, how they are doing it, what their differential advantage is, who their referral source is, what their pricing and billing is, how they promote themselves, and what their facility is like. Evaluate their strengths and weaknesses. If the competition has well-known shoulder rehab program, it is best to find a separate niche or program that will service another group.

It is important to know what the competition is doing and to borrow the good things. It is not necessary to outspend competition, but it is important to outthink them. Developing programs that competitors have without understanding the potential demand in the market can lead to failure.

Next, you must know what makes your service different from the competitions.

#### Differential Advantage

Practitioners should find the program's differential advantage and publicize that difference. What is it that sets this service apart from the rest? This difference will keep the service and its advertising from looking like every other one.

A differential advantage can be equipment, one-on one therapy, or groups with group enthusiasm. It can be the type of facility, the payment choices, the length of the program, or the unusual features of the program. All practitioners should be able to find their differential advantage when reviewing their service. Find the niche that's special to you, and market it.

Now we're ready to market!

#### Free and Inexpensive Promotion Ideas

During a promotion, the practitioner has an opportunity to boost business. To capitalize on the situation, a promotion should do one or more of the following:

1. Show that the service is of high quality.
2. Invite potential patients or referral sources into the facility to experience the program.
3. Let doctors and patients know that the program meets the criteria of the latest advances and trends in the industry.
4. Show that the clinic is involved in community service.
5. Increase exposure and visibility.

*Continued...*

## **Marketing**

*Continued*

### **Newsletters**

Practitioner's can write a one-page newsletter with a brief article on the benefits of the service. Include some success stories. Add photos if you can. Distribute it free to local doctors and other contacts. Email it to patients and encourage them to pass it on through email and hard copies.

- Newsletters don't have to come out regularly - just when you (or one of your patients or co-workers) have time to collect information and put it together.

### **Media Rapport**

Get to know the health section editors of local newspapers. Act as a consultant, write articles, send press releases, and get on television. A local media representative can be an invaluable resource in an advertising program.

- Have a media tour or pool party where media representatives are able to see the facility and experience what happens during therapy. Ask the media for tours of their facilities to better understand what happens when they work.
- Develop and regularly update a media mailing or emailing list to be sure releases are reaching the right people. Check frequently to make sure contacts are still working at the facility. Call or email and ask if there's anything you can do for them.

### **Postcards**

Before patients leave your site have them write thank you postcards to their referring MD (you can give them the words to write) and you send them out. This will increase your referrals dramatically.

### **Stickers**

Have stickers printed with the service logo, name, address, and phone number on them. Attach them to everything. Give them to patients. If you're on a budget buy blank stickers (in a fun size, shape, or color) at an office supply store and print them from your computer.

### **Athletic Teams**

Have coaches bring their teams in to be taken through a sample rehab or conditioning program. Spend a half-hour doing some of their traditional land drills in your pool to let them see the challenge of water. Then have them try a sample shoulder, hip or knee rehab session.

### **Telethons**

Work with a pool or spa dealer and have him/her bring a spa onto the set of a local telethon. Fill it with water and demonstrate therapeutic technique. Be sure to emphasize that hair stays dry and the face is not in the water.

### **Health Fairs**

Participate in a local health fair or health show. Pass out free information on the benefits of water therapy. Use photos as much as possible. Try to get a free booth or share one with someone who has the same market but doesn't offer the same service (health food store, swim apparel store, etc).

### **Human Interest Stories**

Frequently send articles to newspapers about interesting events. Newspapers want human interest stories, not dry stories about companies or new services. For instance, if someone in the program is celebrating an eightieth

*Continued...*

## **Marketing**

### *Continued*

birthday, the media should come to the pool celebration so the participant can say how wonderful aquatic therapy has been. These stories can be about staff or patients. Just dig a bit - everyone has a story.

### **Educational Seminars**

Host educational seminars that bring medical or aquatic professionals from out of town. This will enhance credibility. Ask people to speak for free if you pay mileage - it'll be good exposure for them and excellent marketing for you.

- You know what topics your market is interested in. If you're marketing to the doctors for referrals keep the seminars short (20 - 30 minutes) and give them a reason to come (85% pain reduction without drugs). Hot topics might be Hips, Knees, Shoulders, Back, Chronic Pain, Pediatrics, etc.

### **Press Release Facility Changes**

Send press releases of changes in facility, staff, or services. Even if a new PT is hired for only two hours a week, a press release, (giving information about him or her and his/her education) and a photo should be sent to the newspaper.

- Many times the release will not be printed, but the ones that are will be effective free publicity. Sometimes the photo will be published with a caption - that's better than getting the entire release in. People actually look at photos!
- Send the articles and photos to small weekly newspapers and large daily ones, as well as to trade magazines. In local communities, there are often small private publications that will publish the information.
- Write short releases every time someone attends an educational seminar, when they become certified in a new technique, when you buy new equipment, etc. It's free publicity if it gets printed and it draws attention to your facility.

### **Public Speeches**

After attending an aquatics convention or reading an aquatics book, the therapist/practitioner can share knowledge with others in the community. Line up speaking engagements with the Kiwanis, the Rotarians, the Women's Club, the Junior Women's Club, the League of Women Voters, hospital organizations and in-services. There are many things you (or a colleague who likes to speak in front of others) know that others don't. It could be the latest techniques you're using for FMS, MS, ADD/ADHD, CVA, etc. Keep the talk short (20 minutes) and educational - they don't want a sales pitch.

### **Magazine Articles for Patient Education**

The idea of writing an article scares many therapists, but they should be aware that it is not necessary to be a good writer to get articles published in local magazines, newspapers, and trade magazines. Editors will generally revise the piece for correct language and style.

- Magazines and newspapers often print educational information because people are always looking for it (and the publication needs filler). Articles carry a great deal of weight and credibility with readers. Small local magazines and health associations within the community may be especially willing to print the information. All articles should be accompanied with photos.

*Continued...*

## Marketing

*Continued*

- Prior to submitting articles, become familiar with the types of stories local newspapers and magazines publish. Furnish them with appropriate information. The article should be timely (about something current), of local interest, and include human interest or informational news.
- After an article is published, it should be copied and sent out to doctors to give to their patients. The patient education done through articles will educate the public and let them know what to look for in a credible, high-quality program.

Articles will get far more exposure than any type of advertising.

## WHAT TO PROMOTE

Marketing strategies should address the seven things that doctors/patients look for when making a choice:

1. convenience or comfort
2. love, friendship, and socialization
3. security and safety
4. social approval and/or status
5. life, health, and well-being
6. profit, savings, or economy
7. stylishness

These seven factors should always be considered when creating and marketing an aquatic therapy program. Doctors usually want convenience and they want to look good (security that you will do a good job that reflects on them) - if you can do that for them the referrals will be abundant.

You don't need to buy expensive ads to accomplish your marketing goals. Try a couple of these ideas and enjoy your success.

*Taken from AQUATICS The Complete Reference Guide for Aquatic Fitness Professionals and Painless Strategic Planning by Ruth Sova. Available through <http://mkt.com/ruth-sova>.*



# Aquatic Evidence - FREE

ATRI has collaborated with AEA (the Aquatic Exercise Association) with our Research Forum and you get the best of both worlds! FREE. Go to <http://www.atri.org/articles/ATRI%20Symposium-IAFC%20Poster-Sessions14.pdf> to read about all of the evidence listed below.

## RESEARCH

- Response of aquatic activities on levels of grip strength, muscle power and lower body strength in elderly women
- Target zones for aquatic workout of healthy young and elderly women
- Comparison of heart rate and perceived exertion during a maximal exercise protocol performed in aquatic bike and aquatic elliptical
- A profile of total body weight and body mass index in women practitioners of aquatic exercises in the city of Rio de Janeiro, Brazil, during pregnancy
- Correlation between double (rate-pressure) product and perceived exertion on aquatic bicycle during maximal protocol
- The effects of a community-based, post-rehabilitation exercise program after total hip and knee replacement: a feasibility study
- AquaLogix vs. "standard" aquatic equipment in cardinal and multi-planar (PNF) patterns with patients who have non-descript low back pain
- Effects of two aerobic trainings on sleep quality, depressive symptoms, and quality of life in patients with type 2 diabetes mellitus
- Effects of two training programs of deep water running on blood pressure and functional fitness in the elderly
- Resting blood pressure and heart rate responses before and after resistance training in water in young women
- Effects of shallow water aerobic exercise training on arterial stiffness and pulse wave analysis in older individuals
- The impact of an aqua yoga session on mood states and cardiovascular responses during pregnancy
- Aqua Pilates vs land Pilates: physical fitness outcomes
- Effect of Aquatic Exercise on Fall-related Fitness and Posture Stability in Elderly Women
- Preliminary Analysis of the Effect of Aquatic Exercise (AE) on
- Physical and Quality of Life Outcomes of Breast Cancer Survivors

## CASE STUDY SUBMITTALS

- Effects of Aquatic Physical Therapy Interventions on Functional Outcomes of Young Adults with Congenital Disorders: A Case Study
- Case Study: Perception of pain from an obese subject with patellofemoral pain syndrome after aquatic resistance exercises for the hip adductors and abductors

## BEST PRACTICES SUBMITTALS

- Keyes Research and Development Projects Model

## **New Course:**

### **Clinical AquaStretch™ for Orthopedic Diagnoses Specialty Certificate Program**

**Faculty: Beth Scalone, PT, DPT, OCS, ATRIC**

*Due to the fast pace of information and the number of techniques presented, the participant will get the most out of this course if they have participated in a previous AquaStretch™ course or taken the ATRI Introduction to AquaStretch™ online course.*

**Washington, DC / Friday-Sunday, March 13-15, 2015 – 15.0 credit hours**

**Chicago, IL / Friday-Sunday, May 1-3, 2015 – 15.0 credit hours**

#### **COURSE DESCRIPTION:**

AquaStretch™ is a one-on-one, myofascial release technique performed in shallow water. The primary application of AquaStretch™ for rehabilitation of orthopedic diagnoses is to improve mobility and reduce pain allowing for more rapid progression of strengthening and return to function.

This 15-hour specialty certificate course integrates the general AquaStretch™ wellness program with advanced techniques and modifications most commonly used with clients with orthopedic problems. During the pool lab, participants will perform and perfect the manual skills required for basic and advanced AquaStretch™ applications. Lecture will include evidence-based material related to fascial connections and the AquaStretch™ theoretical principles. Clinical decision making component of the course includes specific applications of the technique along with review of precautions and contraindications related to a variety of orthopedic diagnoses. Integration of the AquaStretch™ technique into a comprehensive rehabilitation program will be included in class discussion with active participation and the sharing of ideas from participants encouraged.

#### **COURSE OBJECTIVES:**

Upon completion of this course the participant will be able to:

- 1) Identify the four theories of AquaStretch™ and clinical relevance to clients with orthopedic diagnoses.
- 2) Apply the basic four-step procedure to a variety of body regions on clients with orthopedic related impairments.
- 3) List precautions and contraindications to AquaStretch™ especially as it relates to orthopedic diagnoses.
- 4) Modify starting positions and hand grips for patients with shoulder, spine and hip impairments.
- 5) Determine direction and intensity of facilitator pressure when accenting a client's intuitive movement.
- 6) Utilize palpation, intentional movement and gravity assist to find additional adhesions not discovered with the basic, "play, freeze, pressure, move" procedure.
- 7) Integrate AquaStretch™ into a comprehensive rehabilitation program for orthopedic diagnoses.

#### **FACULTY:**

Beth Scalone, PT, DPT, OCS, ATRIC, is a licensed physical therapist with over 18 years of experience in orthopedic and aquatic therapy. As the owner of North County Water and Sports Therapy Center in San Diego, she continues with hands-on clinical care in addition to her role as educator. Since graduating from the University of Connecticut in 1991, Beth has belonged to the American Physical Therapy Association and has achieved certification as a Clinical Specialist in Orthopedic Physical Therapy. In January 2006, she graduated from Boston University with a Doctor of Physical Therapy degree. Additional certifications include Certified STOTT Pilates™ instructor and Master Instructor for the Burdenko Method.

Beth not only provides continuing education for health care professionals, she is an adjunct faculty in the San Diego Mesa College PTA program, teaching Orthopedic Rehabilitation and Introduction to Pathology courses. She also provides the learning module/instruction on aquatic therapy to the University of St. Augustine San Diego Campus DPT program.

## Featured Equipment:

### Celebrating 30 years

NZ Manufacturing is proud to announce the celebration of 30 years in providing the highest quality USA Made resistance exercise products for aquatic therapy. Better known from their StrechCordz® brand of aquatic products, NZ has made a name around the pool by providing a wide range of tools for water aerobics as well as water therapy programs. Rather than tooting their own horn, NZ has shared feedback from one of the highly regarded aquatic specialists in the field:



### **StretchCordz®: Aquatic Therapy and exercise applications**

*StrechCordz resistance bands provide an opportunity for the aquatic therapist to challenge or assist a client in functional movements. When simply placing it around the client's hips while they are walking, running, lunging, squatting or standing on one leg the use of the StrechCordz:*

- *adds resistance without increased weight bearing*
- *can facilitate control/ stability in desired plane*
- *can increase the challenge in various planes*
- *allows variability in the angle of pull and therefore resistance*
- *challenges balance and reaction time by varying the amount of pull (harder and softer, quick side to side motion etc. without warning the client)*

*By moving the band level around the body to the chest or shoulders there is an increase in abdominal activation when therapist is pulling from behind the patient and spine extensors when therapist is pulling from in front of patient. This requires greater core stability and is a way to progress integrated exercise facilitating the transfer of forces through the trunk and lower extremities.*

*The non-elastic loop in the middle of the StrechCordz allows it to be attached to the pool rail, providing flexibility in treatment and freeing up the hands of the therapist to greater assist the patient if needed. Or simply work with a group of clients at once.*

*By: Beth Scalone DPT*

If you would like to learn more about the products used by Beth Scalone and other ATRI members, contact NZ Manufacturing at 800-886-6621, or online at [www.nzcordz.com](http://www.nzcordz.com), or view their corporate video [https://www.youtube.com/watch?feature=player\\_profilepage&v=VID\\_tgTyKWc](https://www.youtube.com/watch?feature=player_profilepage&v=VID_tgTyKWc)



## My Favorite Exercises.....

Since I only have the ability to treat in the water once a week, I'm not one to offer clever exercises or insightful tips. I still have the initial appreciation myself for the subtle yet powerful aspects of aquatic therapy. Treating a wide assortment of chronic pain conditions also means that my interventions may be rather basic. I practice in a warm pool (91-93°F) in 3.5-4 ft depths. I either see patients individually or in small groups.

So given all of the above – BackHab is my favorite go-to strategy. With BackHab I can highlight balance with slow walking cues. My patients soon gain the realization that faster and more resisted movements are not the only way to train for strength and stability. Using cues for walking with circumduction or high knees also awakens the awareness of how much the trunk is needed for central stability amid gentle movements. “Stop and go” commands also highlight balance and stability while increasing participation as I let patients take turns calling the ‘stops.’ Changing directions to walking sideways initially seems of little value since there is less surface area and less resistance. But with a few guided directions the emphasis to push off with the ‘back’ leg or pull in with the ‘forward’ leg soon brings new appreciation for hip abductors and adductors.

BackHab is an integrated approach that individuals can even practice on their own once they know the activities and emphasis. I definitely feel safe recommending these strategies to patients who have a home or community pool to continue with even after discharge. Thanks to Ruth for teaching the program and progressions!

Anita L Davis PT,DPT, DAAPM, ATRIC

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# CERTIFICATION

When you take ATRI courses for your ATRI certification renewal, you can also use those continuing education hours for other organizations. Numerous therapy and aquatics-related organizations accept our courses and award credit as appropriate – please see [www.atri.org/credentials](http://www.atri.org/credentials) for details. A CEC/CEU Record Sheet, which serves as your Certificate of Attendance is provided for you at the conference. You may use this Record Sheet to obtain credit. If you need additional supporting documentation, please email Angie Fischer at [afischer@atri.org](mailto:afischer@atri.org).

**The ATRI Certification Exam is offered at the following conference locations:**

**March 12-15 in Washington, DC**

**April 30-May 3 in Chicago, IL**

**June 23-26 in Sanibel, FL**

**November 12-15 in Chicago, IL**

For more information go to our website [www.atri.org](http://www.atri.org) and click on Certification Information.

<http://www.atri.org/ATRICertification.htm>

## Featured Facility:

**Immanuel Medical Center in Omaha NE** has a state of the art aquatic center! We have been doing aquatic therapy since 1987, but opened a new facility in 2010. Our new pool is 25 x 45 feet with ramped entry and an adjustable/movable pool floor. We can select the depth to be anywhere including and between 0 and 6 feet. We do have warm water, 91-93 degrees.

We have up to 3 full time physical therapists and 1 physical therapy assistant who work with outpatient and inpatient populations for 1:1 skilled physical therapy. We work with patients from their adolescent years up to geriatrics. We see everything from orthopedic injuries/surgeries, to chronic pain syndromes, to neuro diagnoses like stroke, spinal cord injuries and multiple sclerosis.

We also offer a continuum of aquatic exercise options to satisfy our 700 members. We have an extensive program of-



ffering with including independent aquatic exercise to specialty classes for things like back pain as well as varying fitness levels from beginner to advanced, like water jogging, step aerobics, and Get Fit. We also offer adapted swim lessons.

We also have a new integrated program for chronic pain management, entitled COPE, Conquering Our Pain through Exercise. This 12 week program starts with 1:1 skilled physical therapy, and

eventually transition to small group/coaching sessions, and then into community programming.

**Immanuel Medical Center will host ATRI courses February 28 and March 1 this year. Come, join us, and see this incredible facility. <http://www.atri.org/PDD-Omaha15.htm>**



## *Featured Equipment:*

### **Konno WonderBoard**

Aquatic therapy is a fantastic way to regain general mobility but with a Kiefer Konno WonderBoard it can also be exhilarating too. Its unique V-shape and highly buoyant premier quality foam make this piece of equipment functional and durable. The WonderBoard was designed by world famous aquatic exercise innovator Jun Konno, the president and founder of Aqua Dynamics Institute, a consulting firm for fitness clubs, therapy clinics and swimming schools in Japan. Take it from us, this fitness aid is as fun as it looks.

Challenge your core muscles by working on balance with three different positions! Imagine using this board as if you were surfing. For the greatest challenge try standing on it without losing your balance. Optimal depth for this exercise would need to be six feet or greater, depending on your height. If you aren't quite up to standing, try a more basic balance exercise by kneeling or sitting on the WonderBoard.

After you've developed your core muscles you can try a third exercise by paddling or sculling around the pool while remaining on top of the WonderBoard.



Enjoy the challenge and have fun too while exercising with the Kiefer Konno WonderBoard! The WonderBoard (part # 801028) can be purchased at [www.kiefer.com](http://www.kiefer.com) or by calling Kiefer Swim Products at 800-323-4071.

Here is a link for your convenience:

[http://www.kiefer.com/search-pages-21.php?search\\_term=wonderboard&go.x=0&go.y=0](http://www.kiefer.com/search-pages-21.php?search_term=wonderboard&go.x=0&go.y=0)

Use offer code KWB20 to receive 20% off Wonderboards. Offer expires 2-15-2015.

### **Our next issue will deal with**

*Parkinson's and Dystonia  
Back and Neck • Types of Pools*

**Contributions are welcome...**

**Send your thoughts and comments to Ruth Sova  
at [ruthsova@ruthsova.com](mailto:ruthsova@ruthsova.com)**