



# Walking in Water

## A MODERN DAY MIRACLE

WITH AQUATICS EXPERT DR. RICK MCAVOY PT, DPT, CSCS

**INSIDE**

Hope for those with arthritis who suffer from joint or muscle pain, weakness, fatigue, joint swelling and weight gain.

If you suffer from arthritis, aquatic exercise and therapy could be your solution to improved quality of life.

# 50%

More than a quarter of a million Americans will turn 65 each month. According to the CDC, 50 percent will develop some form of osteoarthritis.



## Exercising in warm water

will help arthritis sufferers loosen up tight and stiff joints. Those with rheumatoid arthritis receive huge benefits to their health when they swim and participate in hydrotherapy. Swimming also reduces the pain of osteoarthritis.<sup>4</sup>

### “In the water, I have no disability.”

I once had a woman come to my clinic. She was overweight, with moderate arthritis, and she had undergone a hip replacement. She was in pain. When she entered the water on her first session her demeanor immediately changed. “Heaven,” she stated. She was able to walk and exercise in the water without pain because of the support that water provides. She gained increased freedom of movement and over the next 6 weeks was stronger, more balanced and was able to walk with a cane and no longer needed to use a walker. She told me, “In the water I have no disability.”

~ DR. RICK MCAVOY PT, DPT, CSCS

## 14 POUNDS

Water’s buoyancy virtually eliminates the effects of gravity – supporting 90 percent of the body’s weight for reduced impact and greater flexibility. For example, a 140 lb person weighs only 14 lbs in the water.<sup>1</sup>

## Losing 10 = 40

A growing body of research indicates that exercise, weight management and the avoidance of joint injury can go a long way in helping to prevent osteoarthritis.

A 2005 study in *Arthritis & Rheumatism* of overweight and obese adults with knee osteoarthritis found that losing one pound of weight resulted in four pounds of pressure being removed from the knees. In other words, losing just 10 pounds would relieve 40 pounds of pressure from your knees.<sup>2</sup>

<sup>1</sup> [Health.howstuffworks.com/wellness/aging/retirement/10-health-benefits-of-swimming.htm](http://Health.howstuffworks.com/wellness/aging/retirement/10-health-benefits-of-swimming.htm)

<sup>2</sup> [Arthritis Foundation, arthritis.org](http://ArthritisFoundation.org)

<sup>3</sup> [Livestrong.com/article/327593-the-best-exercise-for-arthritis-swimming/](http://Livestrong.com/article/327593-the-best-exercise-for-arthritis-swimming/)

<sup>4</sup> [Healthstatus.com/health\\_blog/plan-for-weight-loss/health-benefits-swimming/](http://Healthstatus.com/health_blog/plan-for-weight-loss/health-benefits-swimming/)

## Stress relief for aching joints

Using a swim spa adds an additional benefit – massage. Jet nozzles release a mixture of warm water and air, massaging your body and helping relax tight muscles.



# Walking in Water

If you're struggling with exercise because of arthritis, there's new and very promising research that shows exercising and walking in warm water can offer considerable benefits.

## A modern day miracle

According to the Arthritis Foundation, about 46 million Americans have been diagnosed with a form of arthritis or related condition. That's nearly one in three people. One way to help combat the effects of arthritis is exercise. Unfortunately, very few people with arthritis get the recommended two and a half hours of aerobic activity per week because of the symptoms that come with arthritis: joint and muscle pain, weakness, fatigue, or joint swelling.



It's fun to get together with friends and family in a Michael Phelps Swim Spa by Master Spas.

## While there's no cure, we do offer hope, with a treatment solution...

If you're struggling with exercise because of arthritis, there's new and very promising research that shows exercising and walking in warm water can offer considerable benefits. Water exercise can help reduce fatigue and pressure on joints, soothe aches, and help with balance. It can also help improve mobility and flexibility, allowing you to experience better quality of life and well-being overall.

We understand that pain, frustration and a fear-of-falling may be keeping you from exploring more exercise options. That's one of the reasons Master Spas has developed the Michael Phelps Signature Swim Spas. This aquatic exercise tool will help you gain strength, relieve pain, and better

your physical condition so you can get back your everyday activities.

## Providing Hope

When you avoid activities and limit the use of your joints and muscles due to pain, over time, your muscles will weaken and the joints and muscles will lose flexibility (or range of motion). Inactivity also can shorten and tighten muscles, causing you to feel more pain and stiffness, not only keeping you from exercising, but also from every day activities.

With regular exercise you keep joints moving, reduce joint pain, restore and preserve strength and flexibility, and protect joints against further damage. Exercise can also improve your coordination and endurance and improve your ability to perform daily tasks. Exercise increases



energy, reduces fatigue, improves sleep, and leads to an improved sense of self-esteem and accomplishment.

If you have arthritis and are challenged with different land-based exercise programs, consider exploring the benefits of water exercise (also known as aquatic therapy or hydrotherapy).

A groundbreaking 2014 research study published in the *Journal of Strength and Conditioning Research* by Eadric Bressel, Ph.D., professor and clinical research scientist at Utah State University, found that patients with osteoarthritis (OA) who performed high intensity interval training in the water as their regular physical activity were able to better manage their symptoms.

#### Michael Phelps Swim Spa user



“ I am 62 years old, and I suffer from arthritis in my right leg and hip. I experienced pain and cramps when walking, but it was worse when I'd try to climb stairs. It was like I needed to coach each leg up, then the other. Then one day I ran into a friend that I hadn't seen since high school. We found that we had similar struggles, and she told me about the Michael Phelps Swim Spa. I had heard about the spas before, but I thought they were only used for athletic training. I didn't realize that they were also used for someone like me - someone needing an exercise program for arthritis.

In the past, I tried going to the gym, using a treadmill, and doing my stretches, but I was discouraged with the results. I remember starting in the swim spa on a Tuesday. Within two days I could go up stairs!

And I mean straight up, only one foot per step! I said to my friend Paul, 'Look at this - its working!' After the third day, I felt incredible!

Exercising in the swim spa is now my normal. I love the propulsion of the swim spa. At the end of my workout, I turn the speed up to 40 and let it massage my legs, thighs and my IT bands. That has also played a big part in my therapy. Using the swim spa is fun and I not only have relief of my arthritis pain, but I feel stronger and healthier. My clothes are even fitting better!”

Patricia K., Saco Maine

“ In the past, I had tried going to the gym, using a treadmill, and doing my stretches but I was discouraged with the results. I remember starting in the swim spa on a Tuesday. Within two days I could do stairs!”

The landmark study means that the millions of people who suffer with arthritis can enjoy an improved quality of life with less stress and worry often associated with the pain and risk of falling from other types of exercise.

Thanks to aquatic exercise you can have less fear and greater confidence which will help you to attain, and maintain better physical health.

“ Having osteoarthritis patients walking against a systematically high and low resistance in water resulted in significant reduction in pain, improved mobility, balance and function. ”

Eadric Bressel, Ph.D., professor and clinical research scientist at Utah State University



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“Having osteoarthritis patients walking against a systematically high and low resistance in water resulted in significant reduction in pain, improved mobility, balance and function,” said Dr. Bressel. “This same kind of high intensity interval training on land would be unfathomable because of the load-elicited pain,” he added.

Mobility and balance also improved during the course of the study, with participants able to stand from a seated position more easily, lunge more quickly on one leg, and walk on land with greater speed. In fact, after the completion of the six weeks, participants’ gait speed was nearly identical to that of those without osteoarthritis.

## Land vs. Water

Exercising and training in water provides an ideal environment, not only for osteoarthritis, but also for more than 100 different kinds of arthritis. By using the natural resistance and buoyancy of water, patients can increase muscle strength and range of motion in a safer environment, perform exercises without the impact forces from land-based treatments, and begin higher level training earlier in their rehabilitation without adding stress to their injury. This is something land-based training cannot successfully offer to help manage symptoms.

Buoyancy counteracts gravity, thereby decreasing the weight placed on painful joints and the spine. In fact, when immersed to neck level, buoyancy supports 90 percent of the body’s weight, and in waist-depth water, buoyancy can support 50 percent of your body weight. One of the many advantages of exercising in water is that the diminished weight bearing stress helps aide in strengthening weak muscles and improving balance and confidence.



The Michael Phelps Swim Spa by Master Spas has plenty of room to exercise.

Exercising in warm water also raises your body temperature, causing blood vessels to dilate and increase circulation in your body. This can ease joint pain and improve flexibility. The soothing temperature and buoyancy of warm water also helps relax tight muscles.

Dr. Rick McAvoy, PT, DPT, CSCS, professor of hydrotherapy, has specialized in aquatic physical therapy for over 25 years and develops water based exercise, therapy, fitness, and training programs, utilizing the Michael Phelps Signature Swim Spa by Master Spas as a tool in his practice.

“Every day in my physical therapy and training practice, I witness the extraordinary power that water has and its ability to perform modern day miracles,” said McAvoy. “In the water, I’ve seen patients change their demeanor because of the relief they experience from their pain.”

## The Solution

Master Spas is committed to helping you improve your overall physical health and quality of life. If you suffer from arthritis, we have designed specific aquatic exercise protocols to help you achieve your

fitness goals. And, we’ve developed a swim spa with features to meet your specific needs, so you can utilize this therapy in the convenience and privacy of your own home, more often and year-round, for better long-term outcomes.

The Michael Phelps Signature Swim Spas by Master Spas were developed with input from 18-time gold medalist Michael Phelps and his coach Bob Bowman for all types of training, swimming, fitness programs and aquatic therapy. Wave Propulsion™ Technology features a unique propeller design that provides a wide, deep and smooth current — giving an increased water resistance for a more challenging exercise and swimming experience that is far superior to any other swim spa. The speed of the water current is fully adjustable allowing users of varying skill levels to reap the benefits of the swim spa.

All Michael Phelps Swim Spas by Master Spas are energy efficient, easy to install and maintain, and offer exemplary features including the exclusive Xtreme Therapy Seat and Cove. Convenient digital controls allow you to set the water temperature where it’s most comfortable for you, which means the water is perfect, year-round.



Dr. Rick McAvoy, PT, DPT, CSCS has specialized in Aquatic Physical Therapy for over 25 years. He received his Physical Therapy degree from

the University of Connecticut and his clinical Doctorate in Physical Therapy from Franklin Pierce University in New Hampshire. Rick is certified as a Strength and Conditioning Specialist through the National Strength and Conditioning Association.

He has invented aquatic exercise equipment and developed exercise software which sells both nationally and internationally. He is a published author and researcher in the field of Aquatic Therapy and Conditioning.

Rick is the owner of McAvoy Aquatic & Sports Therapy, an aquatic therapy and sports conditioning facility in New Hampshire. He teaches the benefits of aquatic physical therapy and conditioning at both The University of New Hampshire in the Department of Kinesiology and Franklin Pierce University in the Doctoral of Physical Therapy program where he serves as an adjunct faculty member. He is a Master Instructor in the Burdenko Method, a specialized form of dynamic aquatic and land-based techniques.

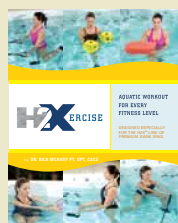
Rick lectures nationally throughout the year teaching the benefits of Aquatic Therapy and Conditioning to health care practices and athletic institutions.



“As a Doctor of Physical Therapy as well as a Certified Strength and Conditioning Specialist who has specialized in Aquatic Therapy for over 25 years, I have treated numerous types of orthopedic and neurological conditions. I have witnessed first hand the power and potential that the water provides in assisting people to improve their physical as well as psychological well-being.

Whether your goal is to improve flexibility, balance, coordination, your level of fitness or incorporate aquatic cross training into your existing fitness program, Master Spas swim spas are the perfect aquatic machine.”

- Dr. Rick McAvoy PT, DPT, CSCS



#### A NEW WAY TO EXERCISE.

Rick McAvoy, PT, DPT, CSCS and Professor of Hydrotherapy has authored an exercise program written exclusively for Master Spas swim spas. This program is designed specifically to help you get the most out of your swim spa and is presented in an easy-to-follow format.



Dr. Rick McAvoy using the Michael Phelps Swim Spas by Master Spas at the Michael Phelps Skill Center in Saco, Maine, to treat this patient through aquatic therapy.

## Getting it Done Together

Just like land-based exercise programs, people are turning to independent aquatic exercise and therapy and are looking for credible in-home exercise protocols. That's where we come in.

Dr. McAvoy has developed exercise programs exclusively designed for Master Spas to help you get the most out of your swim spa and give you step-by-step activities with the H2Xercise book that will specifically help you reach your goals to a better quality of life. We include the H2Xercise book\* with each swim spa, along with the H2Xercise System\* which includes a rowing kit, resistance bands, dumbbells and ankle fins to maximize your exercise and fitness results.



H2Xercise Bells and Fins.

## SwimNumber App (SNAPP)

Along with fitness equipment, Master Spas has also developed an innovative app for the Michael Phelps Swim Spa. Now, it's even easier to achieve your personal goals in swimming, fitness, therapy and weight loss.

Designed to work with the Michael Phelps Signature Swim Spas by Master Spas, the new SwimNumber™ App (SNAPP) is easy to use, customize, and operate as it literally takes over the Wave Propulsion™ System of the swim spa. It intuitively changes the speed of the water current at timed increments while you are swimming or exercising, to range from high-impact training conditions to slow cool-down speeds. Water speeds range from 0-100, so you can

\* FREE gift with the warranty registration of your swim spa.



A swimmer monitors his workout with the SwimNumber iPad App.

choose your personal level of resistance depending on your workout.

Not only can you design your own custom workouts, the app also features preprogrammed workouts at beginner, intermediate and advanced levels. Tracking fitness progress with metrics like distance, calories, time, etc. can be easily documented and stored. You can manage stored workouts for future reference, as well as share your results on social media or via email. This app can be custom tailored for up to 12 different users, with numerous workouts for each one.

In addition to the control/workout technology, Master Spas has also brought expert aquatic professionals to you through SNAPP. When you connect SNAPP to your swim spa, you will receive access to videos that feature input from Bob Bowman, world-renowned swimming coach for 18-time gold medalist Michael Phelps. The videos also include instruction by aquatic fitness expert Dr. Rick McAvoy, as well as triathletes demonstrating toning and body building exercises.

SNAPP works only with 2014 or later Michael Phelps Signature Swim Spas by Master Spas and connects either point-to-point directly with the swim spa's sophisticated equipment, home Wi-Fi network, or even the Cloud. The Cloud allows you to connect to the swim spa from anywhere in the world with Internet access.

With an optional waterproof case and a heavy-duty smart device mount, you can position your iPad or iPad mini conveniently in your swim spa for a workout. SNAPP is available to download through the Apple App Store.

## Michael Phelps Swim Spas by Master Spas

**It's the perfect temperature year-round.** Developed by the World's leading swim spa manufacturer, with input from 18-time gold medalist Michael Phelps and his coach Bob Bowman, the Michael Phelps Swim Spas by Master Spas were designed to meet a broad range of health and wellness needs.

It's important to feel comfortable, safe and confident that you are getting the outcomes you expect. The large flat floor of the Michael Phelps Swim Spa by Master Spas allows for walking, functional resistance training and range of motion exercises to be performed with ease. The built-in railings are a great feature to perform stationary exercises or assist with balance and coordination exercises. The Wave Propulsion™ System provides a smooth current that can provide an added challenge if needed. The water's buoyancy and controlled temperature make the swim spa ideal for a variety of fitness exercises.

There's hope for arthritis sufferers, and proof is as simple as walking in water. Contact Master Spas today and we'll help you find the best solution.

NOTE: If you have any medical conditions, consult your physician prior to starting a new exercise program.  
REMINDER: Never allow anyone to dive into a swim spa. Always enter feet first.



# MICHAEL PHELPS SIGNATURE SWIM SPAS

by  MASTER SPAS®

For more information and to find a dealer near you, visit

[MichaelPhelpsSwimSpa.com](http://MichaelPhelpsSwimSpa.com)

or call 260-436-9100

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by  MASTER SPAS®

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**Master Spas** is based in Fort Wayne, Indiana, 90 miles north of Indianapolis. Operating out of a state-of-the-art 27-acre manufacturing campus, we are the largest swim spa manufacturer in the world, and one of the largest portable spas and hot tubs manufacturers in the country. Our management team has over 100 years of spa manufacturing success, and one of the strongest track records in the industry.

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