

presents

Discovering Aquatic Exercise and MS

Live Webinar

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Guest Presenter



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SWIM FOR MS
ANY POOL, ANY TIME

MULTIPLE SCLEROSIS ASSOCIATION OF AMERICA

Swim For MS

Swim for MS is MSAA's national initiative which encourages:

- water-based exercise for people with MS and
- fundraising events where volunteers can create their own swim challenges.

Funds raised through Swim for MS help support MSAA's services, including our national program on aquatic exercise and MS.



What is the Goal?

As part of the Swim for MS initiative, MSAA's goal is to increase awareness, understanding and availability of swimming and aquatic exercise as a positive wellness opportunity for the MS community.



Acknowledgement

MSAA would like to thank Genzyme, a Sanofi company, for supporting the Swim for MS initiative and helping us develop a variety of educational materials including a:

- new publication titled: *Aquatic Exercise and Multiple Sclerosis: A Guide for Patients*
- series of inspirational videos of people with MS who include water-based exercise in their lifestyle plan
- handy laminated flipbook featuring various aquatic exercises that people can take with them to the pool
- special aquatic center of the SwimForMS.org website to showcase current and future materials



Programs & Services

Providing Information...

Toll-free Helpline
(800) 532-7667

Online response forum
MSquestions@mymsaa.org

Mobile phone application
My MS Manager™

Finding Answers...

Website: www.mymsaa.org

Award-winning publications, videos, webcasts

S.E.A.R.C.H. initiative

MRI Diagnostic and MRI Institute



Staying Connected...

Public education events

Networking Program

Follow MSAA on:



Easing Daily Life...

Equipment distribution

Cooling program

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Participating In The Webinar

MSAA encourages you to actively participate in tonight's webinar by:

- Responding to the polling questions included in the program
- Submitting your email questions throughout the webinar by typing in the Chat box on the lower left side. We will address as many questions as time allows at the end.
- Completing a follow-up survey at the end of the program to help us improve future webinars and develop additional programs to meet your needs

If you are experiencing any technical problems with tonight's webinar, you can also use the Chat box feature to type in your issue. The online moderator will respond to your "chat" and work to correct the problem.



Physical Activity Guidelines

In 2008, the U. S. Department of Health and Human Services (HHS) and the U.S.

Department of Agriculture developed 2 documents for Americans to improve health

- The Physical Activities Guidelines (PAG)
- Dietary Guidelines for Americans

PAG: What does the document say?

- Physical activity can produce long-term health benefits
 - Regular physical activity reduces the risk of many adverse health events
 - Some physical activity is better than none
 - As your activity increases, so do the benefits

PAG: Recommendations

- 150 minutes (2 hours and 30 minutes) per week of moderate intensity activity
 - Include aerobic and muscle-strengthening activities, flexibility, and balance
 - Benefits children, adults, older adults, and people with chronic health conditions

Types of Activities

- **Aerobic:**
 - Walking, running, cycling, tennis, dancing, gardening
 - Swimming, water aerobics
- **Muscle strengthening**
 - Weights, thera band, body weight, water resistance
- **Balance**
 - Walking, running, changing direction, stepping up and down
- **Flexibility**
 - Stretching, dancing, Tai Chi, yoga

But I have MS.....

- Studies continue to support exercise is good for people with MS
- Improvements in
 - Strength, flexibility, balance
 - Aerobic conditioning, gait ability, endurance
- What about the heat generated?
 - Uthoff's phenomena
 - Loss of strength with increase in core temperature
 - May occur with exercise, not proven

Use of the Pool

- Unique property of water plus the cool temperature provides an excellent environment for exercise
- Benefits include improvements in
 - Flexibility
 - Mobility (including walking)
 - Range of motion
 - Cardiovascular endurance
 - Fatigue level
 - Strength
 - Balance



Use of the Pool

- What about harm?
 - Use of exercise in the pool does not pose any danger to people with MS with regard to increasing symptoms or leading to exacerbation
 - Some studies allowed people with MS in an active exacerbation to continue.....they IMPROVED
 - Exercise DOES NOT lead to exacerbation!
 - Exercise in the pool can be beneficial for people with MS

Why is the pool so great?

- Properties of water
 - Buoyancy: uplift force of water, reduces influences of gravity
 - Viscosity: thickness of water
 - Hydrostatic pressure: fluids exert pressure in all directions
 - Water temperature
 - Recommendation for pool to be 80-86 degrees
 - One study used a 94-degree pool with benefit

Step One

- Talk to your doctor
 - Is there any reason you should not exercise in the pool?
 - Open wound, infection, healing area
- Consult with a physical therapist
 - Conduct an evaluation of your abilities and areas of challenge
 - Help develop a baseline for your program

Physical Therapy Exam

- This step is important to help determine your current level of fitness
- Identify areas of strengths and areas of weakness
- Review current state of health to determine the intensity of your exercise program
- Help guide you to a nearby facility and the right instructor/program

Step Two

- Find a community-based program
 - Safety: hand rail, nonslip surface, lift chair
 - Accessibility: lift chair, pool stairs/railing, parking, dressing area
 - Location, location, location: the closer to you, the easier to attend
 - Activity/class: led by a trained fitness instructor, specific MS class
 - Schedule: time of day that suits you
 - Pool temperature: cool pool, open area
 - Appropriate instructor

Instructor Qualifications

- Instructor may be:
 - Personal Trainer
 - Certified Strength and Conditioning Specialist
 - Certified aquatics instructor
 - Aquatic fitness
 - Aquatic therapy and rehab
 - Organizations that offer certifications
 - Aquatic Exercise Association (AEA)
 - Aquatic Therapy & Rehab Institute (ATRI)
 - Aquatics Section of the American Physical Therapy Association

Aquatics Specialist

- Must maintain certification through
 - Attending continuing education courses
- Specialist must be knowledgeable in the special populations he/she work
 - Understand the condition
 - Understand the exercises
 - Understand the impact of the water on the person

Aquatic Exercise Program

- Large variety of types of programs
- Program should be:
 - Goal oriented
 - Individually determined
 - Appropriate pace/intensity
 - Fun!!



Types of Aquatic Exercise

- Halliwick technique
 - Usually performed as individual technique
 - Balance control
 - Movement activity
 - Swimming
 - Balance
 - Transfers
 - Walking
 - Reaching

Types of Aquatic Exercise

- Watsu: aquatic bodywork
 - Based on Zen Shiatsu
 - Individual passive technique that combines
 - Stretching
 - Soft tissue mobilization
 - Slow gentle rotational movements
 - Effective to help stretch tight and restricted soft tissues



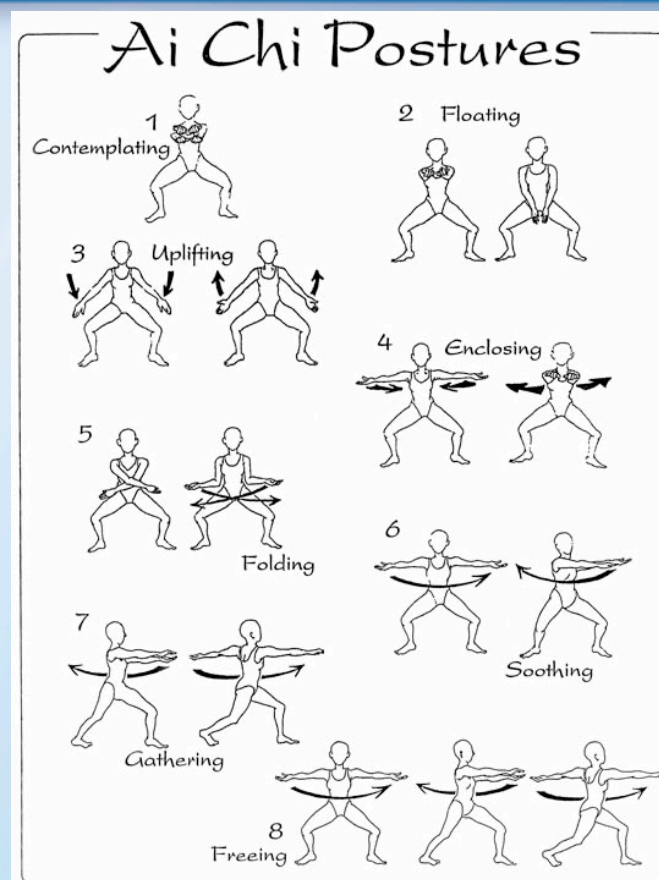
Types of Aquatic Exercise

- Bad Ragaz: use of PNF (PT technique)
 - Person floats with a neck collar, rings around the hips, arms, and legs
 - Effective for strengthening
 - Stability
 - Control



Types of Aquatic Exercise

- Ai Chi: modified form of Tai Chi performed in the water
 - Combines slow, fluid motions with breath patterns
 - Emphasis is on the ability to increase mind-body awareness



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Types of Aquatic Exercise

- Task Oriented Approach
 - Performance of functional tasks and skills in the water
 - Uses upright posture with appropriate trunk control and stabilization
 - Focus is on quick and reciprocal patterns with progressions
 - Walking, balancing, stepping, reaching, lifting, stairs and jumping

Types of Aquatic Exercise

- AquaStretch™ incorporates dynamic stretching and intuitive movement with myofascial and soft tissue mobilization
 - Decrease edema, pain, and restrictions
 - Uses a series of body and limb positions and holds performed by the instructor



Types of Aquatic Exercise

- Unpredictable command technique: series of familiar and unfamiliar movement patterns performed quickly
 - Increases body awareness through the senses
 - Increases balance and equilibrium reactions
 - Improves coordination

Types of Aquatic Exercise

- Aerobic/endurance training
 - Use of larger muscle groups to elevate heart rate and produce cardiovascular training effect
 - Activities include
 - Walking, running, jumping, treadmill, cycling
 - Includes
 - Warm up period
 - High intensity period
 - Cool down period
 - Work at 55-90 percent HR max for 15-60 mins

Types of Aquatic Exercise

- Resistance training
 - Improve strength and endurance
 - Use water environment for resistance
 - Use equipment: mitts, paddles, fins, buoyant hand bars, kick boards, cuffs, weights, noodles, theraband
- Use of games or sports
 - basketball, volleyball, races



Benefits of Aquatic Exercise

- Does exercise increase the rate of exacerbation?
 - NO
- How should individuals with MS exercise in the pool?
 - With interspersed rests
 - At their specific level
 - With guidance and supervision - at first

Benefits of Aquatic Exercise

- Uthoff's phenomenon
 - Increase in core body temperature by .5 degree C
 - Leads to 40 percent loss of motor function
 - Use of the pool keeps core body temp stable
- Supportive/protective environment
 - Support of the water
 - Reduced strain on joints

Benefits of Aquatic Exercise

- Individuals with MS of all levels can participate
 - Level 1 - no symptoms or mild symptoms
 - Level 2 - more motor or physical limitation and need for assistive device
 - Level 3 - greater functional difficulty and use a wheelchair or scooter

Benefits of Aquatic Exercise

- MS aquatics program will have
 - Pool that is accessible either through a ramp or hydraulic lift chair
 - Accessible parking
 - Accessible dressing rooms/rest rooms
 - Trained/certified instructors
 - Cooler temperature in the pool (80-86 degrees)
 - Assistance for individuals if needed

Back to Basics

- Physical Activity Guidelines
 - 150 mins of moderate intensity exercise each week
 - 30 mins per day for 5 days
 - Anything in 10 minute bouts count
- Use of an MS aquatics program
 - Allows people with MS to achieve activity guidelines in a safe, supported manner

How to Get Started

- Multiple Sclerosis Association of America
 - Developing aquatic exercise information, resources for MS healthcare professionals and aquatic fitness instructors, and a national, database of pool facilities, specific to MS
- National Multiple Sclerosis Society Chapters may have a list of MS Aquatics programs in your area
- Contact local Recreation Centers to ask about programs

Conclusion

- Everyone needs to exercise, including people with MS
- Physical Activity Guidelines state minimum recommendations
- Aquatic program can be very beneficial for people with MS for many areas of health

Take Charge

- Talk to and see your physician
- Schedule a meeting with a PT
- Find a program in your area
- Talk to the Certified Instructor about your limitations
- Have fun.....



Resources

- MSAA: Multiple Sclerosis Association of America
 - mymsaa.org
 - MSquestions@mymsaa.org
- National Multiple Sclerosis Society
 - nationalmssociety.org

Questions?



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*Improving
Lives Today!*

Thank You

This concludes tonight's webinar: **Discovering Aquatic Exercise and MS**

This webinar, along with additional aquatic exercise resources, will soon be archived and available on MSAA's new dedicated website: SwimForMS.org.

Once again, I would like to thank Lisa Csiza for her time and very informative presentation, as well as Genzyme, a Sanofi company, for sponsoring tonight's webinar along with many other additional Swim for MS projects.

Please be sure to complete the very brief survey that immediately follows the conclusion of this program. On behalf of MSAA, thank you for joining us.

