Course Title: Water Walkers: Deep Water Performance Challenge

Produced by: Fitness Learning Systems
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Course Type: e-Learning Home Study

Credit hours: IACET (International Association for Continuing Education and Training) 0.2 (2 Hours) Approved and Accepted by several additional organizations.

Continuing Education:
To receive continuing education for this course you must receive a 75% or higher score on a multiple choice quiz.

Author:
Dr. Mary Wykle, PhD

Dr. Mary O. Wykle, Ph.D. is President/Owner and primary trainer for MW Associates. Mary is a senior instructor for the Aquatic Therapy and Rehabilitation Institute and regular presenter for the Aquatic Exercise Association, IAFC and a member of the AEA Research Board. She is the recipient of the International Swimming Hall of Fame Adapted Aquatics Award and chairs the Aquatic Programs for Wounded Warriors committee. Mary is the recipient of numerous national and international awards. She holds board positions with many other organizations and aquatic companies. Additionally, she is past Chair of the College of Physical Activity and Sports Sciences Visiting Committee for WVU.

Dr. Wykle is recognized for program development with emphasis on aquatic programming for trauma, core strength, lumbar stabilization (multi-level fusions), athletic rehabilitation and balance training. She led the performance improvement study and developed the two Aquatic Programs for Wounded Warriors for the Army. Most recently, she developed the Aquatic Physical Training Program (AMP-IT) for the U.S. Marine Corps, including training manual, DVDs, and instructor trainer materials and conducted Train the Trainer courses at all Marine Corps installations.

Her Aquatic Pi-Yo-Chi™ program with supporting manual and DVD is a specialty certificate program for AEA. Other aquatic presentations and publications include Lumbar Stability/Low Back Pain Certificate Program, Lumbar Stabilization DVD, Lumbar/Pelvic Stability for Spinal Fusions, Ai Chi for Lower Extremity Amputees, Essentials of Aquatic Safety Programming. She developed the course and wrote the manual for Risk Awareness and Safety Training, the recommended risk management training for aquatic practitioners. Mary chaired the development committees and wrote Safety Standards & Guidelines for Therapy Pools and Safety Standards for Aquatic Therapy Practitioners.
Mary's recent recognitions include: the Global Award – Lifetime Achievement from the Aquatic Exercise Association (2010); the International Swimming Hall of Fame John K. Williams International Adapted Aquatics Award (2007); the Aquatic Therapy & Rehab Institute Aquatic Professional of the Year (2006); and the Northern Virginia Community College Award of Excellence for Service and Teaching (2006-2007). Previous awards include the ATRI Tsunami Award (2004) and Dolphin Award (2002); selection to Who's Who in Aquatics (2002-2003-2004); four awards of the United States Army Outstanding Civilian Service Medal; WVU School of Physical Education Hall of Fame; the American Red Cross Clara Barton Honor Award for Meritorious Leadership; two awards of the American Red Cross special Citation for Exceptional Service; and Volunteer of the Year awards from various communities and associations.

Course Summary:

Water walkers are designed to provide new options and challenges to deep water aquatic classes. The fixed wing design provides resistance against the buoyancy and viscosity of the water. They offer training opportunities for anyone desiring additional intensity training because they are classified as resistive/drag equipment and give two to three times the resistance with movement as compared to land based exercise. Water walkers can be used for a variety of water running and resistance workouts. They are great for cardiovascular/ cardiorespiratory fitness. They develop core and lower extremity strength with proper body positioning and mechanics and burn more calories than traditional exercise while providing greater range of motion without joint stress and muscle overexertion. Water walkers are adjustable to two sizes. They are not worn with shoes. It is important to properly fit and put on the water walkers and flotation on the edge of the pool before entering the water.

Objectives:

After completing this course you will be able to:
1. Discuss proper wear and use of water walkers.
2. Describe how water walkers can be integrated into deep water exercise.
3. Discuss 4 concepts related to deep water mechanics.
4. Describe how water walkers function as drag resistance.
5. Recognize basic training tips and benefits for using water walkers in an exercise program.
6. Explain how to safely and effectively perform 5 initial exercises and 5 challenge graduated water walker exercises.
7. Discuss recommendations and formats for 2 types of deep water interval training with water walkers.

Outline:

About Water Walkers
   Installation of Straps
   Proper Wear and Use
Water Walker Deep Integration
Deep Water Mechanics
   Dynamic Stabilization
   Neutral Buoyancy
   Vertical Positioning
   Symmetrical and Asymmetrical Movement
Drag Resistance
Basic Training Tips
Benefits and Key Points
Water Walker Exercises

Initial Exercises
- Static Vertical Alignment
- Walking
- Cross Over Stepping
- Power Walking
- Scooting

Graduating the Challenge
- Core Strength Challenge
- Karate Kicks
- Cross Country
- High Knee Running
- Slalom Ski Side to Side

Water Walker Deep Programming
- Interval Cadence Training
- Sample Cadence Sets
- Insanity Intervals
- Sample Insanity Intervals

Bibliography:

- Brotzman MD and Manske DPT. Clinical Orthopaedic Rehabilitation. 3rd edition.
- Cohen SP MD. Back Pain Permanently Sidelines Soldiers at War, Study Shows. Rehab Management.
- The Interdisciplinary Journal for Pain Management. Johns Hopkins. (Other researchers on the study include Shruti G. Kapoor, MD, MPH, a resident in the Department of Anesthesiology at Johns Hopkins University School of Medicine; Maj Conner Nguyen, MD, chief of physical medicine and rehabilitation at Landstuhl Regional Medical Center, Germany; and Col Leslie Foster, DO, and Maj Anthony Plunkett, MD, both of Walter Reed Medical Center. The research was funded in part by a congressional grant from the John P. Murtha Neuroscience and Pain Institute (Johnstown PA), the Army, and the Army Regional Anesthesia and Pain Medicine Initiative, Washington.

Jones BH. (1), Stephen B. Thacker(2), Julie Gilchrist(1), C. Dexter Kimsey, Jr.(3), and Daniel M. Sosin(2). (2002) Prevention of Lower Extremity Stress Fractures in Athletes and Soldiers: A Systematic Review. Epidemiologic Reviews. Copyright © 2002 by the Johns Hopkins Bloomberg School of Public Health. All rights reserved. Vol. 24, No. 2. DOI: 10.1093/epirev/mxf01. Printed in U.S.A. Received for publication July 3, 2002; accepted for publication November 27, 2002. (1) National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, Atlanta, GA. (2) Epidemiology Program Office, Centers for Disease Control and Prevention, Atlanta, GA. (3) National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta,GA.


