Course Title: Aquatic Options 2: Special Populations and Post Rehab Fitness Training

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Credit hours: AEA 5.0, ACSM 5.0, ATRI 0.5, NFPT 1.0, NCSF 2.5, YMCA 5.0, NSPA 5.0, COPS-KT 0.5

Author/s:

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Monique is the founder and president of The Personal Health Trac in Venice, Florida. She is an international presenter, training specialist for the Aquatic Exercise Association, and co-author of The Aquatic After Care Training Manual. As a certified medical exercise specialist, post rehab specialist and personal trainer, Monique designs both land and water exercise programs to fit her client’s needs.

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Judi is the corporate wellness specialist at MidMichigan Medical Center in Midland Michigan. She creates exercise programs for transitional clients from physical therapy and cardiac rehabilitation. Her teaching resume includes training specialist for Aquatic Exercise Association, American College of Sports Medicine, Aerobics & Fitness Association, and Fitness Resource Associates for past 22 years.

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Laurie is the assistant director of operations for the Aquatic Exercise Association, an AEA training specialist and a Bender Method master trainer. She is the co-author of a book on special populations & post-rehab aquatic fitness and enjoys traveling internationally to share her unique and personally developed aquatic training methods.

Course Summary:
This course is the second module in the Aquatic Options series. The information presented in this course is the resource material used in the Aquatic Options: Special Population & Post Rehab Fitness Training Certificate course. Aquatic Options was specifically designed for aquatic fitness professionals, Personal
Trainers, Physical Therapy Assistants, Occupational Therapy Assistants, Recreational Therapists, and any other professional working with special populations and post rehab individuals in the aquatic environment.

In this course you will learn simple modifications for participants with specific medical conditions including arthritis, diabetes, hypertension, and obesity. In addition, you will gain the confidence to choose appropriate equipment for all of the populations discussed in both courses. It also provides an introduction to the assessment, evaluation, documentation and reporting process.

Put together all that you have learned in both courses using the sample programs provided and be able to design your own safe and effective aquatic fitness programming for special populations.

Objectives:

1. Understand concepts for how to get started working with special populations in the aquatic environment including standard of care and risk management.
2. Be introduced to personal fitness screening and learn how to select appropriate pre and post assessment tools.
3. Learn documenting processes and how to build communication and referrals with the medical community. Identify aquatic training options for special populations including:
   a. Deconditioned and Moderately Obese.
   b. Diabetes mellitus.
   c. Cardiovascular Diseases.
   d. Osteoarthritis.
4. Describe exercise training principles specific to exercise in the water.
5. Review resistance training exercises for many musculoskeletal conditions.
6. Understand the program components for a safe and effective aquatic work out including warm up, endurance and conditioning, and cool down and stretch.
7. Learn how to select appropriate aquatic exercise equipment and use the equipment effectively.
8. Understand effective aquatic equipment progressions.

Outline:

Getting Started
   Professional Decision Making
   Standard of Care
   Aquatic Therapy vs. Aquatic Exercise
Risk Management
   Emergency Action Plans
   Environmental Issues
   Medical Issues and Precautions

Personal Fitness Screening
   Introduction to Screening
General Information and Health History
Medical Release
Informed Consent
Activity Readiness Questionnaire (PAR-Q)

Selecting Appropriate Pre and Post Assessment Tools
Introduction to Exercise Testing
Common Fitness Component Assessments
  - Flexibility
  - Cardiorespiratory
  - Muscular Fitness
  - Body Composition

Pre-Test Screening
Postural Screening
  - Common Postural Problems
  - Posture Observation

Basic Functional Screening

Documenting and Reporting
  - Screening and Assessment Reporting
  - Documenting and Reporting using S.O.A.P. Notes

Communication with Medical Community
Client Confidentiality
Building Referrals in the Medical Community
Marketing, Building Relationships, Retention

Aquatic Options for Specific Medical Conditions
  - Benefits of Training in the Pool
    - Buoyancy
    - Resistance and Drag
    - Hydrostatic Pressure

Aquatic Fitness Programming for Deconditioned and Moderate Obesity
  - General Information
  - Program Guidelines
  - Specific Programming for Deconditioned and Moderate Obesity

Aquatic Fitness Programming for Diabetes Mellitus
  - General Information
  - Program Guidelines
  - Specific Programming for Type 2 Diabetes

Aquatic Fitness Programming for Cardiovascular Diseases
  - General Information
  - Program Guidelines
  - Specific Programming for Cardiovascular Diseases
Aquatic Fitness Programming for Osteoarthritis
General Information
Program Guidelines
Specific Programming for Osteoarthritis

Program Design

Exercise Training Principles
Newton's Laws of Motion
  Inertia
  Acceleration
  Action/Reaction

Resistance Exercise Review

Upper Extremity Resistance Training Exercises
  Scapular Retraction & Depression
  Poolside Wall Push Away
  Shoulder Flexion & Extension
  Shoulder Abduction & Adduction
  Transverse Shoulder Abduction & Adduction
  External (lateral) Shoulder Rotation
  Internal (medial) Shoulder Rotation
  Pendulum
  Aquatic Row
  Elbow Flexion & Extension

Vertebral Column Resistance Training Exercises
  Single Leg Cycle
  Hip Flexion & Extension
  Knee Flexion & Extension
  Single Leg Press
  Aquatic Row
  Hip Flexion & Extension using Rubberized Resistance
  Knee Flexion & Extension using Rubberized Resistance
  Single Leg Press using Rubberized Resistance
  Aquatic Row using Buoyant Equipment
  Shoulder Abduction & Adduction using Buoyant Equipment
  Diagonal Chest Press using Buoyant Equipment
  Single Arm Stir using Buoyant Equipment

Lower Extremity Resistance Training Exercises
  Mini Squat
  Terminal Knee Extension
  Aquatic Cycling
  Hip Flexion and Extension
  Lateral Step Up
  Single Leg Press
  Single Leg Mini Squat
  Plantar Flexion
  Knee Flexion (with hip neutral) using Buoyant Equipment
  Knee Flexion and Extension (with hip flexed) using Buoyant Equipment

Proprioceptive Neuromuscular Facilitation (PNF) Fitness Patterns
  UE PNF D1 Flexion & Extension
UE PNF D2 Flexion & Extension
LE PNF D1 Flexion & Extension
LE PNF D2 Flexion & Extension

Progressions for Resistance Exercises  Phase 1 and 2

Progressions for Stretching

Aquatic Fitness Programming Components
Warm Up Component
Endurance and Conditioning Component
Cardio respiratory Training
Muscular Endurance Training
Flexibility and ROM Training

Cool Down and Stretch Component

Equipment Options
Selecting Appropriate Equipment
Equipment & Proper Movement Execution
Types of Equipment
Drag
Buoyant
Rubberized
Weighted

Equipment and Progressions

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• Dorland’s Illustrated Medical Dictionary. Twenty-fifth Edition.
• Kravitz & Heyward. www.drlenkravitz.com/Articles/flexibility.html


