

# Understanding Aquatic Therapy



There's something pretty relaxing about water. Whether you're in it for exercise or recreation, water can do amazing things for the body. Not only can it keep individuals healthy and trim, it can also be used as a beneficial form of therapy. Aquatic therapy refers to exercise programs performed in the water. It is a very beneficial form of therapy and is used for a variety of medical conditions.

## HOW IT WORKS

Aquatic therapy has been around for a long time. Injured American soldiers returning from World War I and World War II used this type of therapy. All over the world people practice the therapeutic benefits of water, from Roman tubs to hot springs. Patients have seen improvements in endurance, strength, pulmonary function, pain and even self-esteem.

Techniques of aquatic therapy vary and are often specific to injury or condition. There are exercises specific to improving flexibility and strength training, as well as ambulatory exercise and therapeutic swimming. Certain injuries will require personalized programs, while others have sought the benefits of group exercise in the water.

The water can be controlled depending on the outcome one is looking for. The best way to do this is through the temperature of the water. Warmer

water can be used for vasodilation, which draws blood into the tissues. This increased blood flow delivers the necessary oxygen and nutrients while removing cell wastes. Warm water also decreases muscle spasm, relieves pain, increases range of motion and relaxes tense muscles. Cold-water therapy can be used for vasoconstriction, which slows circulation in the body. This is helpful for patients with inflammation, muscle spasm or pain.

## TYPES OF AQUATIC THERAPY

**Ai Chi:** Developed in Japan in the 1990s, this exercise is designed to strengthen and tone the body while promoting relaxation. The principle of a healthy mind-body relationship is encouraged.

**Aquatic PNF:** A form of active aquatic therapy designed after the movement patterns of proprioceptive neuromuscular facilitation. Patients perform specific exercises while standing, sitting, kneeling or laying in the water.

**Bad Ragaz Ring Method:** During these exercises, an individual is instructed through a series of movements while supported by rings or floats in the water.

**Back Hab:** This form of therapy is based on a walking program in the pool that uses a variety of strides and stretches. This is a great form of therapy for individuals with back pain, hamstring injuries, or those looking to increase abdominal strength.

**Fluid Moves:** Individuals follow a series of movements based on the early developmental stages of infancy.

**Halliwick Concept:** In this therapy, the water is used with rotational patterns to help teach balance and postural control.

**Swim Stroke Training and Modification:** Not used for swimming skills, this therapy promotes the actual stroke in a variety of forms.

**Task-Type Training Approach:** This was first used as a way to teach functional activities to individuals who had sustained a stroke, but the principles can be applied to many disorders, especially neurologic dysfunction.

**Watsu:** Modeled after the principles of Zen Shiatsu (massage). Patients are moved in a manner allowing one part of the body to stretch at a time.

## BENEFITS

Just about everyone can benefit from aquatic therapy or water exercise. But people with these specific injuries/conditions will also see improved results from this therapy: arthritis, fractures, joint sprains, torn ligaments, sports injuries, knee/hip replacement, muscle spasms, back or neck pain, fibromyalgia, pregnancy-related pain, walking or balance issues, Parkinson's disease, osteoporosis, stroke and lymphedema. Here are just a few benefits of working in the water:

**1. Relaxation:** The temperature of water can be controlled to help relax muscles as well as blood vessels. This can lead to an increased blood flow in injured areas. For patients with back pain or acute pain, the water can be something to look forward to.

**2. Resistance:** Have you ever performed an exercise in the water? It can be pretty tough thanks to the viscosity of water. That resistance creates increased muscle strength without the need to use weights.

**3. Buoyancy:** Floating in the water can be fun, but buoyancy can actually help support the weight of a patient. Water lessens the stress placed on joints, which makes exercises less painful to perform.

**4. Pressure:** Water creates hydrostatic pressure, which can decrease swelling and allow a patient to be better aware of joint position. Patients can feel a better sense of relative placement which will also improve exercises. The hydrostatic pressure can also assist in decreasing joint and soft-tissue swelling.

Keep in mind that aquatic therapy is not for everyone. Individuals with cardiac disease, fevers, incontinence or infections should typically avoid aquatic therapy. Remember to discuss your conditions with your physician before beginning any aquatic therapy program. ■

*This patient handout was compiled using the following resources:*

*How to Define Aquatic Specialty Techniques: Operational Definitions. [www.aquaticnet.com](http://www.aquaticnet.com). Accessed March 20, 2010.*

*Aquatic therapy. [en.wikipedia.org/wiki/Aquatic\\_therapy](http://en.wikipedia.org/wiki/Aquatic_therapy). Accessed March 20, 2010*