



# The Madonna Minute

A briefing about the programs and innovations at Madonna Rehabilitation Hospital

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## The healing waters of aquatic therapy

The use of warm water as a healing medium and therapeutic procedure continues to grow immensely. Due to the many physical properties of water, warm water therapy is at the forefront of many treatment protocols. Aquatic therapy is ideal for many people who have painful joints and weakened muscles that prevent them from participating in alternative programs. Special populations, such as those with arthritis, obesity, back problems, pre and postnatal women, pediatrics, chronic pain, and those recovering from injury or surgery, are prime candidates for aquatic therapy.

Studies show that over 80 percent of the American population will suffer from low back pain at some point in their lives. At an annual estimated cost of over \$20 billion/year, low back pain has become the number one cause of

cardiovascular fitness. Aquatic therapy allows maximum trunk involvement without gravitational loading of the spine.

Aquatic therapy is a highly regarded treatment protocol for those recovering from breast cancer. According to the American Cancer Society, there are 271,420 women and over 1000 men expected to be diagnosed with breast

“Aquatic therapy is ideal for many people who have painful joints and weakened muscles that prevent them from participating in alternative programs.”

cancer this year. Warm water therapy provides a soothing environment in which to regain range of motion with reduced danger of injury for those recovering from breast cancer surgeries. Water exercise allows earlier activation of the central lymphatic pump to trigger proper lymph drainage secondary to the hydrostatic pressure of water, thus preventing the onset of lymphedema or decreasing its effects if already in place.

Aquatic therapy is frequently used in the management of arthritis pain and the subsequent loss of function. Individuals with rheumatoid arthritis or osteoarthritis benefit from reduced weight bearing and decreased stress to the joints. Strengthening hips or knees in the pool may help prepare a person for eventual surgery, or help to delay the need for surgery. A study in the journal

*Physical Therapy* (Jan. 2007) reported on a trial of aquatic therapy for 71 individuals with hip or knee osteoarthritis. After six weeks, 72 percent of the participants reported a decrease in pain, while 75 percent reported an improvement in function. The benefits were maintained six weeks after the completion of the study.

The therapeutic temperature and buoyant support offered by aquatic exercise are particularly beneficial for clients with fibromyalgia. Aquatic therapy allows for strengthening and stretching in an environment that is less likely to increase symptoms. Relaxation achieved from exercise and the buoyant support provided by the water can lead to significant improvements in subjective reports of pain and stiffness. As cited in a review by Gowans, et. al., of eight pool exercise studies, aquatic therapy



Members enjoy one of the many aqua therapy group exercise classes at Madonna ProActive.

disability among those age 45 years and older. The focus of recovery from a spinal injury or surgery includes a postural education and strengthening program, as well as improved



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may be tolerated better by clients who are fearful of increasing their symptoms. Studies by Gusi and Tomas-Carus and by Munguia-Izquierdo and Legaz-Arrese point to the benefits of long

continued on reverse

# Now you can.



Pediatric aquatic therapy allows children to freely participate in play and exercise activities that are difficult to perform on land.

term aquatic exercise for improved quality of life, including quality of sleep and improved function.

Pediatric aquatic therapy allows children to freely participate in play and exercise activities that are difficult to perform on land, where gravity pulls on their bodies. With less gravity pulling on the body in water, movements in sitting, tall kneeling, standing, and walking can be easier. At the same time, the effect of viscosity provides resistance to children's movements, promoting improved strength.

Hydrostatic pressure offers constant sensory input to the skin and joints, helping children feel where their body and limbs are in space for coordinated movements. Turbulence facilitates use of core muscles for stability and balance. As a result, aquatic therapy provides a natural environment in which children can move and have fun while participating in various therapeutic activities. As one patient commented during a therapy session, "I wish my house was filled with water so that I could walk at home."

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For additional information on Madonna's aquatic therapy program, contact outpatient therapy director Lynn Hallowell-Gottleben at 483-9502, [lhallowell-gottleben@madonna.org](mailto:lhallowell-gottleben@madonna.org)

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