

AquaSonix Therapy Winning the fight against pain in the shallow end of the pool

By Patricia Famely

Patients suffering from arthritis, fibromyalgia, back or muscle pain are finding relief in the pool at St. Joseph's Healthcare Hamilton.

An exciting new treatment, combining low impact aquatic exercise with therapeutic sound pressure waves in heated pools, is offering another option for those whose joint and muscle pain are diminishing their quality of life.

"AquaSonix Therapy can help reduce pain, increase flexibility and reduce muscle stiffness," says Mike Ivezic, director KyoCare Health. "In fact, using WOMAC, an FDA-approved pain and stiffness instrument developed by Dr. Nick Bellamy at the University of Western Ontario and McMaster University, we have found that 83 per cent of patients participating in the AquaSonix Therapy program have a positive response, with a 51 per cent decrease in pain levels."

KyoCare Health, working closely with physicians and scientists, developed the treatment protocols for AquaSonix Therapy. The procedure is a Canadian, patent-pending success. The program entails the application of evidence-based exercises in combination with the proven benefits of therapeutic sound in a warm water environment.

The human ear can only hear a limited part of the sound spectrum. Above that range is ultrasound and below it is infrasound; although largely unheard, vibrations in these ranges can still affect the human body in ways that are quite different from simply listening - they can diagnose and heal.

Most people are familiar with ultrasound. Using that technology, millions of expectant parents have seen the first "picture" of their unborn child. Ultrasound imaging is used extensively for evaluating the eyes, pelvic and abdominal organs, heart and blood vessels. Because ultrasound images are captured in real time, they can show movement of internal tissues and organs and enable physicians to see blood flow and heart valve functions, helping to diagnose a variety of heart conditions and to assess damage after a heart attack or other illness.



An AquaSonix class exercises in the blood warm water of the pool at St. Joseph's Healthcare Hamilton. They are circled around a transducer emitting therapeutic sound pressure waves that helps to increase flexibility and decrease pain levels. .

Low frequency sound, like that used in the AquaSonix Therapy program, can be used to treat musculoskeletal injuries, back and joint conditions, limited range of motion, soft tissue injuries, and chronic conditions. It is non-invasive.

"AquaSonix Therapy is a welcome complement to use in combination with pharmacologic agents" said St. Joseph's rheumatologist Dr. William Bensen.

"Low impact and muscle-strengthening exercises, staying physically active, is the cornerstone of the overall management of the osteoarthritis patient."

Human tissues have the capacity to convert pressure (sound) waves into electrical stimuli, primarily through the body's mechanoreceptors. Combined sonic frequencies can affect a state of resonance with specific cell structures, particularly for therapeutic purposes.

KyoCare Vice President Gerry Hruby says this therapy is a complement to traditional methods of managing arthritic patients. "By stimulating the mechanoreceptors we can inhibit the pain signal coming from the knee, hands, or elsewhere."

The AquaSonix Therapy exercise program is based on the Arthritis Foundation's recommendations for aquatic exercise to help keep joints moving, to restore and preserve flexibility and strength.

"The AquaSonix device, a transducer, is in the water while patients are exercising," says Ivezic. "And while they are benefiting from the water exercise, they also receive the benefits of sound pressure waves.

The sound is at such a low frequency that you really don't feel it, but the sound waves stimulate mechanoreceptors, blood flow and relax muscles, as well as release endorphins. Many of our patients report that they are sleeping better and are much more relaxed."

AquaSonix Therapy is focused on pain management as well as improving balance and coordination, breathing and circulation, energy, flexibility, and mobility. Says Ivezic, "We've had patients with chronic pain associated with osteoarthritis of the hands, back and knees who are experiencing an improved quality of life. But the key is that this is a personalized program which allows patients to proceed at their own pace."

A typical AquaSonix Therapy session takes about 45 minutes. Class participants are led by trained aquatic instructors, either a physical therapist or kinesiologist or certified aquatic therapist. The instructors also hold First Aid, CPR and Lifeguard qualifications.

"We are already running multiple classes for patients of St. Joseph's Healthcare and at other locations in Ontario," says Ivezic. "Partnering with hospitals and locating in hospitals is the ideal way to deliver AquaSonix Therapy."

A patient can be referred by a physician or self-refer by calling a toll free number (1-877-622-2121).

"Our patients are not looking to build muscles," says Hruby. "Our patients are looking to walk to the corner store, garden, open a jar - normal quality of life issues are most important to our patients."