The following article featured on the Aquatic Exercise Association website www.aeawave.com/healthynews/

Update Bone Density Revelation By Pamela G.Milling, Aquatic Director

This is the update on my previous article, Bone Density Revelation, featured April 2011 at Healthy News, sharing the results of my third bone density test taken on April 13, 2013. The official results are outstanding when compared to test #2, as listed in the original article.

I must confess several people expected this new bone density test to decrease. Why?

- 1. I am 2 years older than I was at the previous test; nearing the age of 70.
- 2. I do not take a bone density medication.
- 3. For a short time, I took the chemo pill.
- 4. My breast cancer tested as extremely aggressive and is expected to "metastasis" to bone cancer.
- I do not exercise on land in a weight bearing method; I perform water fitness exercises without additional resistance equipment, simply using the natural resistance of the water until I become "winded", recover 40 seconds and repeat.

Great news on bone density test #3 when compared to results from test #2 two years previous. My bone density improved in several areas, stayed the same in others, and did not decrease as people expected. Both test #2 and test #3 were taken in the same hospital, using the same equipment, and read by the same doctor. *Praise the Lord for His Goodness and Mercy, Psalms 100:1-5 (NASB).*

I continue to call for research to validate that vertical water exercise provides the benefits of "weight bearing exercise." The resistance of the water is constantly encountered when moving the body in and against the water. The muscles, and the skeletal system to which the muscles attach, are receiving multi-directional resistance when forcefully moving while submerged. Performed correctly deep-water training, although non-impact, provides a resistive format for the musculoskeletal system.

Water Fitness has helped me in my personal quest to improve or maintain bone density. It is applicable in other areas as well. I follow the progress of Mississippi College football players in water fitness training. The exercises I designed for these athletes complement the land training that coaches employ to achieve sports performance goals. Dr. Suzanne McDonough, PhD, Kinesiology Department, is in agreement that water fitness training complements land weight bearing exercise. Water fitness training has different benefits than swimming (personal communication, April 15, 2013).

References

MBMC. January 2011. Mississippi Baptist Medical Center, 501 Marshall, Jackson, MS 39202. MBMC. April 2013. Mississippi Baptist Medical Center, 501 Marshall, Jackson, MS 39202. NASB Hebrew-Greek Key Word Study Bible.