

Addressing Health- Related Issues: Training on Land vs. Training in Water

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When teaching or training people, it's necessary to recognize the importance of strength in the performance of skills. Strength should always be acknowledged in relation to body size. Obesity has a negative effect on strength. Studies indicate that, the more obese a person is, the greater challenge it is for him/ her to comfortably and successfully perform motor skill movements on land. The balance between strength and percentage of body fat should always be considered and adjusted accordingly. If this balance is overlooked, a person won't be successful at completing a physical challenge. Many obese people will avoid land exercise, due to this very reason. However, a properly designed and physically- sound training or workout program can bring him/ her great success and enjoyment if the exercises are properly performed, appropriate and done in water.

On land, exertion intensity is controlled by varying the weight, number of repetitions and sets and the length of limb. In water, we can also control the number of repetitions, angle, length of limb, and resistance (height, anchored, foot and hand positions) and speed to alter the intensity. We don't fight gravity; instead we can work against currents (eddies) and our own turbulence.

Gravity greatly effects land exercise, especially for an obese person having less strength. Here, he/ she risks falling. In water, there's less risk of falling, due to water's natural properties; we have more time to re-adjust our balance. Furthermore, joint impact in land movements is substantial, due to gravity. In water, there's less joint impact, due to buoyancy. Here, the effects of gravity on weight are also different. A person weighs 75-90% less in water, making it more comfortable for an obese person to exercise. Also, gravity naturally pushes the blood to our feet and our bodies work hard to push blood up to our hearts. In water, buoyancy fights gravity. The result is a lower heart rate and less fatigue or health risk.

During land exercises, we perspire to cool ourselves. For an overweight or obese individual, the demand can't always be sufficiently met, resulting in overheating and discomfort. In a water environment, excess body heat is "wicked" away, keeping us cool. Also, blood is sent predominantly to our working muscles during exertion in water, instead of to our skin's surface for cooling purposes. In doing so, the greater demand from our muscles for oxygen and nutrient delivery can now be met, thereby decreasing the possibility of cramping, injury or fatigue. Undeniably, exercising is now safe, effective and more enjoyable.

Note: Prior to exercising, please check with your doctor, regarding your health status, if necessary.

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