

Sunken Exertion and well being Resource

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Introduction

Swimming is one of the healthiest physical activities for individuals to enjoy life span (Hiens, 2008). Research shows that swimming has an exceedingly positive effect the functioning of the heart and lungs (Bíró, Fügedi, & Révész, 2007). It improves over blood circulation and helps maintain healthy muscles, bones, and joints (Magno & Mascare 2009). Swimming, from a psychosocial perspective, can strengthen self-confidence, improve general state of mind and endurance, reduce stress levels, and enhance the ability to sleep soundly (Gračanin, Medjedović, Mekić, Mavrić, & Obreslikov, 2012; Hiens, 2008).

Also there is no doubt that aquatic exercise is changing, and fast becoming a first option and not a last resort for people around the world. Something that many are still unaware of however, is just how effective water resistance can be when it comes to building strength and power.

Aquatic exercise research compiled by June M. Chewing shows that in the 1980, and early 1990s it was thought that whilst training in the water could help you build muscular endurance, you would not really build strength effectively in the water. Fast forward to today, and research has demonstrated that with the right equipment, program and pace, significant strength can be built using aquatic resistance training.

Health Benefits of Aquatic Exercise Preventing Unnecessary Falls with Aquatic Exercise

Regardless of our age or fitness level, falling is something we are all at risk of thankfully, for many children and adult's falls do not result in a serious injury. However, unfortunately, the older populations are at a much higher risk of falling and causing some damage.

As we grow older, we see a natural decline in muscle mass, bone density, strength, range of motion, poor posture, muscle imbalances and other key senses. These changes the all attribute to an increased risk of falls resulting in injury.

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Identifying these risk factors can be a great start to help prevent unnecessary falls. According to the National Council on Aging, "Every 14 seconds, an older adult is treated in the emergency room for a fall; every 29 minutes, an older adult dies from a fall related injury. Sadly, falls are considered to be the main cause of death from injury in those 65 and older.

Aquatic exercise is a fantastic way to help the at-risk population improve their balance, mobility and flexibility in a safe and controlled environment, which in turn, can help reduce their overall risk of falling.

In addition to challenging core and balance, the water also helps increase blood flow and can reduce swelling causing chronic joint pain and stiffness. This, combined with water's buoyancy can help individuals perform particular movements, with more ease and comfort than they could on land. Viscosity also allows for increased time of response so that reaction time can be trained more functionally.

Walking in Water

Walking in water comes with many benefits. As the outdoor temperatures climb, it is better to walk in water than walking on land. Not only will it help keep you nice and cool, but it will help you burn more calories too. While it may sound easy enough, walking up and down the pool provides more resistance than walking on land and is sure to get the heart rate up in no time.

Improve Strength

Once thought to be impossible, research has now demonstrated that with the right pace, equipment and program, noticeable strength gains can be achieved in the water. By capitalizing on and increasing the drag forces already provided by water, drag resistance equipment provides enhanced resistance in multiple directions, helping you build balanced muscle strength and reduce the risk of injury.

Not only is it a safe way to improve strength, but it is efficient too. Using drag resistance equipment can target multiple muscle groups and body parts simultaneously.

Lose Weight

Water exercise can also be very beneficial in aiding with lewater resistance provided, It takes more energy to push your body through the water than the air. It is estimated that the average 30 minute pool workout burns approximately 300 c Even simply walking in the water, compared to walking on land will help shed weight faster

Improve Flexibility, Posture and Balance

The water is a great place to go if one wants to improve flexibility, balanced posture. Due to the support and buoyancy of water, it is able to help enhance flexibility tight and imbalanced muscle groups, resulting in improved range of motion with low discomfort that if attempted on land. Water also reduces the effects of both gravity and momentum, by reducing these compressive forces, as well as slowing down your movements you will notice improved feedback which will in turn help improve posture

Improve Mobility

Everyone has different fitness goals, whether it is to dead lift more, run a marathon or simply be able to run around with their kids without getting short of breath. Improving your mobility is going to help you achieve your desired goal. Without good mobility you are likely have poor form and as a result recruit the wrong muscles or simply function less efficiently. Aqua strength has a range of programs and equipment that have been designed to help improve mobility, range of motion and flexibility. At the same time provide an efficient workout. This will go a long way in helping improve your technique and overall performance in whatever it is you want to do.

Increase Muscle Balance and Strength

The aqua strength system is a very efficient way to work on balanced muscle strength when you are outside of cross fit. It gives you the ability to work two opposing muscle groups with each representative. Due to the resistance water provides on both the lengthening and shortening phase of the muscle, the aqua strength equipment helps enhance dynamic flexibility and strength simultaneously. Having resistance in multiple directions builds balanced muscle strength and also helps reduce the risk of injury or pain when working out.

Build Strong Bones

There is a common misconception that water cannot help people build bone density. However that is not at all true. Water resistance places a demand on the musculoskeletal system which causes an increased load on the bones resulting in them becoming stronger and denser. In addition to the water resistance, gentle plyometric type exercises can be performed in the water to increase the added stress to improve bone strength.

Train Like an Athlete

Exercising in the water is becoming increasingly popular. Take a look at many of the successful athletes and sports teams that are now putting a huge emphasis on aquatic training and boasting about the results they are seeing. Aquatic exercise significantly reduces the stress on your joints, bones, and muscles because of water's unloading property of buoyancy. This is a very safe and effective way to exercise and allows people with injuries to start exercising much sooner with less discomfort. People who suffer from back-pain, neck pain or just want to cross train to reduce the pounding of land based exercise should be taking note from the professionals and turning to the water.

Psychological Wellbeing

Like any regular exercise, pool workouts are great stress relievers. The exercise stimulates the brain to release chemicals that make the body feel good. When performing aquatic exercises, the movement of water against and over the body results in both massage and relaxation. This calming effect can decrease, or eliminate the pain resulting from a workout. The water's hydrostatic pressure helps to provide pain and stress relief by providing sensory stimulation throughout the entire body.

H-O Heart Rate

The unique properties of water enable the heart to work more efficiently. The hydrostatic pressure of water pushes equally on all body surfaces and helps the heart circulate blood by aiding venous return (blood flow back to the heart). This assistance to the heart accounts for lower blood-pressure and heart rates, during deep-water exercise versus similar exertions on land. Consequently, your heart rate is an estimated 10-15 beats lower per minute during suspended water exercise than for the same effort applied on land.

Aquatic Exercise for Cartilage Health

Aquatic exercise has been shown to decrease pain and improve function in people with knee osteoarthritis, although it is commonly considered to be of insufficient stimulus to affect cartilage.

High intensity aquatic resistance training sufficient to cause improvements cardiovascular fitness produced a sufficient stimulus to improve collagen orientation and decrease hydration in particular cartilage. A loss of collagen orientation and increase in hydration are early signs of changes related to osteoarthritis. While the training was very intense, with over 400 to 500 repetitions per session, compliance to the program was extremely high and tolerance to the training was good. The clinical significance of

this study is that high repetitions of low-impact aquatic resistance exercises can improve cartilage health and quality while increasing cardiovascular fitness.

Sports Specific Training

For years, athletes have been using aquatic training to improve and maintain their sports specific skills. The All Blacks is an example here. As a top ranking team in the world their players need to be in top physical condition. It is therefore no surprise that we see many of their top players in the pool on a regular basis. Even the great Muhammad Ali used aquatic training to improve his boxing techniques and footwork. So make the most of the resistance the water provides, and stay one step ahead of your competition by ensuring you have some pool time scheduled.

Conclusion

Aquatic exercise has many beneficial effects on physical and mental wellbeing. Aquatic resistance training has proved to be beneficial in improving strength, losing weight, improving flexibility and mobility, increasing muscle strength, building strong bones and improving cartilage health.

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