

Why Water?

Water is the lifeblood of the earth

The properties of water and advantages they can provide for clinicians:

Hydrostatic Pressure - (Pressure exerted by fluid at equilibrium due to gravity. Hydrostatic pressure increases in relation to water depth):

- Reduces heart rate and arterial pressure by assisting circulation
- Reduces peripheral oedema
- Increases metabolic rates and calorific burn
- Increases thoracic pressure, which improves cardiovascular conditioning

See figure 1

Buoyancy - (The users relative body mass at a specified water height):

- Reduces load on painful joints and muscles
- Improves flexibility
- Increases core stability

See figure 2

Temperature - (Affects the users bodily functions and workout experience):

- Relaxes the user
- Relieves pain
- Improves circulation

See figure 2

Surface Tension - (The area where users break the water surface with their body):

- Targets specific muscle groups
- Assists the balance of unsteady patients or recovering athletes

See figure 3

Resistance - (The resistance of water on immersed areas of the body):

- Supports weak muscles and limbs
- Significantly increases workout intensity

See figure 3

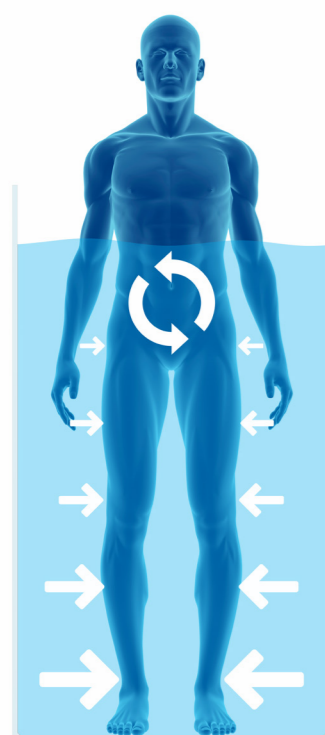


Fig 1

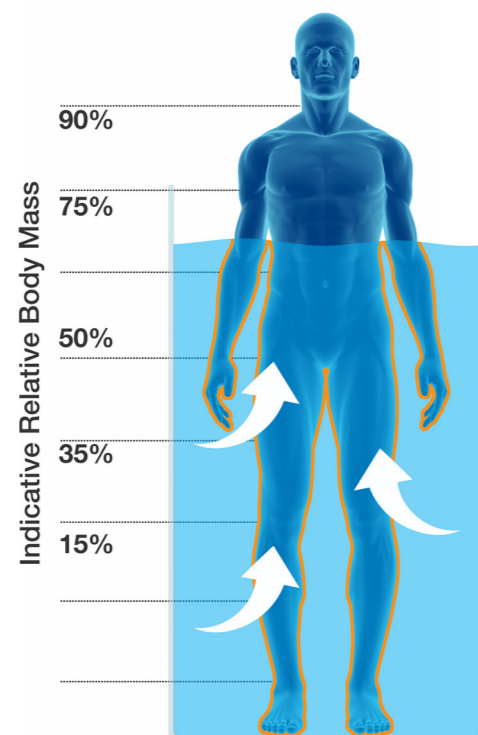


Fig 2

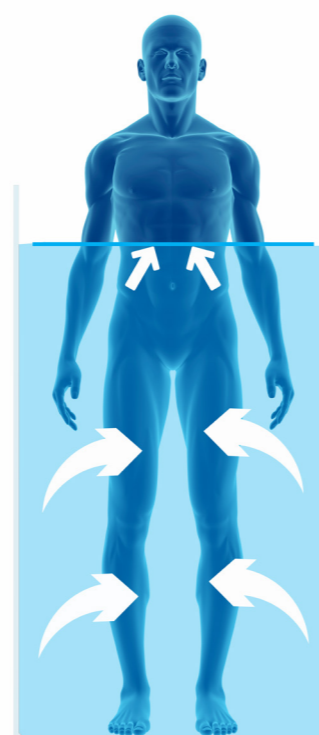


Fig 3

The Benefits

Typical Treatments & Benefits

1 Ankle Injuries

Users of HYDRO PHYSIO aquatic treadmills typically experience a 60% reduction in effective body weight, this can be particularly helpful for rehabilitation and recovery of ankle injuries.

2 Knee and Lower Leg Injuries

Knee replacements, ACL reconstruction and lower leg trauma due to injury, are all improved with aquatic treadmill programmes.

3 Hip Replacement

Elderly patients with hip replacements use aquatic therapy to start rehabilitation at the earliest possible stage. Pain management is possible when exercising in warm water.

4 Core Stability / Weight loss

Only aquatic training allows a low impact challenging workout, which promotes better health and fitness.

5 Spinal Injuries

Damage to the lower back is treated in a supportive environment that is resistive and cushioning. Low treadmill speeds allow patients to take their first steps of recovery.

6 Cardiovascular and Respiratory

Exercising in water can improve cardiovascular strength and overall fitness. Increased resistance and pressure are key factors in achieving this. The correct core body temperature is also a contributory factor. Immersion in water can strengthen respiratory musculature and enhance cardiovascular efficiency.

7 Neurological

Stroke patients and people with other neurological conditions, such as cerebral palsy, use aquatic therapy for learning or relearning in a supportive environment. Aquatic therapy promotes an unexplained user feel good factor.

