

Aquatic Therapy & Hydrotherapy

How Water-Based Exercise Can Support Your Recovery

1 What Is Aquatic Therapy?

Aquatic therapy is structured exercise performed in a heated pool, guided by a physiotherapist or specialist. Hydrotherapy is a broader term covering any therapeutic use of water. The physical properties of water make it uniquely useful for musculoskeletal rehabilitation — especially when land-based exercise is too painful or not yet possible.

Property of Water	What It Does	Why It Helps Recovery
Buoyancy	Reduces effective body weight by 60–90% depending on immersion depth	Allows earlier loading and movement when land-based exercise is too painful
Hydrostatic pressure	Uniform compression on all submerged tissues	Reduces swelling; supports venous return; provides proprioceptive feedback
Viscosity / resistance	Water resists movement in all directions	Provides progressive resistance without weights; safe for weak or deconditioned muscles
Warmth (typically 33–36°C)	Relaxes muscles, reduces pain sensitivity, improves joint mobility	Enables greater range of motion; reduces muscle guarding
Turbulence	Unstable environment challenges balance and postural control	Improves proprioception and neuromuscular control

2 Who Benefits Most?

Condition / Situation	Why Aquatic Therapy Helps	Expected Benefit
Osteoarthritis (hip, knee, ankle)	Buoyancy offloads joints; warmth reduces stiffness	Reduced pain, improved mobility, maintained strength
Post-surgical rehab (joint replacement, ligament repair)	Early loading with minimal joint stress	Earlier restoration of range of motion and strength
Obesity / high BMI	Reduced joint load enables exercise not yet possible on land	Cardiovascular fitness, strength, confidence
Fibromyalgia / widespread pain	Warm water reduces pain sensitivity; gentle resistance builds tolerance	Pain reduction, improved sleep and mood

Balance and falls risk (elderly)	Hydrostatic pressure + buoyancy = safe environment for balance training	Improved proprioception; reduced fall anxiety
Achilles / plantar fascia conditions	Partial weight-bearing allows earlier loading	Accelerated return to full weight-bearing
Stress fractures (recovery phase)	Deep water running maintains fitness with zero impact	Cardiovascular maintenance; earlier return to sport

3 Types of Aquatic Exercise

Exercise Type	Description	Good For
Walking / jogging in water	Walking in chest-depth water; jogging in deeper water	General rehabilitation; early post-injury loading; cardio
Deep water running	Running in deep water with float belt — no ground contact	Stress fractures; high-load injuries; cardiovascular fitness
Resistance exercises	Movements against water resistance using paddles and boards	Strength building in all planes; safe for weakened muscles
Balance and proprioception drills	Single-leg standing, perturbation training in water	Ankle instability, post-sprain rehab, falls prevention
Stretching / range of motion	Warmth + buoyancy enable greater range than on land	Post-surgical stiffness, arthritis, muscle tightness
Relaxation / pain management	Floating, gentle movement in warm water	Fibromyalgia, chronic pain, high pain sensitivity

4 Getting the Most from Water-Based Rehab

Aquatic therapy is not 'just swimming' — the exercises are specifically designed to target your rehabilitation goals. The resistance, depth, and type of movement are all chosen deliberately. It works best when combined with a land-based programme as your capacity improves.

Practical Point	Guidance
Temperature	Therapeutic pools are warmer than leisure pools (33–36°C vs 28–30°C) — this matters for pain and mobility
Depth	Chest-depth reduces body weight by ~70%; waist-depth by ~50% — your therapist will progress depth as you improve
Frequency	2–3 sessions per week is typical for rehabilitation; once per week for maintenance
Transition to land	The goal of aquatic therapy is usually to bridge to full land-based loading — not a permanent substitute

If you swim recreationally

Swimming is useful but not the same as aquatic therapy — front crawl, for example, puts significant rotational load on the lumbar spine

5 Key Takeaways

KEY TAKEAWAY 1

Water allows you to start loading injured tissues earlier and more safely than land — buoyancy reduces the weight going through your joints by up to 90% in deep water, allowing movement and strength work that would otherwise be too painful.

KEY TAKEAWAY 2

The warmth of therapeutic pools (33–36°C) is not incidental — it actively reduces muscle tension, improves joint range of motion, and lowers pain sensitivity. This is why a heated leisure pool is not equivalent to aquatic therapy.

KEY TAKEAWAY 3

Aquatic therapy works best as a bridge — helping you build strength and confidence in a protected environment before progressing to full land-based rehabilitation. It is not a long-term substitute for loading your tissues on land.