

Aquatic therapy has become a very valuable component of veterinary physical rehabilitation. There are specific principles of aquatic therapy that provide unique benefits to the patient that other forms of therapy do not provide. In addition aquatic therapy comes naturally to many patients, which is especially beneficial because exercises in animal patients must be in a form that they naturally perform or can be easily trained to do. Although dogs cannot follow verbal instructions, they generally perform aquatic therapy very well.

Principles of Aquatic Therapy

It is necessary to understand the basic principles and properties of water, including relative density, buoyancy, viscosity, resistance, hydrostatic pressure, and surface tension to appreciate the benefits of aquatic therapy. These are important components to consider when planning an aquatic rehabilitation program.

Aquatic Therapy Equipment

The anticipated use, size of the dogs receiving therapy, and funds available help determine type of equipment best suited for rehabilitation. Some of the available forms of aquatic therapy include underwater treadmills, pools of various sizes, and whirlpools.

Small animals

- _ Sink
- _ Bathtub
- _ Whirlpool
- _ Swim-spa
- _ Children's wading pool
- _ Beach
- _ Dam
- _ Lake
- _ River
- _ Above-ground or in-ground human swimming pools – swimming and therapist-assisted hydrotherapy
- _ Purpose-built dog pools – swimming and hydrotherapy
- _ Underwater treadmills

Large animals

- _ Swimming in purpose-built pools
- _ Beach
- _ Dam
- _ River
- _ Water walker/underwater treadmill

Benefits of hydrotherapy for animals

Based on the evidence we have for human and animal hydrotherapy, the suggested benefits of hydrotherapy or exercising in water for animals include the following;

- _ Reduces loading on painful or healing structures
- exercise can be commenced earlier with less muscle activation required and less load on limbs.
- _ Provides additional support to limbs, reducing likelihood of injury to muscles, tendons and ligaments.
- _ Allows exercise to continue while land-based exercise is restricted or contraindicated.
- _ Eases performance of difficult activities and movements through the force of buoyancy.
- _ Water provides more resistance/drag than air: great for strengthening.

- _ Prevents atrophy.
- _ Increases in muscle mass and strength.
- _ Increases cardiovascular fitness and endurance.
- _ Increases joint range of motion, reduces stiffness.
- _ Increases soft tissue extensibility.
- _ Reduces muscle spasm and hypertonicity.
- _ Increases tone in hypotonic body parts.
- _ Allows gradual progression and return towards more normal function.
- _ Assists in management of oedema through hydrostatic pressure.
- _ Provides relaxation.
- _ Reduces pain in joints with degenerative joint disease.
- _ Increases circulation and assists in promotion of healing.

Contraindications to hydrotherapy for animals

Hydrotherapy is not recommended for animals with any of the following conditions;

- _ Open, infected or draining wounds
- _ Unhealed surgical incisions without a waterproof cover
- _ Active gastrointestinal disease (vomiting and/or diarrhoea)
- _ Elevated body temperature, infection
- _ Systemic compromise such as severe cardiac, liver, kidney disease, hypotension or hypertension
- _ Respiratory compromise or distress
- _ Advanced debility
- _ Uncontrolled epilepsy
- _ Kennel cough in dogs (contagious)