

SWIMMING IS FUN

MISHNA ON HYDROTHERAPY



Chapter One – In Which A Problem Becomes Apparent

Four years ago, my son and I waited in the drizzle for what seemed like ages before our fuzzy little puppy was finally delivered to us. He was adorable, as only puppies can be. Impossibly, it seemed, he grew more gorgeous and mischievous with every day. As he lost his puppy charm it was replaced by a much more compelling charisma. He grabbed attention wherever he went. Cars literally stopped in the street to see this handsome young dog! Rushed at by strangers, he'd strike a pose, sigh deeply, and suffer all the adoration stoically.



I know I probably sound like a hypochondriac when I relate the beginning of this story. There was nothing really wrong with my dog, he just wasn't entirely happy. He ran around, but he didn't bark much. He didn't jump on and off the bed like the other dogs. Occasionally there was a shadow of a limp, but not enough to notice. Sometimes he just looked dejected. Even for an inscrutable breed, he didn't seem to wag his tail enough. I wanted him to be so boundlessly happy, but was just so ... restrained. Even for a chow.

So I started actively looking for trouble. Perhaps he was in pain? Perhaps the crate had been dropped on the way down from Johannesburg? Perhaps there was a pinched nerve at the base of his spine? After a cursory examination, one vet suggested it might be a cruciate injury (if-it's-a-chow-it-must-be-cruciate) and immediately proposed surgery. Two of my previous dogs had endured cruciate repair surgery, one of them repeatedly. I had personally witnessed the ravages it had wrought. Although they had been gone many years already, the very suggestion tapped into my deep grief at their prolonged pain and premature deaths.

Don't get me wrong, surgery has its place. I just feel it should be the last resort. Once the cruciate ligament has completely ruptured, there really is no alternative. And, of course, surgical techniques have come a long way since the early '80s.

Now, however, I started investigating alternatives with a rampant vengeance. I am an analyst by profession and I applied my every skill to the research. We started the round of blood tests, drug therapies, acupuncture, and physiotherapy.

Chapter Two – In Which Hydrotherapy Is First Investigated



At some point hydrotherapy was suggested. I vaguely remembered that a friend had taken her dog swimming, so I called her to find out more. Her little dog, Peanuts, had been stricken with paralysis as a result of poisoning, presumably from a snake bite. He had completely lost the ability to move from the neck down. He could not toilet unassisted. He could barely manage food. Vets had lost all hope by the time she turned to hydrotherapy. Yet, within a short while at hydrotherapy, movement started returning to his atrophied limbs and, after a couple of months, Peanuts was running around again!

Swimming has been used successfully for rehabilitation therapy since World War I. It was first applied to horses in the racing industry, and later to racing greyhounds. Only relatively recently has it become popular for small companion animals. Most people come to hydrotherapy initially for remedial purposes. Many stay on for long term support of dysplastic or otherwise weak joints, or just as part of a general fitness regime.

For dedicated dog owners everywhere this has the potential to be the most exciting innovation since the creation of dried dog food!

In South Africa, the industry is still in its infancy and almost entirely self-regulated. Formal qualifications and facility standards are yet to be prescribed. This creates a huge diversity of therapists, facilities and services. However, most hydrotherapy centres rely heavily on referrals from local vets and therefore work hard to maintain close working relationships with the formal veterinary sector.

Hydrotherapy is most often used for humans, horses and dogs. However, it can also be successfully applied to:

- cats, rabbits, ferrets, chinchillas
- rats, mice, hamsters
- big cats – lions, cheetahs, tigers
- primates – baboons and others
- large birds, particularly parrots
- even snakes!

Chapter 3 – How Hydrotherapy Works

Water supports weight so that exercise can be effective without straining bones, muscles or tendons.

Normal land-based exercise alternates free movement through low resistance medium (air), intermittently arrested against a fixed medium (land), creating impact. Movement sets up repetitive stress, which travels through the limbs, to be absorbed by the bones, tendons and joints. Under normal conditions, these stressors help to build and maintain strong, healthy bone. But, where there is already injury or arthritis, or where stress is severe or sustained, it can seriously damage or weaken limbs.



Swimming uses almost all of the muscles, while dispersing the stresses evenly through a resistant medium. It demands more effort, but excludes the concomitant impact to bones. The natural buoyancy of the water has a stabilizing effect, protecting against sudden sharp twists and falls, and supporting a range of movements beyond the capability on land. By allowing a full range of movement in

reduced weight bearing conditions, hydrotherapy extends reach, strengthens muscles and promotes joint flexibility.

All this makes it potentially safe for dogs at risk – very young or very old dogs, arthritic or obese dogs, or dogs recovering from surgery or illness. It is also hard work – a five minute swim is equivalent to thirty to forty-five minutes of hard land-based exercise for four-legged's!

CAUTION: DO NOT TRY THIS AT HOME!

Not all dogs know instinctively how to swim. Nor are all dogs equally capable of swimming. Short nosed breeds like the English Bull Dog are susceptible to asphyxiation. Double coated breeds like the Chow Chow are susceptible to becoming water logged and quickly drown. Long eared breeds like the Basset Hound are susceptible to ear infections. The first thing an aspiring hydrotherapist has to master is First Aid!

Dogs do not have to be able to swim to benefit from hydrotherapy as the whole point is to support the dog in the water. Hydrotherapy provides an environment free of the dangers inherent in “free-range” swimming – tides and undercurrents, pollution and litter. The optimum water temperature varies across species. In dogs, muscle efficiency is maximized at 24 – 30°C. Swimming your dog in cold water can painfully stress the very joints you are trying to support and end up doing more harm than good.



Pool hygiene is a particular challenge when swimming dogs across the full spectrum of size, cleanliness, fluffiness and point in the shedding cycle. Water must be tested and treated several times a day to control infections and prevent the spread of skin conditions, without chlorinating to the point of irritating sensitive skin and eyes. Hair needs to be continually removed from clogged filters. Filters themselves need to be replaced frequently. And, in the unfortunate event of an “accident” (urination or defecation in the water), the entire pool may need to be shut down for a period.

Chapter 4 – When Hydrotherapy Really Helps

HEALING

Injury:

Muscle begins to atrophy within three days of disuse, creating secondary weakness and injury and making it difficult to rebuild through normal exercise. Wherever normal exercise causes pain and lameness (eg arthritis, hip dysplasia, osteochondritis), hydrotherapy can enable use of affected limbs and joints without discomfort. It accelerates the natural healing process by encouraging mobility and improving circulation to affected areas.

Prior to orthopaedic surgery (eg full hip replacement)

The condition requiring the surgery usually mitigates against other types of exercise, but good muscle tone can enhance both the effectiveness of the surgery itself and recovery thereafter.

In some cases (eg partial cruciate ligament rupture) hydrotherapy may even forestall or delay surgery altogether.

After surgery:

Movement is an important part of the recovery process for healing bones, muscles and nerves. Yet in the early stages after surgery, full weight bearing movement may be difficult or impossible. Hydrotherapy can speed recovery significantly by enhancing repair of muscles, tendons, ligaments and fractures. It has proved very effective for recovery after hip, knee and cruciate surgeries.

Disease:

Hydrotherapy can help compensate and slow progress of various neuromuscular and degenerative diseases. It is often recommended for paralysed dogs where it has the added benefit of stimulating normal bodily functions like respiration and waste elimination.

Hydrotherapy may be recommended for:

- joint / mobility problems
- hip or elbow dysplasia
- degenerative bone or joint diseases
- knee & elbow injuries
- spinal injury
- arthritis
- degenerative myelopathy or other neurological disease or neuro-surgery
- circulatory problems
- muscular or nerve diseases
- recovery from orthopaedic surgeries, eg cranial cruciate repair, hip replacement etc
- laminectomy
- geriatric patients
- obesity
- any kind of paralysis or physical disability
- pain, lameness, stiffness or discomfort, decreased range of movement due to prolonged misuse of a limb or compensation for an injury
- improved fitness & condition in working (police, guide, assistance) dogs & agility dogs
- improved toning in conformation show dogs
- recovery from trauma, abuse
- wildlife rehabilitation

FITNESS

The restorative qualities of hydrotherapy are legend but, of course, cardiovascular fitness and endurance is not just the object of the ill. During swimming, lungs have to work harder because the chest is under pressure from the weight of the water. The heart has to work harder to meet demands for nutrients by all the muscles being worked. Water based exercise complements land based exercise by extending the range of motion and building robustness. It is also great fun and enhances general well-being!



Chapter 5 – In Which We Consider the Consequences of Hydrotherapy

As a newcomer to the dog show scene, I was appalled to encounter the extent of steroid abuse amongst exhibitors. Steroids are too often used to keep dogs in coat all year round, to mature dogs faster, to simulate toned musculature, to anaesthetize against chronic pain – without any regard for the side-effects, which range from autoimmune catastrophes through to complete collapse of internal organs and sudden death.

Hydrotherapy helps keep exhibition dogs in peak condition all year round without nasty long term effects. Working dogs perform better at higher levels of fitness. Competition dogs thrive on the physical challenge.

Suburban dogs often need significantly more exercise than their environments are capable of providing. Swimming reduces stress, relieves boredom and releases energy built up as a result of confinement and inactivity.

Obese dogs especially can benefit by exercising without the strain of excess weight on bones and joints incurred during ordinary running around. It is ideal for reducing weight and increasing cardiovascular function.

CAUTION: RISKS

Swimming strengthens muscles but does little or nothing for bone. Your animal must also have normal exercise on land in order to keep its bones strong. Bones are living tissue. They physically adapt (reshape) in response to specific exercise. And they require stress (high impact or weight bearing) to build strength. Hydrotherapy may produce the most wonderful muscles, tendons and ligaments, but without adequate impact exercise the same dog may develop osteoporosis. Monitor your dog, with the help of the professionals – your hydrotherapist and, as always, your vet.

Some pools have a treadmill tank so the dog can walk or run underwater, providing yet another type of exercise. There is no hard and fast rule for how many sessions, how often, how long – each hydrotherapy session is tailored to an individual's condition and gradually improving fitness level. Each dog's threshold must be individually determined. Huskies – bred to run over ice for 8+ hours at a time – may achieve total swimming time at a single session of fifty minutes with rest periods. An obese Bulldog, working just as hard, may never manage more than six minutes in a single session.



Chapter 6 – In Which We Go Swimming

There was nothing drastic wrong with my dog, perhaps, embarrassingly, nothing at all. But my research had convinced me it was worth a try. The fact that Renee didn't flat out laugh at me when I mumbled my seemingly insignificant list of concerns on that first visit, was an auspicious beginning.

When we first arrived, Pan'Kou was given plenty of time to wander around, sniffing at the rubber floor and drainage holes, while Renee and I went through the administrative paperwork. Then he was dressed in a full body harness – swimming caps available for flap-eared dogs or on request! After a five minute warm up in the hot spa, Pan'Kou was coaxed gently up the rubberized ramp and into the main pool, then down and into the water on the other side. If necessary, there is a hoist on a swing arm mechanism to lift and lower larger or more disabled dogs into the pool.

Renee climbed into the pool with Pan'Kou, lifted him into the water, held him to swim for a few seconds, then returned him to the ramp for a rest. Renee made a point of taking his pulse before and after exercise and measuring how long it took to return to normal. Then finish off with a rinse and blow dry. I remember he managed to swim about a minute in total at his first session – but he came home and slept like he'd run a marathon.

Over time, squeaky toys and balls were introduced during swimming and, once or twice, Pan'Kou actually did make a grab for a particularly irritating toy. He even welcomed Benjy swimming with him a few times. As he got stronger, jets were switched on to make his muscles work harder.



Shortly after Pan'Kou started swimming, he was hit by a mountain bike on a downhill in the forest, full side into the flank, at high speed, flinging him several meters. His scream still haunts my nightmares. Yet two months later his hips and knees tested completely clear. Did hydrotherapy prevent serious injury? I have no doubt that it certainly hastened his recovery.

Now, three years later, all three of my dogs go swimming once a week. It keeps them strong and lean – coats gleam, eyes shine, and muscle tone is amazing. I still don't know for sure what was ailing my boy, but if I look at the fact that he jumps onto the bed spontaneously (even though he never likes to stay there long!), wags his tail vociferously, and play barks with great and prolonged enthusiasm, then I have to say that hydrotherapy has been a resounding success. Much more than that, it has unmistakably enhanced quality of life for all my dogs. All of them bound in enthusiastically, many times running up the ramp before they even have their harnesses on. The girls particularly enjoy the hot spa, while Pan'Kou really loves a vigorous rub-down with the towels. And they all enjoy the occasional impromptu pool party!

Hydrotherapy prevents joint deterioration and protects against injury. Of course, this is no guarantee that they will never experience injury. I just know that swimming gives them the best possible chance of minimizing, or recovering from, whatever comes their way.



Please note: Nothing in this article is meant to replace veterinary advice.
Always consult your vet before undertaking any course of treatment.

