

**H**YDROTHERAPY or *ερεσμεν* in water, especially sea water, has long been used for the treatment of many health conditions in humans and animals. Horses themselves have known the value of standing in cold water to assist in easing early laminitis effects.



**Professor Evan Hunt** is universally regarded as one of the horses. Here, the Australian academic traces the history

Human exercise physiologists and physiotherapists have used hot or cold therapy to ease or aid repair of muscle, joint and traumatic injuries. Similar use has been made of sea water by horse trainers around the world when based at coastal locations.

All believe the salt water aids in recovery or prevention of some lower leg conditions but few have proof that water, a natural therapy, actually works.

Most trainers and owners have valued the role of running hose water, application of ice packs, or use of whirlpools or boots as a first line of treatment in many injury situations both as a cleansing agent and also to stimulate healing. However, this has always been regarded as second best to seawater.

As all trainers do not have access to the ocean, many interested persons have attempted to develop water baths suitable for use with horses. Earliest records indicate patent applications being registered in the USA in 1873 and in the UK in 1917, both claiming superior healing and pain management in injured horses.

Since those times many other patent applications have been lodged registering improvements in the concept and design but all relied on anecdotal evidence to support claims.

Although the concept was simple the practice of spa bathing horses has not been strongly supported.

The introduction of effective chemical anti-inflammatory and pain control agents diminished the need. Also hygiene issues associated with faecal or algal contamination of water and problems of water leakage reduced interest.

The introduction of regulations for drug-free horse sports and mandatory drug testing has, together with the interest in "natural" therapies, reawakened the role of hydrotherapy for horses.



**Breakthrough**

In 1990 Brian Scott of Dubbo in New South Wales, Australia designed a fibre glass spa bath for horses which overcame some of the previous bath problems and since then modifications to aeration, filtering and faecal collection have made the operation of a spa bath for horses an easy and reliable way of providing natural hydrotherapy to the legs of horses.

Hydrotherapy relies on a number of water factors which all may influence the outcome of the therapy. The temperature of water has important therapeutic and analgesic influences. The colder the water, the more pain relief and anti-inflammatory influence is provided.

Also at lower temperatures micro-organic

activity is minimised and, in trauma or surgical cases, cold provides better infection control. The lower the temperature the more dense the water is together with it holding more dissolved oxygen.

Salt concentration and the make up of the salts in the water will have an effect on the tissue response to water. Sea water contains varying amounts of common salt, sodium chloride, but averaging around 25g/l, and magnesium chloride 1g/l.

The higher the salt concentration, the greater the drawing action the water has on tissue fluids. Spa bath hydrotherapy allows the introduction of

higher salt levels than seawater increasing the healing powers of the water.

The depth of water increases the physical pressure exerted onto tissues and the deeper the immersion the greater the pressure.

Aeration of water, creating water turbulence, has a two-fold action by giving massage but also dissolved oxygen content of the water is increased. At lower temperatures, below six degrees Celsius, dissolved oxygen content increases rapidly above the 2.4ppm contained in still salt water to 4.5ppm, and at two degrees Celsius aerated water holds 8-11ppm.

The higher oxygen level is believed to improve healing as it does in hyperbaric oxygen chambers for humans and also allows the horses to relax far more than in still cold water or in water at higher temperatures.

In clinical trials undertaken in Australia at the University of Sydney-Orange, together with cases recorded in Texas and in Gloucestershire, numerous horses with many types of lower leg injury have responded very well to cold spa hydrotherapy where 20g/l sodium chloride and 30g/l magnesium sulphate were included in the water which was refrigerated to below nine

**Internet search led Brady to buy**

PHILIP BRADY made headlines this year as the breeder of German 2000 Guineas winner Brunel.

But he and his wife Marie were already well-known in racing circles as the owners of the Tipperary Equine Spa at Holyroost.

He reports that their centre

for natural horse therapy provides the ideal combination of facilities for healing lower leg injuries. And Brady is genuinely excited by his business and the results achieved.

"We will be in business here two years come January," he said. "What happened to me was I had a horse with problems

and I was not at all impressed with firing, blistering and so on. You really don't want to be faced with a situation where you leave him off for a bit, praying and hoping that time alone will make him better. There is little profit in that carry on.

"I was in the computer industry at that stage and had plenty of time to research this whole area, using the internet.

"Then I went to see one of these equine spas in Cheltenham and was curious enough to bring the horse there to see how he would progress.

"He made rapid improvement and his recovery was 100%.

"He will be pointing soon in fact and you have to remember he was in a terrible way with a huge lesion in a tendon.

"The long and the short of it is that, after seeing what happened in Cheltenham, I put my

hand in my pocket and bought one myself. There are some who think what we do is somewhere between magic and quackery but that's not what we have discovered."

Philip went on to explain why he thinks hydrotherapy caught on in Australia before coming to Europe. "If you think about it, the terrain in Australia means that horses would suffer more leg problems than they do here. Nearly every horse down here was trained in the sea and many of the training establishments are close to water.

"Then the Green Party in Australia had the practice banned altogether. So someone thought 'Well if we can't bring a horse to the sea, let's bring the sea to the horse.'"

And so the equine spa business was born and the idea then spread to the United States and later to Europe.

**Kiely another convert**

DUNGARVAN trainer and vet David Kiely reports that, in his experience, hydrotherapy has brought about results far ahead of traditional methods when it comes to healing equine leg injuries.

"I believe that, apart from instances where there is definite core damage, these spas can be very beneficial indeed. There was a friend of mine whose horse had a problem and he decided to chance the hydrotherapy way and found that the problem cleared up in three days. Now I know that the usual expectation would be a healing period of three weeks. So there is no doubt it worked wonders for him."

He relates a similar incident involving a horse he was treat-

ing for a major tendon problem. "It looked bad and we were trying to do as much as possible to fix it up. Again, a number of sessions in one of the spas not

only bucked up the animal but he recovered in a few days when we would have been happy with a result in four or five weeks."

Asked to explain how hydrotherapy works, Kiely said: "I haven't been able to come up with many scientific answers but many vets around the worlds are now using it as a tool in their practices. It's a different story where there is real core damage but I can only state what I have seen and that is that it can be a terrific help in the right cases."



• David Kiely



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