

Breathe Deep: Hyperbaric Oxygen Therapy

By Kimberly A. Rinker

Hyperbaric oxygen therapy (HBOT) has been used in human medicine for over a decade to treat a variety of conditions, and is just now finding its niche in equine medicine and racehorse therapy.

Rene Catalano, an accomplished horsewoman and wife of top Illinois-based Wayne Catalano, has been utilizing HBOT on the couple's and client's racehorses since 2008.

"A few years ago, we had friends tell us they had been using HBOT with their horses and that it was very helpful in the healing process," Catalano recalled. "It was pretty new at the time, but a friend wanted to buy one to use on his horses, and he really wasn't sure where to get one or where he could put it."

The Catalanos and thoroughbred owner George Ditola talked further, and it was decided that Ditola would purchase the HBOT chamber, with the Catalanos operating it on their Elgin, Ill. farm.

Ditola, a semi-retired dentist with a practice in Melrose Park, has owned horses for 20 years with a variety of trainers.

"I've been a horse owner for a long time and really love the game," Ditola said. "The hyperbaric chamber is an alternative type of therapy that is really starting to catch on now. Last year it was a bit difficult to introduce the benefits that it offers to everyone in the business, but this year it really seems to have caught on, as more and more trainers have seen the positive results that come from the treatments."

"I read a lot about HBOT, and the more I read, the more interested I became in acquiring a chamber," Ditola continued. "Prior to last year a lot of local trainers were going to Kentucky for treatments, and I thought having one here in Illinois would

be a lot more convenient."

At first Catalano used it only on their horses, but later they opened up the treatments to other trainers. "We really don't do a lot of promoting to get outside horses (to use the chamber), but through word of mouth, we've had a lot of trainers that like to utilize it."

The chamber, manufactured by Equinox Technologies of British Columbia, Canada, consists of a pressurized cylinder that can accommodate two horses per treatment. The patients are immersed in an enriched oxygen environment at approximately two times the normal atmospheric pressure for the duration of the treatment.

The HBOT environment promotes an increase in tissue oxygenation by as much as 13 times the normal level, and thus, increases healing, reduction of tissue edema, and the growth of capillary beds onto injured tissues.

"The entire process takes about two hours," Catalano explained. "It takes about 25 minutes to fill the chamber with the oxygen. The oxygen is liquid first and has to convert to air. Once it's filled to capacity, the air vents out of the top of the chamber very slowly and is then regulated to a certain pressure, and will stabilize for the duration of the treatment. When the levels drop, the system automatically adds more air for the required pressure. The actual treatment takes 90 minutes."

Horses have to be hosed down prior to entering the submarine-like structure, so that there is no chance of static electricity

occurring, and the chamber itself is hosed down prior to entry. A camera provides the chamber operator full view of the horses—who appear to be standing in a two-horse trailer—while they are inside the well-lit enclosure. Typically no sedatives are needed and the horses go in willingly and seem to enjoy the experience.

“Once the horses have been in it a few times, they really seem to enjoy it,” Catalano said. “They know they’re going to come out of there feeling good. We have a lot of horses that come here and at first, they don’t want to eat and they seem depressed, but after the six treatments, they’re back on their game and feeling happy and looking for their feed tubs.

“A lot of trainers like to use it on bleeders or horses with slow-healing wounds,” Catalano continued. “Typically, a horse will be treated six times while they’re at our farm.”

The cost per treatment is \$300, and if a horseman purchases a package of five treatments, he or she gets the sixth gratis. Scheduling of treatments varies too, Catalano explains, depending on the injury and how the trainer thinks it should be treated.

“Some trainers like their horses to go in straight, six days a week, one treatment per day,” she said. “Others will do two treatments per day, with a one-day break in between, while others will do one treatment every other day. It just depends on the trainer, the horse, and what the animals is being treated for.”

“We’ve had a lot of success with wounds,” Catalano added. “With some wounds, you can see them visibly shrink up in a matter of days. We had one situation where a cyst was discovered via an ultrasound on a horse’s lung. Being in the chamber helped to shrink and nearly get rid of the cyst. That was pretty amazing. We’ve also had a lot of success with torn tendons. The HBOT really seems to speed up the healing process.”

Another area that is enhanced by HBOT is in the dispersion of medication.

“If you have a horse that’s sick and you need to treat him with antibiotics, then he’d get his dose of antibiotics right before he goes into the HBOT chamber,” Catalano noted. “The HBOT stimulates the medica-

Pressure healing horses

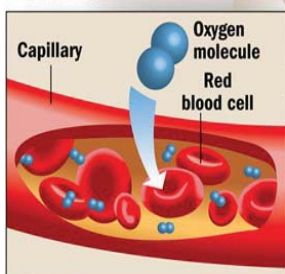
The use of high-pressure chambers similar to those used to treat scuba divers is becoming increasingly common in the equine world.

The chamber

is filled with 100 percent oxygen and the pressure inside is increased to the equivalent of being 66 feet underwater.

The increased pressure

creates a higher concentration of oxygen in the blood...



...Which

- Causes blood vessels to contract, reducing swelling.
- Helps white blood cells, which fight infection.



The HBOT environment promotes an increase in tissue oxygenation by as much as 13 times the normal level, increasing healing, reduction of tissue edema and the growth of capillary beds onto injured tissues.

tion to travel through a horse’s system quicker and thus speeds up the healing process in that regard as well.”

The initial cost of the HBOT chamber was \$250,000. Add in the cost to maintain and run the chamber on a daily basis, along with the supply of oxygen, which is delivered to the farm twice weekly in canisters, and expenses can really begin to add up. But Rene Catalano feels the HBOT chamber is worth both the cost and the effort.

“The HBOT chambers aren’t cheap and they are pricey to maintain,” she admits. “But in the long run, they’re a great therapy and a great source of healing for our horses.” U

For more information on hyperbaric oxygen therapy call Rene Catalano at 847-924-1452.