



Surgeons Learn NEW TRICKS *about* DOG Rehabilitation



Complete crate rest for your dog after back or orthopedic surgery? That's become advice from the past for small animal surgeons at the Western College of Veterinary Medicine who recognize the benefits of putting dogs on the treadmill to recovery.

Dr. Cindy Shmon recalls the days when she and other small animal surgeons believed the best way for dogs to recover from orthopedic and back surgeries was to totally restrict their movements — the equivalent of “complete bed rest” for human patients.

“There are cases from 15 years ago where we used to put the dogs in the crate after surgery, then they only came out for short bathroom breaks. And that would go on for a couple of months after surgery,” recalls Shmon, a specialist in small animal surgery at the Western College of Veterinary Medicine (WCVM).

“When we look back at that approach, all I can say is, ‘What were we thinking?’ We just wouldn't do that anymore.”

The attitude adjustment stems from the profession's increasing awareness of rehabilitation and its positive effect on a dog's recovery after surgery. And



that's no longer based on anecdotal evidence: in the past decade, a growing number of scientists have published their evaluations of canine rehabilitation in peer-reviewed journals — giving the practice more credibility among veterinarians.

Dog owners have also played a major role in encouraging the use of canine rehabilitation. Since many people have experienced the benefits of physiotherapy after their own surgeries, they want access to similar services for their animals. That becomes even more crucial for working dogs or pets involved in agility, fly ball or other canine sports.

“People want more from their dog’s surgery — they have higher expectations today,” acknowledges Shmon. “Owners are willing to spend the money, time and effort to make sure their dogs’ surgeries have a better chance of being successful, and if that means rehabilitation, they want to try it.”

Healing waters part of recovery

But Shmon does more than talk to her clients about the benefits of canine rehabilitation for their pets: she’s one of two WCVM veterinarians who use the controlled exercises and specific treatment techniques on dogs, many of which are her own surgery cases. For most dogs, their therapy also includes time in the veterinary college’s new canine aquatic treadmill that began operating in August 2007.

“Part of our overall goal is to save the dogs from developing problems related to their surgeries. The rest of our objective is to get our patients back into the condition they were in before surgery,” explains Shmon. “The rehabilitation work definitely brings you closer to your surgery patients — and they actually don’t hate you when they come back and see you.”

Last year, Shmon used part of her sabbatical leave from WCVM to take training in canine rehabilitation at the University of Tennessee. Her graduate student, Dr. Matt Johnson, joined her in taking the intensive certificate program and both became certified canine rehabilitation practitioners (CCRPs) in December 2007 (see page 10). They’re now two of 10 CCRP-accredited veterinarians and registered veterinary technicians who offer rehabilitative services in Saskatchewan, Alberta, B.C. and Ontario.

For Johnson, canine rehabilitation training fit in well with his background in sports medicine. Before his veterinary training, he worked with high school athletes and attended to the competitors’ injuries. “During my surgery training, I often wondered why we didn’t apply any of those techniques that worked so well with humans on our own patients,” he says.

Now, Johnson has witnessed how similar treatments and exercises can make a significant difference for his canine patients: “In dogs that have spinal cord issues and undergo back surgery — that’s where we see a great amount of change in a very short period of time,” says Johnson. “Actually, they don’t even have to have surgery before we see a lot of changes in their movement.”

Post-surgery shape-up

Now that WCVM can provide regular rehabilitative services to its canine patients, the veterinary college’s small animal surgeons offer it as an option to pet owners during their surgery consults. Dogs that undergo back surgery can usually begin therapy about three to four days after the procedure, while orthopedic cases start the rehabilitation process about a week to 10 days after surgery.

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Previous page, top: Bailey walks on the treadmill as part of her rehabilitation after surgery to repair a ruptured cruciate ligament. The dog had the same surgery on the other back limb a few years earlier. **Inset:** Drs. Matt Johnson and Cindy Shmon sit with their patient. **Above, left:** Johnson and Shmon work with Bailey during her therapy. After three months of rehabilitation, Bailey is doing well. **Above, right:** Shmon takes Bailey through a set of weave poles. They’re used to strengthen specific muscles, to give her brief periods of increased weight bearing on her leg, and to improve her balance.

Photos: Michael Raine

TEAM REHAB: When Drs. Cindy Shmon and Matt Johnson decided to take the plunge and learn about canine rehabilitation, their search for a training source brought them to the University of Tennessee.

The university offers the Certificate Program in Canine Physical Rehabilitation to veterinarians and veterinary technicians as well as to general practitioners and physical therapists from around the world. The program's faculty members also reflect the area's diversity: some instructors are board-certified veterinary surgeons while others are accredited physical therapists with a background in human medicine.

"We chose it because the course's instructors are the people who have actually conducted most of the research that evaluates the effectiveness of rehabilitation," explains Shmon.

The fast-track course begins with two weeks in a classroom where students cover five modules — including labs to demonstrate the exercises and techniques. The next step is a 40-hour practicum where veterinary-related students work with physical therapists while people in the human medicine field work with veterinarians or in canine rehabilitation centres.

At the same time, Johnson and Shmon had to complete five case reports each. Besides written records, the veterinarians videotaped therapy sessions and took digital photos of their patients at different stages of their treatment.

These patients were also the first to dip their paws in WCVM's new canine aquatic treadmill that began operating in August 2007. Sophie Katarynych of Winnipeg, Man., a longtime donor to the Companion Animal Health Fund, helped to make the treadmill a reality when she made a significant contribution toward its purchase last year.

"It's very, very nice," says Shmon with a smile. "One of its best features is that it's inset in the floor so our surgery patients don't have to worry about walking up or down ramps."

In December 2007, both Shmon and Johnson completed a two-day exam and earned their accreditation as Certified Canine Rehabilitation Practitioners (CCRPs). Since January 2008, they have become adept at finding time for their rehabilitation patients between surgical consults and surgeries during the week.

"I think this training makes you look at the post-operative phase more critically. We're now more interested in our patients' function after surgery instead of focusing on the success of the procedure," says Shmon. "I also think pain is much more of a concern these days: it's a longer-term consideration than it used to be."

Johnson adds that being involved in his patients' aftercare has enriched his small animal surgical residency: "We get to see the dogs post-operatively much longer than we used to, so it allows us to see the progression of recovery."

Shmon doesn't expect canine rehabilitation training and research to become part of the jam-packed small animal surgical residency: "It's already intense on its own. But I do think that residents will all get some exposure to rehabilitation since it's now offered as a regular service. They'll get a chance to see some of their own patients go through therapy, and if anyone wants to do more in the area, the opportunity will be there."

There's also the potential of developing an elective course or rotation in canine rehabilitation for undergraduate veterinary students. But these plans are in the future: for now, Shmon and Johnson are focused on caring for the steady stream of dogs that are eager to splash and stretch their way to better health.

For more information about WCVM's canine rehabilitation service, contact the Small Animal Clinic at 306-966-7126 or contact Dr. Cindy Shmon (cindy.shmon@usask.ca).

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Dog Rehabilitation *cont'd*

"Before we begin, we conduct a rehabilitation evaluation where we specifically examine the dog for certain parameters such as how much muscle he's missing, his range of motion, body condition, weight and neurologic deficits," explains Shmon. "We measure these parameters as objectively as we can, and then we use that information as a baseline so we can gauge whether the dog is staying the same, deteriorating or getting better."

While it depends on the owners' schedules and the travel distance to Saskatoon, Shmon and Johnson usually treat dogs once or twice a week for 10 weeks. Each treatment lasts between 30 and 45 minutes. "During a dog's first session, we may only put him on the treadmill for five minutes and then we do other things. We try to keep the joints from getting stiff with heat and stretching exercises, and we try to keep their range of motion normal. Our patients are prone to swelling so we use ice packs on them to finish up the session," says Shmon.

The WCVM specialists also work with each patient's owner to develop a home exercise plan that will help with the dog's recovery without jeopardizing surgical healing.

"So far, any owners who bring their dogs for rehabilitation are very committed," points out Johnson. "They're dealing with a pet that's restless and gaining weight because of the restricted activity, so it's fairly easy to talk to them about coming in for a session on the treadmill where their dog can burn off some calories, get rid of some excess energy and then rest easier. These are all of the things that we know will be helpful for the dog's long-term recovery."

The WCVM specialists usually take X-rays about six weeks after a dog's surgery, and if healing is progressing well, owners can gradually increase their exercise routines at home and reduce their visits to the teaching hospital.

As the canine rehabilitation service grows, the long-term objective is to offer therapy options for overweight dogs, geriatric canine patients and working dogs that need additional conditioning.

For now, Shmon and Johnson are juggling their schedules to focus their efforts on helping dogs with back or orthopedic issues. But even without promoting the veterinary college's rehabilitation service, their caseload has already grown to about 10 cases per week since the beginning of 2008.

As the owner of a Labrador that needed orthopedic surgery last year, Shmon can personally attest to the value of having access to an aquatic treadmill and being able to treat her dog during its recovery.

Could Shmon have managed if she had been forced to follow her old advice and keep her pet on complete crate rest for two months?

"There was no way that I could have kept him quiet for eight weeks — he's an absolutely crazy, working Lab that needs to move, and I don't think we could have done it," says Shmon, shaking her head. "Whereas here, I could exercise him and burn off that excess energy. I could actually live with my dog, and it healed without falling apart." **V**