

## Why is Professional Rehabilitation Important When Using a Prescription Orthosis or Prosthesis?

After injury, diagnosis and custom orthosis or prosthesis prescription then what? It would hardly be fair to turn you and your dog loose with no help! The device is part of an overall plan. Can you imagine learning to walk again without the help of a professional? Human beings prescribed such devices visit a physical therapist and animals must do so too.

Fortunately there are skilled animal rehabilitation professionals trained through one of two certification programs: the Canine Rehabilitation Institute (CCRT) and the University of Tennessee Canine Rehabilitation Certificate Program (CCRP). To be admitted to these programs a student must be a licensed veterinarian or veterinary physical therapist. At OrthoPets we do not recommend rehabilitation with anyone other than a CCRT or CCRP and then only under the direct supervision of a licensed veterinarian (who may be the therapist as well!).

### What is Animal Rehabilitation?

It is not underwater treadmill therapy and it is not swimming. It's not going for walks at home. It might include these, but it is so much more. Rehabilitation professionals are highly skilled providing modalities (e.g. ultrasound, LASER, e-stim, etc.), manual therapies (e.g. massage, joint mobilization, therapeutic stretches) and therapeutic exercise. Physioballs, therapy bands, rocker/wobble boards, Cavaletti poles, and treadmills are used routinely to increase balance, flexibility, and strength. These skilled professionals need to plan an exercise program AND must understand how to get the patient to do them!

Rehabilitation requires a diagnosis, detailed goals, a plan, and follow-up.

### The Role of Rehabilitation in Veterinary Orthotic and Prosthetic Use

Whether your dog undergoes surgery or not, use of an orthosis or prosthesis will require some learning and some rehabilitation.

#### Goals:

- 1) **Device acclimation:** The device is foreign at first. Remember putting a collar and leash on the first time? Your pet will figure out the easiest way to get around with the device on, but that is not always the correct or best way. Behavioral techniques can facilitate proper use.
- 2) **Learn basic life skills** while wearing the device. These include: transitions (sitting, lying down, and getting up), stairs, getting into vehicles safely, managing on different types of surfaces (concrete, grass, carpet, hardwood floor, etc.), going through the dog door, and so on.
- 3) **Balance, coordination, and proprioception.** Whether the original injury causes a problem with balance or wearing the device alters balance at first, a rehabilitation plan will improve weight-bearing, balance, coordination and proprioception (joint movement and paw placement in space).

- 4) **Gait re-education.** The original injury and initial use of the device will alter proper gaiting mechanics at the walk, trot, and run. Rehabilitation techniques normalize ambulation for comfort and efficiency.
- 5) **Muscle strengthening and neuromuscular re-education.** All injuries weaken muscles and alter the coordination of nerve impulses and muscle action. The final goal of rehabilitation is to rebuild muscle function. This can't happen until steps 1-4 occur. So proper sequence is important.

As you can see this is a precise sequence. While swimming and underwater walking can help with these goals, our pets are land animals and as such must learn to bear weight and move properly on land. Also, since most people don't have access to a pool or underwater treadmill at home daily land exercises are the real key to success. This takes guidance from a rehabilitation professional who will design exercises that are FUN for you and your pet.

The best way to ensure the highest level of success is to follow the recommended rehabilitation schedule and techniques. Each patient's condition and abilities are unique and as such an individualized rehabilitation program is needed. Your veterinarian can help find a certified rehabilitation professional (CCRT or CCRP) in your area. Your support team at OrthoPets is available to assist your rehabilitation professional.

