

**Dog Tips** 

# Why Is Your Dog Limping?

While limping in a dog is never 'normal,' many if not most dogs limp on occasion. The key is to discover the seriousness of the limp. Asking yourself these three questions when your dog limps will tell you if it's time to make an appointment with your veterinarian.

#### Analysis by Dr. Karen Shaw Becker

May 5, 2023 • 8 min read

### **STORY AT-A-GLANCE**

- Limping in a dog is never "normal," however, some causes are more serious and persistent (requiring treatment) than others
- If you notice your canine BFF is limping, it's important to determine 1) which leg or paw is causing the problem, 2) when the limp occurs (e.g., after exercise or perhaps after a nap), and 3) the seriousness of the limp
- Both the seriousness/persistence of the limp, and the timing of it will help you determine when (or if) it's time to make an appointment with your veterinarian
- To return your pet to full mobility and help prevent future limping and other injuries, therapeutic exercise should be the foundation of a comprehensive rehabilitation protocol that focuses on balance and proprioception, core strengthening, endurance and flexibility
- Rehabilitation therapy should be a standard feature of the complete care plan for injured, disabled or otherwise debilitated pets

Many if not most dogs limp from time to time, and while it's always a good idea to keep a close eye on the situation, in otherwise healthy, active dogs, limping due to a sore paw or leg muscle often resolves on its own — sometimes within hours.

With that said, it's also important to realize that limping in a dog is never "normal," it's just that some of the causes for it are more serious and persistent than others.

# Which Leg (or Paw) Is Your Dog Limping On?

When a dog has a mild limp or problems affecting more than one leg, it can sometimes be challenging to determine which leg is the problem. It's helpful to keep in mind your dog will try to take weight off the leg that's most painful.

If the limp is in a front leg, chances are your dog will raise his head up when the sore leg touches the ground, and lower it when he puts weight on the uninjured leg. If the lameness is in a back leg, he'll lean forward to take weight off that area, and will likely raise his tail or affected hip when the sore leg touches the ground.

# When Is She Limping?

Determining when your dog limps can give you information about possible causes. For example, is she limping intermittently, or after certain activities such as hiking or running? Just like us, dogs can get sore muscles from strenuous physical activity, along with bruises, torn nails, imbedded foreign material, wounds, and ligament sprains or ruptures.

If your dog limps when she first gets up in the morning or after a nap, but seems better once she gets moving, osteoarthritis may be the cause.

Intermittent (on and off) limping can be another sign of arthritis, especially if it seems to be worse in damp or cold weather. Some injuries to muscles, ligaments, and tendons tend to improve with rest, but return during or after exercise.

Certain conditions such as immune-mediated polyarthritis, tick-borne infections, and panosteitis (a developmental disease seen in young dogs) are sometimes associated with a limp that seems to move from leg to leg.

# **Determining the Seriousness of Your Dog's Limp**

- **How long has your dog been limping?** If you noticed she began limping after a game of fetch or a romp at the dog park, but she's no longer limping, chances are the situation was a one-and-done type thing an acute, transient limp. However, if the limp has been present for several days or seems to be getting worse, it's time to make an appointment with your veterinarian.
- **How pronounced is the limp?** If it's a mild limp and your dog is still using the leg, but isn't putting as much weight on it, and providing he seems otherwise comfortable and mobile, it makes sense to limit intense exercise for a few days and wait to see if the limp resolves on its own. If the situation doesn't improve quickly or he isn't back to normal in a week or so, make an appointment with your veterinarian.
  - If the limp is quite obvious, indicating a severe injury, and/or your dog can't or won't put any weight on the affected leg, it's time to make an ASAP appointment with your veterinarian.
- Are there other symptoms present? Is your dog showing signs of pain, such as trembling, vocalizing, unwillingness to move, hiding, or even aggression? Is there any bleeding, an obvious fracture or dislocation, or a large swelling? Other signs to watch for: trouble breathing, disorientation, vomiting, lethargy.

If any of these symptoms are present along with the limp, call your veterinarian or a nearby emergency clinic for a consultation. If the symptoms are clearly severe and/or getting worse, head to the closest open veterinary clinic immediately.

# **Restoring and Maintaining Your Dog's Mobility**

Once you've established what caused your dog's limp and addressed any underlying issues, it's important to take steps to shore up her physical defenses to not only help her recover, but also prevent future injuries.

I, and most of the veterinary rehabilitation specialists and physiotherapists I know, agree that exercise is crucial when it comes to improving an animal's range of motion and muscle strength, flexibility, balance, gait, and proprioception (a/k/a kinanesthesia, or the sense of self-movement and body position). Exercise is also tremendously beneficial in

decreasing pain, improving healing, promoting weight loss, and enhancing endurance and performance.

The most effective exercise programs for rehab patients include "homework," and take into consideration not only the animal's age, injury, diagnosis, and limitations, but also the capabilities of the pet parent in managing the at-home portion of the exercise protocol.

# **Creating Customized Exercise Programs for Rehab Patients**

Every patient is different, so every exercise program must be individualized. **Dr. Janice Huntingford**, a certified canine rehabilitation therapist lists 9 principles to keep in mind when creating an exercise protocol for veterinary rehab patients:<sup>1</sup>

- 1. Consider any underlying pathology that may affect the patient's ability to exercise.
- 2. Consider the patient's psychological state and willingness to perform exercises.
- 3. Consider the experience of the client.
- 4. Set short- and long-term goals.
- 5. Evaluate the patient at every visit.
- 6. Ensure proper body mechanics for both therapist and patient.
- 7. Use assistive devices if needed.
- 8. Watch for signs of fatigue.
- 9. Finish on a positive note.

Anyone who attempts to design an exercise program for a pet receiving rehabilitation therapy must possess at least a basic understanding of exercise physiology, such as the difference between slow twitch (type 1) and fast twice (type 2) muscle fibers, and how a specific injury or immobilization of muscles impacts the patient.

This is why I always recommend working with a **certified animal rehabilitation therapist**. It's also important to know the three types of exercises that work the muscles in different ways:

- 1. **Concentric exercises** are contractions that shorten the muscle they are the part of the movement during which the targeted muscle is working to perform the action. Example: the lifting movement in a bicep curl.
- 2. **Eccentric exercises** are contractions that lengthen the muscle, such as the movement used to extend or lower your arm during a bicep curl.
- 3. **Isometric exercises** are contractions of a particular muscle or muscle group. These exercises don't change the length of the muscle or move the associated joint. Isometric exercises help maintain strength. An example from human exercise is the plank hold.

According to Huntington, for the majority of animal rehab therapy patients, the focus of an exercise program should revolve around four main components: balance and proprioception, core strengthening, endurance and flexibility. Beyond that, a rehab therapist may add in movements to target the specific area of injury or disability, or in the case of canine athletes or working dogs, exercises to enhance strength and speed.

### Other Treatments Offered at Rehabilitation Therapy Centers

In addition to therapeutic exercise, there are many other beneficial treatments offered at animal rehab therapy centers, including:

- Massage
- Acupuncture
- Chiropractic
- Joint mobilization
- Stretching
- Cold laser therapy (low-level laser therapy)
- Pulsed magnetic therapy
- Therapeutic ultrasound
- Heat therapy
- Acoustic compression therapy
- TENS (transcutaneous electrical nerve stimulation)
- Neuromuscular electrical stimulation

# **A Favorite of Mine: Hydrotherapy**

Hydrotherapy, also called aquatic therapy, is one of my favorite rehab therapies for pets because moving in water provides countless benefits. It can help injured animals heal, relieve pain and provide emotional benefits as well.

Hydrotherapy typically involves an underwater treadmill and/or swimming. Underwater treadmills are an excellent way to make use of your pet's natural functional activities like walking, trotting and running. The treadmill takes advantage of natural gait patterns, which helps improve range of motion after an injury or surgery.

At the same time, immersion in water provides gentle resistance, which helps build and maintain muscle strength. The buoyancy of water takes pressure off injured or painful joints.

Water therapy also improves your pet's cardiovascular health, muscle strength and range of motion. Virtually all your pet's organ systems are simultaneously relaxed and stimulated during aquatic immersion. Pain and muscle spasms are eased, stress reduction is achieved, and metabolic functions and hormones are stimulated.

Hydrotherapy can also benefit the lymphatic system, decrease inflammation throughout the body and support the digestive process.

If your pet is getting up in years, he's probably slowing down a bit and perhaps losing some mobility. Hydrotherapy can not only help your senior dog get relief from aching joints, but it can also help him regain confidence.

Water movement is also great exercise for older pets who may have difficulty walking, running or completing therapeutic exercises. Regular swim sessions can also help burn calories and slim an overweight pet down without further wear and tear on aging joints. In addition, pets with arthritis, degenerative myelopathy, rear limb weakness, or

hip dysplasia can be excellent candidates for aquatic therapy.

Rehabilitation specialists typically work with veterinarians to customize programs to fit each pet's specific therapy needs. A course of rehabilitation can be as short as two visits or as long as three weekly visits for three months or more. Some people even opt to bring pets to regular hydrotherapy sessions to help them stay mobile and maintain muscle tone.

Formal rehabilitation therapy sessions are generally an hour in length, and progress is carefully documented at each visit. Therapy protocols also typically include individually designed home care plans that provide valuable specific guidance to pet owners in helping their animal companion recover mobility and a good quality of life.

There are also mobility devices like slings, harnesses and wheels that can be tremendously helpful for both pets and their humans. In my opinion, rehabilitation therapy should be a standard feature of the complete care plan for injured, disabled or otherwise debilitated pets.

# **Dogs for Which Rehabilitation Therapy Is a Must**

If your canine family member is recovering from an injury, is struggling with mobility, or has unresolved pain, a rehabilitation specialist can help. The American Association of Rehabilitation Veterinarians (AARV) provides a list of conditions that may be successfully treated with rehabilitation, as well as the types of improvements pets may experience:<sup>2</sup>

- Osteoarthritis Increased mobility and range of motion, decreased inflammation
- **Hip dysplasia** Build-supporting muscle mass, increase mobility and comfort
- Muscle injuries Speed healing, restore normal functional length and decrease inflammation
- Back injuries Prevent reinjury and manage pain
- Fractures Speed recovery and prevent muscle contracture
- Amputation Help with adaptation, build supporting muscles and manage pain
- **Neuromuscular disease** Strengthening, adaptation and pain management
- **Joint dislocation** Strengthen supporting muscles and ligaments and prevent reinjury
- **Tendon injuries** Increase range of motion and strength, decrease inflammation and scar tissue, especially post-surgical repair

It's important to remember that rehabilitation therapy isn't only for dogs. Cats, horses, rabbits and many other pets can also benefit.

#### **Sources & References**

PetMD, January 29, 2021

<sup>&</sup>lt;sup>1</sup> dvm360, July 13, 2019

<sup>&</sup>lt;sup>2</sup> <u>American Association of Rehabilitation Veterinarians</u>