

## Is This the Missing Piece in Your Dog's Health Plan?

Learn about the benefits of rehab therapy for dogs and how it can enhance their strength, flexibility and overall health.

Analysis by Dr. Karen Shaw Becker

### STORY AT-A-GLANCE

- Rehabilitation therapy can be used to speed your dog's recovery, improve motor skills, reduce pain, build strength, and increase range of motion; it can also enhance performance in canine athletes, and help obese pets lose weight
- Conditions that respond exceptionally well to rehabilitation therapy include obesity, osteoarthritis, spinal cord disease, cranial cruciate ligament (CCL) ruptures, soft issue injuries and orthopedic procedures (including femoral head and neck ostectomy)
- There are many types of rehabilitation therapies available, including manual therapies like massage and water therapy to move lymph and improve range of motion; tools to improve strength, coordination, flexibility and balance; hot/cold therapy and therapies involving the use of ultrasound, laser and electrical stimulation devices to reduce inflammation
- Rehabilitation therapy sessions are usually accompanied by customized home care plans that provide guidance to pet owners in helping their dog recover and improve overall function and day to day mobility

The goal of canine rehabilitation therapy, usually in combination with medical and/or surgical care, is to help dogs regain functional ability, optimize movement of all body parts, reduce pain, and improve quality of life. Benefits of physical therapy include faster recovery from injury or surgery, improved motor function, pain reduction, increased strength and range of motion, performance enhancement in canine athletes, and weight loss.

### Rehab Therapy Addresses a Wide Range of Disabling Conditions

Rehab therapy has greatly expanded over the years to include help for dogs suffering a wide range of disabling conditions, including gait abnormalities, spinal cord injuries, joint and soft tissue injuries, arthritis, inflammation and swelling, pain, overuse injuries, post-surgical and geriatric conditions.

According to veterinarian Suzanne Starr, a certified canine rehabilitation therapist (CCRP) and owner of Paws in Motion Veterinary Rehabilitation Center in Natick, MA, in her experience there are five conditions for which rehab therapy is especially beneficial:<sup>1</sup>

1. **Obesity** — There's an epidemic of overweight pets in the U.S., and obesity is one of the most common canine medical disorders. Health problems arising from obesity include joint and musculoskeletal problems, exercise and heat intolerance, and lung and heart disease.

Daily exercise is an important component in achieving weight loss, while at the same time building muscle mass and improving a dog's strength and overall condition. Exercise therapy for obesity should be customized for the individual patient.

2. **Osteoarthritis** — Dogs with arthritis can benefit from a number of different physical therapies. Pain management is important to prevent a vicious cycle of pain wind up, which causes inactivity, which causes muscle atrophy, which causes weight gain, which results in even more pain.

Gentle water therapy (in conjunction with a multi-modal **pain management protocol**) on an **underwater treadmill** or in a pool can build muscle strength and endurance with minimum stress to painful joints. When the dog is improved enough, targeted weight-bearing exercises will also help strengthen joints.

3. **Diseases of the spinal cord** — These include **intervertebral disk disease**, fibrocartilaginous embolism, degenerative myelopathy, spinal trauma, and inflammatory central nervous system (CNS) disease. Therapy goals for dogs with spinal cord disease involve pain management, maintaining joint flexibility, preventing muscle atrophy, and restoring coordination and proprioception (awareness of body position and movement).

The types of therapy used depend on the dog's symptoms and their severity and can include massage, passive range-of-motion exercises, targeted movements using an exercise ball, and water therapy. Water therapy is extremely beneficial for dogs with paralysis, as the buoyancy created by water encourages movement. Once a dog can walk independently, additional exercises with tools like Cavaletti rails can improve overall coordination.

4. **Post-operative cranial crucial ligament (CCL) rupture surgery** — Problems with the CCL are very common in dogs, especially large breeds. When a dog undergoes surgery to repair a **CCL rupture**, initial therapy typically involves pain management, massage, passive range-of-motion exercises, and icing the surgical area.

As tissues heal, weight-shifting exercises and walking on an underwater treadmill are often recommended. As the dog gains strength and improved mobility, leash walking in hilly areas is a good next step, with progression to jogging when enough healing has occurred to begin building muscle.

5. **Postoperative femoral head and neck ostectomy** — This is a surgical procedure that removes the head and neck from the femur (thigh bone) and is used only as a last resort to alleviate pain. It is most often performed to treat **Legg-Calvé-Perthes disease** (degeneration of the head of the femur), coxofemoral luxation (dislocation of the hip joint resulting in displacement of the head of the femur), femoral head and neck fracture, hip dysplasia, or arthritis of the hip.

Initial therapy, beyond pain management, typically involves massage and passive range-of-motion exercises. Once the surgical incision has healed, an underwater treadmill can be used to encourage weight bearing and return to a normal gait. Once the dog is able to walk using all four legs, additional weight-bearing activities can be added using tools like a balance board or exercise ball.

## Types of Therapy

- **Heat therapy** uses heat packs or warm, moist towels to decrease pain and inflammation and speed healing.
- **Cryotherapy** is the use of cold packs to reduce pain and inflammation and decrease both surface and deep tissue bleeding.

- **Manual therapies** include exercise, joint mobilization, therapeutic stretches, and massage, and are typically performed by certified rehabilitation practitioners highly skilled in these techniques.
- **Aquatic therapy** involves underwater treadmills and swimming. The buoyancy of water takes pressure off your dog's injured or painful joints. Water therapy also improves cardiovascular health, muscle strength and range of motion. Swimming uses natural canine motions to improve mobility.
- **Strength, coordination, flexibility, and balance therapies** use tools like rocker and wobble boards, physio balls, therapy bands and Cavaletti poles. "Unbalancing" exercises like walking on irregular surfaces help your dog learn where her feet are in space and how to keep from falling over with changes in body position.
- **Low-level laser therapy** is used to improve wound healing, reduce post-trauma swelling, and facilitate long-lasting pain relief by stimulating the release of your dog's own pain killing chemicals like endorphins.
- **Neuromuscular Electrical Stimulation (NMES)** is low-volt electrical stimulation of motor nerves to cause muscle contractions. Contraction/relaxation of your dog's muscles can help to improve musculoskeletal and vascular conditions.
- **Extracorporeal Shockwave Therapy (ESWT)** is a therapeutic ultrasound device that transmits high-energy sound waves through your dog's skin. This causes soft tissues to vibrate and generate heat, increasing blood flow, oxygen and nutrients to internal injuries and wounds. ESWT can break down scar tissue and reduce swelling and inflammation and muscle spasms. It has been used successfully to improve conditions including fractures, tendon and ligament injuries, hip dysplasia and osteoarthritis.

## Rehab Rx: A Prescription to Get Your Dog Moving Again

Formal rehabilitation therapy sessions are typically accompanied by individually designed home care plans that provide valuable specific guidance to pet owners in helping their dog 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 dogs and their humans.

In my opinion, rehabilitation therapy should be a standard feature of the complete care plan for injured, disabled, or otherwise debilitated dogs. The great news is if you don't have a physiotherapist locally, most offer telemedicine consults, so you can achieve your physiotherapy goals even in the remotest of locations.

### Sources and References

<sup>1</sup> [Clinician's Brief, December 2013](#)

---