

## REHABILITATION AND PHYSIOTHERAPY IN SMALL ANIMALS

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Rehabilitation incorporates several elements, including but not limited to therapeutic exercises, manual therapy, and physical modalities. Understanding of the effects, indications, contraindications, and precautions is essential for proper use, while understanding of the diagnosis, assessment of the stage of tissue healing and repair and accurate clinical assessment of the functional limitations are essential when establishing a physical rehabilitation plan.

Animal physiotherapy is an emerging profession, representing qualified human physiotherapists who are using their skills on animals. Physiotherapists provide a functional assessment to identify pain or loss of function caused by a physical injury, disorder or disability and they use techniques to reduce pain, improve movement and restore normal muscle control for better motor performance and function.

Physiotherapy modalities and techniques used in small animals may include:

**Therapeutic exercises:** Customized exercises tailored to the animal's size and condition to improve strength, flexibility, and coordination.

**Massage therapy:** Massage is used in animal physical therapy to relieve tension in muscles and stimulate muscle development. Massage helps speed up recovery from injuries and surgery by increasing blood flow to the area and relieving muscle spasms. Massage is used widely in canine physical therapy and can be helpful in improving the comfort of animals affected by nearly all medical conditions.

**Hydrotherapy:** Hydrotherapy techniques use water as a tool to improve muscle and joint function in animals. These techniques include but are not limited to swimming and underwater treadmill. Swimming allows an animal to work several muscles at once while stretching further than walking on land would allow. This helps to build muscle and endurance and is a technique that minimizes stress on the joints. Underwater treadmill is used commonly in animal physical therapy. It provides the benefits of land exercises while decreasing the weight placed on the animal's limbs. Underwater treadmill and swimming can be very useful in dogs recovering from surgery, such as anterior cruciate ligament and cranial cruciate ligament repairs and break repairs.

**Electrical stimulation:** Electrical stimulation techniques uses electrical currents to either stimulate muscles or to combat pain. Neuromuscular electrical stimulation (NMES) is often used to help improve muscle strength, and/or motor recruitment. Trans-cutaneous electrical nerve stimulation (TENS) can be used to help relieve the pain that the animal may be experiencing.

**Heat and cold therapy:** Thermotherapy is generally used in animal physical therapy before strength building exercises and hydrotherapy. Heat packs are applied to the affected area to increase range of motion, decrease stiffness in joints and increase blood flow. This helps to make the animal more comfortable in the application of other physical therapy techniques. Cryo-therapy is often used after an intensive physical therapy session to decrease discomfort caused by inflammation of the muscle.

**Therapeutic ultrasound:** Utilization of ultrasound waves to penetrate tissues and facilitate healing and pain relief.

**Joint mobilizations:** Gentle manipulation of joints to improve range of motion and reduce stiffness, adjusted to suit the animal's smaller size.

Overall, physiotherapy plays a valuable role in improving the quality of life for small animals by addressing mobility issues, managing pain, and promoting overall well-being. It's essential for pet owners to seek qualified professionals experienced in physiotherapy for small animals to develop appropriate treatment plans tailored to their pet's individual needs.

**References:**

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