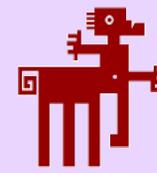


PHYSIOTHERAPY IN THE RECOVERY OF ORTHOPEDIC AND TRAUMATOLOGY SURGERIES IN THE DOG



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INTRODUCTION

- Physiotherapy comes from the Greek words *physis* (nature) and *therapeia* (treatment), so etymologically means “treatment for the nature” or “treatment by physical agents”.
- Sir Charles L. Strong (1939; UK) → first application of physiotherapy in animals: adapts a faradic current device to his horses.
- Sport horses has been the main divers of the evolution of veterinary physiotherapy worldwide.
- Nowadays, small animals receive similar or more treatment than horses and we find more physiotherapy centres that give exclusive treatment to small animals.

OBJECTIVES

- Briefly description about the most used techniques used in veterinary physiotherapy.
- Description about the most frequent traumatology pathologies with their surgical treatment and the most accurate physiotherapy protocol.



Left: small breed dog exercising in an exercise roll; Right: dog performing hand shaking exercises with weights.

Most used physiotherapy techniques in dogs

Manual therapy	Active exercises	Physical agents
<ul style="list-style-type: none"> • Massage • Passive Range of Motion (PROM) • Stretching 	<ul style="list-style-type: none"> • Balance boards and platforms • Exercise balls and rolls • Sit-to-stand • Hand shaking • Leash walking • Stair climbing • Treadmill walking • Wheelbarrowing • Dancing • Vertical wave poles • Cavaletti rails • Aquatic therapy 	<ul style="list-style-type: none"> • Cryotherapy • Heat therapy • Electrical stimulation • Laser therapy • Therapeutic Ultrasound • Deep thermotherapy

Described pathologies and protocols

Most frequent orthopedic conditions	Fractures
<ul style="list-style-type: none"> • OCD of humeral head • Fibrotic contracture of the infraspinatus muscle • Bicipital tenosynovitis • Ununited anconeal process • Fragmented medial coronoid process of the Ulna • Carpal and tarsal hyperextension • Injuries of the common calcaneal tendon • Hip dysplasia • Legg-Calve-Perthes disease • Cranial cruciate ligament rupture • Patella luxation 	<ul style="list-style-type: none"> • Articular fractures • Distal femoral fractures • Proximal femoral fractures • Radius and Ulna fractures • Carpal/tarsal, metacarpal/metatarsal and phalangeal fractures • Pelvic fractures • Tibia and fibula fractures

CONCLUSIONS

- Veterinary physiotherapy is a recent area of work that is in expansion.
- Very similar protocols for the different surgical interventions in traumatology: all of them include inflammation control and exercise to improve ROM, strength, coordination and balance.
- Principal objective of physiotherapy → good functional recovery to ensure good life quality
- Fracture rehabilitation → progressive weight bearing to prevent implant failure
- Scarce specific bibliography in veterinary physiotherapy and few efficacy studies.