Veterinary Science
Preparatory Training for the Veterinary Assistant
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Rehabilitation

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Objectives

- Define rehabilitation of animals
- Discuss the knowledge and experience of veterinarians specialized in rehabilitation
- List the types of animal health issues that can benefit from rehabilitation
- Discuss the benefits of rehabilitation for animal patients
- Discuss the clinical services of rehabilitation
Definition

- In a broad sense: repair of an injured animal
- Aiding in the recovery of physically injured domestic and wild animals
  - Reducing and managing pain
  - Promoting health and fitness
  - Enhancing quality of life
- Treating disabilities caused by a physical impairment
Experience and Knowledge

- Disciplines in anatomy and physiology
  - Orthopedics
  - Neurology
  - Myology
  - Biomechanics
  - Pain management
Types of Health Issues

- Sudden injuries
  - Orthopedic injury (skeleton)
  - Neurological injury (spinal cord)
  - Trauma (muscles, tendons, ligaments)
- Recovery from surgical procedures
  - Postoperative care for orthopedic injury
- Long-term degenerative conditions
  - Osteoarthritis (aging)
  - Debilitating metabolic diseases (diabetes, hypothyroidism)
- Obesity (over weight)
Benefits

- Patients become mobile after a severe orthopedic or neurologic injury
- Patients safely use a painful limb after an injury or surgery
- Improve and prolong the quality of life of geriatric and arthritic patients
- Achieve weight loss in overweight and obese animals
- Manage acute and chronic pain
- Increase the fitness of athletic and working animals
- Provide ambulatory assistance to patients who need ambulation carts (mobile support), orthotic devices (splints), or prostheses (limbs)
Clinical Services

- Therapeutic exercise
  - Underwater treadmill
  - Land treadmill
  - Manual therapy
- Massage therapy
- Stretch therapy
- Cold pack therapy
- Moist heat therapy
- Acupuncture
- Neuromuscular electrical stimulation
- Low-level laser therapy
- Therapeutic ultrasound
- Focused shockwave therapy
- Pulsed electromagnetic therapy
- Hyperbaric oxygen therapy
- Ambulation carts, orthotic devices, prostheses
Therapeutic Exercise

- Theraball
  - To help with balance and strength

- Underwater treadmill
  - Body bears less weight
  - Reduces load on painful joints
  - Water pressure reduces swelling and edema (hydrotherapy)
  - Water resistance improves musculo-cardiovascular system
  - Water float enables exercises

- Land treadmill
  - Encourages use of limbs
  - Reduces stress and pain

- Manual therapy
  - To mobilize joints
Low-level Laser Therapy

- Directs biostimulative energy to body cells
- Body cells convert chemical energy
  - Promotes natural healing
  - Promotes pain relief
Neuromuscular Electrical Stimulation

- Utilizes low-frequency pulsed alternating currents
  - Orthopedic and neurological diseases
    - Help relieve acute and chronic pain
    - Help prevent muscle atrophy
Acupuncture

- The insertion of needles into defined acupoints in the body
- To treat all forms of pain
Underwater Treadmill / Hydrotherapy

Land Treadmill
Cold and Heat Therapy

Theraball

Joint Mobilization Exercise

Cold and Heat Therapy
Low-level Laser Therapy
Neuromuscular Electrical Stimulation

Acupuncture
Ambulation Carts