

Introduction to Equine Physical Therapy and Rehabilitation

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- Physiotherapy • Neuromotor control • Sensorimotor • Spine • Pelvis • Joints
- Horse-rider interaction • Veterinarian-physiotherapist team

KEY POINTS

- Physical therapy (physiotherapy, or PT) is an important allied health profession and can be broadly defined as the restoration of movement and function.
- Musculoskeletal PT is the predominant subdiscipline in equine PT, encompassing poor performance, back pain syndromes, other musculoskeletal disorders, and some neuromuscular disorders.
- Underpinning musculoskeletal PT are the sciences of functional biomechanics, neuromotor control, and the sensorimotor system in the spine, pelvis, and peripheral joints.
- Equine PT also, importantly, must involve the assessment of the rider and horse-rider interaction, as well as the tack and training aides used.
- Incorporating a veterinarian-PT team in the investigation, management, and rehabilitation of equine athletes adds a vital new dimension to equine sports medicine.

INTRODUCTION

Physiotherapy (called physical therapy in some countries) or PT is an important allied health profession whereby physiotherapists contribute an essential part to the care of individuals. The profession addresses a broad range of conditions in the young to the aged and from the severely debilitated to the elite athlete. Depending on the country, the legally protected title varies and includes physiotherapist, physical therapist, and chartered physiotherapist.

PT is an established, independent profession with an excellent reputation for evidence-based practice. Veterinarians have embraced PT and rehabilitation across

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the world, and the last decade has witnessed the development of a close working relationship between veterinarians and physiotherapists. The American College of Veterinary Sports Medicine and Rehabilitation is a specialist college wherein veterinarian diplomates have an excellent working knowledge of the benefits of working with PTs in a multidisciplinary team to care for the sports horse during competition and rehabilitation following injury or disease. Because most PTs in most countries need to work via veterinary referral and veterinarians and their clients understand and are demanding the unique skills base of a professional animal PT, the veterinarian-PT multidisciplinary team has become the gold standard in equine sports medicine and rehabilitation.

This review discusses the history and definition of PT (including animal PT) and the core principles of equine PT and its role in rehabilitation of horses.

HISTORY OF PHYSIOTHERAPY

PT is thought to have been practiced by physicians like Hippocrates and Galen from around the fifth century BC who advocated massage, manual therapy, and hydrotherapy to treat people.^{1,2} In the subsequent centuries, the benefits of remedial exercise, hydrotherapy, and massage were known and practiced by relatively few. The earliest documented origins of PT as a scientifically based profession date back to Per Henrik Ling, "Father of Swedish Gymnastics," who founded the Royal Central Institute of Gymnastics in 1813 for massage, manipulation, and exercise.² In 1887, PTs were given official registration by Sweden's National Board of Health and Welfare.³ Other countries soon followed, including Great Britain, which founded its first professional PT society in 1894 and was awarded its Royal Charter in 1920⁴ (the Chartered Society of Physiotherapy), Australia in 1906, with the formation of The Australian Physiotherapy Association,⁵ and the United States in 1917 following both an outbreak of poliomyelitis and the first world war and the subsequent need for rehabilitation.⁶ The profession was established as The American Physical Therapy Association in 1921.

As PT has progressed, so has the database of information and journals specific to the area. The profession has its own PT evidence database (PEDro⁷) of more than 31,000 randomized trials, systematic reviews, and clinical practice guidelines in PT. Of relevance to animal PT is that much of the human research has been developed based on animal models, especially the cat (for example, spinal cord injury and rehabilitation models⁸), dog (for example, electrotherapies⁹), and pig (for example, back pain models¹⁰).

The profession is now represented internationally by the World Confederation for Physical Therapy (WCPT) that "believes every individual is entitled to the highest possible standard of care...underpinned by sound clinical reasoning and scientific evidence."¹¹ The WCPT currently has 12 internationally recognized subgroups: the Acupuncture Association of Physical Therapists; Association of Physical Therapists in Animal Practice (IAPTAP); Confederation of Cardiorespiratory Physical Therapists; Society for Electrophysical Agents in Physical Therapy; Federation of Orthopaedic Manipulative Physical Therapists; Organization of Physical Therapists in Mental Health; Neurological Physical Therapy Association; Association of Physical Therapists working with Older People; Organisation of Physical Therapists in Paediatrics; Private Physical Therapy Association; Federation of Sports Physical Therapy; and Organization of Physical Therapists in Women's Health.

World IAPTAP members include the following members:

- Animal Physiotherapy Group (Australia)
- Animal Rehabilitation Division (Canada)

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