

## Kinesiotherapy For Back Pain

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Kinesiotherapy or Kinesiatrics or Kinesitherapy meaning “movement therapy”, is the therapeutic treatment of disorders or diseases by active and passive muscular movements and several exercises which we can implement in our daily life or with the assistance of a physiotherapist. It is the core element of physiotherapy or physical therapy to relief the body from physical pain. Kinesiotherapy is defined as the application of scientifically designed movement training, drill or exercise principles adapted to intensify the strength, stability, endurance, and potency of human bodies with functional limitations or those requiring extended physical treatment, care and conditioning.

Kinesiotherapy includes a wide range of techniques, exercises and drills designed to enhance improve or the body strength, coordination, endurance and flexibility and also provide relief to the body from any form of external or internal pain caused due to injuries or existing disorders.

Kinesiotherapy is a major form for of treatment accepted and practiced worldwide in the world of orthopedic research and developments treating Back pain. Back pain is a very common issue which people face in today's world and Kinesiotherapy can be used as its solution. Some of the common causes of back pain are: Injuries, accidents, repetitive working conditions, nerve irritation, lumbar strain, depression, osteoarthritis, cervical spondylosis, lumbar radiculopathy, poor bone conditions, ageing, spinal deformity and so on.

The practice of Kinesiotherapy for just 20 sittings has shown significant clinical results on patients suffering with severe low back pain.

**INTRODUCTION:** The treatment of back pain (BP) is one of the most common problems in medical practice. Often, BP correlates with detectable degenerative changes in the spine, but these changes do not always make the main contribution to the development of pain. We conducted an analysis of the clinical picture of patients with back pain and its correlation with the changes identified during neuroimaging to exclude true radiculopathy.

An assessment was made of the condition of the patient with articular dysfunction syndrome and muscle pathology, including both local muscle changes and various functional disorders. Based on the information received, there was a rehabilitation treatment technique for this group of patients. The most effective methods of kinesiotherapeutic treatment were identified. The principle of their selection was developed for various nosologies.

### METHOD:

A retrospective cohort study was conducted of patients who complained of pain in various parts of the spine. A clinical assessment was conducted with a thorough collection of complaints and medical history, determination of neurological and neuroorthopedic status. Functional muscle testing was also performed on equipment with unstable footing. Patients with spinal injury were excluded from the study group.

To assess the intensity of pain, a verbal analogue scale (VAS) was used.

After a thorough diagnostic examination, rehabilitation treatment methods were applied in accordance with the principles of the “ladder of progression”, including proprioceptive neuromuscular facilitation (PNF), work on block-type simulators (BTS) and systems with unstable footing (Sling systems and their analogues).

### RESULTS:

A total of 121 patients were examined with complaints of pain in various parts of the spine, of which 94 (77.7%) patients with hernias or protrusions of the intervertebral discs (IVD) revealed at neuroimaging at various levels without clinical signs of radiculopathy. The remaining patients had minimal clinical signs of radicle compression at various levels in the form of not-rude sensory impairment and asymmetry of reflexes, and only 9 (7.4%) patients had minimal motor impairment in the form of paresis, equal to 4 points on a six-point muscle testing scale.

Wherein, significant muscle disorders were revealed in the form of rigidity of the muscles of the posterior superficial line, muscle-tonic syndromes at various levels, impaired functioning of muscle tapes, confirmed by functional kinesiotherapeutic testing, as well as articular dysfunctions involving ileosacral and facet joints. And in all patients, functional deficiency of deep axial muscles and cor muscles was revealed to one degree or another.

Subsequently, rehabilitation treatment was carried out aimed at restoring articular mobility, normalizing the elasticity of the superficial muscles when working on BTS and the functional inclusion of muscles, the insufficiency of which was revealed during the initial diagnosis. The key point in the rehabilitation was sparing work on systems with unstable footing to activate the deep back muscles.

In the vast majority of cases, good results were obtained in the form of a decrease in the intensity of back pain: the average severity of pain before rehabilitation treatment was 6-8 points on the VAS scale, and 7 days after it began - 2-5 points. 30 days after the end of treatment, the severity of pain was 0-3 points.

### CONCLUSION:

In the course of the study, it was confirmed the need for rehabilitation work with the activation of deep muscles, *cor* muscles, as well as the functional inclusion of muscle tapes to achieve a long-term result.

The use of the listed kinesiotherapeutic techniques in patients with back pain of a non-traumatic genesis makes it possible to obtain in most cases stable results, characterized by a significant reduction in pain and maintaining the effect for at least 30 days.

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