

KTA® Turkey Presents Kinesio Medical Taping International Research Symposium

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MAGNETIC RESONANCE IMAGING ANALYSES SHOW THAT KINESIO MEDICAL TAPING HAS SUBSTANTIAL AND HETEROGENOUS EFFECTS CAUSING LOCAL LENGTHENING AND SHORTENING OF TISSUES OF THE MUSCULOSKELETAL SYSTEM

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Purpose: Kinesio medical taping (KT) is widely applied for the prevention or treatment of musculoskeletal injuries, and to improve athletic performance by regulating muscular function. The purpose of this paper is to (i) directly address the mechanisms and context of such expected effects of KT, (ii) show high resolution tissue level evidence for those and (iii) discuss the overlap and differences between the expected and revealed effects.

Methods: Imposing pressure or stretching on the skin, KT is considered to load the underlying superficial fascia in specific directions and reinforce the function of the fascia. The fascial system is continuous involving the epimysium, perimysium and endomysium i.e., the extracellular matrix, which is linked to muscle fibers, functions of which determine the bodily motion. Central to this concept are myofascial loads i.e., forces acting on the muscle belly that are transmitted deep into the muscle via the fascial system. Such myofascial loads can affect mechanical equilibrium locally at different muscle parts and alter function. Using magnetic resonance imaging (MRI) based tissue deformation analysis techniques, myofascial loads developed due to joint position changes were shown to cause lengthening and shortening of different parts of lower leg muscle tissues in human, in vivo and along muscle fascicles at rest and in active conditions. This is highly promising to reveal KT effects in human.

Results: KT application over the tibialis anterior (TA) muscle caused major effects in 1mm³ resolution: (1) Muscle and connective tissue length changes locally of differing amplitudes and directions were found, and in not only the target muscle, but across the entire human lower leg tissues. (2) Within the TA, along muscle fascicle direction, both sizable shortening and lengthening was shown indicating KT effects on sarcomeres. (3) However, the biggest KT effects are not found along muscle fascicle direction.

Conclusion: KT induces heterogeneous amplitudes and directions of local tissue length changes indicating its therapeutic effects are well founded. However, its effects do not remain exclusive to the target muscle and are not most prominently along the muscle fascicles. This suggests expected benefits may be simplistic.

Keywords: Kinesio Tape®, Fascia, Magnetic Resonance Imaging



KINESIO TAPING®: A POSSIBLE INTERPRETATIVE MODEL OF THE MECHANISMS OF ACTION OF A MECHANICAL SKIN STIMULATION TECHNIQUE**Massimo Zocchi**

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The investigation of the mechanisms of action of a mechanical skin stimulation technique, such as the application of Kinesio Tape®, which is followed by variable clinical responses, from changes in pain perception to different movement patterns, must be traced back to the complex system of interoceptive sensitivity and the role of the insular cortex. We propose a possible interpretative model of these mechanisms.

The insula is the site of interoceptive sensory integration and represents the internal state of the body. It integrates visceral, cutaneous, and proprioceptive inputs that influence motor planning, modulating the intention and selection of actions consistent with the internal state. The insula participates in the encoding of bodily predictions and reports discrepancies (prediction errors) between the expected and actual state, contributing to the adaptation of motor patterns.

The insula also belongs to the cerebral Salience Network (SN), responsible for the detection and evaluation of bodily and non-bodily inputs with respect to bodily integrity. The ANS generates the perception of discomfort and fear based on the anticipation of safety and activates the Executive Control Network to plan protection or avoidance strategies. Hyperactivation of the Salience Network amplifies vigilance functions and the salience of incoming bodily information, even non-nociceptive ones.

Constant cutaneous sensory stimulation provides different sensory feedback, can modulate insula activity, and influence pain perception by reducing the temporal summation and salience of noxious inputs. It also influences body awareness, helping to modify the "internal model of the body" that generates self-perception and predictions about its integrity.

Kinesio Taping®, a form of safe, rhythmic, and consistent stimulation that promotes interoceptive accuracy, like other techniques that improve body awareness, contributes to the modulation of input and the meaning of threat, promoting the reprogramming of Salience Network activity.

Keywords: Kinesio Taping®, Sensorimotor Integration, Salience Network

DOES KINESIO TAPE REALLY INCREASE THE EPIDERMAL- DERMAL DISTANCE AND REDUCE THE PAIN AND INFLAMMATION? A HISTOLOGICAL STUDY**Nihan Karatas¹, Seyit Citaker¹, Suna Omeroglu², Tuncay Peker³, Neslihan Coskun², Seyda Diker⁴**¹Gazi Univ, Fac Hlth Sci, Dept Physiotherapy & Rehabil, Ankara, Turkiye²Gazi Univ, Fac Med, Dept Histol & Embryol, Ankara, Turkiye³Gazi Univ, Fac Med, Dept Anat, Ankara, Turkiye⁴Gazi Univ, Lab Anim Breeding & Expt, Res Ctr, Ankara, Turkiye

Purpose: In sports medicine, the use of Kinesio® tape (KT) has recently gained popularity. The aim of this study was to examine the effects of KT on epidermal-dermal distance, edema, pain and inflammation after experimentally induced contusion injury.

Methods: Twenty-four female Wistar albino rats (mean weight: 192.37 g) were randomly divided into four groups. In the first group, KT was applied to healthy soft tissue. In other groups, soft tissue injury was induced using the drop-ball technique. After soft-tissue trauma, tape was applied to the right sides of each rat. Following injury, KT was applied for 30 minutes in second group and for 6 hours in third group, while a plaster was applied for 6 hours in the third group. The contralateral sides of the same animals served as controls. Tissue samples were collected after euthanasia and analyzed. Hematoxylin and eosin staining was used to assess epidermal-dermal distance and edema, while NGF, Bcl-2, and VEGF immunohistochemical staining evaluated pain-related and cellular responses.

Results: KT groups showed increased epidermal-dermal distance and reduced edema, particularly in the 6-hour application group ($p<0.05$). Decreased NGF and Bcl-2 immunoreactivity was observed ($p<0.05$), while VEGF findings were inconsistent.

Conclusion: In rats, KT appears to facilitate soft tissue recovery by mechanically increasing the epidermal-dermal distance, which attenuates edema and modulates pain-related and cellular responses, suggesting a histologically mediated influence on post-injury inflammatory processes.

Key words: Kinesio® Tape (KT), Soft Tissue Trauma, Epidermal-Dermal Distance, Pain, Edema



IMMEDIATE EFFECT ON PAIN AND ROM AFTER APPLYING KINESIO TAPING® TO AN OSTEOARTHRITIC KNEE WITH GRADE IV PATELLOFEMORAL CHONDROPATHY

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Purpose: To evaluate the immediate effect of applying Kinesio Taping® with a space augmentation technique to a knee diagnosed with Grade IV patellofemoral chondropathy by MRI and X-ray on pain perception and ROM.

Methods: Quasi-experimental study. Pre-application, post-application, and 24-hour Kinesio Taping® measurements were performed on a total of 20 patients, 10 women and 10 men, aged between 75 and 85 years, with a confirmed diagnosis. The variables used were age, sex, visual analog pain scale (VAS) pre-post and 24 hours post-application, and digital algometry pre-post and 24 hours post-application. Statistical analysis was performed using SPSS® Statistics 19 (SPSS Inc., Illinois, USA). Normality was determined using the Kolmogorov-Smirnov test and the Student t test for comparison of means. A p-value of <0.05 was considered statistically significant for a 95% confidence interval (CI). A 5 cm wide Kinesio® Tex Gold FP Wawe bandage (two I-shaped strips, each 20 cm long), a visual analog scale (VAS), and an Easy Eagle digital goniometer were used. A physical therapist experienced in Kinesio Taping® and familiar with the techniques applied the space augmentation technique described above (50% tension over the center of the bandage with the knee at 90° flexion and the final anchors tension-free with the knee joint at maximum possible flexion).

Results: The decrease in pain perception was observed. The patient's pain after applying Kinesio Taping®, as well as the increase in ROM, is statistically significant ($p < 0.05$) in the pre- and post-application comparison and is maintained 24 hours after application.

Conclusion: The application of Kinesio Taping® to osteoarthritic knees diagnosed with Grade IV patellofemoral chondropathy is effective in improving pain perception and increasing ROM immediately after application and is long-lasting 24 hours after application.

Keywords: Kinesio Taping®, VAS, ROM, Knee, Patellofemoral Chondropathy, Pain



PLACEBO KINESIO TAPING APPLICATION IN RANDOMIZED PLACEBO-CONTROLLED TRIALS: A SYSTEMATIC REVIEW

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Purpose: A placebo-controlled randomized trial (RCT) is the gold standard in clinical research. In studies on the Kinesio Taping method, the placebo should represent a truly inactive intervention.

Methods: A comprehensive search was conducted on April 28, 2026, across the PubMed and Scopus databases. Only articles meeting the following inclusion criteria were considered for analysis: RCT design, written in English, and Kinesio Taping method with Kinesio Tex material.

Results: The search initially yielded 87 records, and 54 were removed before screening (30 duplicates, 3 not RCTs, 12 using other taping methods, and 9 for other reasons). Thirty-three studies were screened by abstract. After excluding 12 studies (no Kinesio Tex, n=8; no Kinesio placebo but rigid tape placebo, n=3; incorrect application, n=1), a total of 21 papers were evaluated. The analysis showed that placebo Kinesio Taping was used in three different ways: (I) perpendicular to the axes of the experimental application (n=3); (II) on different body areas or ineffective muscle parts (n=4); (III) on the same anatomical area but without tension or technique (n=14). The third method appears to be the best for maintaining patient blinding. However, in one-third of the studies using this type of placebo, simply placing a piece of Kinesio tape without tension inadvertently became an active intervention, providing a different level of stimulation (i.e., EDF Taping). Therefore, this application cannot be considered a true placebo. In three of the 14 studies, this effect was further prevented by neutralizing the recoil before taping (stretching to 100% and returning to 0% tension).

Conclusion: Further high-quality RCTs are needed, and placebo taping preparation should be standardized. The recommendation is to neutralize the recoil in the therapeutic zone and place the entire tape on the same segment as in the experimental groups, without any tension, in a neutral position.

Keywords: Placebo, Kinesio Taping®, Sham Taping



KINESIOTAPING FOR THE OVERHEAD ATHLETE'S SHOULDER: SYSTEMATIC REVIEW AND THE EVIDENCE GAP MAP**Elif Turgut**

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This presentation will critically explore the role of shoulder taping in overhead athletes through the lens of a systematic review and an evidence gap mapping approach. Despite its widespread use in both clinical practice and sports settings, the actual effectiveness of taping remains debated, particularly in relation to meaningful clinical and performance outcomes. The presentation will begin by outlining the clinical rationale behind taping applications in overhead sports, including commonly proposed mechanisms such as proprioceptive facilitation, mechanical support, and scapular repositioning. This will be followed by a structured overview of the current evidence, highlighting findings from studies examining range of motion, scapular kinematics, muscle activity, acromiohumeral distance, strength, and performance.

A key focus of the presentation will be the discrepancy between commonly held clinical beliefs and the available evidence. While some parameters—such as rotational range of motion, proprioception, and scapular kinematics—show limited to moderate responsiveness to taping, outcomes directly related to athletic performance and strength appear largely unaffected. These findings will be interpreted within the broader methodological limitations of the literature, including heterogeneity of taping techniques, short-term designs, and generally low to moderate study quality. Importantly, the presentation will introduce an evidence gap map to visually and conceptually identify under-researched areas. Particular attention will be given to the lack of high-quality randomized controlled trials, absence of long-term follow-up data, and the limited investigation of clinically meaningful outcomes such as injury prevention and return-to-sport performance. The presentation will conclude with a critical discussion on how taping should be positioned in clinical decision-making for overhead athletes, emphasizing its potential adjunctive role rather than a standalone intervention, and outlining priorities for future research.

Keywords: Kinesio Taping®, Overhead Athletes, Sports Performance

NAVIGATING THE DIAGNOSTIC LABYRINTH OF FASCIA DISORDERS: SUCCESSFUL MANAGEMENT WITH KINESIO TAPING AFTER MULTIPLE SPECIALIST REFERRALS

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Purpose: Chronic pain following abdominal surgery is frequently attributed to visceral complications or intercostal neuralgia, leaving fascial pathology overlooked. Post-splenectomy myofascial pain syndrome (MPS) represents a rare but debilitating complication caused by surgical scar tethering and altered tissue mechanics. Because standard imaging protocols fail to detect fascial densification, patients often endure extensive, low-yield diagnostic workups. This case report highlights the critical need to identify post-laparotomy fascial restrictions and outlines a successful, non-invasive treatment paradigm.

Methods: Management utilized a multimodal rehabilitation approach targeting myofascial restrictions: Kinesio Taping (applied with 25–50% tension for fascial decompression), instrument-assisted soft tissue mobilization (IASTM) to disrupt scar densification, and decompression cupping to enhance tissue glide. This was integrated with targeted therapeutic exercises and stretches focusing on left upper quadrant abdominal wall excursion, core stabilization, and progressive multi-planar scar remodeling.

Results: The multimodal intervention yielded immediate and sustained improvements. Visual Analog Scale (VAS) pain scores decreased from 8/10 to 1/10 within four weeks. Objective assessment demonstrated complete resolution of left upper quadrant tissue density, fully restored fascial glide during respiration, and unrestricted multi-planar trunk range of motion. At a six-month follow-up, the patient-maintained pain-free functional status with no symptom recurrence. Financially, the four rehabilitation sessions totaled an estimated \$400–\$600, representing a drastic 85% to 90% cost reduction compared to the patient's prior 1-year diagnostic workup, which accumulated over \$3,000–\$4,500 in redundant costs from multiple specialist consults, X-rays (\$70–\$200), abdominal ultrasounds (~\$400), and a contrast-enhanced abdominal MRI (\$1,400–\$2,000).

Conclusion: Post-splenectomy myofascial pain syndrome represents a challenging diagnostic blind spot frequently overlooked during visceral workups. This case demonstrates that a multimodal conservative regimen combining Kinesio taping, IASTM, decompression cupping, and targeted exercise successfully reverses chronic post-surgical fascial tethering. Early myofascial assessment for persistent post-laparotomy pain significantly mitigates prolonged diagnostic delays, avoids invasive interventions, and provides immense cost-benefit advantages to both the patient and the healthcare system by eliminating low-yield, high-cost advanced diagnostic imaging and specialist referral pathways.

Keywords: Post-splenectomy Myofascial Pain Syndrome, Kinesio Taping®, Case Report



PEDIATRIC KINESIO TAPING MEDICAL TAPING INTERNATIONAL RESEARCH SYMPOSIUM

Audrey Yasukawa and Patricia (Trish) Martin

Update on Kinesio®Taping for Pediatrics

This presentation will describe the development of the Kinesio Taping In Pediatrics book and course. Discussion will focus specifically on assessment, guidelines, and use for the pediatric population. Pediatric Taping techniques as an adjunct to treatment for children with neuromuscular, musculoskeletal, myofascial and sensory impairments from infancy through adolescence will be explained. The development of the Pediatric Kinesio Taping book, under the mentorship and guidance of Dr. Kenzo Kase, as well as the process will be discussed. An update of the newly published 3rd edition of the Kinesio Taping in Pediatrics book with advanced Kinesio Taping methods, techniques, and concepts will be presented.

Workshop Kinesio Taping in Pediatrics

The Kinesio Taping Pediatrics Workshop focuses on the use of Kinesio® Tape as an adjunct to treatment for the infant, child, and adolescent. This workshop includes guidelines for application, as well as case studies and labs on Kinesio Taping for the Pediatric population. Attendees will problem-solve clinical cases requiring the application of multiple taping techniques. Lab sessions will provide time to practice assessments and taping techniques for the trunk, upper and lower body issues. Instructors will provide feedback to each attendee to ensure a thorough grasp of the taping concepts and techniques.

Objectives:

At the conclusion of this workshop participants will be able to:

- List the best uses for the Kinesio Taping® Method for the pediatric population
- Understand the importance of identifying primary impairments and issues, as well as pediatric assessments prior to the use of Kinesio Tape as an adjunct to treatment in the pediatric population
- Demonstrate the use of assessments and identification of primary issues to be addressed in the use of Kinesio Tape as an adjunct to treatment
- Demonstrate the appropriate use of Kinesio Medical Taping and Kinesio Taping Method for the pediatric population, including one upper and one lower extremity application for each (KMT and KTM)

Keywords: Pediatrics, Case-Based Integration, pediatric assessment,



KINESIO MEDICAL TAPING (EDF) IN SPORTS INJURY REHABILITATION: EVIDENCE-BASED CLINICAL APPLICATIONS FOR FUNCTIONAL RECOVERY**Gul Baltaci¹, Stefano Frassine²**

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Successful rehabilitation following sports injury requires interventions that not only address pain and tissue healing but also restore functional movement, neuromuscular control, and safe return-to-sport performance. Kinesio Medical Taping using the EDF (Epidermis–Dermis–Fascia) approach has become an increasingly utilized adjunct intervention in sports rehabilitation for enhancing proprioceptive feedback, optimizing movement mechanics, reducing pain, and supporting tissue recovery. This evidence-based interactive workshop will introduce participants to the theoretical principles, neurophysiological mechanisms, and clinical decision-making processes underlying EDF taping applications in sports injury management.

Current literature regarding the effectiveness of Kinesio Taping in musculoskeletal rehabilitation will be reviewed, with emphasis on integrating taping strategies into comprehensive rehabilitation programs.

Participants will engage in hands-on practice and case-based learning focused on common sports-related conditions involving the shoulder, knee, ankle, and lower extremity kinetic chain. Emphasis will be placed on patient assessment, tape selection, application techniques, functional correction strategies, and progression toward return-to-play criteria.

By combining scientific evidence with practical skill development, this workshop aims to enhance clinician competency in applying Kinesio Medical Taping as part of an integrated rehabilitation approach for athletes and physically active individuals.

Upon completion of this workshop, participants will be able to:

1. Describe the neurophysiological and biomechanical principles underlying Kinesio Medical Taping using the EDF approach.
2. Identify appropriate indications, precautions, and contraindications for taping in sports injury rehabilitation.
3. Perform functional movement assessment to determine clinical taping strategies for common athletic injuries.
4. Apply EDF taping techniques for shoulder, knee, ankle, and lower extremity dysfunctions.
5. Integrate taping interventions into evidence-based rehabilitation programs to support functional recovery and return-to-sport progression.
6. Critically appraise current evidence related to Kinesio Taping in sports medicine practice.

Keywords: Scientific Foundations, Clinical Assessment and Decision-Making, Upper Extremity Applications, Lower Extremity Applications, Case-Based Integration



**CUTANEOUS MECHANOTRANSDUCTION, AFFECTIVE TOUCH, AND CLINICAL OUTCOMES: A
NEUROPHYSIOLOGICAL MODEL FOR KINESIOTAPING****Troy Lavigne**

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C-tactile (CT) afferents are unmyelinated low-threshold mechanoreceptors located primarily in hairy skin that responds preferentially to gentle, moving tactile stimulation and are strongly associated with affective aspects of touch rather than discriminative tactile perception. These fibers fire most robustly to slow dynamic stimulation and show correlations between discharge rate and perceived pleasantness, supporting their proposed role in encoding emotional valence of tactile input. Skin-derived signals such as affective touch, temperature, and nociception project through specialized afferent pathways to the posterior insula and are integrated in anterior insular regions involved in emotional awareness and bodily state monitoring. Importantly, interoceptive systems operate as partially independent perceptual sub modalities rather than a single unified construct, suggesting that CT-mediated signaling may influence emotional regulation through mechanisms distinct from visceral interoception.

Psychophysical evidence demonstrates that tactile pleasantness depends not only on stimulus velocity but also on mechanical interactions with the skin surface. In controlled experiments, thin elastic films applied to the skin altered perceived pleasantness of brushing stimuli by limiting tangential skin motion and redistributing forces across the contact surface. Notably, friction changes alone did not significantly alter pleasantness, whereas the presence of a thin barrier did, indicating that micro-mechanical deformation patterns—not simply surface texture—shape affective tactile perception. These findings are relevant for therapeutic taping systems, which likewise create continuous elastic deformation fields across the epidermis and may therefore alter afferent signaling patterns that influence sensory and affective perception. Kinesio Taping applies sustained, low-force skin tension that produces subtle, motion-dependent

stretch of the epidermis and superficial fascia. Given that CT afferents respond preferentially to slow, light, moving deformation and show tuning to gentle dynamic stimuli near neutral skin temperature, this mechanical profile may approximate conditions known to activate affective tactile pathways. From a neurophysiological perspective, Kinesio Tape may therefore function as a continuous low-intensity cutaneous stimulus capable of modulating insular processing, autonomic tone, and affective state. However, current evidence indicates that CT activation does not map one-to-one with pleasant sensation and that affective tactile experience can arise from multiple afferent systems interacting early in sensory processing. Thus, any clinical model of taping should be framed as multisensory modulation rather than a single-receptor mechanism. Systematic reviews of Kinesio Taping consistently report mixed or modest clinical effects and emphasize that some observed benefits may be attributable to contextual or placebo-related factors rather than specific biomechanical correction.

The International Association for the Study of Pain notes that evidence for Kinesio Tape effectiveness remains inconsistent and that positive outcomes may reflect expectation, therapeutic interaction, or nonspecific sensory input rather than structural change. Nonetheless, Kinesio Tape is a low-risk, non-invasive intervention with minimal adverse effects. When patients are transparently informed about the possibility of placebo contributions, offering such an intervention can still be clinically appropriate, particularly when it provides subjective relief, improves confidence, or enhances movement participation. In this framework, placebo is not viewed as deception but as a legitimate psychobiological mechanism contributing to therapeutic benefit.

Keywords: Cutaneous Mechanotransduction, Affective Touch, Neurophysiological Model, Kinesio Taping®

KINESIO TAPING IN UPPER EXTREMITY LYMPHEDEMA: A CLINICAL PERSPECTIVE

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Purpose: Upper extremity lymphedema (UEL), most commonly related to breast cancer treatment, remains a chronic condition requiring long-term management. Kinesio Taping (KT) has emerged as a non-invasive adjunct aimed at facilitating lymphatic drainage through skin lifting and microcirculatory effects. However, its clinical effectiveness remains debated. This presentation aims to discuss the clinical rationale, application principles, and therapeutic role of Kinesio Taping as an adjunctive intervention in the management of upper extremity lymphedema.

Methods: This educational clinical presentation summarizes current concepts in lymphedema rehabilitation and the proposed mechanisms of Kinesio Taping, including skin lifting, facilitation of superficial lymphatic flow, pressure modulation, and support of active movement. Practical considerations for patient assessment, tape direction, tension, fan-cut applications, skin safety, contraindications, and integration with complete decongestive therapy will be reviewed in regard to current studies, clinical guidelines and consensus statements.

Results: The literature suggests that KT may provide modest improvements in limb volume reduction and symptom relief when used as an adjunct to complex decongestive therapy (CDT). Some studies report comparable short-term effects to compression bandaging in selected patient groups, while others demonstrate limited benefit. KT appears to be particularly advantageous in patients with low tolerance to compression therapy, early-stage lymphedema, or as a maintenance-phase intervention. Variability in application techniques, treatment duration, and study design contributes to heterogeneity in outcomes. When appropriately selected and applied, Kinesio Taping may support edema control, improve comfort, enhance upper extremity mobility, and increase patient adherence by providing a lightweight and flexible adjunct to compression, exercise, manual lymphatic drainage, and skin care. Clinical benefit depends on accurate staging, individualized application, monitoring of skin response, and patient education.

Conclusion: KT may serve as a supportive modality in UEL management, especially as an adjunct or alternative in specific clinical scenarios. Despite promising findings, current evidence remains heterogeneous and insufficient to establish standardized protocols. Evidence-informed application and careful clinical reasoning are essential to optimize outcomes. High-quality randomized studies and technique standardization are needed to better define its clinical role in the treatment of upper extremity lymphedema.

Keywords: Upper extremity lymphedema, Kinesio Taping®, Complex Decongestive Therapy



THE EFFECTIVENESS OF KINESIO TAPING (KT) IN LOWER EXTREMITY LYMPHEDEMA

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Purpose: Lower extremity lymphedema (LEL) is a chronic, progressive condition associated with significant physical and functional impairment. Complex decongestive therapy (CDT) remains the cornerstone of management; however, adjunctive modalities are increasingly explored to improve outcomes and patient adherence. Kinesio Taping (KT), proposed to enhance superficial lymphatic flow via skin lifting and pressure gradient modulation, has gained attention in recent years. This review aims to evaluate the current evidence regarding the effectiveness of KT in LEL and to define its clinical applicability.

Methods: A narrative review of the literature was conducted, including randomized controlled trials, cohort studies, and systematic reviews published over the past decade. Databases including PubMed, Scopus, and Web of Science were searched using keywords such as “Kinesio Taping,” “lower extremity lymphedema,” and “lymphatic taping.” Studies assessing limb volume, tissue characteristics, symptom burden, functional outcomes, and quality of life were included. Relevant textbook data and consensus guidelines in lymphology were also reviewed.

Results: Current evidence suggests that KT may contribute to mild-to-moderate reductions in limb volume and subjective symptoms when used as an adjunct to CDT. Some studies indicate comparable short-term outcomes to multilayer compression bandaging in selected patients, whereas others report limited additional benefit. KT appears particularly useful in maintenance phases, in patients with poor tolerance to compression, or in cases requiring improved mobility and adherence. However, heterogeneity in taping techniques, application frequency, and study methodologies limits comparability. Evidence specific to advanced-stage LEL and fibrotic changes remains scarce.

Conclusion: KT may be considered a supportive modality in the management of LEL, particularly in individualized treatment approaches and selected patient populations. Nevertheless, the current literature is heterogeneous and insufficient to establish standardized protocols. Further high-quality, large-scale studies are needed to clarify its long-term effectiveness and optimal clinical use.

Keywords: Complex Decongestive Therapy, Lymphatic Taping, Kinesio Taping®



KINESIOTAPING AND AI

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Purpose: To introduce innovative Artificial Intelligence (AI) and mobile application integrations designed to enhance the precision of Kinesio taping (KT). This presentation outlines the development of AI-driven tools for automated Kinesio Screening Assessments and real-time tape tension measurement.

Methods: We propose a mobile application utilizing smartphone cameras alongside advanced computer vision algorithms. The first module automates the Kinesio Screening Assessment, which encompasses six standardized functional tests: cervical flexion, cervical extension, pectoral girdle movement, trunk flexion, hip rotation, and the straight leg raise. The AI tracks patient movements via camera to identify biomechanical deviations and pain indicators. The second module trains an AI model to visually recognize the physical deformation of Kinesio tape fabric pores under various stretch levels (ranging from 0% to 100% in 5% increments).

Results: Upon implementation, the AI screening tool will automatically detect structural anomalies during the six baseline tests and instantly generate evidence-based recommendations, mapping out exactly which KT techniques to apply to specific muscles. Concurrently, the tension-measuring feature will allow practitioners and patients to use their smartphone cameras to verify the exact percentage of tape stretch being applied in real-time. This visual feedback loop eliminates human error, ensuring the applied tension perfectly matches the intended therapeutic goal.

Conclusion: Integrating AI into Kinesio taping practices offers a paradigm shift toward objective, data-driven applications. By standardizing the Kinesio Screening Assessment and guaranteeing precise tension control via everyday smartphone technology, this innovation promises to optimize therapeutic outcomes, enhance practitioner accuracy, and elevate global KT education.

Keywords: Kinesio Taping®, Artificial Intelligence, Kinesio Screening Assessment



EFFECTS OF KINESIO TAPE CLASSIC® APPLICATION ON QUADRICEPS MUSCLE FUNCTION

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Purpose: This study aimed to investigate the effects of Kinesio Tape Classic® (KTc) application on knee joint function, focusing on quantitative changes in muscle function.

Methods: Twenty-nine healthy adult males (mean age: 25 ± 9.5 years) participated in this study. Knee flexion and extension torque were measured using an isokinetic dynamometer (Biodex System 4) at angular velocities of $60^\circ/\text{sec}$ and $180^\circ/\text{sec}$ before and after KTc application to the right quadriceps muscle. Outcome measures included peak torque, peak torque time, and peak torque angle. Statistical analysis was performed using paired t-tests, and effect sizes were calculated using Cohen's d. This study was conducted in accordance with the Declaration of Helsinki, and written informed consent was obtained from all participants. The authors declare no conflicts of interest.

Results: After KTc application, peak torque time during knee flexion at $60^\circ/\text{sec}$ was significantly reduced (mean difference 0.21 s, 95% confidence interval [CI] 0.09–0.32, $p = 0.0007$, Cohen's $d = 0.70$). Peak torque angle was also significantly decreased (mean difference 10.3° , 95% CI 3.4–17.2, $p = 0.0048$, Cohen's $d = 0.50$). No significant changes were observed in peak torque or in other testing conditions.

Conclusion: KTc application to the quadriceps significantly altered peak torque time and angle during low-speed knee flexion, without affecting peak torque. These findings suggest that KTc application may affect the mechanical properties of the quadriceps, such as flexibility and fascial gliding, which could contribute to reduced passive resistance during knee flexion. However, potential changes in neuromuscular control cannot be excluded. Further research is required to clarify the underlying mechanisms and clinical relevance.

Keywords: Kinesio Tape Classic®, Isokinetic Dynamometry, Quadriceps Muscle



TAKE ON THE CHALLENGE OF PRACTICAL KINESIO TAPING ASSESSMENT: PROPOSAL FOR PRACTICE METHODS INVOLVING COMBINATION TAPING USING KINESIO MEDICAL TAPING AND KINESIO TAPING, ALONG WITH ASSESSMENT TECHNIQUES

Takayoshi Kawamoto

Director of Education and Research Development

This presentation proposes a practical training method for selecting appropriate combination techniques of Kinesio Medical Taping and Kinesio Taping based on clinical assessment findings. After completing the Foundation Course and acquiring the fundamentals of assessment and taping techniques, many practitioners may still be uncertain about how to apply these skills effectively in clinical practice. This presentation is also intended for instructors, staff members, and students who wish to develop practical skills before implementing these techniques in real clinical settings following seminar training. By understanding, practicing, and applying the methods introduced in this presentation, participants will be able to establish a systematic approach to selecting appropriate assessment procedures and taping techniques, making it easier to integrate them into daily clinical practice. I hope this training method will serve as a practical means of expanding both clinical skills and therapeutic options.

Keywords: Kinesio Taping®, Assessment, Kinesio Medical Taping®



CASE REPORT: KINESIO MEDICAL TAPING (KMT) AS AN ALTERNATIVE PAIN MODALITY (APM) IN AN OLDER ADULT WITH ACUTE-ON-CHRONIC PANCREATITIS

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Purpose: A 68-year-old male underwent an occupational therapy (OT) assessment on April 23, 2026. His past medical history includes acute-on-chronic pancreatitis with necrosis at the level of the pancreatic head and pancreatic stones, chronic pain, and resolved alcohol abuse. A gastroenterology consult is scheduled for June 2026. His pain was previously managed with oxycodone, which was discontinued; he is currently prescribed acetaminophen. During assessment, the subject reported sharp, focal right lower quadrant abdominal pain - an atypical presentation for pancreatitis - radiating medially towards the umbilicus and posteriorly into the lumbar region. He rated his baseline pain as 4/10 on the Numeric Pain Scale, with exacerbations reaching 9/10. These unrelieved exacerbations resulted in three emergency department visits for intractable pain in the month prior. Observable nonverbal pain indicators included grimacing and guarding during transfers and mobility. The subject expressed frustration with current pain management. Following nurse practitioner approval, the occupational therapist offered KMT as an APM, to which the subject was agreeable.

Methods: Epidermis-Dermis-Fascia (EDF) KMT technique was applied per established protocol to the right lower quadrant in 1-inch by 6-inch web cuts (Kinesio Tex FP Tape). Clinical interview, palpation and EDF direction testing guided application. The EDF KMT remained in place for four days.

Results: The subject reported significant pain reduction, with a maximum pain level of 3/10 and no recurrence of 9/10 exacerbations. No additional emergency department assessments have been required. Functional improvements were observed, including normalized movement patterns during transfers and ambulation, with resolution of guarding or grimacing. Affect improved, with increased engagement in conversation and use of humor during the session.

Conclusion: This case illustrates the potential use for KMT as an APM for older adults experiencing visceral pain who are unable to tolerate traditional pharmacologic interventions. Additional controlled studies with larger sample sizes are warranted.

Keywords: Kinesio Taping®, Pancreatitis, Alternative Pain Modality



HIGH-TENSION KINESIO TAPING AS A "FLEXIBLE CAST" IN THE MANAGEMENT OF MRI-CONFIRMED MUSCLE RUPTURE: A TWO-CASE CLINICAL REPORT**Dragan Dimitrijević^{1,2}**¹School of Pharmacy and Physiotherapy in Belgrade, Serbia²Ekvilibris Belgrade, Serbia

Purpose: Kinesio taping is widely used in musculoskeletal rehabilitation to provide sensory stimulation, support circulation, and improve pain and functional outcomes. Although traditionally applied with minimal to moderate tension, the biomechanical properties of Kinesio Tex tape may allow alternative clinical applications. Specifically, the elastic recoil generated under maximal tension may provide temporary mechanical support and restrict excessive tissue elongation during the acute healing phase of muscle injury. However, the clinical application of high-tension Kinesio taping in acute muscle rupture has not been adequately described. To describe a novel high-tension Kinesio taping application designed to provide mechanical support in patients with MRI-confirmed muscle rupture, functioning as a "flexible cast" during early rehabilitation.

Methods: Two physically active individuals with MRI-confirmed partial muscle rupture were included in this clinical case series. Following clinical and radiological assessment, the injured muscle was positioned in a shortened position to minimize tissue strain. Kinesio Tex Classic tape was then applied directly over the injured region with approximately 100% tape tension, aiming to maximize elastic recoil and limit excessive elongation of the injured tissue during functional activities. Functional status, pain during movement, tolerance to daily activities, and clinical progression were monitored throughout the early rehabilitation period.

Results: Both cases demonstrated immediate subjective improvement in functional capacity and reduction in pain during movement following tape application. The high-tension application appeared to reduce excessive tissue stretching during daily and sport-related activities while allowing controlled mobility. Clinical follow-up demonstrated progressive functional recovery without adverse effects or reinjury during the monitored rehabilitation period.

Conclusion: High-tension Kinesio taping may serve as a practical external support strategy in selected cases of acute muscle rupture, functioning as a "flexible cast" that allows controlled movement while protecting healing tissue. Further controlled studies are needed to investigate its biomechanical effects and clinical efficacy.

Keywords: Kinesio Taping®, Fascia-Muscle Partial Rupture, "Recoil Effect", Maximum Tension



KINESIO TAPING FOR KNEE CONTUSION IN A HIKER ON MOUNT KILIMANJARO: A CASE REPORT

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Purpose: Approximately 50,000 people attempt to climb Mount Kilimanjaro each year, and musculoskeletal injuries are common due to variable terrain, altitude, and prolonged daily hiking. These injuries frequently threaten a hiker's ability to complete the ascent. This case describes the use of Kinesio Taping to support pain modulation, proprioceptive input, and functional mobility in a hiker who sustained a knee contusion during ascent.

Methods: A 51-year-old female Doctor of Oriental Medicine slipped on slick rock during day five of a seven-day Kilimanjaro ascent, striking her left patella. She developed swelling, bruising, and painful limitation of knee flexion, resulting in an antalgic gait and concern about completing the climb. No imaging was available in the remote setting. Baseline pain was 7/10. Findings included painful and limited knee flexion, swelling over the patella, and an observable limp. Ligamentous and meniscal tests (Drawer, Bounce Home, McMurray's) were negative. Manual Direction Testing demonstrated decreased pain with gentle inferior-to-superior skin and fascial traction. Two large web-cut Kinesio Tape applications were placed over the patella with approximately 10% tension, applied with the knee in 20° of flexion. A third horizontal I-strip was applied across the patellar tendon with 25% tension centrally and 0% at the tails. The knee was elevated during rest periods. The tape remained in place for three days until return to base camp.

Results: The hiker demonstrated improved stride mechanics and increased knee flexion to 90° with reduced discomfort. Pain decreased to 4/10, and the patient reported increased confidence in her ability to complete the summit attempt, which she successfully did. This case illustrates the potential value of Kinesio Taping as a practical, portable intervention for hikers in remote environments. The observed improvements likely reflect enhanced proprioceptive cueing, reduced swelling, and neurosensory modulation of pain. Limitations include the single-case design and potential observer bias.

Conclusion: Kinesio Taping may be a useful adjunct for managing soft-tissue injuries during high-altitude trekking when imaging and conventional supports are unavailable. In cases without signs of fracture or dislocation, taping may help restore functional mobility sufficiently to allow safe continuation of activity.

Keywords: Kinesio Taping®, High-altitude Trekking, Knee Contusion, Case Report



KINESIO TAPING FOR LYMPHOEDEMA AND POST-MASTECTOMY OEDEMA

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This presentation explores the structure and function of the lymphatic system, emphasizing its division into two primary drainage regions: the right lymphatic duct and the left lymphatic drainage pathway. It highlights the importance of understanding lymphatic anatomy in relation to posture, breathing, and therapeutic interventions such as lymphatic taping. It demonstrates how lymphatic taping extends beyond simple tape application by incorporating whole-body assessment and postural correction to enhance lymphatic flow. Clinical examples, including the management of lymphatic congestion and oedema in the chest region, illustrate how kinesiology taping can support improved drainage through postural enhancement and muscle pump activation. Additionally, the presentation examines the role of proximal-to-distal tape application in stimulating lymphatic movement and promoting overall drainage efficiency.

Effective application of Kinesio Taping for lymphoedema and post-mastectomy oedema requires a clear understanding of the two levels of the lymphatic system: The superficial and deep level.

The superficial lymphatic system lies within the subcutaneous tissue just beneath the skin and primarily manages light, superficial oedema. At this level, lymphatic drainage closely follows the venous system, progressing from tissue capillaries through venules and peripheral veins to the major venous trunks, the superior vena cava (SVC) and inferior vena cava (IVC), which return deoxygenated blood to the right atrium of the heart. The SVC drains the upper body (head, neck, upper limbs, and chest), while the IVC drains the lower body (lower limbs, pelvis, and abdomen). Venules play a key intermediary role in this process, bridging capillaries and veins within the microcirculation. In contrast, the deep lymphatic system is located beneath the deep fascia and accompanies major blood vessels, particularly arteries. It is responsible for draining deeper anatomical structures such as muscles, tendons, nerves, joints, and internal organs. Unlike superficial vessels, deep lymphatics are typically paired with arteries and follow defined lymphatic territories separated by functional "watersheds."

The Watersheds: Clinical application of Kinesio Tape must respect these anatomical and physiological principles.

For both superficial and deep oedema, taping should begin with anchoring in a proximal, healthy lymphatic territory to facilitate fluid movement across watershed boundaries. This targeted approach enhances lymphatic drainage, supports fluid redistribution, and optimizes therapeutic outcomes in patients with lymphoedema and post-mastectomy oedema. The lymphatic system is divided into 2 separate, very unequal drainage areas. The right drainage area drains the right side of the head, the right arm and chest into the right lymphatic duct. The left drainage area, drains all the other areas of the body, including both legs, the lower trunk, upper left and left arm.

Posture: For example, if you have lymphatic congestion/oedema in the chest area, you can stimulate the drainage by simply apply the Kinesio tape to improve the posture. As soon as the person is in an improved posture, the lymphatic drainage begins. Improving the posture and the breathing, kick starts the lymphatic drainage. Activate the Muscle pump, by applying the tape from Proximal to Distal, this too stimulates the lymphatic drainage. Additionally, you can apply a fan technique, the finer the Kinesio tape strips the better, from the congested territory across the watershed to the unaffected territory. However, before you attempt any taping, like with all tape application, you will have to go through the list of contraindications, assess the body and tissue integrity.

Contraindication reminder for taping patients with lymphoedema:

Acute Infections & Fever: Active infection (bacterial, viral, or foreign bodies), including cellulitis or erysipelas. Active Thrombosis/Blood Clots | Acute Cardiac Failure/Congestive Heart Failure (CHF) | Untreated Malignancy/Metastases Major Renal Failure

Relative or Local Contraindications (Use Caution):

Thyroid Dysfunction Abdominal Concerns: Conditions such as Crohn's disease, ulcerative colitis, radiation colitis, or unexplained abdominal pain. Undiagnosed Lumps: Any suspicious or unidentified, tender, or rapidly growing lumps. Do not apply any tape over radiated skin. Recognizing these conditions is essential to ensuring patient safety, minimizing complications, and optimizing clinical outcomes. The above emphasizes the importance of comprehensive screening and individualized assessment prior to taping or therapy initiation.

Post-Mastectomy Oedema: Please take great care of the skin integrity and assess carefully and avoid applying any tape over any radiated area. You can however, apply the tape in other areas nearby and stimulate the lymph flow into the nearby other lymph territory and as mentioned previously across the watershed. If the area around the mastectomy scar has not been treated with radiotherapy, you can however start with the tape application around the scar but not directly over scar, while the scar is still healing. If the mastectomy scar has well-healed, is fully closed, has no scabs or stitches and is not oozing you can start taping for scar tissue. It is recommended to wait at least 6 weeks or longer. If the mastectomy scar has well-healed, is fully closed, has no scabs or stitches and is not oozing you can start taping for scar tissue. It is recommended to wait at least 6 weeks or longer.

Keywords: Kinesio Taping®, Lymphoedema, Post-Mastectomy Oedema



CLINICAL OUTCOMES OF KINESIO TAPING ON THE TIBIALIS ANTERIOR AND GASTROCNEMIUS MUSCLES AS AN ADJUNCT TO AN EXERCISE PROGRAM IN A 4.5-YEAR-OLD CHILD WITH IDIOPATHIC TOE-WALKING

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Purpose: Idiopathic toe-walking is a gait disorder frequently encountered in childhood that can affect posture, balance, and gait patterns over time. This case report aims to present the clinical outcomes of applying Kinesio tape to the tibialis anterior and gastrocnemius muscles as an adjunct to an exercise program in a 4.5-year-old child exhibiting a toe-walking pattern.

Methods: An individualized physiotherapy program was administered to a 4.5-year-old child with idiopathic toe-walking. The intervention was performed 3 sessions per week for 4 weeks (12 sessions in total). Each session included gastrocnemius-soleus stretching, lower extremity strengthening, balance and weight-shifting exercises, heel-strike training, and gait training. Kinesio Tex Gold tape was applied by a certified physiotherapist. An inhibition technique (origin-to-insertion, 15–25% tension) was applied to the gastrocnemius muscle, while a facilitation technique (insertion-to-origin, 15–35% tension) was applied to the tibialis anterior muscle. The tape remained in place for 4 days, followed by a 24-hour tape-free interval, and was renewed throughout the treatment period. Clinical outcomes were evaluated before and after treatment using observational gait analysis (heel contact and toe-walking frequency), passive ankle dorsiflexion measured with a universal goniometer, the Weight-Bearing Lunge Test, the Pediatric Balance Scale, and parent-reported functional observations.

Results: At the end of the treatment period, heel contact increased, toe-walking frequency decreased, ankle dorsiflexion improved, and balance performance increased. Functional gait became more physiological. No skin irritation or adverse effects associated with Kinesio taping were observed.

Conclusion: Kinesio taping designed to inhibit the gastrocnemius and facilitate the tibialis anterior, when combined with exercise, may contribute to reducing idiopathic toe-walking and improving heel contact. Larger controlled studies are needed to confirm these findings.

Keywords: Idiopathic Toe-Walking, Kinesio Taping®, Tibialis Anterior, Gastrocnemius, Pediatric Physiotherapy, Gait Analysis.



THE EFFECT OF KINESIO® TAPING FOLLOWING PLATELET-RICH PLASMA ON PAIN AND FUNCTION IN WOMEN WITH KNEE OSTEOARTHRITIS: A RANDOMIZED CONTROLLED TRIAL

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Purpose: To investigate effect of Kinesio® taping (KT) applied following platelet-rich plasma (PRP) injection, compared with sham taping, on pain and function in women with knee osteoarthritis (OA).

Methods: A total of 45 women with knee OA classified as Kellgren-Lawrence grade 1-3 were enrolled in this prospective, single-blind, randomized controlled trial and allocated to KT (n=21) or sham (n=24) group. Following PRP injection, KT and sham taping were applied once a week for 3 weeks. In the KT group, Y-strip cut technique was used to facilitate quadriceps femoris muscle and epidermis-dermis-fascia (EDF) web cut technique was used to modulate inflammation, in accordance with protocol developed by Kase et al. In the sham group, two strip-shaped tapes were applied transversely above patella without tension. Participants were assessed at baseline and at third week. Resting and activity pain were assessed using Numeric Pain Rating Scale, and pain, stiffness, and function were evaluated using the corresponding subscales of the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC).

Results: At baseline, the groups were comparable in demographic and clinical characteristics ($p>0.05$). Within-group analyses revealed a significant reduction only in activity pain in the sham group ($p=0.009$). In the KT group, significant reductions were observed in resting pain ($p=0.025$), activity pain ($p<0.001$), and WOMAC pain ($p=0.005$) scores. Between-group comparisons showed a significant reduction in favor of KT only for activity pain ($F(1, 43)=6.59$; $p=0.014$; $\eta^2=0.13$). No between-group differences were observed in resting pain or in WOMAC pain, stiffness, function, and total scores.

Conclusion: Three-week findings suggest that KT applied following PRP may be a beneficial early intervention for controlling activity-related pain. Reducing activity pain may facilitate participation in daily living and exercise programs, enhancing post-PRP rehabilitation. Further studies including men, with longer follow-up and different taping protocols, are needed to confirm these findings.

Keywords: Knee Osteoarthritis, Kinesio Taping®, Platelet-Rich Plasma, Pain, Function



ACUTE EFFECTS OF STRONG KINESIO TAPING AND SHAM TAPING ON SHOULDER ISOKINETIC ROTATOR MUSCLE PERFORMANCE IN ASYMPTOMATIC BASKETBALL PLAYERS

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Purpose: To investigate the acute effects of strong kinesio taping and sham taping on shoulder internal and external rotator muscle performance at different angular velocities in overhead athletes.

Methods: A repeated-measures crossover study was conducted with 26 basketball players (mean age: 27.84±7.34 years; BMI: 24.44±1.24 kg/m²). Isokinetic shoulder internal rotation (IR) and external rotation (ER) performance of the dominant shoulder was assessed under three conditions: no tape, strong kinesio taping, and sham taping. Measurements were performed at angular velocities of 60°/s and 240°/s using an isokinetic dynamometer. Peak torque (PT), work (W), and ER/IR strength ratio were recorded. One-way repeated-measures ANOVA and repeated-measures two-way ANOVA were used for statistical analyses. Statistical significance was set at p<0.05.

Results: At 60°/s, significant differences between taping conditions were found for PT-ER (p=0.014), PT-IR (p=0.001), W-ER (p=0.018), and W-IR (p=0.004), whereas no significant difference was observed for the ER/IR ratio. Bonferroni-adjusted comparisons demonstrated significantly greater values in the kinesio taping condition compared with no tape. At 240°/s, significant differences were also observed for PT-ER (p=0.003), PT-IR (p=0.001), W-ER (p=0.007), and W-IR (p=0.001). Sham taping significantly increased W-IR compared with no tape (p=0.008). Significant angular velocity × taping condition interactions were found for PT-ER, PT-IR, W-ER, and W-IR (all p=0.001), indicating velocity-dependent taping effects. Approximately 35–40% of athletes demonstrated ER/IR ratios below clinically recommended values at 60°/s, increasing to more than 50% at 240°/s, suggesting potential shoulder muscle imbalance in a substantial proportion of overhead athletes.

Conclusion: Kinesio taping acutely enhanced shoulder rotator muscle strength and work output in overhead athletes, with greater effects than sham taping, particularly for internal rotator performance. These findings suggest that kinesio taping may serve as a short-term performance-enhancing strategy, although the effects appear to be velocity dependent.

Keywords: Kinesio Taping®, Isokinetic Strength, Overhead Athletes, Rotator Cuff, Sports Physiotherapy



EFFECTS OF STABILIZATION EXERCISES AND TAPING ON CERVICAL MUSCLE PERFORMANCE IN WOMEN WITH FORWARD HEAD POSTURE

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Purpose: This study investigated the effects of cervical taping combined with stabilization exercises on cervical muscle strength, endurance, and function in women with forward head posture.

Methods: Forty-two women were randomly assigned to either an Exercise group (cervical and scapular stabilization exercises, n = 21, mean age 41.10 ± 9.87 years) or a Taping group (cervical taping plus the same exercise program, n = 21, mean age 38.90 ± 10.79 years). Participants in both groups were assessed twice, at baseline and after 6 weeks. Evaluations included Neck Disability Index, craniovertebral angle, deep neck flexor activation and endurance, and cervical extensor endurance. The exercise program included deep cranio-cervical muscle training and cervical–scapular stabilization exercises, performed as a home program (7 days/week for 6 weeks). Taping was applied twice weekly for 6 weeks by an experienced researcher, using inhibition for the levator scapulae and correction for the longissimus cervicis.

Results: Both groups demonstrated significant improvements in Neck Disability Index (NDI), craniovertebral angle, flexor muscle activation index, cumulative performance index, and extensor muscle endurance (p < 0.001). Post-treatment comparisons revealed a statistically significant between-group difference only for the NDI (p = 0.04). However, analysis of change scores showed that the Taping group achieved significantly greater improvements in NDI, craniovertebral angle, cumulative performance index, and extensor muscle endurance compared with the Exercise group (p = 0.00). Large effect sizes (r ≥ 0.5) were observed for NDI, craniovertebral angle, flexor muscle activation index, cumulative performance index, and extensor muscle endurance in both groups.

Conclusion: These findings suggest that while stabilization exercises alone are effective in improving cervical muscle performance and function, the addition of cervical taping may provide superior benefits in enhancing neck function and muscle endurance in women with forward head posture.

Keywords: Posture, Athletic Tape, Neck Muscles, Exercise Therapy.



THE IMPACT OF COMBINING KINESIO TAPING® WITH ORTHOPEDIC MANIPULATIVE PHYSICAL THERAPY ON REGAINING AND MAINTAINING LUMBAR FACET MOBILITY IN PATIENTS WITH LOW BACK PAIN: AN EXPLORATORY PILOT STUDY

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Center Manager-SSM Health Physical Therapy

Purpose: This exploratory pilot study evaluated whether adding Kinesio Taping® following Orthopedic Manipulative Physical Therapy (OMPT) may help achieve and maintain lumbar mobility while reducing pain in patients with lumbar facet hypomobility and low back pain.

Methods: Twelve subjects with low back pain participated in this pilot study conducted by two Doctors of Physical Therapy trained and certified in orthopedic manual therapy. Subjects were divided into two groups: OMPT with Kinesio Taping® and OMPT without Kinesio Taping®. Lumbar Active Range of Motion (AROM), Passive Intervertebral Motion (PIVM), and pain levels using the Visual Analog Scale (VAS) were assessed over 3-4 treatments.

Results: Subjects receiving Kinesio Taping® demonstrated earlier restoration of normal lumbar mobility and PIVM findings compared to subjects receiving OMPT alone. In the Kinesio Taping® group, normal mobility was achieved within 1-2 visits in all subjects, while non-taped subjects required 3-4 visits. Pain reduction was observed in both groups, with slightly greater overall improvement in the Kinesio Taping® group. Improved maintenance of lumbar mobility between visits was also observed in subjects receiving Kinesio Tape®.

Conclusion: This exploratory pilot study suggests that combining Kinesio Taping® with OMPT may accelerate restoration and maintenance of lumbar mobility while reducing pain in patients with low back pain. The findings may provide foundational evidence for larger studies involving additional treatment sessions, functional outcome measures, and broader clinical applications involving spinal and extremity conditions. Positive findings may also support wider clinical utilization of Kinesio Tape® within orthopedic rehabilitation settings.

Keywords: Kinesio Tape®, Lumbar Mobility, Orthopedic Manipulative Physical Therapy, Pain



EFFECT OF A REHABILITATION PROGRAM WITH OR WITHOUT KINESIO TAPING ON SHOULDER PAIN AND FUNCTION AFTER MASTECTOMY IN WOMEN WITH BREAST CANCER

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Bahrain Physio

Purpose: Breast cancer is the most common cancer among women worldwide. Surgery remains the primary treatment modality; however, patients frequently experience postoperative complications, including shoulder pain and functional limitations. These complications are more pronounced following modified radical mastectomy. Kinesio Taping (KT) has been proposed in several studies as a supportive and adjunctive method in postoperative rehabilitation. The aim of the present study was to compare the effects of a rehabilitation program with and without KT on shoulder pain and function after mastectomy in women with breast cancer.

Methods: This study was designed as a double-blind randomized clinical trial. Twenty participants were randomly allocated into two groups. The intervention commenced on the first postoperative day. One group (n = 10) received a therapeutic exercise program, while the other group (n = 10) received the same exercise program combined with lymphatic correction using fan-shaped Kinesio Tape for four weeks. The tape was applied to the upper limb on the surgical side. Outcomes were assessed in terms of shoulder pain and function using the Shoulder Pain and Disability Index (SPADI).

Results: Both groups demonstrated significant improvements in shoulder pain and function after the four-week intervention period. Improvement in shoulder function was significantly greater in the exercise plus KT group ($p < 0.05$). However, no significant difference was observed between the two groups in terms of shoulder pain ($p > 0.05$).

Conclusion: The addition of fan-shaped Kinesio Taping to a therapeutic exercise program is recommended to enhance shoulder function following modified radical mastectomy.

Keywords: Kinesio Tape®, Breast Cancer, Modified Radical Mastectomy, Shoulder Pain, Rehabilitation



IMMEDIATE EFFECT OF GASTROCNEMIUS KINESIO TAPING ON STATIC BALANCE CONTROL**Hermes Romero, Marcio dos Santos**

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Purpose: This study aimed to analyze the immediate effects of Kinesio Taping (KT) applied to the gastrocnemius muscle on static balance control. Balance impairments are commonly observed following lower extremity injuries, and the single-leg stance (SLS) test is widely used to assess postural stability. The gastrocnemius contributes to ankle stability and somatosensory feedback. KT has been reported to influence proprioception and neuromuscular activity; however, its effect on balance control when applied to the gastrocnemius remains unclear.

Methods: Twenty healthy young adults (13 females, 7 males; age: 25.1 ± 3.9 years) without lower limb injuries participated. KT (Kinesio® Tex Tape) was applied to the gastrocnemius of the non-dominant leg using Y-strips with approximately 25% tension. Three conditions were tested: no tape (NT), KT for facilitation (KTa; origin to insertion), and KT for inhibition (KTi; insertion to origin). Participants performed the SLS test barefoot for 20 seconds. Center of pressure (COP) sway variables, including area (95% confidence ellipse) and velocity, were recorded. A repeated-measures ANOVA was used to analyze differences among conditions ($\alpha = 0.05$).

Results: A significant effect of condition was found for COP area ($p = 0.031$). The NT condition demonstrated significantly smaller sway area compared to both KTa ($p = 0.031$) and KTi ($p < 0.001$). No significant differences were observed between KTa and KTi. No significant effect was found for COP velocity.

Conclusion: Immediate application of KT to the gastrocnemius, regardless of technique, adversely affected static balance control. These findings suggest that insufficient time for sensorimotor adaptation to the proprioceptive stimulus may impair postural stability during initial exposure.

Keywords: Kinesio Tape®, Static Balance, Immediate Effect



EFFECTS OF TWO DIFFERENT KINESIOTAPING METHODS ON BALANCE IN INDIVIDUALS WITH PES PLANUS

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Purpose: Pes planus may negatively affect functional activities such as walking, running, and balance. Although different kinesiotaping (KT) applications have been investigated in activities such as walking and running in individuals with pes planus, it is not known whether different KT applications affect balance parameters acutely in individuals with pes planus. This study aimed to investigate the effects of two different KT applications on balance in individuals with pes planus.

Methods: Nine individuals (age: 21.8 ± 0.4 , BMI: 23.1 ± 4.0 kg/m², 6 female) with bilateral grade 2 pes planus (18 feet) were included in the study according to the Feiss line evaluation. Two different mechanical correction methods (50-75% tension) were applied. The first was to support the medial longitudinal arch, and the second was to bring the metatarsal heads and calcaneus closer together on the sole. Which taping method would be applied to which feet of the participants was randomized by coin toss method. Before taping and 15 minutes after taping, a balance assessment was performed on one leg-eyes open on the TechnoBody Balance device (Technobody, Prokin 252, Prodotti, Italy). Medial-lateral and front-back deviation amounts were recorded in millimeters. The evaluator was blinded about which taping method was applied. The Wilcoxon test was used for statistical analyses.

Results: Medial arc support KT technique significantly reduced both medial-lateral ($p=0.007$) and front-back ($p=0.016$) deviations, with a minimum improvement of 2mm in both directions. In contrast, the foot support KT technique only provided a significant decrease in medial-lateral deviation ($p=0.038$), while no statistically significant change was observed in front-back deviation ($p=0.921$).

Conclusion: In individuals with pes planus, KT application for medial longitudinal arc support produced greater changes in balance compared to KT application for foot support. When it is desired to improve the balance of individuals with pes planus, the medial arc support KT application can be used.

Keywords: Pes Planus, Kinesio Tape®, Balance, Foot Support



COMPARISON OF FIBER-ALIGNED STRAINS AND PRINCIPAL STRAINS IN THE TIBIALIS ANTERIOR FOLLOWING KINESIO TAPING

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Purpose: Kinesio taping (KT) is widely used in clinical and sports settings, yet its mechanical effects on muscle tissue remain underexamined. Prior studies have quantified tissue deformations using principal strains, and fiber-aligned strains separately, however, a combined comparative analysis has not been done. The present work aims to compare fiber-direction strains with principal strains in the tibialis anterior (TA) muscle to evaluate KT-induced mechanical effects at the fascicle level.

Methods: Anatomical magnetic resonance imaging (MRI) combined with diffusion tensor imaging (DTI) was used to assess *in vivo* muscle deformations in five healthy participants under two conditions: reference, and KT application. Displacement fields were obtained using deformable image registration, and Green–Lagrange strain tensors were computed. Muscle fascicle orientations were derived using DTI-based fiber tracking, allowing calculation of fiber-aligned strains. At the same time, principal strains were computed at the matched locations with eigen analysis. The two were compared in magnitude and spatial distributions.

Results: KT application resulted in significantly greater principal strains compared to fiber-aligned strains. Fiber-aligned strains revealed heterogeneous patterns of simultaneous lengthening and shortening along the same fascicles. Mean principal lengthening (0.066 ± 0.041 , 0.23 peak), and shortening (0.044 ± 0.038 , 0.27 peak), were significantly higher than fiber-aligned lengthening (0.026 ± 0.020 , 0.116 peak), and shortening (0.032 ± 0.027 , 0.14 peak) ($p < 0.001$). Principal lengthening were concentrated towards TA's deep tissue boundaries and were not aligned with the fibers, while principal shortenings were concentrated towards superficial boundary and were largely fiber-aligned. Principal strains were not consistently in the same axis with the fiber-aligned strains.

Conclusion: Results show that KT induces heterogeneous, direction-dependent deformations within the TA, suggesting that its mechanical effects are mediated through myofascial loads and vary along muscle fibers. This approach may improve interpretation of KT effects on muscle function and support more targeted clinical applications.

Keywords: Magnetic Resonance Imaging, Muscle Strain, Kinesio Tape®



ACCURACY AND CONSISTENCY OF PHYSIOTHERAPISTS IN APPLICATION OF TAPE TENSION: PRELIMINARY RESULTS OF AN OBSERVATIONAL STUDY ON KINESIO TAPING PRACTITIONERS WITH DIFFERENT EXPERIENCE LEVELS

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Purpose: Kinesio taping remains the most used conservative approach and there are different techniques and tension levels. However, there is a need for research on how tape tension is applied by the practitioners. The purpose of this study was to evaluate the accuracy and consistency of physiotherapists with different experience levels in applying predefined Kinesio tape tension levels.

Methods: Thirty certified physiotherapists (23 females, 7 males; mean age 32.63 ± 7.37 years) were grouped by taping experience (<5, 5–10, >10 years). Participants applied Kinesio tape with Kinesio Tex Classic at 25%, 50%, and 75% target tension levels. Practitioners' characteristics information was collected through a demographic questionnaire. Applied tension was measured and compared with target values. Accuracy was assessed using one-sample t-tests, and consistency was evaluated using intraclass correlation coefficients (ICC).

Results: One mean difference test showed that there was no difference from the target 25% tension ($25.37\% \pm 8.11$; $p=0.80$), however, there was a significant difference for the 50% tension ($45.39\% \pm 7.29$; $p=0.002$) and for the 75% tension ($63.26\% \pm 9.06$; $p<0.001$). When comparing the duration of experience across the groups with 25%, 50%, and 75% tension applications, no statistically significant differences were found between them ($p>0.05$). Regarding the consistency of practitioners for each tension level, the ICC was found to be 0.84 for 25% tension (CI=0.71–0.92), 0.80 for 50% tension (CI=0.63–0.90), and 0.91 for 75% tension (CI=0.84–0.95). No significant differences were observed between experience groups ($p>0.05$). Consistency was high across all conditions (ICC=0.80–0.91).

Conclusion: Physiotherapists accurately apply low tension but tend to underestimate moderate and high-tension levels. Since experience did not correlate with accuracy, practitioners should prioritize periodic self-audits and training. Standardizing protocols instead of relying on subjective skills is essential to ensure evidence-based and effective treatments.

Keywords: Kinesio Tape®, Tape Tension, Application Accuracy



EFFECTS OF DIFFERENT KINESIO TAPING APPLICATIONS ON TISSUE STIFFNESS, PAIN AND FUNCTION IN PATIENTS WITH MYOFASCIAL PAIN SYNDROME**Nilsah Yilmaz¹, Nihan Karatas², Fatih Celikyay³, Kubilay Kanat⁴**¹ Tokat Gaziosmanpasa University Health Science Faculty, Tokat, Türkiye² Gazi University Health Science Faculty, Ankara, Türkiye³ University of Health Sciences, Sincan Training and Research Hospital, Ankara, Türkiye⁴ Zile State Hospital, Tokat, Türkiye

Purpose: The aim of this study was to investigate the effects of different Kinesio® Taping (KT) applications on tissue stiffness, pain, and function in patients with myofascial pain syndrome (MPS) featuring trigger points in the upper trapezius muscle.

Methods: A total of 30 participants (28 females, 2 males; aged 21–35) with myofascial trigger point(s) in the upper trapezius muscle were included and randomly assigned to three groups: physical therapy (PT) only, PT with KT using the muscle technique, and PT with KT using the epidermis dermis fascia (EDF) technique. All participants received a 4-week PT program (3 days/week) consisting of postural exercises, stretching and ischemic compression. KT applications followed a cycle of 3 days on and 1 day off for 4 weeks. Outcome measures included tissue stiffness (shear wave elastography), pain intensity (Visual Analog Scale), pressure pain threshold (algometer), upper extremity function (DASH-SF), and neck function (Neck Disability Index). Assessments were performed at baseline and immediately after the 4-week intervention.

Results: All groups showed a significant decrease in pain levels ($p<0.001$, $p=0.001$, $p=0.008$) and a significant increase in functional capacity ($p=0.03$, $p=0.008$, $p=0.005$). However, no statistically significant differences were found between the three groups regarding these improvements ($p>0.05$). Notably, a significant decrease in tissue stiffness was observed in both KT groups ($p=0.02$, $p=0.01$), whereas no significant change was found in the PT-only group ($p>0.05$).

Conclusion: While all treatment protocols effectively improved pain and function, Kinesio® Taping—regardless of the technique used—provided an additional benefit by reducing tissue stiffness. Therefore, KT can be considered an effective complementary treatment method in the management of myofascial pain syndrome.

Keywords: Myofascial Pain Syndrome, Kinesio Tape®, Tissue Stiffness, Pain, Function



ACUTE EFFECTS OF A NOVEL "CUPPING TAPING" TECHNIQUE ON SKIN TEMPERATURE OVER THE DELTOID MUSCLE: A THERMAL IMAGING STUDY

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Purpose: Both Kinesiotaping (KT) and cupping therapy are known to influence local blood flow and skin temperature independently. This study investigated the acute effects of "Cupping Taping", a novel technique integrating both methods, on skin temperature using thermal imaging.

Methods: Eleven healthy participants (mean age: 21.4±1.2 years; height: 1.75±0.08 m; weight: 75.8±7.6 kg) were included. Baseline (0 min) measurements were taken from both deltoid muscles. One minute of cupping (3 suction) was applied to both shoulders. While the cups were in place, KT was applied around the cup on the right (R) shoulder with 35-50% tension (Cupping Taping); the left (L) shoulder served as the control (cupping only). Cups were removed after one minute. Measurements were recorded at 1, 5, 10, 15, and 60 minutes using a FLIR E6 thermal camera, following standard thermal imaging protocols. A Paired Samples T-Test was used for statistical analysis.

Results: No significant differences were observed between the two regions in the early phase (1 and 5 minutes, $p>0.05$). However, significant temperature differences emerged at 15 minutes (Mean R: 36.94±0.35°C, L: 36.65±0.49°C, $p=0.004$). At 60 minutes, the Cupping Taping side maintained significantly higher maximum ($p<0.001$) and mean temperatures ($p<0.001$) compared to the control side, with a mean difference of +0.73°C.

Conclusion: Cupping Taping significantly maintains higher local tissue temperature compared to cupping alone, especially between 15 and 60 minutes. Notably, the application of kinesiotape appears to sustain a "cupping-like effect" on the tissue even after the physical cup is removed, prolonging the metabolic and hemodynamic benefits. This novel method may be effective in clinical settings where a sustained increase in local blood flow is required.

Keywords: Kinesio Tape®, Skin Temperature, Cupping Therapy, Cupping Taping



EFFECTS OF KINESIO TAPING COMBINED WITH PILATES EXERCISES ON CORE MUSCLES, COGNITION, AND MENTAL FATIGUE IN INDIVIDUALS WITH NON-SPECIFIC LOW BACK PAIN**Ilayda Dilan Isik^{1,2}, Aydan Aytar³**¹University of Health Sciences, Gulhane Institute of Health Sciences, Ph.D. Program in Physiotherapy and Rehabilitation, Ankara, Türkiye²GYM Center Sports Club, Ankara, Türkiye³University of Health Sciences, Gulhane Faculty of Physiotherapy and Rehabilitation, Department of Orthopedic Physiotherapy and Rehabilitation, Ankara, Türkiye

Purpose: This study aimed to investigate the holistic effects of Kinesio Taping (KT) combined with Pilates exercises on core muscles, endurance, multidimensional pain, cognition, and mental fatigue in individuals with chronic non-specific low back pain (NSLBP).

Methods: Eighteen patients with chronic NSLBP (11 females, 7 males; mean age: 40.50±9.28 years, body mass index: 25.55±3.55 kg/m²) participated in a progressive 6-week Pilates program (two 30-minute sessions/week). Prior to every session, kinesio tape was applied to the transversus abdominis (TrA), rectus abdominis, and paraspinal muscles utilizing the muscle technique with I band. Assessments at baseline and week 6 included TrA thickness and strength (ultrasonography and pressure biofeedback), core endurance (plank test), pain severity (Visual Analog Scale), cognition (Montreal Cognitive Assessment-MoCA), and mental fatigue (Mental Fatigue Scale). The study was formally approved by the KTO Karatay University Ethics Committee, and informed consent was obtained from all participants.

Results: Following the 6-week intervention, all structural, functional, and psycho-cognitive parameters demonstrated highly significant improvements (p<0.001). TrA thickness increased from 0.94±1.04 mm to 2.39±1.16 mm, TrA strength improved from 11.80±10.02 mmHg to 25.11±11.72 mmHg, and plank endurance time surged remarkably from 33.96±25.41 to 70.85±32.60 seconds. Pain profile analysis revealed: resting pain (from 4.65±2.32 to 1.33±1.47), activity pain (from 6.52±2.21 to 1.55±1.51), and night pain (from 4.44±3.55 to 0.82±1.06). Psycho-cognitively, MoCA scores improved from 24.85±2.94 to 29.06±1.00, while mental fatigue scores dropped significantly from 13.30±6.96 to 7.78±6.28.

Conclusion: Incorporating the Kinesio Taping technique into Pilates provides continuous proprioceptive feedback, rapidly enhancing core muscle hypertrophy and endurance while strongly inhibiting pain. This substantial pain reduction alleviates the central cognitive load, decreasing mental fatigue and boosting cognitive capacity, thereby offering a highly robust mind-body modulation strategy for clinical rehabilitation.

Keywords: Kinesio Tape®, Pilates, Mental Health, Non-Specific Low Back Pain

