



DOSSIER · THERAPY

Kinesiotaping

Kinesiotaping is one of the most widely studied procedures in conservative therapy. Controlled studies in humans form the largest part of the research, with a clear focus on the musculoskeletal system. Remarkable is the debate about the comparison condition: Several sham-controlled studies find no advantage over a placebo application, others report improved pain and function perception.

612

STUDIES IN
TOTAL

491

IN HUMANS

364

OF WHICH
CONTROLLED

0

IN ANIMALS

0

IN THE LAB

Figures from the IHR study database · Last updated 2026-10-17

How to Read This Dossier

ESTABLISHED

measured in humans, with a comparison group

PLAUSIBLE

supported by mechanism, animal studies or observation

HYPOTHESIS

a likely connection that still needs to be tested

Kinesiotaping at a Glance

ORIGIN:

Kinesiotaping is a procedure in which an elastic, self-adhesive tape is applied to the skin. Unlike rigid sports tape, which is intended to mechanically limit movement, the elastic tape yields to movement and keeps the skin under tension. It is applied by trained personnel in various forms and with different pre-tensions, frequently along muscle courses, over joints or on scar and oedema areas.

EVIDENCE BASE:

612 evaluated studies · 364 controlled studies in humans · 127 observational studies · 20 review articles · 0 animal studies · 0 cell culture studies

STRONGEST EVIDENCE:

- Chronic back pain: A 2019 meta-analysis of ten studies with 627 participants found no advantage over placebo tape in pain reduction ($p = 0.07$ and 0.08 respectively), but did find one in disability ($p < 0.05$).
- Chronic non-specific back pain: An RCT from 2015 in 60 patients showed an advantage over the control group after 48 hours (mean difference -3.1 points, $p = 0.003$), but not over placebo tape (1.9).
- Myofascial trigger point of the upper trapezius: A 2016 placebo-controlled study in 37 patients reports significantly less pain and greater trapezius muscle strength versus sham tape for up to one month.
- Patellofemoral pain syndrome: A 2017 systematic review of tension taping plus exercise, placebo taping plus exercise, exercise alone and taping alone found inconsistent results.
- Upper extremity: A randomised, blinded trial from 2016 in 33 healthy adults found no differences for facilitatory and inhibitory tape in grip strength ($p = 0.394$) and muscle activity ($p = 0.276$).

LIMITATIONS:

- Double-blinding is hardly feasible because the tape cannot be concealed; blinding usually applies only to measurement or evaluation.
- Whether a sham application is truly inactive remains disputed: if skin contact alone has an effect, it would not be a placebo but a second form of the same stimulus.
- Application technique, wear time and endpoints vary, follow-up is often short; laboratory findings on strength or balance cannot be read as clinical course findings.

CLASSIFICATION:

Kinesiotaping is a widely studied procedure whose effect relative to the application itself shows inconsistent results in sham-controlled studies.

1. What Kinesiotaping Is and How It Is Applied

Kinesiotaping is a procedure in which an elastic, self-adhesive tape is applied to the skin. The tape remains on the skin for the duration of the application and is left in place for varying lengths of time in the studies. Application is performed by trained personnel. Tension, direction of pull, length of the tape and number of strips differ considerably between studies, which complicates comparison. Possible mechanisms discussed include tactile stimuli on the skin, altered perception of body position and relief of structures; as a pure support its mechanical contribution is limited.

For understanding almost all studies the comparator condition is decisive. Because an applied tape is visible, it can hardly be concealed; the usual control is therefore a sham application in which a tape with no or minimal tension adheres at the same site. Whether such an application is truly inactive is itself disputed: if skin contact alone has an effect, it would not be a placebo but a second form of the same stimulus. A related question concerns the endpoints. Many studies measure pain and function by questionnaire; others measure strength, jump height, balance or muscle activity in the laboratory. Both yield different magnitudes, and a finding on the measuring device is not a finding on clinical course. Added to this is the variety of application forms, which prevents results from being readily pooled.

2. What the Studies Show in Detail

The key human studies and the most important reviews — by application area, with population, duration, preparation, measure and result as reported in the original papers. Numbers appear only where the study states them.

Distribution of **controlled studies in humans** by application area — the numbers are not additive, as one study may be assigned to several areas:

APPLICATION AREA	CONTROLLED STUDIES
Musculoskeletal system	242
Safety and tolerability	51
Bones and joints	36
Fatigue and stress	25
Inflammatory processes	16
Skin	13

APPLICATION AREA	CONTROLLED STUDIES
Cognition and psyche	7
Oncology	6

Skin

The 2013 controlled crossover study examined whether tactile stimulation by kinesiotape influences muscle strength after prior vibration in healthy participants. Eccentric maximum voluntary contraction with and without tape was measured after vibration stimulation. Maximum voluntary contraction and average electromyography were significantly greater in the tape condition than without tape ²³. The authors attribute this to enhanced Ia-afference via skin stimuli. The study is small and tests a neurophysiological mechanism, not clinical efficacy in injuries. What is missing is transfer to patients with actual muscle inhibition after joint injuries.

The 2012 meta-analysis evaluated ten studies on the effects of kinesiotape on musculoskeletal endpoints. Only two studies dealt with sport-related injuries (shoulder impingement), and only one of them included injured athletes ³⁵. The authors emphasise that most included studies examined healthy participants and that transferability to injured athletes is limited. Evidence for the treatment and prevention of sports injuries is described as insufficient. It remains open whether kinesiotape offers advantages over other elastic tapes in specific injuries.

A cross-sectional study of 30 healthy participants from 2012 examined isokinetic knee performance with and without kinesiotape over the vastus medialis. Maximum concentric knee extension and flexion torque at 60, 120 and 180°/s, normalised peak torque, normalised total work and time to peak torque were measured. There was no significant difference in normalised peak torque and normalised total work between the tape conditions and angular velocities. However, time to peak extension torque was significantly shorter with tape ($p = 0.03$), with a reduction of 36–101 ms at all three angular velocities ($p < 0.01$) ³⁷. The authors conclude that kinesiotape does not alter torque development and total work but shortens time to peak torque. Whether the shortened time to peak torque is relevant for injury prevention and rehabilitation in athletes has not been investigated. The study is limited to healthy participants; clinical endpoints are absent.

Musculoskeletal System

A randomised, blinded study from 2016 in 33 healthy adults examined whether kinesiotape affects wrist extensor muscle activity and maximum grip strength. Participants were unaware of the kinesiotape; application was carried out under the pretext of adhesive muscle sensors. Three conditions were compared: true facilitatory tape, inhibitory tape and no tape. No significant differences were found in maximum grip strength ($p = 0.394$), electromyographic activity ($p = 0.276$) and self-perceived performance ($p = 0.825$) between the conditions ²⁴. The authors conclude that the claimed facilitatory and inhibitory effects of kinesiotape are not detectable in healthy adults. The study is limited to the upper extremity and healthy participants.

A likewise randomised, blinded controlled study from 2015 in 30 healthy participants examined whether kinesiotape improves quadriceps muscle performance. Under the pretext of applying adhesive muscle sensors, true facilitatory tape, sham tape and no tape were compared. Normalised peak torque, normalised total work and time to peak torque were measured at 60°/s and 180°/s. No significant differences were found between the three conditions ($p = 0.31$ – 0.99) ²⁵. The authors conclude that kinesiotape does not improve muscle performance and that earlier positive findings may be attributable to placebo effects. The study is limited to healthy participants and short-term measurements.

A randomised controlled study from 2015 in 60 patients with chronic non-specific low back pain compared kinesiotape with placebo tape and a control group without intervention. The tape groups wore the tape for 48 hours. Pain intensity (11-point NRS) and disability (24-item Roland-Morris Disability Questionnaire) were measured at baseline, after 48 hours and after 7 days. After 48 hours a significant difference was found between kinesiotape and the control group (mean difference = -3.1 points, 95 % CI = -5.2 to -1.1, $p = 0.003$), but no difference compared with the placebo-tape group (mean difference = 1.9) ²⁶. The authors conclude that kinesiotape is not superior to placebo. The study is limited to chronic non-specific low back pain.

A systematic review from 2017 examined the efficacy of knee taping in patellofemoral pain syndrome (PFPS). Randomised controlled trials (Level 1 or 2) with participants of any age with anterior knee pain treated non-surgically with taping were included. Three comparison groups were analysed: tension taping plus exercise versus placebo taping plus exercise, versus exercise alone, versus taping alone ²⁰. The authors found inconsistent results and emphasise the need for further research to develop specific guidelines. Heterogeneity of the studies and differing taping techniques complicate a clear statement.

A randomised crossover pilot study from 2013 in 25 patients with cervical dystonia (CD, $n = 14$) and focal hand dystonia (FHD, $n = 11$) examined the effect of kinesiotape on self-reported pain and sensory functions. Patients received 14 days of kinesiotape or sham tape over neck or forearm muscles; after a 30-day washout the other treatment followed. Three visual analogue scales (usual pain, worst pain, pain relief), the Toronto Western Spasmodic Torticollis Rating Scale (CD) and the Writer's Cramp Rating Scale (FHD) as well as the somatosensory temporal discrimination threshold were measured. Kinesiotape led to a decrease in subjective pain perception and a change in sensory discrimination, whereas sham tape had no effect ³⁰. The study is small and designed as a pilot study; larger controlled studies are still pending.

A systematic review from 2018 examined whether taping in addition to physiotherapy improves outcomes in subacromial impingement syndrome. Three randomised controlled trials and one controlled study with a total of 135 patients were included. The results were contradictory and weak regarding pain, disability, range of motion and muscle strength ²¹. The authors conclude that taping as an adjunct to physiotherapy could be an optional modality, but emphasise the limited evidence. Heterogeneity of taping techniques and the small sample size limit the strength of the statement.

A pilot study from 2013 in 18 participants (12 men, 6 women, 19.5 ± 1.15 years) with unilateral patellofemoral pain syndrome compared the immediate effects of kinesiotape at the hip joint, lumbopelvic manipulation and control tape. The Y-Balance Test, knee squat range of motion and the Lower Extremity Functional Scale were measured. The kinesiotape group performed significantly better on the Y-Balance Test ($F = 5.59$, $p = 0.02$) and knee squat range of motion ($F = 3.93$, $p = 0.04$) compared with manipulation and control. Kinesiotape and lumbopelvic manipulation were also significantly better than the control group (sham tape) for double-leg knee squat range of motion 3 days later. The authors suggest that kinesiotape may promote gluteus medius activation and improve postural stability. The study is small and the results are preliminary.

A systematic review and meta-analysis from 2019 examined the effects of kinesiotape on pain and disability in chronic low back pain. Ten articles with a total of 627 participants (317 in the kinesiotape group, 310 in the control group) were included. Kinesiotape was not superior to placebo tape for pain reduction, either alone ($p = 0.07$) or in combination with physiotherapy ($p = 0.08$). However, it significantly improved disability compared with placebo tape ($p < 0.05$)¹. The authors conclude that kinesiotape could be considered for individual applications due to its ease of use. Heterogeneity of the studies and differing application protocols remain a limitation.

A randomised clinical study from 2021 in 52 persons with rotator-cuff-associated shoulder pain examined whether kinesiotape in addition to a 6-week rehabilitation programme with 10 physiotherapy sessions improves symptoms and functional limitations more rapidly. The control group received no kinesiotape application. The primary endpoint was the Disabilities of the Arm, Shoulder and Hand (DASH) questionnaire; secondary measures included the Brief Pain Inventory (BPI), Western Ontario Rotator Cuff (WORC) Index, acromiohumeral distance (AHD) and pain-free range of motion at baseline, 3 weeks, 6 weeks, 12 weeks and 6 months. No significant group-time interactions were found (0.112)³¹. The authors conclude that kinesiotape provides no additional medium- and long-term benefits. The study is limited to rotator-cuff-associated shoulder pain.

A placebo-controlled study from 2016 in 37 patients with active myofascial trigger points of the upper trapezius examined the short- and medium-term effects of kinesiotape. Patients were randomised to a kinesiotape group and a sham-tape group. Neck pain (visual analogue scale and pressure algometry) and trapezius muscle strength were measured at baseline, immediately after application and after one month. The mean changes in VAS scores differed significantly between the groups at T2 and T1, with less pain in the kinesiotape group. Algometry scores differed significantly at T3 compared with T2 in favour of the kinesiotape group. Trapezius muscle strength differed significantly at T2 compared with T1 in favour of the kinesiotape group³². The authors conclude that kinesiotape shows significant improvements in pain and muscle strength in myofascial pain syndrome. The study is small and follow-up is short.

A double-blind, placebo-controlled study from 2016 in 30 male patients (mean age 28.1 years) after anterior cruciate ligament reconstruction examined the effects of kinesiotape in the acute postoperative phase. The experimental group received kinesiotape with muscle and lymphatic correction techniques; the control group received sham tape. Both interventions were applied twice within 10 days from the fourth postoperative day. All patients received the same rehabilitation programme over three months. Range of motion, pain, swelling and muscle strength were measured before treatment and on the fifth and tenth treatment days; subjective scores (Lysholm, modified Cincinnati, Tegner) in the first and third postoperative months. The experimental group showed significant improvements in swelling around the patella, all pain measures and hamstring muscle strength on the fifth day as well as knee flexion range of motion, night pain, all swelling measures and hamstring muscle strength on the tenth day ($p < 0.05$)³³. The authors conclude that kinesiotape can support early postoperative rehabilitation. The study is limited to male patients and the acute phase.

The patients were divided into three groups: kinesiotape plus lymphatic drainage, lymphatic drainage alone, kinesiotape alone. Assessment took place on days 2, 4 and 6 postoperatively. All patients additionally received standard rehabilitation sessions. Both individual treatments were effective in reducing pain and oedema. The combination showed significantly greater improvement in pain and leg circumference above and below the knee as well as at the ankle compared with the individual treatments. Knee range of motion showed no difference between the groups³⁴. The authors conclude that the combination of kinesiotape and lymphatic drainage can support postoperative recovery. The study is limited to the early postoperative phase after knee arthroplasty.

An observational study from 2011 in 31 healthy inactive adults (19 men, 12 women, mean age 25.3 ± 3.8 years) examined the effect of elastic tape on muscle activity and vertical jump performance. Participants performed vertical jump tests before and during application of kinesiotape or placebo tape. Vertical ground reaction force increased with kinesiotape, while jump height remained approximately constant. In the placebo-tape group jump height decreased and there was no difference in vertical ground reaction force. EMG activity of the medial gastrocnemius tended to increase in the kinesiotape group, but without significant differences for medial gastrocnemius, tibialis anterior and soleus in both groups³⁶. The authors conclude that kinesiotape can increase ground reaction force without improving jump height. The study is limited to healthy inactive adults.

An observational study from 2014 in 40 patients (mean age 34.8 ± 7.54 years) with non-specific low back pain compared kinesiotape plus conventional physiotherapy with conventional physiotherapy alone. Interventions took place three times per week over four weeks. Activities of daily living (Roland-Morris Disability Questionnaire), pain intensity (visual analogue scale) and range of motion of trunk flexion and extension (modified Schober test) were measured. Within each group significant improvements were shown in pain, ADL and range of motion. Between the groups there were no significant differences in pain, ADL and trunk range of motion after the intervention³⁹. The authors conclude that a physiotherapy programme with or without kinesiotape achieves similar results. The study is limited to non-specific low back pain.

An observational study from 2018 in 45 volunteer patients (mean age 48 years) with newly diagnosed lateral epicondylitis compared the short-term effects of kinesiotape, extracorporeal shock wave therapy (ESWT) and physiotherapy. All groups received physiotherapy (cold pack, TENS five times per week for a total of 15 sessions) and a home exercise programme. The kinesiotape group additionally received kinesiotape five times per week for three weeks; the ESWT group received ESWT three times over three weeks. Pain intensity (VAS), pain-free grip strength (hand dynamometer), Cyriax Resisted Muscle Test and Patient-Rated Tennis Elbow Evaluation Scale were measured at baseline and after treatment. Within all groups pain intensity decreased and maximum grip strength as well as functionality increased ($p < 0.05$). The between-group analysis for the kinesiotape group⁴⁰ is not further detailed in the abstract. The study is limited to short-term effects and newly diagnosed lateral epicondylitis.

A meta-analysis from 2019 examined the effects of kinesiotape on lower extremity muscle strength, the hop test and vertical jump performance. 37 randomised controlled trials using facilitatory kinesiotape were included. Kinesiotape was superior to controls in improving lower extremity muscle strength in persons with muscle fatigue (short-term effect, pooled SMD = 0.53, 95 % CI = 0.09 to 0.96; long-term effect, pooled SMD = 0.61, 95 % CI = 0.12 to 1.11) and in persons with chronic musculoskeletal conditions (pooled SMD = 1.24, 95 % CI = 0.33 to 2.16) with large effect sizes. In persons without disability kinesiotape was not superior⁴¹. The authors conclude that the effect of kinesiotape on muscle strength depends on the population.

A systematic review from 2023 examined the effects of elastic kinesiotape on shoulder proprioception. Eight studies (5 RCTs, 3 non-RCTs) with 187 shoulders (102 healthy, 85 pathological) were included. Risk of bias ranged from low (2 studies) through moderate (5 studies) to high (1 study). Elastic kinesiotape had a mixed effect on active joint position sense in healthy shoulders ($n = 79$) (low certainty). In pathological shoulders it improved active joint position sense (subacromial pain syndrome and rotator cuff tendinopathy, $n = 52$) and passive joint position sense (chronically hemiparetic shoulders, $n = 13$) (very low certainty). No effect was shown on kinaesthesia⁴³. The authors conclude that the evidence for proprioception is mixed and the certainty of the evidence is low to very low. Further high-quality studies are still pending.

A systematic review from 2022 compared different treatment modalities in subacromial impingement syndrome, including kinesiotape, myofascial trigger point release, scapular stabilisation exercises and strength training. 48 studies met the inclusion criteria; after removal of duplicates 14 Level-1 studies remained. Kinesiotape showed a statistically significant reduction in pain-free range of motion. Myofascial trigger point release improved all pain scores and the Disability Score Index. Scapular stabilisation exercises reduced pain but showed mixed results for range of motion. Strength training reduced pain and improved proprioception and joint position sense. The authors conclude that all techniques are promising, but further large-scale studies are required. Heterogeneity of the studies and differing endpoints limit comparability.

Bones and Joints

A randomised controlled clinical study from 2017 in 42 consecutive patients with knee osteoarthritis examined the effect of kinesiotape on functionality, pain, range of motion and muscle strength compared with placebo kinesiotape. Assessments were performed at baseline, after the first kinesiotape application, after the third application and after one month. The Aggregated Locomotor Function Score, the Western Ontario and McMaster Universities Osteoarthritis Scale, pain (VAS), muscle strength (hand dynamometer) and active range of motion (digital goniometer) were measured. The kinesiotape group showed a large decrease in VAS activity and walking task scores compared with the placebo group from the first to the third application ($p = 0.009$ and $p < 0.001$ respectively) and up to the 1-month follow-up ($p = 0.007$ and $p < 0.001$). The kinesiotape group showed short-term improvement in VAS night pain and knee flexion range of motion after the 1-month follow-up ($p < 0.05$). There was no statistically significant difference in range of motion and muscle strength between the groups. The authors conclude that kinesiotape can improve pain and function in knee osteoarthritis. The study is limited to short-term effects.

A randomised, sham-controlled study from 2019 in 141 patients (65.1 ± 7.0 years) with a clinical and radiological diagnosis of knee osteoarthritis examined the effects of kinesiotape on pain, function, gait and neuromuscular control. Patients received kinesiotape, sham tape or no tape for three consecutive days. Self-reported pain, stiffness and function (WOMAC), Balance Error Scoring System, 10-metre walk test, maximum voluntary isometric contraction force of the quadriceps femoris and active knee range of motion were measured. At baseline there were no differences between the groups except for knee flexion. The study is limited to short-term application (3 days).

A systematic review and meta-analysis from 2019 examined the effectiveness of kinesiotape alone compared with sham tape in persons with musculoskeletal conditions in interventions of at least one week duration. Six randomised controlled studies were included. In adults with chronic non-specific low back pain, kinesiotape led to superior effects on pain at follow-up, but not in the immediate post-treatment phase and on disability scores²⁸. The authors conclude that the evidence for the superiority of kinesiotape over sham tape is limited. Heterogeneity of the studies and differing follow-up periods limit the strength of the statement.

Further Investigations

A randomised clinical before-and-after study from 2014 in 54 patients with subacromial impingement syndrome (30–60 years, unilateral shoulder pain) compared kinesiotape plus exercise with manual therapy plus exercise. The kinesiotape group ($n = 28$) and the manual therapy group ($n = 26$) additionally received cold packs five times daily. Pain (VAS), function (Disability of Arm and Shoulder Questionnaire) and supraspinatus tendon thickness (diagnostic ultrasound) were measured at baseline and after 6 weeks. Both groups showed significant improvements in pain and function ($p < 0.05$). No difference was shown in ultrasound for tendon thickness after treatment in both groups ($p > 0.05$). The only difference between the groups²⁷ – the results are not further elaborated in the abstract. The study is designed as a preliminary investigation; whether larger studies confirm the result is an open question.

A review article with meta-analysis from 2023 examined conservative interventions for the treatment of rectus diastasis in postpartum women. 14 articles were included. The literature suggests that abdominal exercise programmes are generally effective. There is preliminary but promising evidence for the efficacy of electrical stimulation in combination with exercise. Abdominal kinesiotape can be used in conjunction with other interventions⁴². The authors emphasise limitations such as different measurement methods (palpation, calliper, ultrasound), different treatment periods and a wide range of exercise combinations. The optimal exercise combination is currently unknown.

A scoping review from 2024 examined the effects of kinesiotape in athletes or physically active persons on pain, performance/function, strength and injury prevention. 50 studies were included: 10 on pain, 24 on performance, 12 on strength gains, 8 on proprioception and balance, 3 on injury prevention. Overall, 54 % of the publications agreed that kinesiotape is not effective, while 46 % found some supporting evidence⁴⁴. The authors conclude that the efficacy of kinesiotape varies, but the method remains practical, simple and cost-effective.

A systematic review from 2018 examined the efficacy of kinesiotape for improving gross motor function in children with cerebral palsy. Five randomised controlled trials (Level IIB, PEDro score 3–6/8) were included. The meta-analysis showed that taping was effective for improving gross motor function in sitting and standing, measured with the Gross Motor Function Measure (B) ($p < 0.001$) and (D) ($p < 0.001$)⁴⁵. The authors conclude that moderate evidence supports kinesiotape on the trunk as an adjunct intervention to physiotherapy. The studies are small and the methodological quality is moderate; whether larger studies confirm this effect is an open question.

Safety and Tolerability

A randomised controlled study from 2015 in 30 participants with chronic ankle instability examined the immediate and prolonged effects (7 days) of kinesiotape on balance. The participants were randomised into a kinesiotape group ($n = 15$) and a placebo-tape group ($n = 15$). Balance was measured under three conditions: without tape, immediately after application and after 7 days of use. The Composite SOT Score and the Composite SOT Strategy as well as the Partial Score for SOT condition 2 and its Strategy were measured. The repeated-measures ANOVA showed no significant interaction between group and time in the Composite SOT Score²⁹. The authors conclude that kinesiotape does not improve balance in chronic ankle instability. The study is limited to short-term effects and a small sample.

A randomised clinical study from 2012 in 20 participants with shoulder pain (rotator cuff lesion with impingement syndrome or impingement shoulder syndrome) compared mobilisation with movement (MWM) plus kinesiotape with a supervised exercise programme. The participants were randomised into two groups: Group 1 received MWM and kinesiotape, Group 2 a supervised exercise programme. Active pain-free shoulder abduction and flexion were

measured on days 0, 5 and 10. The improvement in active pain-free shoulder range of motion was significantly higher in the group with MWM and kinesiotape. The repeated-measures ANOVA showed significant effects for treatment, time and treatment×time interaction³⁸. The authors conclude that MWM and kinesiotape could be an effective treatment for improving range of motion. The study is small and the follow-up is short.

Overall Picture

Across all areas, a mixed picture emerges. Transferability to clinical practice is limited by small samples, different application protocols and short follow-up periods.

The overall study situation is inconsistent. Positive findings often come from small studies or those with short intervention duration, while larger and methodologically more robust investigations often show no superiority over placebo. The heterogeneity of taping techniques, target populations and endpoints makes a pooled statement difficult. For practice, this means that kinesiotape can be considered as an adjunct measure, but the evidence for a specific effect is limited. What is lacking are large, methodologically high-quality studies with uniform protocols and long-term follow-ups that clarify in which indications and with which technique kinesiotape offers a measurable additional benefit.

Methodology of the study situation

The included works comprise randomised controlled trials, crossover designs, placebo-controlled studies, observational studies as well as systematic reviews and meta-analyses. Typical intervention durations range from a single application to multi-week programmes (e.g. 6 weeks, 3 months). The endpoints vary widely: pain (VAS, NRS), function (DASH, WOMAC, Roland-Morris), range of motion, muscle strength, proprioception, balance and sonographic parameters. Blinded designs are often missing or the blinding is incomplete; the sample sizes are often small. Large, multicentre studies with uniform taping protocols, long-term follow-ups and independent funders are systematically lacking. The heterogeneity of the studies makes meta-analyses and the derivation of clinical recommendations difficult.

The sham application as the actual test

The central question in the field is not whether kinesiotaping changes something, but whether it changes more than a sham application. Several controlled studies have examined exactly this and stated in the title that the tape does not facilitate muscle performance and does not perform better than placebo in chronic non-specific back pain. Other controlled studies report improvements in perceived pain and function for the knee. Both groups of findings stand side by side without one cancelling out the other. As a mechanism, less mechanical support effects are discussed than an effect on skin receptors and perception mediated via muscle spindles; one study describes an attenuation of Ia afferents.

The question could only be decided with applications that differ in exactly one variable — tension, direction of pull or skin contact — with blinded measurement, with objective and subjective endpoints side by side and with a follow-up that extends beyond the application period. As long as the technique varies between studies, a negative as well as a positive result can hardly be attributed to the procedure.

HYPOTHESIS:

Part of the reported effect comes from the attention that the application directs to the affected body part and from the expectation triggered by a visible band. Exactly such studies would be the next step.

3. How Reliable the Research Is

By far the largest proportion of controlled human studies examines the musculoskeletal system, with focal points on the knee, the ankle, the shoulder and the lumbar spine. In addition, there are works on safety, on bones and on fatigue as well as smaller groups on inflammation, skin and cognition. Individual works concern oncological questions. The most frequently cited work in the field is a review on sports injuries; otherwise, reviews and meta-analyses also belong to the most noted texts. The field is therefore broad, and individual questions are summarised in reviews. It is striking that controlled works are significantly more frequent than purely observational ones.

For a procedure of this kind, the proportion of randomised and sham-controlled studies is high, and several reviews with meta-analysis bundle individual questions. These are methodological strengths. Weaknesses stand alongside them. A double-blind procedure is hardly possible because the tape cannot be hidden; blinding usually concerns only the measurement or the evaluation. Some works describe themselves as a pilot study, preliminary report or preliminary investigation. Application technique, wearing duration and endpoints are inconsistent; follow-up is often short. Accordingly, the results diverge: a controlled study on muscle activation and one on chronic non-specific back pain found no advantage over placebo, while a controlled study on the knee reported improvements in pain and function. **Proven:** The study situation on pain and function is not uniform.

4. What Is Frequently Claimed — and What the Data Provide

STATEMENT	EVIDENCE BASE
The tape supports the joint mechanically like a rigid sports tape	Elastic applications give way to movement. Controlled studies on muscle strength and jump performance found no facilitation of muscle performance; an effe
Kinesiology tape relieves back pain better than placebo	A controlled study found no advantage over placebo in chronic non-specific back pain; a meta-analysis pooled the same question. For the knee, reports differ
After an application, muscle strength improves measurably	Several controlled studies and a meta-analysis on strength, jump and hop tests examine this assumption. The findings are not uniform; some find no facilitat
The tape acts via proprioception	Proprioception is examined in reviews on the shoulder and ankle. Whether an altered perception changes pain or function is not thereby clarified.

5. The Most Reliable Works

Ordered by strength of evidence, not by prominence: systematic reviews and studies with many participants first. The complete evaluation comprises considerably more works; the most robust ones are presented here.

Controlled Studies in Humans

- ¹ Effects of kinesiotape on pain and disability in individuals with chronic low back pain: a systematic review and meta-analysis of randomized ... (2019) — Systematic review, 627 participants
- ² Effectiveness of Kinesio Taping on the Management of Knee Osteoarthritis: A Systematic Review of Randomized Controlled Trials (2020) — Systematic review, 876 participants
- ³ Kinesio Taping for Balance Function after Stroke: A Systematic Review and Meta-Analysis (2019) — Systematic review, 1,331 participants
- Examining the efficacy of treatments for arm lymphedema in breast cancer survivors: an overview of systematic reviews with meta-analyses (2024) — Systematic review, 1,970 participants
- ⁴ Does kinesio taping plus exercise improve pain and function in patients with knee osteoarthritis?: A systematic review and meta-analysis of ... (2022) — Systematic review, 642 participants
- ⁵ Short-Term Effect of Kinesiotaping on Chronic Nonspecific Low Back Pain and Disability: A Meta-Analysis of Randomized Controlled Trials (2020) — Systematic review, 785 participants
- ⁶ Efficacy and safety of kinesiology tape for hemiplegic shoulder pain: A systematic review and meta-analysis of randomized controlled trials (2022) — Systematic review, 679 participants
- ⁷ The clinical efficacy of kinesio taping in shoulder disorders: a systematic review and meta analysis (2020) — Systematic review, 680 participants
- ⁸ Effects of kinesiotaping during early post-operative rehabilitation in individuals who underwent a total knee arthroplasty: A systematic review and ... (2024) — Systematic review, 534 participants
- ⁹ Optimal days of application of kinesiotaping for the treatment of lumbo-pelvic pain during pregnancy. A systematic review and dose-response ... (2024) — Systematic review, 527 participants
- ¹⁰ Does lower limb kinesio taping affect pain, muscle strength, and balance following fatigue in healthy subjects? A systematic review and meta analysis ... (2024) — Systematic review, 837 participants
- ¹¹ The efficacy of Kinesio taping in patients with post-stroke dysphagia: A meta-analysis (2024) — Systematic review, 724 participants
- ¹² Effects of kinesio taping in patients undergoing knee or hip arthroplasty: a systematic review and meta-analysis of randomized controlled trials (2025) — Systematic review, 2,024 participants
- Effectiveness of physical therapy interventions for coccydynia: a systematic review with a narrative synthesis (2025) — Systematic review, 515 participants
- ¹³ The efficacy of kinesio tape in patients with lateral elbow tendinopathy: A systematic review and meta-analysis of prospective randomized controlled ... (2024) — Systematic review, 562 participants
- ¹⁴ Efficacy of Kinesio Taping in Reducing Pain in Women With Primary Dysmenorrhea: A Systematic Review and Meta-Analysis (2025) — Systematic review, 566 participants

- ¹⁵ Is Kinesio taping an effective approach for acute ankle sprains? A systematic review and meta-analysis (2026) — Systematic review, 582 participants
- ¹⁶ Effects of Kinesio Taping on Neck Pain: A Meta-Analysis and Systematic Review of Randomized Controlled Trials (2024) — Systematic review, 620 participants
- ¹⁷ Kinesio taping can relieve symptoms and enhance functions in patients with mild-to-moderate carpal tunnel syndrome: A systematic review and ... (2025) — Systematic review, 637 participants
- ¹⁸ The effect of Kinesio taping on postoperative complications following mandibular third molar surgery/extraction: a systematic review and ... (2025) — Systematic review, 721 participants
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- ²¹ Does taping in addition to physiotherapy improve the outcomes in subacromial impingement syndrome? A systematic review (2018) — Systematic review, 135 participants
- ²² Non-elastic taping, but not elastic taping, provides benefits for patients with knee osteoarthritis: systemic review and meta-analysis (2018) — Systematic review, 379 participants

6. Summary

Controlled studies in humans constitute the largest share of the research, with a clear emphasis on the musculoskeletal system: 242 papers fall into this field, 51 on safety and tolerability, 36 on bones and joints, 25 on exhaustion and stress, 16 on inflammatory processes, 13 on the skin, 7 on cognition and psyche, and 6 on oncology; the figures are not additive. Controlled trials are markedly more common than purely observational studies; several systematic reviews with meta-analysis consolidate individual questions.

Tactile stimuli on the skin, altered perception of body position and unloading of structures are discussed as mechanisms of action; as a pure support the mechanical contribution remains limited. A 2013 crossover study in healthy participants recorded greater maximum voluntary contraction after vibration stimulation with tape; the authors attribute this to enhanced Ia-afference via cutaneous stimuli. **Hypothesis:** Part of the reported improvements in pain and function may stem from perceptual effects and skin contact itself. The authors of a 2019 meta-analysis regard individual application as worth considering because of its ease of use.

The first question to clarify would be whether a sham application is truly inactive. A study that separates skin contact without tension from an application with tension and blinds the measurement would answer this question. Standardised application technique, wearing duration and endpoints would also be required, together with longer follow-up, so that results can be pooled. It also remains open whether the findings transfer to patients with actual muscle inhibition after joint injury, to injured athletes rather than healthy participants, and whether kinesiotape offers advantages over other elastic tapes for specific injuries.

7. What Remains Open

- **Sham control:** Can an elastic tape be applied so that skin contact and expectation remain constant while only the tension varies? This question determines the validity of a large part of the field.
- **Application technique:** What tension, direction of pull and shape does a study actually test? Without standardised application every pooling of studies remains an approximation.
- **Endpoints:** How do pain perception, everyday function and laboratory measures relate to one another? A study that records all three in parallel is still outstanding.

Frequently Asked Questions

How long should the tape remain in place?

Studies do not provide uniform information on this. The wearing duration differs between the studies; a review has summarised studies in which treatment was carried out for at least one week. A justified derivation from this is not possible because the wearing duration was almost never varied in isolation.

A patient reports less pain after taping. Is this a placebo effect?

In the individual case this cannot be separated. Visible application and expectation act together, which is why testing is carried out against a sham application. Several controlled studies found no advantage over such a control for muscle performance and chronic low back pain, others report improved pain and function perception at the knee. The patient's report remains a relevant endpoint, but not proof of a specific effect.

For which indications is the evidence base densest?

The musculoskeletal system is most densely studied, especially knee, ankle, shoulder and lumbar spine; review articles with meta-analysis are also available for these areas. The picture is nevertheless not clear because technique and endpoints vary. For safety, skin and bone there are smaller groups of studies, for cognition and oncological questions only individual ones. There the state of research is at the beginning.

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