

Effect of Kinesio Taping in Sports Injuries: A Narrative Review

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Abstract: Sports injuries are common among athletes and represent a major cause of reduced performance and time lost from sport (1). Musculoskeletal injuries such as ligament sprains, muscle strains, and tendon disorders frequently occur in competitive sports (2). Various rehabilitation techniques are used to manage these injuries, including exercise therapy, manual therapy, and taping techniques (3). Kinesio taping has become widely used in sports physiotherapy due to its proposed therapeutic benefits (4). It is believed to reduce pain, improve proprioception, enhance circulation, and support injured tissues (5). Despite its popularity, scientific evidence regarding its effectiveness remains controversial (6). Therefore, the aim of this narrative review is to summarize current evidence on the effectiveness of kinesio taping in sports injuries (7).

Keywords: Patellofemoral Pain Syndrome (PFPS), Kinesio Tapping, Anterior Knee Pain, Proprioception, Rehabilitation.

1. Introduction

Participation in sports has increased globally over the last few decades (8). This increase in participation has resulted in a higher prevalence of sports-related injuries (9). Athletes are particularly vulnerable to musculoskeletal injuries due to repetitive loading and high training intensity (10). Proper injury management is essential to ensure safe return to sport (11). Physiotherapy interventions play a key role in rehabilitation of sports injuries (12). Among these interventions, therapeutic taping techniques are frequently used in clinical practice (13).

Kinesio taping was developed by Kenzo Kase in the 1970s as an elastic therapeutic taping method (14). The tape is designed to mimic the elasticity of human skin (15). Unlike rigid athletic tape, kinesio tape allows full range of motion while providing support (16). Because of these characteristics, it has become popular among athletes and clinicians worldwide (17).

2. Mechanism of Action

Several mechanisms have been proposed to explain the clinical effects of kinesio taping (18). One proposed mechanism is stimulation of cutaneous mechanoreceptors (19). This stimulation may activate the gate control theory of pain modulation (20). As a result, pain perception may be reduced (21).

Another proposed mechanism is improvement in blood and lymphatic circulation (22). The elastic recoil of the tape slightly lifts the skin (23). This lifting effect may reduce pressure on subcutaneous nociceptors (24). It may also promote lymphatic drainage and reduce swelling (25).

Kinesio taping may also influence muscle activity (26). Depending on the direction of application, it may facilitate or inhibit muscle contraction (27). Improved proprioceptive feedback from the skin is another suggested mechanism (28). Enhanced proprioception may contribute to better joint stability and movement control (29).

3. Kinesio Taping in Common Sports Injuries

Ankle Injuries

Ankle sprains are among the most common injuries in sports (30). Chronic ankle instability can lead to recurrent sprains and impaired performance (31). Kinesio taping has been used to improve proprioception in athletes with ankle instability (32). Some studies report improvements in balance and gait parameters after taping (33).

Knee Injuries

Patellofemoral pain syndrome is frequently observed in athletes (34). Taping techniques are often used to reduce pain and improve patellar alignment (35). Research suggests kinesio taping may provide short-term pain relief in individuals with patellofemoral pain (36). However, long-term benefits remain unclear (37).

Shoulder Injuries

Overhead athletes often experience shoulder pain and rotator cuff injuries (38). Kinesio taping is sometimes used to improve scapular alignment and muscle activation (39). Some studies have shown improvements in shoulder range of motion after taping (40). However, other studies report minimal clinical effects (41).

4. Evidence from Research

Several systematic reviews have investigated the effectiveness of kinesio taping (42). Early research suggested only small beneficial effects on pain and function (43). Later meta-analyses reported inconsistent results across studies (44). Some randomized controlled trials have demonstrated short-term improvements in pain and muscle activity (45). However, other trials found no significant differences compared with placebo taping (46). Due to these mixed findings, the clinical effectiveness of kinesio taping remains debated (47).

5. Advantages

Kinesio taping has several practical advantages in sports medicine (48). It allows athletes to maintain full movement

during activity (49). The tape can be worn for several days without restricting performance (50). It is relatively inexpensive and easy to apply (51). Additionally, some athletes report increased confidence while using tape (52).

6. Limitations

Despite its popularity, kinesio taping has limitations (53). Evidence supporting its effectiveness is inconsistent (54). Many studies have small sample sizes (55). Differences in taping techniques make comparisons difficult (56). Placebo effects may also influence reported benefits (57).

7. Conclusion

Kinesio taping is widely used in sports rehabilitation (58). Evidence suggests it may provide short-term benefits in pain reduction and proprioception (59). However, strong evidence supporting long-term effectiveness is lacking (60). Therefore, kinesio taping should be used as an adjunct to comprehensive rehabilitation programs rather than as a standalone treatment (61).

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