# Effects of Kinesiotape on Athletes: A Systematic Review

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## Introduction

Athletes experience many injuries including sprains, tears, fractures and dislocations.[1] In 2012, more than 1.9 million athletes in the United States were treated for an injury from a sport.[2] Kinesiotape (KT) is a type of tape used to treat injuries and improve performance.[3] Kinesiotape supports and reduces the stress of muscles, tendons and joints.[3] Having a treatment method that could positively impact athletic outcomes would benefit athletes.

The purpose of this review is to determine if the application of Kinesiotape affects pain levels, mobility, and overall performance of an athlete. The findings of this study could assist in determining if Kinesiotape improves performance and reduces pain. The results could provide another preventative measure and treatment mechanism for athletic injuries

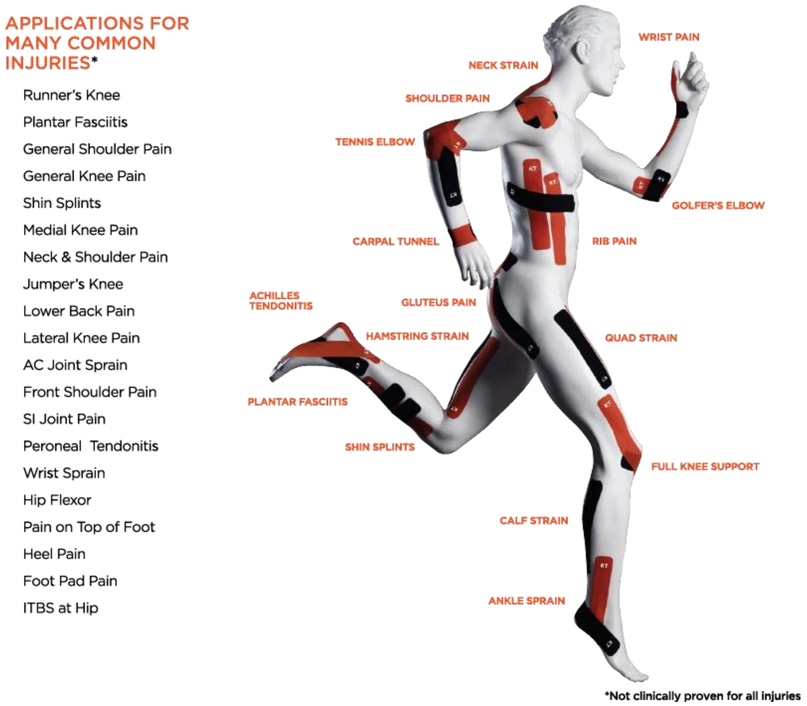


Figure 1: Image showing the common application areas for Kinesiotape.[1]

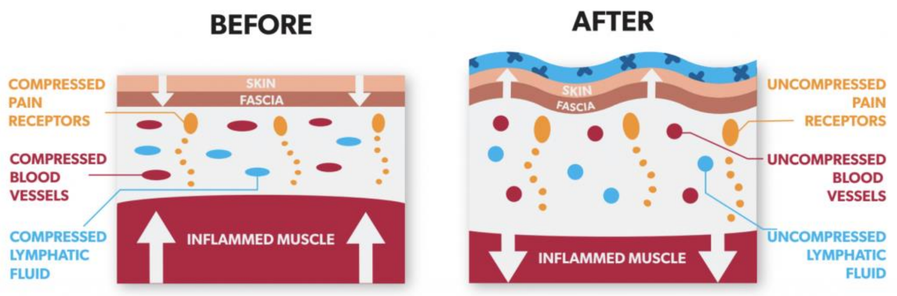


Figure 2: Comparison of an injured muscle before and after the application of Kinesiotape.[10]

## Methods

- Primary sources for this system review were retrieved from the search engines of PubMed (15) and CINAHL (39).
- After the screening process, eight articles were included in the review. Applicable data was drawn from these sources and used in the systematic review.

## Results

- Overall, the application of Kinesiotape reduced athletes' pain levels.
- However, one study found that KT tape caused the same or worse response to the activation, extension and reflex of the quadricep when compared to non-elastic tape.[9]
- The combination of Kinesiotape and exercise therapy was shown to lead to the improvement of function and performance.[8]
- Two studies that examined pain, range of motion, and flexibility of the shoulder and hamstrings both showed a greater positive effect with the implementation of KT tape when compared to no application of KT tape.[4,5]

## Discussion

The studies analyzed in this review found that the application of Kinesiotape reduced athletes' pain levels. Kinesiotape also improved flexibility and range of motion in certain areas of the body.[1,2] However, some studies found that the application Kinesiotape resulted in no improvements, or worse effects in performance.[3–6] This review suggests that a combination of therapies, with Kinesiotape included, could be the best treatment for athletic outcome.[5,7]

All the articles included in this review were published in the last 10 years. However, a notable weakness of the entirety of the studies was the small population sizes used.

The application of Kinesiotape could be used by athletes for managing pain. Kinesiotape could provide another avenue in the treatment mechanisms athletes use to enhance their overall athletic outcome. Future research could be done to determine if Kinesiotape has greater benefits on certain body areas, or athletes from specific sports.

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## References

1. Sports Safety: Common Sports Injuries, Prevention, and Basic Treatment for Athletes. KT Tape. Accessed October 4, 2021. https://www.kttape.com/blogs/kinesiology-blog/sports-safety-common-sports-injuries-prevention-and-basic-treatment-for-athletes
2. Chown G, Innamorato J. Perceived Benefits of Kinesio Tape® Compared to Non-Kinesiology Tape and No Tape in Healthy Collegiate Athletes. *Open J Occup Ther OJOT*. 2016;4(4):1-11. doi:10.15453/2168-6408.1228
3. Kinesio Tape: Can It Help Your Athletic Performance? Cleveland Clinic. Published March 5, 2018. Accessed October 4, 2021. https://health.clevelandclinic.org/kinesio-tape-can-it-help-your-athletic-performance/
4. ÇıNAR MEDEN Ö, Baltaci G, Doğan Vayvay G. Acute Effect of Kinesiotape Muscle Technique on Hamstring Flexibility and Pain During Stretching. *Turk J Physiother Rehabil*. 2015;26(2):73-77. doi:10.7603/s40680-015-0011-7
5. Dhein W, Torre ML, Fagundes Loss J. Effect of kinesio taping in myoelectric activity in patients with shoulder impingement. *Man Ther Posturology Rehabil J*. 2017;15:1-7. doi:10.17784/mtprehabjournal.2017.15.489
6. Kachanathu SJ, Algarni FS, Nuhmani S, Alenazi AM, Hafez AR, Algarni AD. Functional outcomes of kinesio taping versus standard orthotics in the management of shin splint. *J Sports Med Phys Fitness*. 58(11):1666-1670. doi:10.23736/S0022-4707.17.07520-X
7. Kim MK, Shin YJ. Immediate Effects of Ankle Balance Taping with Kinesiology Tape for Amateur Soccer Players with Lateral Ankle Sprain: A Randomized Cross-Over Design. *Med Sci Monit Int Med J Exp Clin Res*. 2017;23:5534-5541. doi:10.12659/MSM.905385
8. Mazloum V, Sahebozamani M. The Effects Kinesiotaping® and Proprioceptive Exercises in Rehabilitation Management of Volleyball Players with Chronic Ankle Instability. *J Jahrom Univ Med Sci*. 2016;14(2):31-41. doi:10.29252/jmj.14.2.31
9. Kim KM, Davis B, Hertel J, Hart J. Effects of Kinesio taping in patients with quadriceps inhibition: A randomized, single-blinded study. *Phys Ther Sport*. 2017;24:67-73. doi:http://dx.doi.org/10.1016/j.ptsp.2016.08.015
10. HOW DOES KINESIOLOGY TAPE WORK? - SPORTTAPE K TAPE. Accessed November 27, 2021. https://sporttape.co.uk/how-does-kinesiology-tape-work/