

Kinesiology Tape for Runners

By Ed La Cara, PhD, DC, ATC, CSCS

If you have ever treated runners, having them stop or modify activity during rehabilitation is nearly impossible. As someone who specializes in the treatment of endurance athletes, I am always looking for an edge to return them to activity as soon as possible. One treatment modality that stands out above all others to help accomplish an early return to sport is kinesiology tape.

Research on the effectiveness of kinesiology tape

Many studies on the use of kinesiology tape have been conducted in the past 5 to 10 years. I'll focus on those with determined treatment efficacy for treating common injuries sustained by runners.

Kinesiology tape and runner's knee

In a study published in 2008 by Chen¹ et al. at China Medical University, fifteen women with patellofemoral pain syndrome (PFPS, or runner's knee) were studied when ascending and descending stairs with kinesiology tape, nonelastic athletic tape as a placebo, and no tape at all. The activation of the quadriceps muscles (something which can be altered in cases of PFPS) and the impact when descending the steps were measured and compared, both between the taping conditions and with a group of ten healthy women who also did the stair-stepping test with kinesiology tape, regular athletic tape, and no tape. Researchers found that the tape group had decreased impact force when descending stairs versus no tape and altered muscle activation patterns to be more in line with those of healthy individuals. This is a big score for runners as they rehabilitate their injuries.

Kinesiology tape versus traditional patella taping

Another relevant study by Cowan et al. in 2002 examined ten women and compared a traditional patellar taping (using nonelastic athletic tape) with a very loosely applied placebo taping.² The results were similar with a statistically notable change in quadriceps muscle activation, which is associated with PFPS.

The similar results of Chen et al. and Cowan et al. help us determine that taping the patella can be beneficial for athletes who are experiencing pain and dysfunction in the joint. A 2010



study by Souza et al.³ noted that medial femur rotation appears more significant in athletes with PFPS than any displacement of the patella. Thus, trying to stabilize the patella with stiff tape is probably less beneficial than using the kinesiology tape for neurosensory input into the joint and to facilitate the surrounding musculature.

New research is illuminating the role of nerve endings in the skin transmitting information to the brain about the position of your joints. For example, it's easier to discern the position of your knee in space (proprioception) with less brain activity with tape on the knee versus without tape.⁵ The benefit of kinesiology taping may be related to the stimulation of the skin rather than any special mechanical effect.

Summing up the research

Kinesiology tape is simple to use and has virtually no side effects except for possible allergy or skin irritation for a small percentage of athletes. Unlike traditional taping, which is usually only applied prior to activity, patients can benefit from the tape for three to five days. Athletes can stretch, ice, swim,

shower, foam roll, or massage right over an application of kinesiology tape because it's so thin and flexible.

Kinesiology tape should never be used as a stand-alone therapy, but in conjunction with manual therapy, corrective exercise, and progressive resistance exercise. Kinesiology tape acts as an ancillary treatment that takes strain off a sore area, facilitates better movement, and helps speed recovery from an injury.



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