

CHAPTER 2

KINESIOLOGY TAPING TECHNIQUES FOR THE LOWER LIMBS



PLANTAR FASCIITIS/HEEL PAIN/FAT PAD SYNDROME

The plantar fascia is a thick fibrous band of connective tissue that links the calcaneus (heel bone) to the metatarsals. Pain tends to present itself at the attachment to the calcaneus (Fig. 2.1) and it has been known to lead to a heel spur if left untreated. This condition is quite common and can be difficult to treat as the pain is on the plantar (underneath) surface of the foot and the patient finds it difficult to recuperate, as they naturally have to walk.



Figure 2.1 *Plantar fascia, showing the site of pain, causing plantar fasciitis.*

Tsai et al. (2010) investigated the effect of short-term treatment with Kinesio Taping for plantar fasciitis. They found that if the patient had treatment with Kinesio Taping continuously for one week this provided pain relief from plantar fasciitis with a better result compared with those treated only with physical therapy. They also concluded that the plantar fascia thickness at the insertion site might also be reduced after the application of Kinesio Taping.

1. Ask the patient to adopt a prone position and place their ankle into a position of dorsiflexion with the toes extended. Anchor the 'I' strip at the ball of the foot (with no stretch) and apply the tape, with 75–100% stretch, over the heel. Ease-off the tape to 50% stretch as it crosses the Achilles, with no stretch at the ends of the tape (Fig. 2.2).



Figure 2.2 First kinesiology taping application to the plantar surface of the foot.



Painful foot/plantar fasciitis

2. Anchor another 'I' strip onto the medial side and start just above the medial malleolus (distal tibia). Increase the stretch tension of the tape to 75–100% and apply across the painful area. Ease-off to 50% stretch as it crosses the lateral malleolus (distal fibula) and finish with no stretch (Fig. 2.3).



Figure 2.3 Second taping application starting from the medial side.

3. Heat activate the glue by rubbing the area with your hand for a few seconds or, better still, use the backing from the kinesiology tape to rub the area.

ANKLE INVERSION SPRAIN/PERONEAL MUSCLE STRAIN

Thousands of people per day twist their ankle by a motion known as an *inversion sprain*. This mechanism can stretch and even tear the lateral ligaments as well as the muscles and accounts for approximately 85% of all ankle injuries. The common ligaments to be injured are the anterior talofibular ligament (ATFL) and the calcaneofibular ligament (CFL), as shown in [Figure 2.4](#). The muscle group that tends to be strained due to the injury mechanism is known as the peroneals.



Figure 2.4 Lateral ligaments/peroneal muscles drawn onto an ankle.

Biccic et al. (2012) conducted a study on the effects of athletic taping and Kinesio Taping on basketball players with chronic ankle inversion sprains. The results showed that Kinesio Taping had no negative effects on a range of functional performance tests and some improvements were seen. However, the study did show that conventional athletic taping caused a significant decrease in performance for vertical jump and standing heel rise tests, while Kinesio Taping did not limit functional performance. In addition, earlier research by Murray and Husk (2001) showed that Kinesio Taping helps ankle joint proprioceptors through increased stimulation of the cutaneous mechanoreceptors.

1. Ask the patient to adopt a long sitting position and place a towel or pillow under the calf to raise the leg. The patient then dorsiflexes their ankle and everts their foot. Once the patient is holding this position, apply an 'I' strip from the medial side, just above the medial malleolus, with 100% stretch of the tape as this will promote stability. Continue under the foot and finish on the lateral side just above the lateral malleolus. Make sure that the lateral ligaments are covered as shown with [Figure 2.5](#).



Figure 2.5 First taping application to stabilise the lateral ligaments.

2. Apply another 'I' strip from the medial side of the calcaneus in a transverse direction and guide the tape posteriorly to the calcaneus, so that the tape flows under the plantar surface of the foot. Apply 50% stretch to the tape and finish on the dorsal surface of the foot as shown with [Figure 2.6](#).



Figure 2.6 *Second taping application from the medial side.*

3. Repeat the same technique, but this time apply an 'I' strip from the lateral side and, as the tape comes under the plantar surface, apply 50% stretch to the tape and finish on the dorsal surface of the foot. These two strips have a similarity to what is called a 'figure 8 lock technique' as shown with [Figure 2.7\(a, b\)](#).