

APPLYING A KINESIOTAPE – NEW TREND OR PANACEA?

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Actuality. Taping is widely used in the field of rehabilitation as both a means of treatment and prevention of sports-related injuries. Taping has many roles such as to support the ligaments and capsules of unstable joints by limiting excessive or abnormal anatomical movement. Taping also enhances proprioceptive feedback from the limb or joint. Finally taping can support injuries at the muscle-tendon units by compressing and limiting movement and secure protective pads, dressings and splints. The most commonly used tape applications are done with non-stretch tape [5]. Originally developed in 1973 by Kenzo Kase in Japan, the Kinesio taping (KT), also known as elastic bandage, is a relatively new method that has become popular over the last 10 years, after the disclosure provided in major events such as the Olympic Games. As a result the study of its efficiency acquired new actuality and herewith we are to study this application from different perspectives.

The aim of the research is to present various methods of applying as well as current state of affairs regarding Kinesiotape application on different types of injuries.

The task is to show how Kinesiotape can be used in rehabilitation and to explain its efficacy as examined by scientists abroad.

The object of the research is Kinesiotape. It is a thin, highly elastic material which stretches 120–140 % times its original length. The tape can be worn continually for 3–5 days and is able to get wet.

The subject of the research is the efficacy of Kinesiotaping compared to non-elastic sports tape based on the researches of the scientists abroad.

To achieve the tasks set **the method** of analysis and synthesis of scientific literature was used. As stated by the manufacturer Kinesiotape allows for dynamic stabilization without restricting blood or lymph flow. The highly elastic material is theorized to lift the skin and superficial tissues to promote circulation and provide sensorimotor stimulation. These unique characteristics make Kinesiotape versatile in its therapeutic effects. Depending on the direction of

application and tape tension, the clinical uses of Kinesiotape include: relieving pain, correcting joint positioning, decreasing swelling, increasing proprioception, and increasing or inhibiting muscle recruitment. KT was designed to mimic the qualities of human skin. It has roughly the same thickness as the epidermis and can be stretched between 30 % and 40 % of its resting length longitudinally. Several benefits depending on the amount of stretch applied to the tape during application are expected: (1) to provide a positional stimulus through the skin, (2) to align fascial tissues, (3) to create more space by lifting fascia and soft tissue above area of pain/inflammation, (4) to provide sensory stimulation to assist or limit motion, and (5) to assist in the removal of edema by directing exudates toward a lymph duct [2].

However, minimal evidence exists to support the use of this type of tape in the treatment of musculoskeletal disorders. This information comes from case series and small pilot studies and thus represents lower levels of clinical evidence [1].

Therefore multiple clinically-based case studies and researches were conducted on different types of injuries and application methods to determine short-term effects of kinesiotaping. Some of them include applying the tape on college students with shoulder pain; on neck pain and cervical range of motion in individuals with acute whiplash-associated disorders (WADs); five children with hypotonia with application of tape over of the abdominal muscles; un-associated research studies quantifying the amount of increase in strength of both the quadriceps femoris and hamstrings concentrically and eccentrically in healthy adults using an isokinetic dynamometer, maximal muscle strength of the dominant quadriceps of 36 healthy subjects, etc [3; 4; 5].

Conclusions. Studies that examine the therapeutic application of Kinesiotape to a population with prior muscular weakness report more consistently positive results. This trend supports that Kinesiotape provides a more subtle muscular effect which centers more on increasing neuromuscular recruitment rather than increasing healthy muscle strength. Some studies suggest that its effects on pain were higher, in the short term (24 hours after application), and its results are mostly described as beneficial, however there is no scientific evidence that these effects may be prolonged. It is generally acknowledged that future studies should investigate if Kinesio Taping provides enhanced outcomes when added to physical therapy interventions with proven efficacy.

References

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