The purpose of this two-part column is to familiarize and enhance health care professionals with kinesio taping (KT), a unique approach to treating active individuals. Part 1 presents an overview, and Part 2 will provide examples of specific kinesio taping techniques. Recommendations for incorporating KT into a treatment plan will be provided.

KT, which was developed approximately 20 years ago in Japan, is theoretically grounded in the idea that it provides support to musculoskeletal structures while enhancing the body’s natural healing process. KT is used to minimize pain or discomfort, provide support for weakened or damaged tissues, and enhance the healing process when acute or chronic inflammation is present. Rehabilitation techniques in the United States have historically conformed to Western medicine principles, but alternative methods such as KT are increasingly recognized as viable options for treating athletic injuries.

Kinesio Tape

Kinesio tape is a thin, cotton, porous fabric with acrylic adhesive that is nonmediated and latex free. KT tape can be comfortably worn for 3-4 consecutive days, without compromising its adhesive quality and does not require removal for bathing. Furthermore, moisture and air can flow through its porous fabric, thereby limiting skin irritation.

The elastic properties of kinesio tape distinguish it from other types of athletic tape. Kinesio tape can be stretched up to 130-140% of its resting length and will contract back to its normal resting length after application. This elastic quality is essential because it creates convulsions that are theorized to lift the skin and take pressure off the interstitial fluid, providing better drainage. KT must be applied in a specific manner to aid muscle function, increase circulation, decrease pain, or improve proprioception.

Theory and Effects

The intent of KT is to decrease pain and increase tissue healing associated with musculoskeletal injuries and illnesses by enhancing circulation and metabolic activity. Advocates of KT theorize that it provides therapeutic benefits to injured tissues in one of four ways: by increasing interstitial space between the skin and underlying connective tissues (muscles, tendons, ligaments), allowing for increased circulation of both venous and lymphatic fluid, by decreasing pain, by facilitating joint and muscle realignment, and by enhancing joint stability, which is essential for synovial fluid and cartilage nutrition within the joint cavity.

Although the exact reason that KT practitioners experience anecdotal patient benefits is not evident and has not been researched. KT advocates state that when a muscle is inflamed, swollen, or stiff due to injury or fatigue, the interstitial space between the skin and underlying connective tissues is compressed, thus constricting the flow of lymphatic fluid. Textbooks and KT documents claim that tissue compression present during injury stimulates subcutaneous pain receptors, which transmit discomfort signals to the brain, so increasing the interstitial space between the skin and underlying connective tissues can decrease pain. Creating convolutions in the skin in order to...
increase the interstitial space is the required KT technique (Figure 1).\textsuperscript{5} These convolutions are created when the muscles and skin of the affected area are stretched before kinesio tape is applied. While the stretch is held, the tape is applied to the affected area without stretching the tape. After the tape has been applied and the muscles return to a relaxed position, convolutions of the skin are formed.\textsuperscript{5} The convolutions increase the interstitial space, allowing for greater flow of venous and lymphatic fluids.\textsuperscript{5}

Theorized effects of KT include increased metabolic activity, which increases the presence of fibroblasts, resulting in proteoglycan and collagen synthesis essential to the healing process.\textsuperscript{6} KT advocates state that it promotes normal muscular movement and aids in venuous and lymphatic circulation, body temperature, tissue nutrition, and pain reduction.\textsuperscript{5} KT is theorized to stimulate normal muscle movement that in turn provides an environment where collagen alignment can be maximized. In addition, KT advocates state that muscle movement that is an outcome of the KT in injured tissues aids in maintaining the muscle's metabolic needs and is effective in decreasing inflammation.\textsuperscript{6} Facilitating normal movement is a main characteristic of KT and thus a rationale for KT application during the repair and remodeling phase of tissue healing.\textsuperscript{6}

**Conclusion**

Although KT research has been limited, several studies have supported the effectiveness of this treatment technique for addressing acute injury inflammation, promoting a faster return to activity, enhancing proprioception training,\textsuperscript{8,9} reducing pain, enhancing neurological function post injury,\textsuperscript{10} enhancing neurological function postinjury,\textsuperscript{10} and correcting muscle imbalances. Furthermore, KT might be effective on improving proprioception, so it might also be used to augment traditional rehabilitation balance-enhancing techniques.\textsuperscript{8,9} KT treatment in combination with other physical therapy techniques may produce shortened treatment periods with adequate healing to return to activity.\textsuperscript{9} In order to effectively use KT techniques and theories, however, a more thorough study of application and uses should be conducted.\textsuperscript{1}

**References**


**Leamor Kahanov** is Graduate Athletic Training Program Director in the Department of Kinesiology at San Jose State University.