

Orthopaedic Observations

A Matter of Medicine...

TM Pending

Kinesio Taping

By Jonathan Sylvain, MPT, CKTP



By now everyone has seen the colorful tape that has appeared on many athletes over the past 6 -12 months. It was first noticed in the 2008 Summer Olympics with US Beach Volleyball player Kerri Walsh. No one at the time had any idea what the black stuff was on her shoulder. Many people said, "She's covering up a tattoo." But in fact, the mysterious tape on her right

shoulder during the competition was a form of medical tape called kinesio tape. Following the Olympics, the tape was seen here and there throughout athletic events. But once again in early 2009, it was seen on the main stage. This time UConn basketball center Hasheem Thabeet donned the tape in the 2009 men's NCAA tournament. Since this time kinesio tape has had a constant place in the athletic arena, but it is primarily used in nonathletic populations (85% of applications) to treat a wide variety of dysfunctions. (2)

Kinesio taping was created and developed by a Japanese doctor, Kenzo Kase, in 1973. Kinesio tape stems from the science of kinesiology hence the name kinesio. Kinesio taping is based on the bodies own natural way of healing and



Glenohumeral joint correction / deltoid inhibition

has become the standard for therapeutic rehabilitative taping. Kinesio taping is a technique/modality that can be used to support and stabilize joints and muscles without limited range of motion (ROM) or affecting circulation. Furthermore it is used for preventative maintenance, edema, and pain management. Therefore, it affects several body systems which include the circulatory/lumphatic, neural, muscular, and fascial systems. Currently therapists use the taping method to change muscle tone, decrease effusion/edema, correct movement dysfunctions, and improve posture.

Now you may be thinking, "How is this taping method different from athletic or McConnell taping?" Athletic taping, such as taping an ankle, is used to limit range of motion or to constrict the movements of the muscles of the affected region. Typically athletic tape is removed at the end of the event.

McConnell taping is used to tape body parts to affect a specific biomechanical movement. It is a rigid, strong, and highly adhesive tape that is applied for 18 hours or less usually due to patient discomfort and can primarily only be used for orthopedic issues.

Kinesio tex tape is the tape used during kinesio taping. It is used by therapists trained in the kinesio taping method. It is a latex-free hypoallergenic cotton fiber tape that has an acrylic heat-activated backing that stretches only along the longitudinal axis. It can be stretched 40-60 percent of its resting length. The tape has no medicinal properties and it is designed to feel like the thickness and weight of the skin. Kinesio taping may be worn for 3 to 5 days. (2,3)



Gastrocnemius inhibition

axis. It

	Kinesio Tape	Athletic Tape	McConnell-Tape
Wear Time	3-5 days	2-3 hours	1-18 hours
Pre taping	No pre tape	Pre tape or spray adhesive required	Pre tape required
Latex free	Yes	No	No
Elastic/non rigid	Yes	No	No
Allow full ROM	Yes	No	No
Water Resistant	Yes	No	No

(Article continued on back side of page...)

The five major physiological effects of kinesiotope are on the *skin, fascia, muscles, circulatory/lymphatic system*, and the *joints*. On the skin the tape applies a pull creating space between the dermis and the muscles. The space is believed to decrease pressure on the lymph channels allowing for lymph drainage therefore reducing inflammation. This pull on the skin also reduces the compression of various nerve receptors. These nerve receptors send information to the brain regarding light touch, continuous touch, cold, pain, pressure, and heat. Kinesio tape alters the information that these receptors send to the brain thus reducing painful stimuli.

When the tape is used on muscles it is used to facilitate or inhibit the specific muscle or muscles, reduce fatigue, increase ROM and relieve pain. In joints it is used to adjust malalignment and abnormality of fascia, normalize muscle tone, improve ROM and relieve pain. Finally, kinesio taping has also been used with scars reducing adhesions and pitting, softening, flattening, improving pliability, and reducing contractures.

Kinesio taping consists of six concepts called corrections that can be used when applying the tape. They are as follows: **mechanical, fascial, space, ligament/tendon, functional, and circulatory/lymphatic**. Each correction has a specific goal in mind, below is a list:

- Mechanical:** to improve stability or biomechanics.
- Fascial:** direct movement of fascia and decrease fascial limitations.
- Space:** decrease pressure over target tissue or trigger point areas.
- Ligament/tendon:** decrease stress on a ligament or tendon.
- Functional:** provide sensory stimulation to inhibit or facilitate a motion or motions.
- Circulatory/lymphatic:** to decrease effusion/edema and promote movement of lymph.



Upper trapezius inhibition



Upper Trapezius inhibition



Circulatory / lymphatic correction

Photo's taken by: Jonathan Sylvain, RPT
Brian Tenenhaus, MPT

Jonathan graduated from Quinnipiac University with a Bachelor's degree in Health and Science Studies in 2006 and then with his Master's degree in Physical Therapy in 2007. He started with The Orthopaedic Group, LLC in 2004 as a physical therapy aide while pursuing his Master's degree at Quinnipiac. Jonathan's participation in sports throughout his life as well as various athletic injuries has led him into the orthopedic field. He has a particular interest in the treatment of shoulder pathologies and ACL injury prevention / rehabilitation. Jonathan completed his clinical affiliations with a primary focus in outpatient orthopedics with extensive work in manual therapy. Recently, he successfully completed coursework and certification on the kinesio taping method, a form of therapeutic rehabilitative taping, becoming a Certified Kinesio Tape Practitioner.

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