Kinesiology Taping for the Lower Extremity Athlete

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Objectives

• Understand the basic properties of kinesiology tape
• Understand the basic applications of kinesiology tape
• Demonstrate 3 application kinesiology tape applications
• Identify various diagnoses and conditions that may benefit from the use of kinesiology tape.

Types of Kinesiology Tape
Spider Tech Tape is made from Nitto Denko tape

Developed in Japan in 1987

100% cotton, hypoallergenic acrylic adhesive

Weave Pattern that mimics the skin

Can be worn 24 hours, 3-5 days

KT Tape is made up of reinforced 100% cotton sheathes

Designed to provide durability and increased strength

Each box comes with 20 precut strips of 100% synthetic tape

What is Kinesio® Tape? Tape Demo

Uniquely designed elastic tape

Patented adhesive in wavelike pattern- mimics skin movement

Comfortable to wear

Long wear time-can be worn 24 hours/day; lasts 3-5 days

Where Can Kinesio® Tape Help?

1. Muscle
2. Joint
3. Fascia
4. Skin
5. Circulatory/Lymphatic
When is Kinesio® taping used?

- Sprains/Strains
- Acute Pain/Injury
- Chronic Pain Syndrome
- Postural & Biomechanical Imbalances
- Neurological Conditions
- Scar Management

Who is using Kinesio® taping?

Kinesio® Tape Qualities - Finger Demo

- Latex-Free
- Patented Wavelike Adhesive Pattern
  Similar to skin n thickness and weight
- Stretches 50% of resting length
- Stretches on longitudinal axis only - FINGER DEMO
- Adhesive is heat activated
- Can get wet

Taping Goals

- Pain reduction
- Provides kinesthetic feedback
- Taping to facilitate or inhibit muscle function
- Another “set” of hands
- Edema management
Determining Appropriate Taping Intervention

- Assessment
- Target Tissue
- Apply Tape
- Re-Assess

References 4, 5, 6

Taping Terminology

- Therapeutic Zone- Target tissue to be taped
- Tension- Amount of stretch applied to tape -Specified as a percentage of tension
- Anchor and End- Beginning and End of Tape- NO tension on Ends
- Base- Area of tape applied with tension to target tissue

References 4, 5, 6

Taping Tension Percentage - Forearm Demo

- Super Light 0-10%
- Paper Off 10-15%
- Light 15-25%
- Moderate 25%-50%
- Severe 50%-75%
- Full 75%-100%

- 0% tension applied on anchor and end.

References 4, 5, 6
Applying Kinesio® Tape

- Do not tape over broken skin. May need to trim/shave area.
- Apply on oil free & dry skin. Alcohol prep/hand sanitize.
- Can reposition tape once; Not after activating adhesive
- Rub tape to activate adhesive. Do not use hair dryer on tape.
- Apply tape with target tissue in stretch position
  - Maintains & promotes normal tissues flexibility.
  - Exposes sensors to be stimulated.
- Contraindications/Precautions in supplement

References: 4.5.6

You Can Have Too Much Kinesio® Tape

Taping Techniques

- Jumper’s Knee
  Patella Tendonitis - 5.5 blocks

- Shin Splints
  Medial Tibial Stress Syndrome - 4.5 blocks

- Lateral Ankle Sprain
  Edema Control - 4.5 blocks
Anatomy Slides

Coding

• Confirm medical necessity
• Use proper coding
• Verify third party coverage
• Bill properly

• Note: The laws, rules and regulations regarding reimbursement for strapping and taping by health care professionals vary greatly from state to state. Always check your state’s laws to verify which codes apply and work best for your practice.

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http://www.kinesiotaping.com/kinesio/codes.html

Key Points

• Assessment
• Direction- Longitudinal
• Tension- Less is More
• Recoil- Lift vs. Compression
• Adhesive- Heat Activated
• Adjunct to Other Treatment Interventions
Jumper’s Knee- Patella Tendonitis Taping Video

Jumper’s Knee- Patella Tendonitis

Mechanical Correction

• Positional hold to influence desired resting position
• 50-75% Tension
• Aids in inhibiting pathological motion
• Maintains circulation

References 4,5,6

Patella Tendonitis- Mechanical Correction

• Measure & Cut Y-strip
• Position in sitting with knee flexion
• Anchor at inferior patellar pole
• At inferior border of patella, separate tails to surround patella
• Place 1st tail along patella border
• Apply 50-75% tension

References 4,5,6
Patella Tendonitis - Mechanical Correction

- Place 2nd tail on opposite patella border
- Apply 50-75% tension
- Request slight increase in knee flexion
- End with no tension at superior border of patella
- Activate adhesive

Removing Tape – Forearm Tape

- Remove tape in direction of hair growth
- Roll back from edge of tape – gently removing entire length of tape
- Skin from Tape Method – gently pull tape from skin using other hand to hold skin in place; or roll over pencil
- Tape may be removed while bathing
- Soap, hand lotion or baby oil can help in removal

Shin Splints – Medial Tibial Stress Syndrome Taping Video
Shin Splints – Medial Tibial Stress Syndrome

Space Correction

- Decreases pressure on painful or swollen tissue
- Approximates tissue toward medial border of tibia
- Recoil of tape creates lift over target tissue

References 4,5,6

Shin Splints - Space Correction

- Position in sitting: Knee in flexion; ankle in dorsiflexion
- Cut 4-5 block inch Y-strip
- Anchor with NO tension at medial border of tibia in the pain area

Shin Splints - Space Correction

- Separate tails to apply in splayed pattern around area of pain
- Apply 25-50% tension to first tail
- Use other hand to lift muscle & soft tissue toward the tibia
- Lay first tail down, NO tension on end
- Repeat with other tail
Acute Lateral Ankle Sprain Taping Video
Circulatory/Lymphatic Application

- Increase interstitial lymphatic fluid flow to less congested area
- Reduces edema and pain
- Improved fluid dynamics between tissue layers
- Lifts skins, causing convolutions
- Create channeling of low pressure in congested areas
- Anchor proximally with no tension on less congested area

Acute Lateral Ankle Sprain-
Circulatory/Lymphatic Application

- Measure & cut 2 fan cuts with 4-5 tails or use pre-cut fans
- Anchor 1st fan cut with no tension on medial side of ankle proximal to area of swelling
- Apply 10-25% tension to each separate tail with spacing between tails
- End with no tension
- Activate Adhesive
Acute Lateral Ankle Sprain—Circulatory/Lymphatic Application

- Anchor 2nd fan cut with no tension on lateral side of ankle proximal to area of swelling
- Apply 10-25% tension to each separate tail, crossing over 1st fan strip
- End with no tension
- Activate Adhesive

Supplement

Kinesio® Tape
- Latex Free—Safe for pediatric to geriatric
- Rehabilitative
- Longer wear time; 3-5 days
- Allows normal ROM
- No pre-tape
- Can get wet

Athletic Tape
- Not latex free; skin irritation
- Acute Injuries/Injury Prevention
- Limited wear time
- Limits or assists motion
- Pre-tape or spray adhesive

McConnell Tape
- Rigid, cotton mesh
- Primarily orthopedic
- Limited wear; skin irritation
- For Bracing/Strapping
- Requires pre-tape
- Poor adhesive when wet

References 4, 5, 6
Kinesio® Tape Cuts

I Strip
Y Cut
X Cut
Fan Cut
Web Cut

Considerations

• Patient education is essential
• Area may need to be shaved before taping
• Apply 30 minutes before activity or swimming
• Maalox or milk of magnesia (external application only) helps reduce irritation to skin
• Remove if itching or increased pain occurs

What to Avoid

• Do NOT dry tape with hair dryer
• Avoid taping over hair, through axilla or groin
• Do not “pull” tape to position target tissue
• Position first, then apply tape
• Do not touch adhesive backing too much
• Do not tape over broken skin
Contraindications

- Malignancy- undiagnosed
- Over Active Cellulitis or Infection
- Open Wounds, Fragile or Healing Skin
- DVT
- Previous skin irritation from product

Precautions

- Diabetes
- Kidney Disease
- Lymphedema-rule out new or recurrent malignancy
- Respiratory Conditions
- Congestive Heart Failure
- CAD or Bruits in Carotid Artery
- Pregnancy- acupuncture points to induce labor

Documentation

- Target Tissue- Anatomy to be affected
- Cut of Tape; can include # of tape blocks
- Direction and application tension of tape
- Desired effect of treatment goals
  - Decrease pain
  - Decrease spasms
  - Limit edema
- Example: Kinesio Taping® to common wrist extensors, Y-cut, distal to proximal at 15% tension to decrease pain and inhibit muscle spasm
Exam and Treatment Plan

- Recommended level of care plus frequency and duration of taping.
- Treatment(s) that you will use including the taping.
- Objective measures to evaluate the effectiveness of the taping.

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Research


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Research

4) Yoshida A et al. 2007. The Effect of Kinesio Taping on Lower Trunk Range of Motions, Research in Sports Medicine, 15:2, 103-112


CPT Code Changes

• A few changes were made to the CPT Codes for 2010. Some Highlights are that 29220 – Strapping of Low Back was removed from the coding System. To report Low back strapping, use 29799, Unlisted procedure, casting or strapping
  
  

Diagnostic Codes

• Note: The laws, rules and regulations regarding reimbursement for strapping and taping by health care professionals vary greatly from state to state. Always check your state’s laws to verify which codes apply and work best for your practice.

Diagnostic Codes

• 307.81 Tension Headache
• 339.20 Post-traumatic Headache, unspecified
• 724.2 Low Back Pain
• 648.70 Pregnancy Backache
• 716.9 Chronic Arthritis
• 847.2 Lumbar Sprain/Strain
• 719.03 Edema of Wrist
• 722.52 Degeneration of Lumbar Disc(s)
### Diagnostic Codes

- 959.6 High Thigh Injury
- 719.46 Arthralgia of Knee
- 715.96 Degenerative Joint Disease of the Knee
- 719.47 Arthralgia of Ankle/Foot
- 719.06 Edema of Knee joint/Fibula/Patella/Tibia
- 719.48 Arthralgia of Cervical Spine/Thoracic Spine/Lumbar Spine
- 840.6 Supraspinatus (muscle) (tendon)sprain and strain
- 781.2 Abnormality of Gait (Ataxic, Paralytic, Spastic, Staggering)

### Therapeutic Procedures

#### CPT Codes

- **97110** – Therapeutic procedure, one or more areas, each 15 minutes; therapeutic exercises to develop strength and endurance, range of motion and flexibility
- **97112** – Neuro-Muscular Re-Education of movement, balance, coordination, kinesthetic sense, posture, and/or proprioception for sitting and/or standing activities
- **97533** – Sensory integrative techniques to enhance sensory processing and promote adaptive responses to environmental demands, direct (one-on-one) patient contact by the provider, each 15 minutes
- **97140** – Manual Therapy Technique

#### Unlisted Physical Medicine/Rehabilitation Service or Procedure

- **97799** – Unlisted physical medicine/rehabilitation service or procedure – specify
- **97139** – Unlisted therapeutic procedure – specify
- **99070** – This is a miscellaneous code to be used for supplies and material during an office visit.
References

3. www.kttape.com

References

5. Kinesiotaping Association International KT1 and KT2 Workbook. 2008