

# **Use of Kinesiology Tape as an Adjunct to Osteopathic Manipulative Treatment**

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# Today's Objectives

- To teach you a functional therapeutic approach to modulate pain and myofascial dysfunction through the use of specialized pre-cut kinesiology tape applications.
- To teach the theory and practical hands on tools necessary to incorporate the use of kinesiology tape into your patient management strategies.

# Disclaimer

- SpiderTech has provided a grant to supply the materials to be used for this session

# Today's Goals

- Basic Information on the Role of Kinesiology Taping
- Examples of Utilization in a Clinical Setting
- Practice
- By the end of this session have a working knowledge of when and how to apply this modality

# Kinesiology Tape

- Neuromusculoskeletal Treatment Modality
- Clinical Relevance
- Ease of Application
- Component of Overall Treatment

# Taping Basics

- Easy to use
- Improved clinical outcomes
  - The patient is able to achieve early engagement in pain-free ranges of motion and strengthening exercises.
  - The patient becomes an active participant in the treatment process.
  - The patient is able to take the therapy home with them maintaining treatment between treatments.

# What is the Advantage?

- Reduce Pain
- Restore Mobility
- Faster Healing
- Improve Strength
- Ability to self-administer

# Selected Research

- Kinesio Taping reduces disability and pain slightly in chronic non-specific low back pain: a randomised trial
- Journal of Physiotherapy. Volume 58, Issue 2, June 2012

# The Study

- Sixty adults with chronic non-specific low back pain
- Outcomes measured at baseline and immediately after one week application of kinesiotape to lumbar region
- Outcomes repeated at four weeks

# Outcome Measures

- Oswestry Disability Index
- Roland-Morris Low Back Pain and Disability Questionnaire
- Analog Pain Scale
- McQuade Test of Trunk Muscle Endurance

# Results

- At one week significant improvement in both Oswestry and Roland-Morris scores
  - Not maintained at four weeks
- Greater decrease in pain (VAS) at one week
  - Maintained four weeks later
- Trunk muscle endurance significantly better at one week
  - Maintained four weeks later

# When Do I Use Kinesiology Taping?

- Synergistic Approach
  - Pain
  - Prevention
  - Performance
- Reduce Pain
- Correct mechanical/structural dysfunction
- Reduce swelling and bruising

# Four Possible Categories of Therapeutic Effect

- Neurosensory
- Structural
- Microcirculatory
- Psychological

# Neurosensory Effects

- Enhanced sensory stimulation leading to a decrease in the neural perception of pain
- Activates sensory gating mechanisms for therapeutic effect
- Restoration of normal muscle activation and function

# Structural Effects

- Prevent harmful ranges of motion without a hard end feel
- Dynamically supports better postural positions
- Enhance biomechanical postures during sports
- Reduce strain on affected muscles
- Dynamically treat hyper-mobility

# Microcirculatory Effects

- Improve superficial fluid dynamics
- Improve lymphatic drainage
- Treat exercise induced lymphatic edema

# Psychological Effects

- Increase conscious awareness
- Increase perception of stability
- Decrease fear of activity

# Clinical Relevance

## 4 Categories of Effect

- Psychological
- Microcirculatory
- Structural
- Neurosensory

## 3 Application Techniques

- Neurosensory
- Structural
- Microcirculatory

# Neurosensory Applications

- Stretch the Muscle
- Used for:
  - The modulation in pain to allow for the normalization of proper muscle activation
  - The reversal of chronic pain syndromes
- How?
  - Neural gating mechanisms and Neuroplasticity

# Structural Applications

- Stretch the Tape
- Used For:
  - Preventing full ranges of motion from occurring which may be potentially harmful
  - Enhancing static and dynamic postures

# Microcirculatory Applications

- Stretch both the tape and the muscle
- Used For:
  - for swelling, edema, lymphedema or bruising.

# Key Application Guidelines

- Clean, dry, hair-free skin
- NO stretch to start and end of tape section
- Do not touch adhesive
- Rub tape firmly to activate adhesive
- Do not remove backing of tape until 90% of section has been applied

# THE END RESULT

- Improved clinical skill sets
- Improved clinical outcomes
  - The patient is able to achieve early engagement in pain-free ranges of motion and strengthening exercises.
  - The patient becomes an active participant in the therapeutic process.
  - The patient is able to take the therapy home with them maintaining treatment between treatments.

# Practice Session

- Neurosensory Application
  - Low Back
- Structural Application
  - Postural
- Selected Applications
  - Knee
  - Shoulder
  - Wrist