SpiderTech™ Explained

What is SpiderTech™ and other forms of Kinesiology Tape?

SpiderTech is the first and only company to provide the innovation of a convenient, standardized and easy to use pre-cut and ready to apply application, made of one single piece of Kinesiology tape. The applications have been designed to integrate with the body in a functional manner. Each product has been designed specifically for use on predetermined areas of the body, allowing the therapist to forego the need to design, cut and then apply the tape. However, many of the body region specific applications can be used in different regions of the body as well.

SpiderTech provides the most updated and evidence lead educational system. Much consideration of the various disciplines of science involved in rehabilitative and manual medicine are explored and used to develop the evidence-led educational platform that SpiderTech uses to provide instruction in its application process and explanation of various therapeutic benefits, essentially establishing SpiderTech as the leader in Kinesiology Taping science and application methodology.

What is the tape made of?

All SpiderTech Applications and Tape are made from the industry trusted Nitto Denko Kinesiology tape manufacturer from Japan, with over 30 years of proven clinical results.

Nitto Denko kinesiology taping products are engineered to mimic the thickness, weight and elasticity of human skin. The material is made of a high-grade 100% cotton with a 100% poly-acrylic adhesive. There is no latex in the product therefore making it hypoallergenic. The tape is water-resistant and breathable, and can be worn for approximately 5 days.

The tape is designed to be worn on the skin even during strenuous exercise. The adhesive adheres well to the body and does not leave any residue when removed. The tape has moderate elasticity built into the weave pattern of the cotton fabric, similar to the elasticity found in human skin and muscle, allowing it to work with the patient’s body. This provides support and stability, without adversely affecting healthy ranges of motion.

How does SpiderTech™ work?

SpiderTech Applications and Tape achieve their therapeutic effect by one of three ways: Microcirculatory, Structural and/or Neurosensory.

The Microcirculatory Effects are achieved by using the Lymphatic Spider (small, medium or large) for the treatment of Swelling, Bruising, Oedema and/or Ecchymosis. This is done by improving superficial fluid dynamics and lymphatic drainage.
Structural Effects are achieved when potentially harmful postures or ranges of motion need to be restrained without a hard end feel or when better postural positions need to be supported dynamically. Essentially a point of relative immobility is created when a reduction in strain is desired to injured tissue.

The Neurosensory effect is implemented in almost all applications. SpiderTech applications and tape provide an enhanced sensory stimulation leading to a decrease in the neural perception of pain through sensory gating mechanisms. The stimulation provided by wearing the tape continuously for a number of days helps to normalize the neural drive to muscles that are involved in painful conditions or after injury and therefore may aid in preventing the development of chronic pain.

SpiderTech offers less pain and more activity for more people.

Do the applications come in different sizes?

At present there is only one size for each of the SpiderTech™ Applications. The sizing has been designed to fit approximately 80% of the population. The primary method by which this form of therapy achieves its therapeutic benefit is through neurological mechanisms and therefore exact sizing per say is not necessary.

For portions of the population which are either too large or too small for the pre-cut application we recommend the addition of SpiderTech Tape in the roll format.

What does each design signify?

There are currently 16 different SpiderTech Applications that have been professionally engineered and pre-cut for different areas of the body. They have been designed using a contemporary understanding of functional anatomy in order to best contour the body and provide associated anatomy with the support required to manage the majority of conditions that affect the corresponding body part. Even though there are 16 static designs there are over 40 different ways of applying each SpiderTech™ Application. Here is a list of the current line of pre-cuts:

<table>
<thead>
<tr>
<th>The Neck Spider™</th>
<th>The Upper Knee Spider™</th>
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<tbody>
<tr>
<td>The Shoulder Spider™</td>
<td>The Full Knee Spider™</td>
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<tr>
<td>The Elbow Spider™</td>
<td>The Ankle Spider™</td>
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<tr>
<td>The Wrist Spider™</td>
<td>The Calf and Arch Spider™</td>
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<td>The Posture Spider™</td>
<td>The Hamstring Spider™</td>
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<tr>
<td>The Low Back Spider™</td>
<td>The Groin Spider™</td>
</tr>
<tr>
<td>The Hip Spider™</td>
<td>The Lymphatic Spider™ in 3 different sizes, Small, Medium and Large</td>
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What are SpiderTech Applications & Tape beneficial for?

You can find a general listing of the conditions each Pre-Cut SpiderTech™ Application may be utilized for on products page of the SpiderTech™ website, www.spidertech.com. The enhanced instructions offered during SpiderTech Educational Courses offer attendees the opportunity to learn the how and why for clinical applications along with the various ways to apply the variety of applications for different clinical conditions.

That being said, the common condition that is present in all neuro-musculoskeletal dysfunction is pain and how pain impacts some form of neuro-motor dysfunction. Therefore, as a therapeutic intervention SpiderTech can be used to treat the following conditions:

- Acute and/or Chronic Pain
- Swelling, Oedema and Bruising
- Rehabilitation after Surgery
- Muscle and Joint Injuries
- Poor Posture
- Improving athletic performance

The SpiderTech 3P Protocol was developed to help categorize the intended goals and clinical scenarios for when you would use apply SpiderTech Applications and Tape

**P1** PAIN – for patients experiencing pain, whether they have an acute injury or a chronic condition SpiderTech Applications and Tape can effectively reduce sensations of pain via neural mechanisms.

**P2** PREVENTION – SpiderTech can be used to prevent further damage to an already injured tissue by limiting harmful ranges of motion from occurring and reducing stress on affected muscles and joints.

**P3** PERFORMANCE – SpiderTech Applications and Tape can be worn to enhance athletic performance indirectly as the applications decrease the onset of muscular fatigue and improve biomechanics.

How is SpiderTech™ applied?

**3 TECHNIQUES OF APPLICATION:**

**Technique 1: Microcirculatory Applications: “Stretch the tape AND the muscle”**
- Use any one of the three Lymphatic Spiders, Small, Medium and/or Large.
- Stretch the muscle and tissue as much as possible and use a mild stretch in the tape.
- Follow the pathways of the lymphatic system.
- Place the ‘base’ at the proximal end of the application towards the center of the body.
- Place the projections over the area you intend to manage.

**Technique 2: Structural Applications: “Stretch the tape not the muscle”**

Structural support allows for adaptation of neural pathways by constant ideal proprioceptive feedback once the ideal static and dynamic postures are established.

SpiderTech™ structural applications provide ‘relative immobility’ to allow for protected ranges of motion ensuring the effective rehabilitation of damaged soft tissues.
The desired level of support determines the application:

• Mild support
  Have the patient in neutral position and apply the tape with no stretch

• Moderate support
  Have the patient overcorrect the neutral position and apply the tape with no stretch

• Maximum support
  Have the patient overcorrect the neutral position and apply the tape with the appropriate amount of stretch to achieve the desired position. NEVER STRETCH THE TAPE OVER 75% OF ITS MAXIMUM LENGTH when having a patient overcorrect their posture

Technique 3: Neurosensory Applications: “Stretch the muscle not the tape™”

• Used for 90% of all Applications.
• Provides an enhanced sensory stimulation leading to a decrease in the neural perception of pain.
• Activates sensory gating mechanisms for therapeutic effect.
• Allows for the restoration of normal muscle activation and function.

Can I use SpiderTech™ applications as a stand-alone therapy or does it need to be combined with other forms of therapy to work effectively

The benefit of using SpiderTech™ Applications is the versatility and adaptability of the product. Depending on the condition you are treating and the patient you are dealing with, SpiderTech™ can be used as a stand-alone therapy as well as an adjunct to any form of therapy.

SpiderTech™ Applications provide that continuous mechanoreceptive input that enhances the in-office therapeutic effect to the neuro-musculoskeletal system regardless of the therapist professional designation.

Are there any contraindications to using the tape?

SpiderTech™ Applications are not recommended to be applied directly over broken or severely irritated skin such as with sun burns.

Are there any side-effects?

SpiderTech™ Applications are hypo-allergenic due to their 100% high grade cotton fabric with a poly-acrylic adhesive. However, for a small portion of the population who have an allergy to any form of adhesive there may be some irritation to the skin. Therefore it is ideal to test a strip of tape on the skin to determine if you there may be any allergy to adhesives.

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Can wearing the tape cause further injury due to the effects on reducing pain?

SpiderTech Applications and Tape are effective at reducing pain in chronic conditions where there is dysfunction in the system responsible for the perception of pain thus restoring normal strength and mobility to the affected structures. The applications will not artificially mask the pain from acute injuries where there is actual tissue trauma. In the case of acute injuries the SpiderTech™ applications would be worn in a structural or microcirculatory way to protect the traumatized tissues and accelerate the healing process.

My patient complained that the tape fell off after only a short time of wearing it. Why has this happened?

The 2 most common reasons that applications come off prematurely:
  • The practitioner accidently handles the adhesive when applying the tape.
  • The tape was applied without properly preparing the skin.

The following are a few steps to ensure that the tape maintains its adhesiveness:

Skin Preparation. Along with being dry, the skin needs to be clear of hair, creams and oils. Clipping or shaving the intended area of application may be necessary.

Time after Application. Apply the tape approximately 1 hour before engaging in exercise or bathing.

Applying the Base & Adhesion Points. Apply the base (Section 1), along with the start and end of every other numbered SpiderTech™ application segment (approximately 1 to 2 inches; 2.5 to 5 centimetres) with no stretch on the tape or in the muscle.

Keep Adhesive Clean. Do not touch the adhesive side of the tape while applying. Doing so will decrease the adhesive strength on the skin and may lead to early peeling.

Removing the Backing. When removing the tape from the backing, peel back the paper backing in small amounts at a time and lightly attach the tape to the skin. Continue this process until 90% of the tape is adhered to the skin, at which point you can tear the backing completely off.

Setting the Adhesive. Once the tape is applied for each section, gently rub over the top of the tape to smooth out any creases and to activate the glue. It is very important to remember to rub the tape from the start to the end of each section. Ensure each section is fully applied before moving on to the following section.

What is the best way to remove the tape?

  • The tape should be removed after approximately five (5) days of wear.
  • Remove the tape when it is dry. Removing the tape when it is wet creates “suction” between the adhesive and the skin.
  • Try removing the tape with the muscle and skin maximally stretched.
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- Remove the tape in the direction of the hair growth which is typically away from the center of the body and moving down the arms and legs.
- The tape is best removed by another individual as they can stretch the skin under the tape while removing the application. This decreases the level of sensation that may be felt while the adhesive is peeling off the skin.

How can my customers bill for these applications?

Billing is dependent on your geographical location. In the United States, taping falls under the category of strapping and has either Current Procedural Terminology (CPT) Codes that reimburses for procedures offered or Healthcare Common Procedure Coding System (HCPCS) Codes that are often used for reimbursement for a device and not the time taken for the procedure.

The 2009 HPCPS Codes can be used for SpiderTech™ Applications or SpiderTape™ in order to provide support or stabilization of an extremity. These are NOT time-based codes.

The 2009 CPT Codes can be used for strapping as a replacement procedure during or after the period of follow-up care or when it is the initial service performed without a restorative treatment or procedure(s) to stabilize or protect an injury and/or to afford comfort to a patient.