

## Knee pain or back injury? Kinesiotaping can help you



If you've watched a volleyball game or competitive bicycle race, you've probably seen it: strips of colorful tape splayed in patterns across shoulders, knees, backs, and abs. That's kinesiology tape: a therapeutic tape that's applied strategically to the body to provide support, lessen pain, reduce swelling, and improve performance. Here's what we know about how physical therapist and sports therapist use it, its benefits, tips and what to know.

### How does kinesiology tape work?

Therapeutic taping is applicable to patients of all ages and levels of care, from pediatrics to geriatrics, for conditions including orthopedic, neurological, oncology, acute, and chronic. Kinesiology tape is really stretchy. It's designed to mimic the skin's elasticity so you can use your full range of motion. The tape's medical-grade adhesive is also water-resistant and strong enough to stay on for three to five days, even while you work out or take showers. When the tape is applied to your body, it recoils slightly, gently lifting your skin. It is believed that this helps to create a microscopic space between your skin and the tissues underneath it.

### Creates space in joints

One small study with 32 participants showed that when kinesiology tape was applied over the knee, it increased the space in the knee joint. A similar study showed kinesiology tape also increased the space in the shoulder joint. Even though the increase in space is slight, it helps reduce the chance of joint irritation.

### May change signals on pain pathways

Some physical therapists think the tape changes the information your sensory nervous system is sending about pain and compression in your body. Dr. Megann Schooley, board-certified clinical specialist in sports physical therapy and certified strength and conditioning specialist, explains it this way: "All of your tissues — skin, connective tissue, fascia, muscles — contain sensory receptors that feel pain, temperature, and touch. Those receptors all contribute to proprioception—your brain's sense of where your body is and what it's doing. Kinesiology taping (kinesiotaping) creates a lift that unloads the underlying tissues. Decompressing those tissues can change the signals going to the brain. When the brain receives a different signal, it's going to respond differently," Schooley says.

Trigger points are a good example. Physical therapists have used kinesiology tape to lift the skin over these tense, knotted muscles. When the area is decompressed, pain receptors send a new signal to the brain, and tension in the trigger point decreases. A 2015 study showed that trigger point pain was reduced and flexibility increased for people when kinesiology tape and manual pressure were used together.

## **May improve circulation of blood and fluids**

If you've been injured, kinesiology tape might help improve circulation and reduce swelling in the area where you're hurt. A 2017 study showed that kinesiology taping (kinesiotaping) can improve blood flow in the skin. It may also improve circulation of lymphatic fluids. Lymphatic fluid is mostly water, but it also contains proteins, bacteria, and other chemicals. The lymphatic system is the way your body regulates swelling and fluid buildup.

The theory is that when kinesiology tape is applied, it creates extra subcutaneous space, which changes the pressure gradient in the area underneath your skin. That change in pressure enhances the flow of lymphatic fluid. Changing the flow of lymphatic fluid could help bruises heal faster.

## **What is kinesiology tape used for?**

### **Treating injuries**

Physical therapists sometimes use kinesiology taping (kinesiotaping) as one part of an overall treatment plan for people who've been injured. The American Physical Therapy Association reports that kinesiology taping (kinesiotaping) is most effective when it's used in conjunction with other treatments like manual therapy.

### **Supporting weak zones**

Kinesiology tape is also used to add extra support to muscles or joints that need it. If you have patellofemoral stress syndrome, IT band friction syndrome, or Achilles tendonitis, kinesiology taping (kinesiotaping) might help you. Unlike white medical or athletic tape, kinesiology tape lets you move normally. In fact, some studies show that it can enhance movement and endurance. Studies on athletes have shown that when kinesiology tape is used on fatigued muscles, performance improves.

### **Re-educating muscles**

Kinesiology tape can help re-train muscles that have lost function or that have gotten used to an unhealthy way of working. For example, kinesiology taping (kinesiotaping) can be used to correct posture in your head and neck. And a 2017 study supports using it to help stroke patients improve the way they walk.

### **Enhancing performance**

Some athletes use kinesiology taping (kinesiotaping) to help them achieve peak performance and protect against injury when they're competing in special events.

### **Managing scars**

Although you should never use kinesiology tape on an open wound, there is some scientific evidence to suggest that kinesiology tape can improve the long-term appearance of scars after surgery or injury. This is definitely a treatment you should discuss with a doctor first.

## When not to tape

There are some circumstances in which kinesiology tape should not be used. They include the following.

- **Open wounds.** Using tape over a wound could lead to infection or skin damage.
- **Deep vein thrombosis.** Increasing fluid flow could cause a blood clot to dislodge, which might be fatal.
- **Active cancer.** Increasing blood supply to a cancerous growth could be dangerous.
- **Lymph node removal.** Increasing fluid where a node is missing could cause swelling.
- **Diabetes.** If you have reduced sensation in some areas, you might not notice a reaction to the tape.
- **Allergy.** If your skin is sensitive to adhesives, you could trigger a strong reaction.
- **Fragile skin.** If your skin is prone to tearing, you should avoid placing tape on it.

## The long and short of it

Although the effectiveness of kinesiology taping (kinesiotaping) is not well researched, it may provide support, increase circulation, reduce pain, and improve the way your joints and muscles work. Before using it, you should talk to a physical therapist, because it's most useful when combined with other treatment methods.

#kinesiotaping, #taping, #physical therapist.

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