**Elastic Therapeutic Kinesio-Tape possibilities in patients with scoliosis**

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**INTRODUCING TAPE AS AN EXTRA TREATMENT MODALITY**

Chiropractor dr. Kenzo Kase developed Kinesio tape and the Kinesio Taping Method in 1979. This tape is made of elastic cotton and has hypo-allergenic glue. It has been applied to paper under a certain amount of stretch. Its glue has a wave-like pattern and allows for ventilation and evaporation. It can stay on for a number of days. It stretches along its longitudinal axis only. Tape is now available in a large number of brands and colours. Some Tape Manufacturers provide training in handling tape to health professionals.

Hypothesis as to how this tape works are numerous. In the last few years more research into why the tape works is being addressed and publicized. *Very few articles on scoliosis patients have been published.***

In numerous research articles the positive effects of tape on pain has been documented***. Elastic therapeutic tape (ETT) can be used on clients of all ages. Problems related with pulmonary function, posture, functional strength, balance, stability, proprioception, ROM, hypertonia, hypotonia and organ dysfunction have all been perceived to be influenced by applying ETT in the clinic.

**TAPE CAN BE USED IN A NUMBER OF WAYS IN PATIENTS WITH SCOLIOSIS**

1. to relieve pain
2. to activate underlying muscles
3. to act as a continuous sensory reminder

**TAPE USE IN JUVENILE (JS) & IDIOPATHIC ADOLESCENT SCOLIOSIS (IAS)**

Tape can be used as an adjunct by trained scoliosis therapists to facilitate the treatment given. Taping without sufficient background knowledge is not recommended. The direction of a given manual stimulus can be copied with a small tape. This ‘24-hour sensory reminder’ is used to assist the patient maintain the active 3D posture. Learning effect has been observed.

10 yr. old girl: reminder application SEAS postural self-correction exercise

15 yr. old girl: reminder application SEAS postural self-correction exercise.

**TAPE USE IN ADULT SCOLIOSIS**

43 yr lady: reminder application Schroth breathing exercise.

**TAPE USE IN POSTURAL & PAIN RELATED SCOLIOSIS**

Tape can be used to facilitate better posture, enhance activity of the underlying weak muscles and relieve pain.

72 yr. old lady: postural collapse, pain and weak pelvic floor muscles. Application activates transverse abdominis and pelvic floor muscles.

78 yr. old lady: kyphoscoliosis pain after fall, contusion left floating ribs. Application to relief pain, support ribs and assist posture.

**TAPE USE IN SCOLIOSIS IN NEUROMUSCULAR DISORDERS**

Tape can be very helpful for treating children and adults with pain, muscle spasm and pulmonary and/or other organ related disorders. Tape can also be considered as a treatment option when the brace cannot be worn.

Left: 12 yr. old girl neurodevelopmental and cognitive delay during weeks without brace. Application activating trunk muscles GMFCS level V.

Right: 11 yr. old, scoliosis and serious pulmonary distress GMFCS level V. Application diaphragm to assist breathing, 0 intake and Quality of Life.

**KEY MESSAGES:**

* ETT applications have been perceived to relieve pain.
* ETT can influence organ dysfunction.
* In children with JS & AIS, ETT applications should only be applied by professionals trained in one of the 3 scoliosis treatment methods.
* The 24 hour ‘reminder’ application should be used with great care. If not done properly it can also do harm.
* Correction technique applied to the humeral-scapular joint can cause a spinal postural shift.
* Question: could tape applications replace garments?

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*Motion Tracking on Elbow Tissue from Ultrasonic Image Sequence for Patients with Lateral Epicondylitis (Ultrasonic Imaging: shows muscle change directly under the skin).

*Study: T. Thedon, K. Mandrick, M. Foissac, D. Mottet, S. Perrey (2011)

**T. Thedon, Jacqueline A. Oldham. (2012)**


**References:**

ETT applications replace garments.

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