

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
مَنْ كَانَ يَوْمَئِذٍ
مُؤْمِنًا
مُتَّقًا
فَلْيَرْجُ الْوَجْدَ
الْحَقَّ
وَالْجَنَّةَ
الْحَقَّ
وَالْجَنَّةَ
الْحَقَّ
وَالْجَنَّةَ
الْحَقَّ



Kinesiotaping

By
Sallam Ali S. Sallam, PT, M.Sc., PhD, CST
Lecturer of physical therapy,
South Valley University





K-Taping

The term (taping) invariably raises the question of what is different about **K-Taping** compared to the well-known **classic taping** with non-elastic material.

Apart from a few **application techniques**, there is no comparison.

Generally speaking, classic tape is used to stabilize or immobilize joints.

The application techniques using **elastic stretch K-Taping** cannot be carried out with **classic tape**.

A tool that can be combined with other modalities:

- Cryotherapy
- Hydrotherapy
- Manual Therapy
- Acupuncture
- Electric Muscular Stimulation (EMS)
- Immediate and long term effects





K-Taping

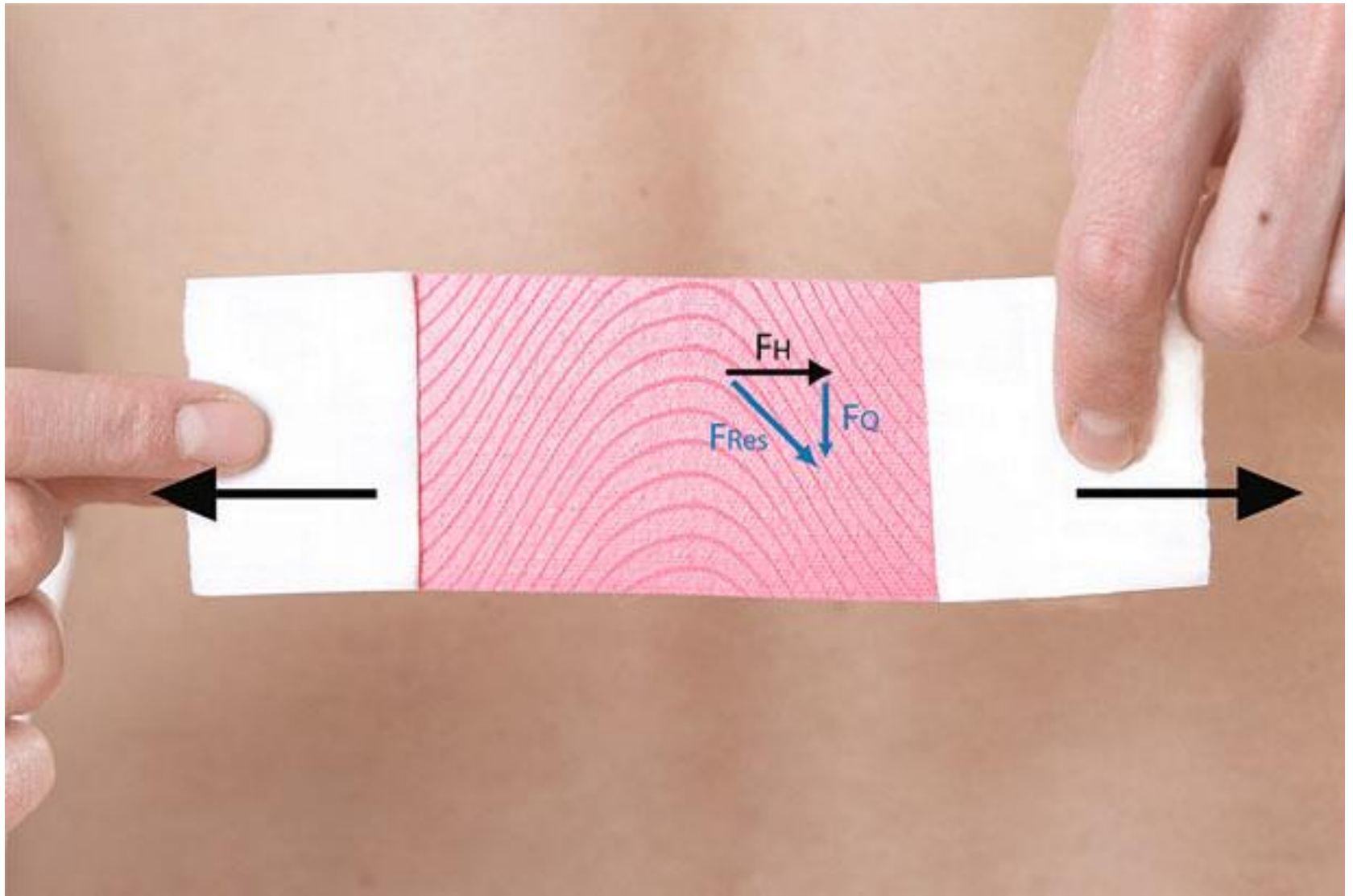
History of Kinesio Taping

- Kenzo Kase, D.C. invented this taping method in 1973.
- Dr. Kase wanted his patients to utilize a “prescription” that they could take home and use between visits.
- Began experimenting with already existing tapes.



Wide variable Taping techniques

- ❖ Kinesiology Taping
 - Kinesio Taping: Kenso Kase
 - SpiderTech Pre-Cuts/NeuroStructural Taping: Kevin Jardine
 - Rock Tape (Movement Taping): Greg van den Dries, Steve Capobianco
- ❖ Strapping Methods
 - McConnell
 - Mulligan
 - Specific Proprioceptive Response Taping (SPRT): Tim Brown
 - Functional Movement Taping: Cook





Basic Tape Terminology

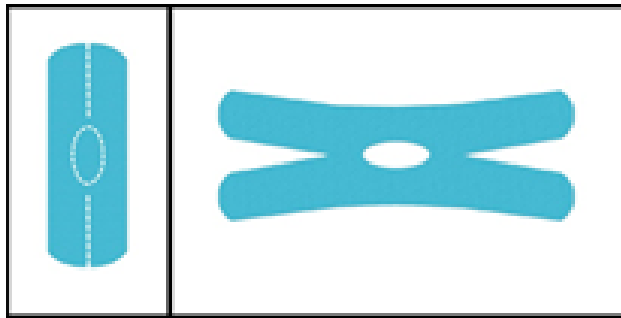
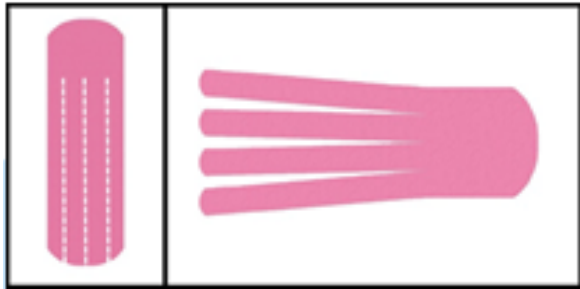
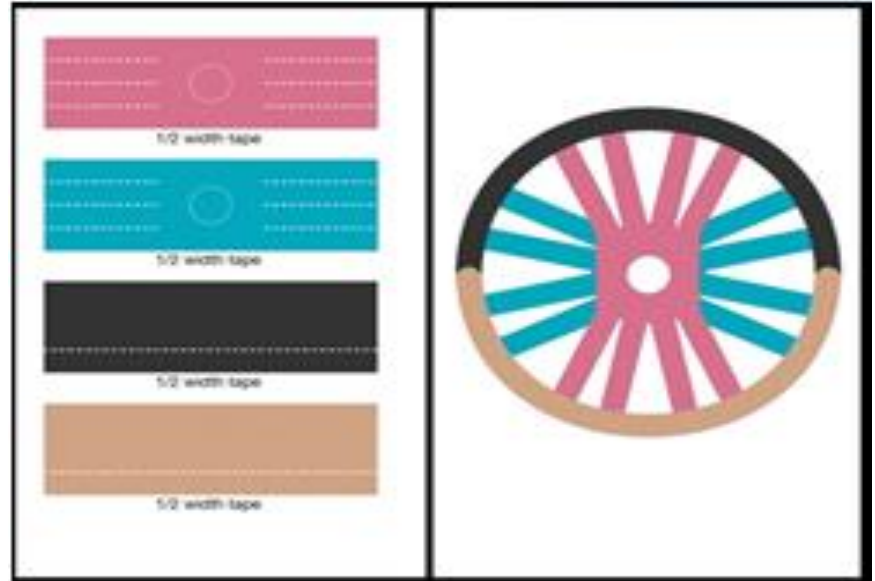
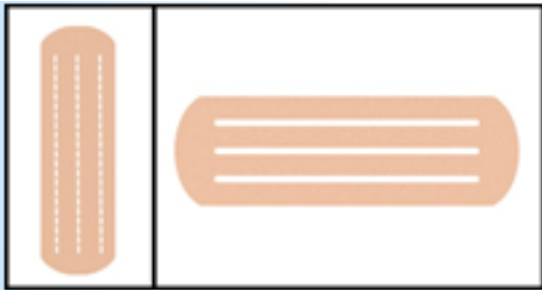
Anchor: The beginning for all Taping applications that is always applied with 0% tension

End: The last part for all Taping Applications that is always 0% tension

Therapeutic Zone: The portion of the Tape applied between the anchor and end at various tensions

Tension: Amount of force applied to the Tape in any given application

Therapeutic Direction: The recoil of the Tape towards the anchor



shapes: Web, Fan, I, X, Y, donut, Jellyfish

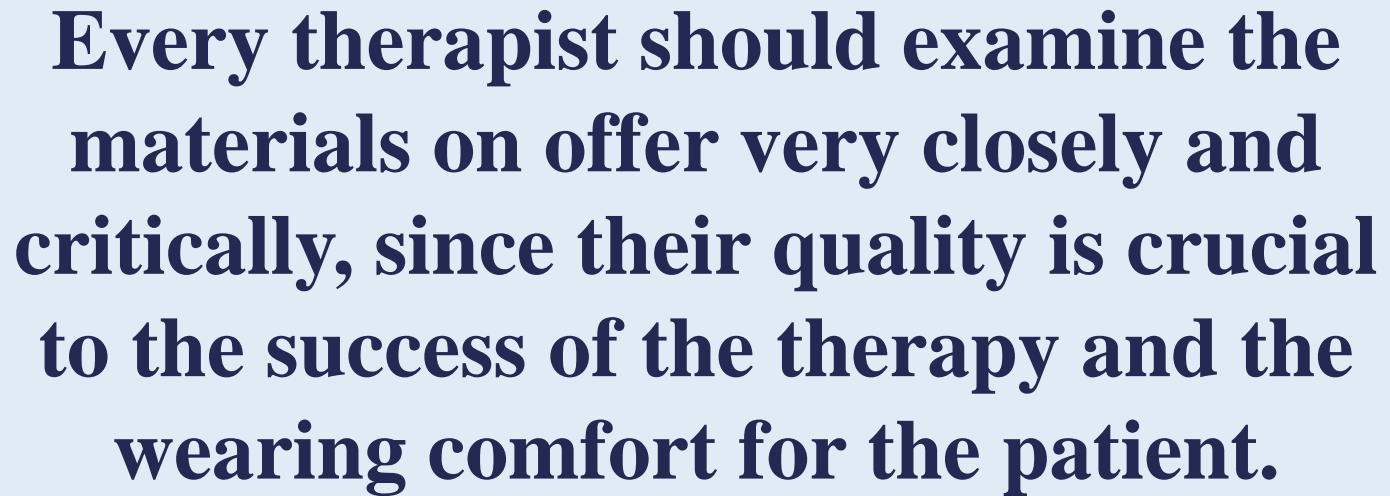




The water-resistant and breathing properties of the K-Tape allow long wearability and a high level of comfort.

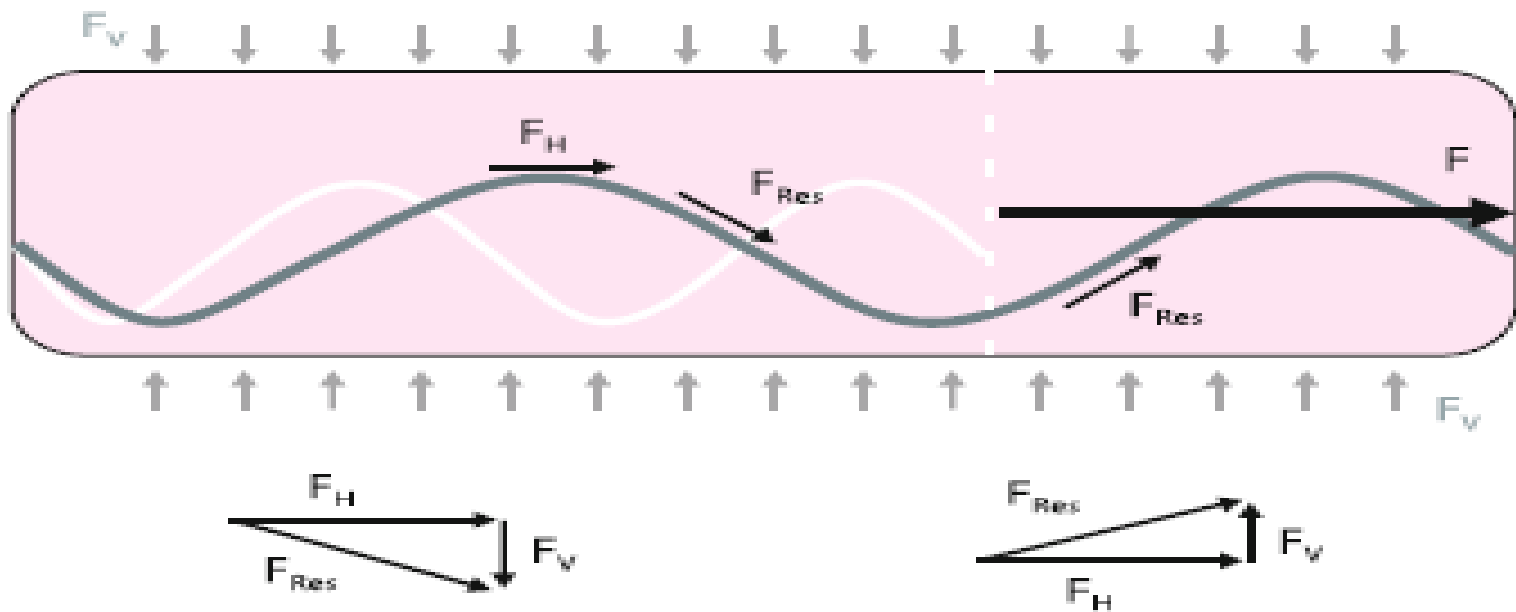


K-Tape Scissors

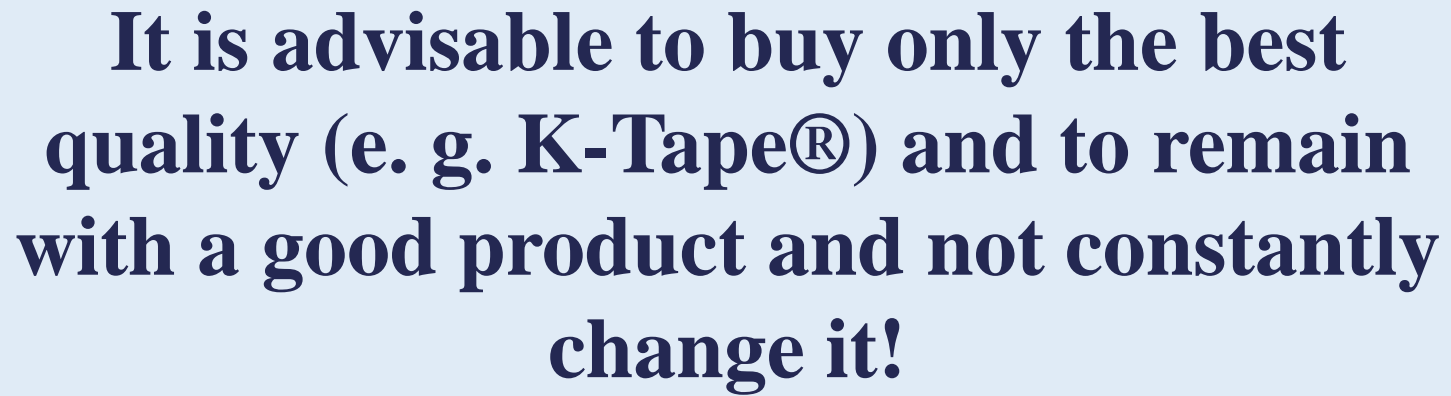


Every therapist should examine the materials on offer very closely and critically, since their quality is crucial to the success of the therapy and the wearing comfort for the patient.

The restoring force from the longitudinal stretching in combination with the transverse force facilitates lifting of the skin or tissue. This is one of the principal effects of K-Taping therapy.



**K-Taping therapy does not require
pharmaceutically active ingredients!
Precisely this medicament-free therapy is
a fundamental advantage of K-Taping.**



It is advisable to buy only the best quality (e. g. K-Tape®) and to remain with a good product and not constantly change it!

Taping is seen to work in 3 ways.

1. Reducing load on the symptomatic tissues.
2. Improve structure, function and stability around joints.
3. Increase local sensory stimulation.

Effects of K- taping???

Effects of Kinesio Taping versus McConnell Taping for Patellofemoral Pain Syndrome: A Systematic Review and Meta-Analysis

Wen-Dien Chang,¹ Fu-Chen Chen,² Chia-Lun Lee,³ Hung-Yu Lin,⁴ and Ping-Tung Lai⁵

¹Department of Sports Medicine, China Medical University, No. 91, Hsueh-Shih Road, Taichung City 404402, Taiwan

²Department of Recreational Sport and Health Promotion, National Pingtung University of Science and Technology, No. 1, Shuefu Road, Neipu, Pingtung 91201, Taiwan

³Division of Physical and Health Education, Center for General Education, National Sun Yat-sen University, No. 70 Lienhai Road, Kaohsiung 80424, Taiwan

⁴Department of Occupational Therapy, I-Shou University, No. 8, Yida Road, Jiaosu Village, Yanchao District, Kaohsiung 82445, Taiwan

⁵Department of Physical Therapy and Rehabilitation, Rehabilitation Assistive Device Center, Da-Chien General Hospital, No. 6, Shin Guang Street, Miaoli City 36049, Taiwan

Correspondence should be addressed to Ping-Tung Lai; drlait@gmail.com

Received 2 May 2015; Accepted 2 June 2015

Academic Editor: Gül Baltacı

Copyright © 2015 Wen-Dien Chang et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Objectives. To conduct a systematic review comparing the effects of Kinesio taping with McConnell taping as a method of conservative management of patients with patellofemoral pain syndrome (PFPS). **Methods.** MEDLINE, PUBMED, EMBASE, AMED, and the Cochrane Central Register of Control Trials electronic databases were searched through July 2014. Controlled studies evaluating the effects of Kinesio or McConnell taping in PFPS patients were retrieved. **Results.** Ninety-one articles were selected from the articles that were retrieved from the databases, and 11 articles were included in the analysis. The methods, evaluations, and results of the articles were collected, and the outcomes of patellar tapings were analyzed. Kinesio taping can reduce pain and increase the muscular flexibility of PFPS patients, and McConnell taping also had effect in pain relief and patellar alignment. Meta-analysis showed small effect in pain reduction and motor function improvement and moderate effect in muscle activity change among PFPS patients using Kinesio taping. **Conclusions.** Kinesio taping technique used for muscles can relieve pain but cannot change patellar alignment, unlike McConnell taping. Both patellar tapings are used differently for PFPS patients and substantially improve muscle activity, motor function, and quality of life.

Contraindications to taping

So far, there are no known side-effects of K-Taping. However, K-Taping applications should not be used with the following contraindications:

- 1) open wounds
- 2) scars which have not yet healed
- 3) Fragile skin e.g. episodes of neurodermatitis or psoriasis
- 4) sacral connective tissue massage zone (genital zone) in the first trimester of pregnancy
- 5) known allergies to acrylic

Prior to all applications, the therapist should first ask whether the patient is taking **anticoagulants**. Small hemorrhages may occur in the skin as a reaction to the lifting effect of the K-Taping application.



Application and removal of the tape

During its manufacture, the K-Tape is applied with a slight stretch of 10% to the backing paper. This stretch should be retained during the application of the tape strips.

Despite this pre-stretching, the application is referred to as unstretched.

Depending on the type of application, the tape is affixed unstretched or with different degrees of pre-stretching.

Before the tape is affixed and the backing paper removed, the tape strips are cut accordingly. The strips may be cut as I-, Y-, or X-tapes, or, in lymphatic therapy, fan-shaped and in narrow single strips.

The skin must be dry and oil-free, optimally Pre-K Gel should also be applied.

Likewise, any thick covering of hair should be removed beforehand.

To activate the heat-dependent adhesive properties of the K-Taping, the therapist should rub the flat of his/her hand several times over the completed tape application.

The respective body areas are still in the pre-stretched position.



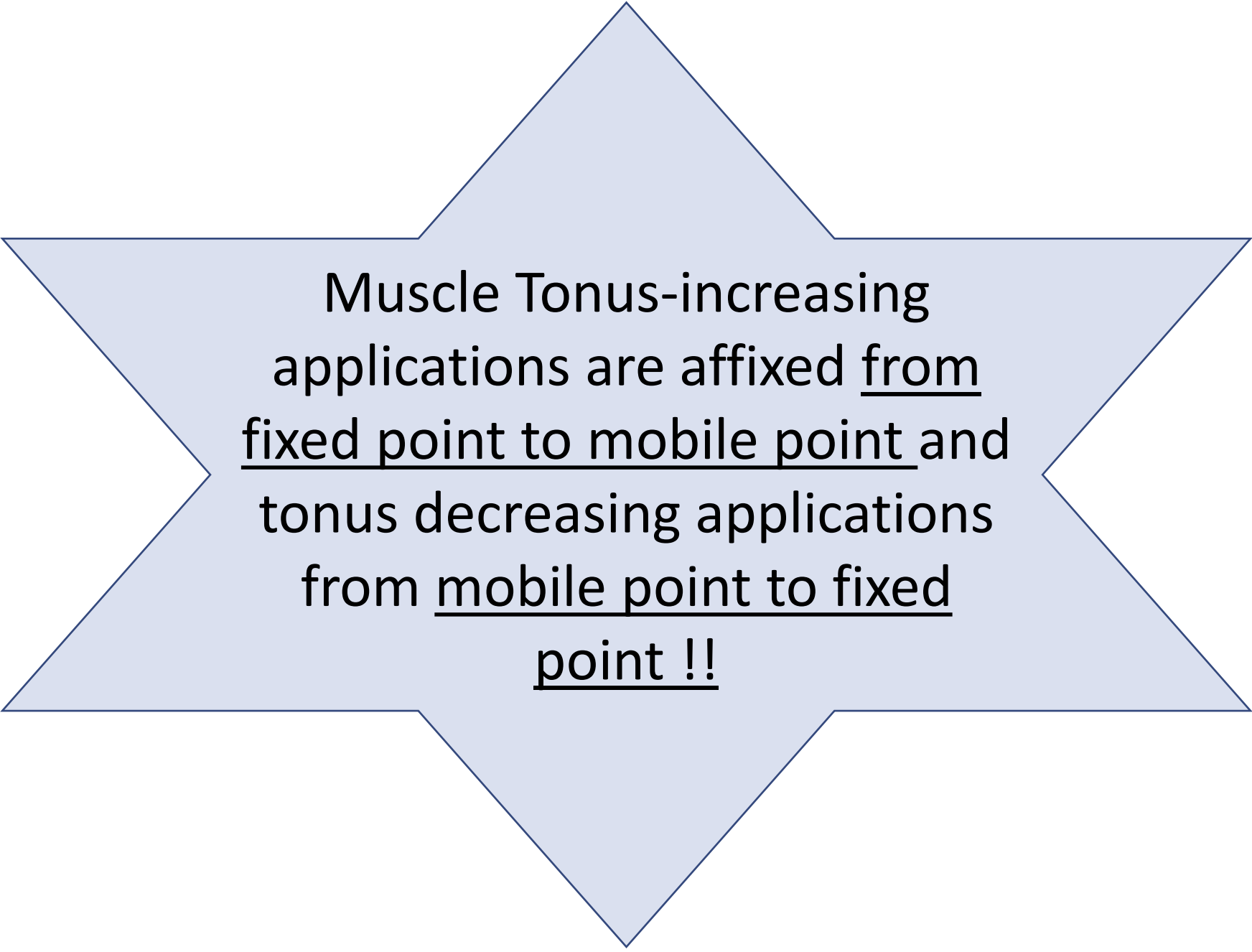
Color theory

- The original K- Tape is used in the four colors: **cyan**, **magenta**, **beige**, and black.
- There is no difference in the structure and properties of the tapes. They have identical stretching capacities. The colors have been chosen to support the treatment based on color theory.
- It should be mentioned at this point, however, that first and foremost the application technique is the critical factor and that color has been adopted as an additional positive aspect.
- The **color red is regarded as activating and stimulating**, whereas **the color blue is calming**. Black and **beige** are classed as neutral.



Muscle applications

Muscle applications are affixed with 10% tape tension. Because the tape is already pre-stretched by 10% on the roll, this is referred to as an unstretched application. The patient is placed in a pre-stretched position and the tape is applied with the 10% pre-stretching to the part of the body to be treated. Depending on the type of application, K-Taping can effect increased or decreased tonus.



Muscle Tonus-increasing
applications are affixed from
fixed point to mobile point and
tonus decreasing applications
from mobile point to fixed
point !!

D to P (I to O)

Distal → Proximal

**To inhibit overused muscle- Acute conditions,
muscle spasm**

15% to 25% tension

P to D (O to I)

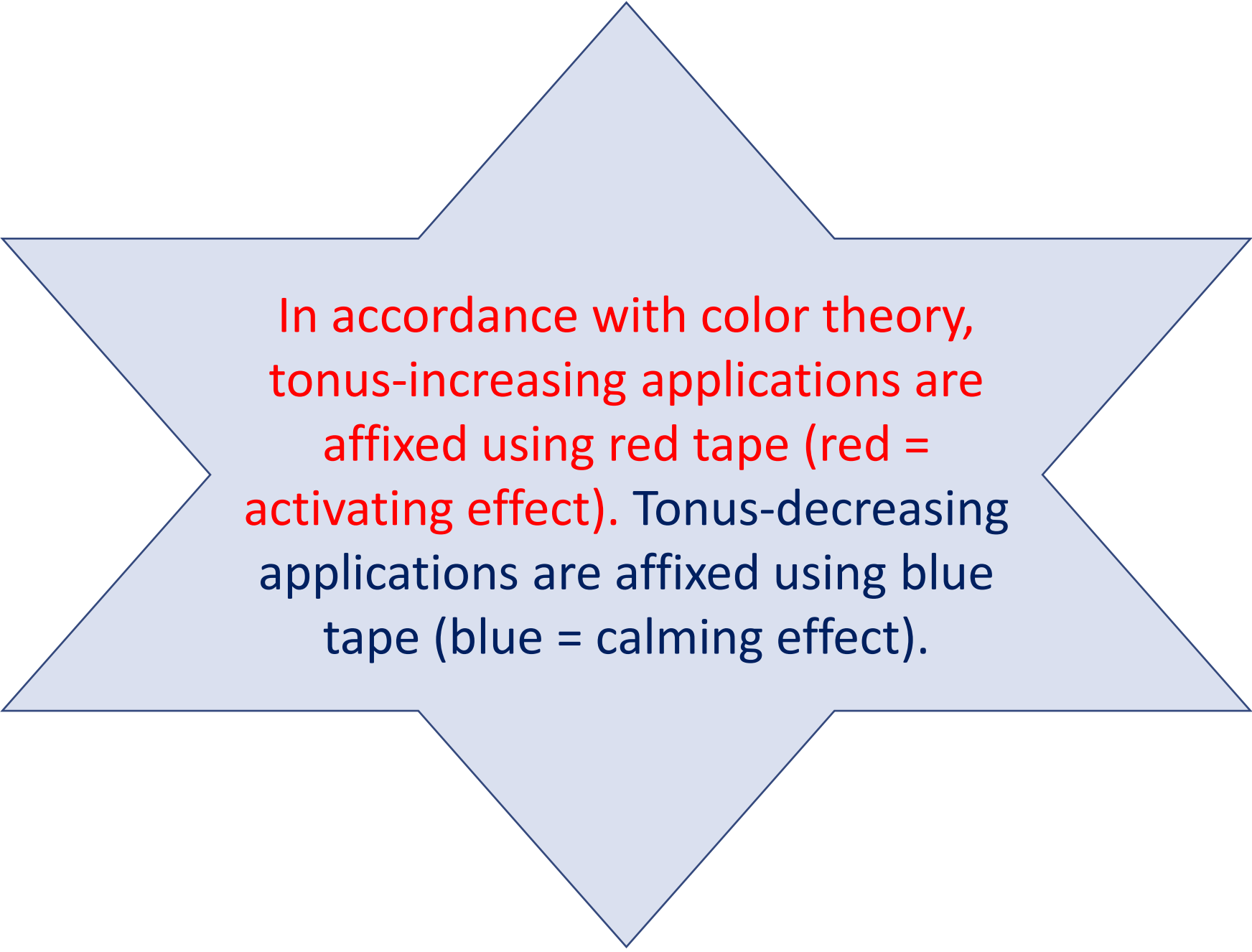
Proximal → Distal

**To facilitate weak muscle-chronic conditions,
rehabilitation**

15% to 35% tension

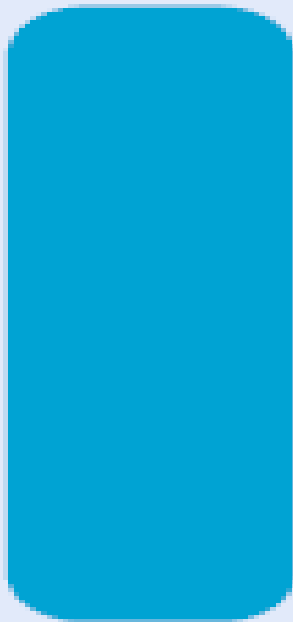
**Therapeutic Direction is the recoil of the tape
toward the anchor**

Therapeutic Zone is the targeted tissue

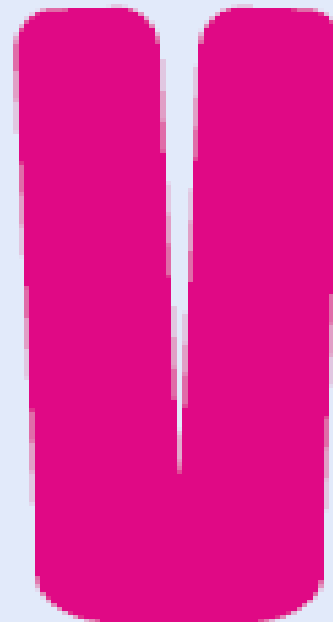


In accordance with color theory, tonus-increasing applications are affixed using red tape (red = activating effect). Tonus-decreasing applications are affixed using blue tape (blue = calming effect).

- The muscle application is affixed with 10% tape stretch.
- The patient is placed with the muscle in the elongated position.
- I- and Y-tapes are predominantly used.



▣ **Fig. 2.2.**
blue I-Tape



▣ **Fig. 2.3.**
Red Y-tape





Ligament applications

Ligament applications are affixed with maximum tape stretch. As with the muscle applications, the tape ends are applied unstretched for an improved period of wear.

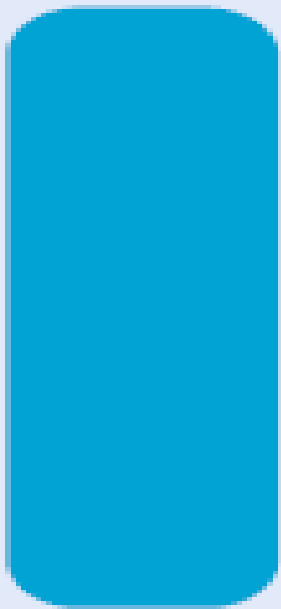
For ligament applications, the respective joint is positioned so that it is in a state of tension. For tendon applications, the muscles are maximally elongated, and for the treatment of pain points, the patient is placed in the elongated muscle position.

Two application techniques are used, depending upon whether tendons, ligaments, or pain points are to be treated

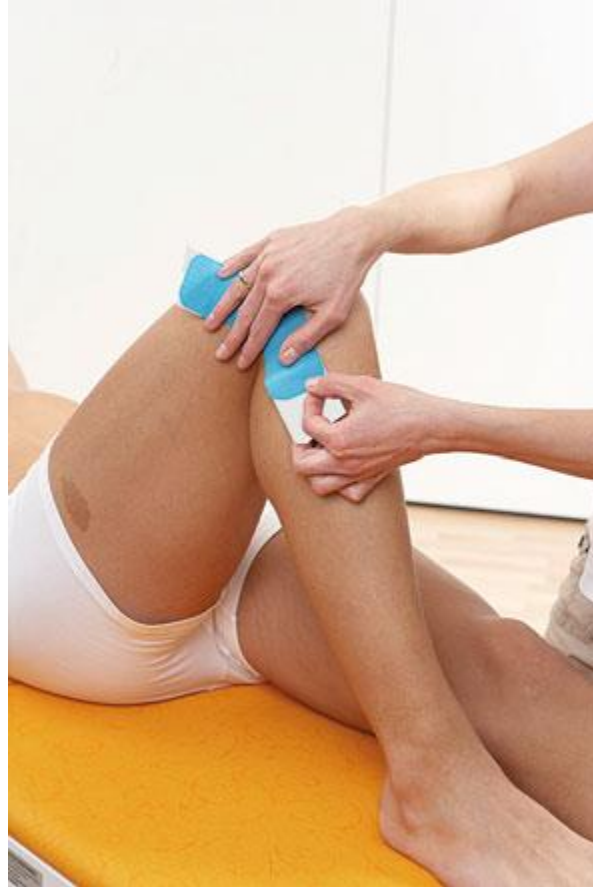
It should be noted that the joint must be placed in a position to achieve maximum skin stretching beforehand in order to ensure that there is no force effect on the tape ends during movement.

In this way, the respective bases remain tension-free during maximum movement.

- The tape application for ligaments (ligament application) is affixed **en bloc with maximum stretch**.
- The joint is positioned so that the ligaments are under tension.
- Exclusively I-tapes are used.



■ **Fig. 2.5.**
Blue I-tape



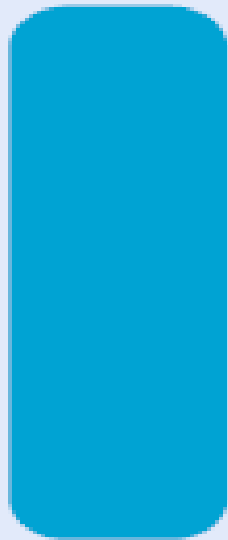
- **The ligament application for tendons is affixed with maximum tension from insertion to muscle-tendon junction.**
- **The patient is in the elongated muscle position.**
- **Exclusively I-tapes are used.**



■ **Fig. 2.7.**
Red I-tape

**Afferents from the skin and subcutis can supplement the deep sensibility (proprioception) and attenuate the pain impulses (nociceptive afferents).
K-Taping therapy uses these properties to influence bodily movement via skin stimulation.**

- Space tape is a space-creating application for pain points and trigger points.
- The application is carried out **with maximum tension**.
- The body is in the elongated muscle position.
- Exclusively I-tapes are used.



▣ **Fig. 2.9.**
Blue I-tape



Space tape provides **selective lifting** of the skin and thus brings about a loosening of adhesions in the layers of tissue. Patients describe the result of this star-shaped application as a kind of **suction effect** with clearly noticeable lifting of the adhered structure. As the name already suggests, the space tape provides more space for the damaged structure and leads to **pain reduction**. Space tapes can also be used for mobilizing connective tissue.



Corrective applications

Corrective applications are divided into functional correction and fascia correction.

1. Functional correction is used for osseous misalignments, e.g. patella misalignment, and brings about a position shift of the osseous structure.
2. Fascia corrections are used for adhesions in muscle fibers and bring about a loosening of the fascia as well as pain reduction.



- Anchor the base and skin displacement firmly.
- The application is carried out **with maximum tape tension.**
- The correction via the tape strips runs towards the base.
- Y-tapes are **predominantly used for functional correction, but I-tapes are also possible.**



■ **Fig. 2.11.**
Red Y-tape

Mode of action of corrective functional applications

In functional corrective applications, two modes of action work together.

- there is a gentle mechanical correction stimulated by skin displacement,
- there is the effect of receptor excitation on interactions in the affected muscle-tendon apparatus.



Executing the corrective fascia application

- The patient is in the resting position.
- The **rhythmic pulling technique** is possible up to maximum stretch, but the limits of the structure must always be considered
- The base is not fixed.
- The correction runs in the direction of tension of the tape strips.
- Y-tape is used for the corrective fascia application.
- Functional correction is also possible using I-tape.



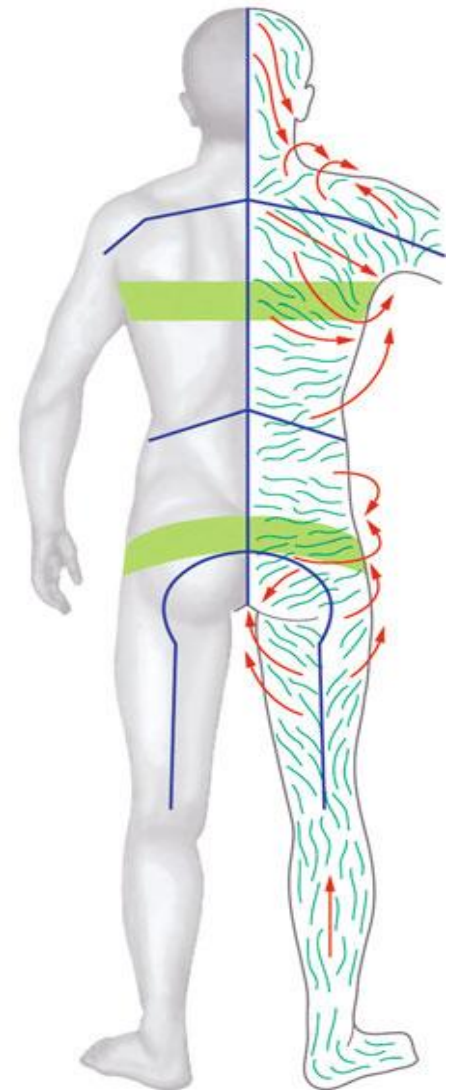
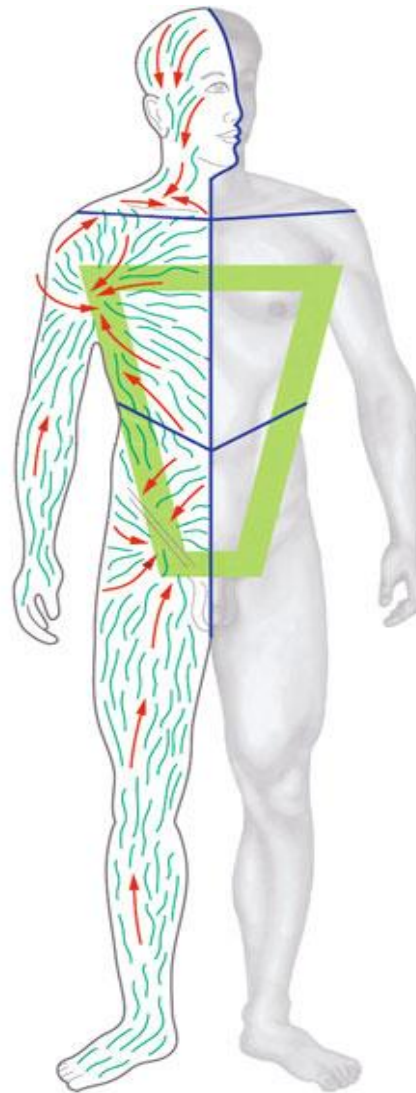
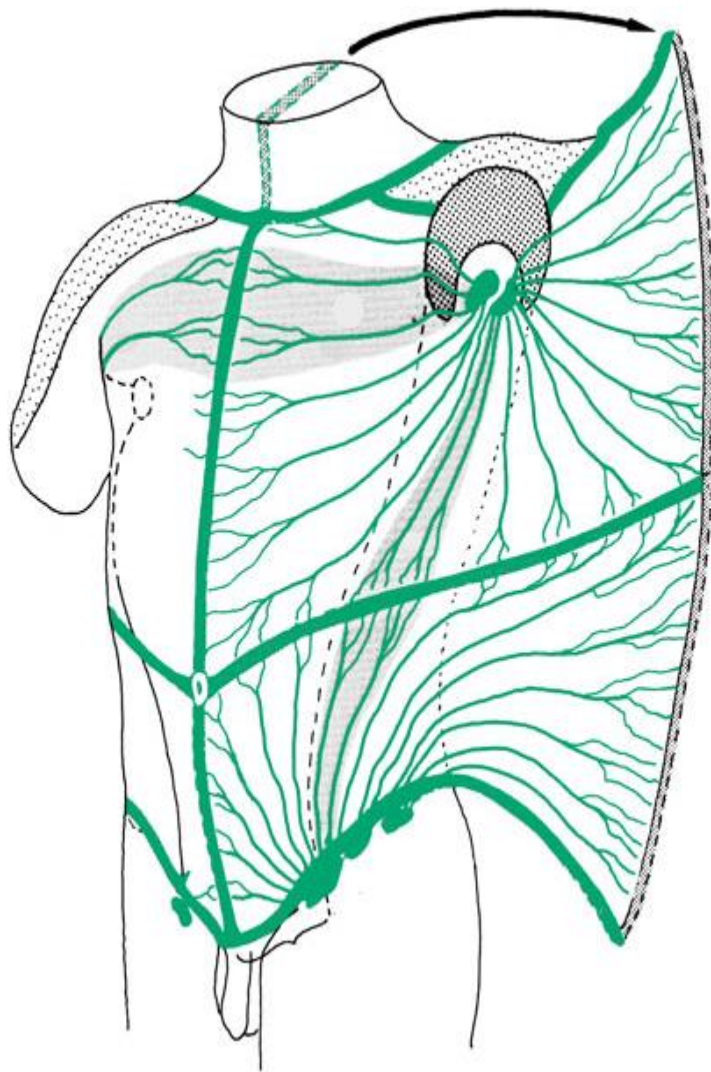
■ **Fig. 2.13.**
Red Y-tape

Mode of action of corrective fascia applications

The fascia is mechanically shifted through the forward displacement of the base. To determine the base position, the direction in which the fascia is freely displaceable is first manually determined. Though bodily movement, the fascia application causes the muscle fibers to work continuously against the fascia. This results in a gradual loosening and separating of the adhesions.



Lymphatic applications



a Superficial lymphatic vascular system with therapy relevant Watersheds
b: diagram of trunk wall with the watersheds and direction of drainage of the lymph;

- With lymphatic applications, a fundamental differentiation is made between
- **Intact lymph node chain**

With intact lymph node chains, tapes are applied in most cases with a common base from which four narrow longitudinal strips are cut, radiating out from the base. The common base creates a **low compression zone** which provides the lymph with a clearly defined drainage channel.

- **Defective lymph node chain (removal of lymph nodes).**

This technique is also used with defective lymph node chains; in this case, however, **individual tapes** cut into narrow strips are more frequently used. In the region of the extremities, these long, narrow strips are applied radially in the zone to be drained, thus leading to extensive drainage, with the advantage of **tissue connection** for preventing **fibrosis formation**.



Mode of action of lymphatic applications

Primary effects of continuous lymphatic drainage

- creating space by lifting the skin
- loosening the connective tissue through bodily movements against the tape
- channeling function of the tape
- Tissue connection

lymphatic applications

- The lymphatic application is affixed with 25% tension in the tape.
- The patient is in the pre-stretched position.
- Exclusively fan tapes are used.

سبحانك اللهم وبحمدك
أشهد أن لا إله إلا أنت
استغفرک واتوب إليك

THANK

You