

Medical Taping Concept Bulletin

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http://www.aneid.com/mtc_courses.asp

The objective of the Medical Taping Concept Bulletin is to provide health care professionals with clinical examples on the use of the Medical Taping Concept in clinical care.

Medical Taping Concept: A Revolutionary Technique*

The basis for the Medical Taping Concept (Neuromuscular Taping Concept) was laid in Japan and Korea in the seventies. At the time, methods of taping were being developed based on the idea that movement and muscle activity are essential in maintaining and in recovering health.

A central concept is that muscles are not only responsible for moving the different body parts but the muscles also control blood and lymph circulation, as well as body temperature. Improper muscle function can cause a range of symptoms and complaints.

Pursuing this idea several kinds of elastic tape were developed which could support the muscles in their functions without restricting their movement. By treating the "affected" muscles in this way, the body's own healing process would be activated.

During the development of this method, it soon became apparent that the possible applications were more versatile than for only treating muscle injuries.

One brand of neuromuscular tape that has proven to be useful in this MTC technique is Cure Tape.



* Also known as Neuromuscular Taping Concept



Cure Tape has a similar elasticity and thickness to human skin. The elasticity of the tape in relation to the elasticity of the skin is used to create a lifting effect on the epidermis. Thus, more space is created in the area of the subcutis, where various receptors, blood, and lymph vessels are located. By using different taping techniques several effects can be achieved.

EFFECTS AND INDICATIONS

The range of applications using the Medical Taping Concept are very wide:

- Follow-up treatment of injuries
- Reducing inflammations or accumulations of fluid (oedema and haematoma)
- Corrections of posture
- Treatment of symptoms caused by overuse (such as RSI or tennis and golf elbow).
- Neuro-reflexive manipulation (e.g. when suffering from a migraine, this is one of the treatment possibilities, as is prophylactic taping.)

The Medical Taping Concept is fundamentally different from conventional taping methods, as it stresses "mobility" and not "immobilization".

The possible effects can be listed as follows:

- **Improve muscle function by regulating muscle tone**
- **Remove congestion in blood circulation and lymphatic drainage**
- **Alleviate pain**

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- Support the joints by:

- Stimulating proprioception
- Correcting the direction of movement
- Increasing stability
- Neuro-reflexive manipulation

INDICATIONS FOR MEDICAL TAPING

- Stimulate hypotonic muscles
- Influence hypertonic muscles
- Protect muscles against overexertion
- Protect joints
- Neuro-reflexive manipulation

SCIENTIFIC BIBLIOGRAPHY

As with any innovative method, Neuromuscular Taping, Kinesio Taping or Medical Taping Concept requires a body of clinical cases to provide greater credibility as a new technique. As previously stated, the initial clinical work in Neuromuscular Taping was conducted under the then existing tape - Kinesio Tape during the 1980's in Japan, Korea and Taiwan. From 1998 to 2009, "western" based clinical trials have been conducted to supplement the work conducted in Japan, Korea and China.

The following list of studies provides guidance on clinical work completed to date:

1. Fu TC, Wong AM, Pei YC, Wu KP, Chou SW, Lin YC. Effect of Kinesio Taping on Muscle Strength in Athetes-A Pilot Study. *J Sci Med Sport.* 2008 Apr;11(2):198-201.
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6. Thelen MD, Dauber JA, Stoneman PD. The Clinical Efficacy of Kinesio Tape for Shoulder Pain: A Randomized Double-Blinded Clinical Trial. *J Orthop Sports Phys Ther.* 2008 Jul;38(7):389-95.
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8. Yasukawa A, Patel P, Sisung C. Pilot-study: Investigating the Effects of Kinesio Taping in

an Acute Pediatric Rehabilitation Setting. *Am J Occup Ther.* 2006 Jan-Feb;60(1):104-10.

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The purpose of the Bulletin is to provide clinical examples of the neuromuscular taping techniques which with time and effort may evolve into published articles that will expand the "body of knowledge" to support the use of the technique.

HISTORY OF USE IN EUROPE

In 1998, Neuromuscular Taping techniques were launched in Northern Europe and in Southern Europe by the Dutch firm Fysiotape NL and the Portuguese firm Aneid Produtos Farmacêuticos, Lda respectively.

The first Neuromuscular Taping seminar for physiotherapists in Europe was conducted in Portugal by Dr. Kenzo Kase in 1998 and was jointly sponsored by Aneid Lda and Fysiotape NL.

In the United Kingdom, Aneid UK Ltd will introduce the Medical Taping Concept with the launch of CureTape.

DROOLING—POSSIBLE NEW TREATMENT METHOD TO HELP REDUCE EXCESSIVE DROOLING

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Introduction:

The aim of this case study was to monitor the effects of 4 weeks of elastic tape application on a 4 year old patient with Rett Syndrome suffering from excessive drooling. Our main therapy goal was to reduce the amount and the frequency of her drooling.

Excessive drooling affects many people's lives. Many physiotherapists and occupational therapists working with both adults and children have come across this problem. In many countries special teams, including speech therapists, are in charge of addressing this problem.

Treatment possibilities vary according to country and culture, but are also dependant on the financial possibilities.



Drooling has been investigated thoroughly by many professionals.

Protocols, assessment measures and observational rating scales have been constructed and many therapeutic measures have been taken. In the management of drooling the different treatment options are:

- training the eating and drinking skills
- oral-facial stimulation (icing, brushing, vibration, manipulations, oral-motor/sensory exercises)
- behavioural management
- medication of oro-pharyngeal secretion
- surgical management

Drooling is considered normal in infancy up until the age of 18 months when the oral motor muscles mature. Drooling beyond this age is not normal and is often associated with neurological problems such as cerebral palsy or mental retardation.¹ Insufficient control of the coordinate mechanism of oro-facial, palate-lingual, and head and neck muscles results in excessive pooling of saliva in the anterior part of the oral cavity and unintentional saliva loss.²

Dysfunctional oral motor control seems to be responsible for saliva overflow in the mouth.³ The orbicularis oris is the major muscle responsible for lip closure. We do, however, use other muscles to swallow.

Swallowing is a complex mechanism using both the skeletal muscle (tongue) and the smooth muscles of the pharynx and oesophagus. The Autonomic Nervous System (ANS) coordinates this process in the pharyngeal and oesophageal phases.

The cutaneous innervation of the suprahyoid region of the neck is part of the cervical plexus. Please refer to Figure 1 below.

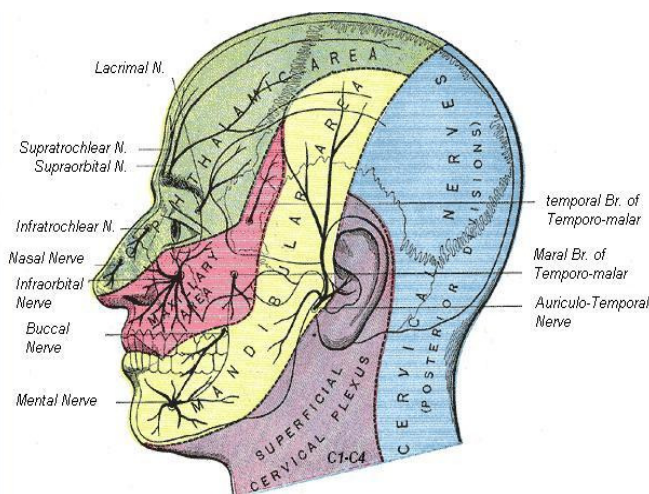


Figure 1

**Dermatome C1-4 superficial cervical plexus⁴*

According to Collins et al, an emerging view is that cutaneous feedback provides accurate perceptual information about joint position and movement and this is integrated with feedback from muscle spindles to provide judgements of position and movement for joints throughout the body.⁵

With this in mind, the hypothesis of this study is that tape applied under the chin could possibly enhance the swallowing motion, thereby reducing excessive drooling.

With the introduction of elastic tape application, we possibly have a new and very cost effective method of helping both children and adults who suffer from excessive drooling. To the author's knowledge, the first paper to present the positive effects of taping on drooling was presented by Trish Martin and Audrey Yasukawa at the 18th Annual Kinesio Taping Symposium (2003) in Japan. The article looked into the use of tape to improve oral motor control.

Method:

After making sure that the young patient was not allergic to the tape, the tape was applied to the child's chin. After having tried four different applications on the chin of three other young patients, and finding no differences in results, it was decided to use the application which was the easiest to apply. Please refer to Figure 2 and Figure 3.

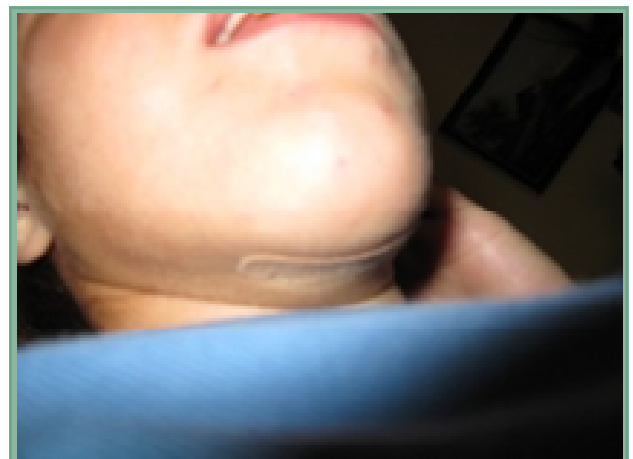


Figure 2

**Example of tape application*

The parents received three questionnaires referring to drooling frequency. The first to be answered before the taping started, the second to be answered after 4 weeks of daily taping and the third to be answered after 3 months.

It was agreed that the parents would decide what to do in the second and third month; either tape daily, tape frequently or not tape at all. The parents were instructed to test the tape placement under the chin and only then

Removing the tape can be slightly problematic. It was therefore speculated that by taping themselves, the parents would not only get an impression of what the tape feels like, but also of what removing it feels like. This would then result in careful tape removal.

The parents received a tape application sheet and were instructed to apply the tape in the morning and remove it every night. By removing the tape at night, we speculate that the skin can recuperate and applications over a longer period of time can be made possible.

Results:

The intervention was successful and was considered to be very useful by the girl's parents and by both speech therapists involved in treating her. The therapists were surprised by the fact that they no longer needed to use paper tissues during the therapy sessions.

By comparing the first and second questionnaire it became clear that the drooling frequency had decreased from constant drooling to frequent drooling. The drooling severity recorded as being severe in the first questionnaire had not changed in this period. Her parents recorded that her clothes needed to be changed twice before taping. After the 4 weeks of taping this was no longer necessary as her clothes remained dry. Her bibs had to be changed 5 times before, this was reduced to 3 times after the 4 week tape application period.

Conclusion:

The findings of this single-patient case study and the findings of several other cases look very promising. Applying elastic tape under the chin seems to be an innovative and cost effective method to help decrease excessive drooling. A modest study is on its way.

We hope to establish if this tape application has the same positive effects on a larger number of adults and children. We also hope to be able to say something about the possible long-term effects.



Figure 3

**Example of tape application in C4 region*

* The tape used in this study was Cure Tape.



MEDICAL TAPING CONCEPT HANDBOOK

BY HARRY PIJNAPPEL

This book was written for physiotherapists, doctors, traumatologists and sports trainers.

Due to the use of many medical terms, knowledge of anatomy and medical terminology are basic requirements for understanding the material presented in the book. The author's aim is to provide material in such a clear and concise manner that this book can be used as a textbook and as a reference book or index.

This book provides a clear overview of the different possibilities of the Medical Taping Concept. The first chapter focuses on describing the CureTape's effects on physical pain. These are clearly described and supported based on medical theory and literature. This approach facilitates handling of the tape. The second chapter presents the practical aspects of using CureTape. A variety of disorders (ranging from orthopaedic pain to organ problems) and various tape combinations are described as well. Four hundred colour photos are provided as learning aids to facilitate the mastering of these practical aspects.

The book has a DVD, as a unique and valuable supplement.

The Medical Taping Concept is a true skill and mastering it demands a great deal of experience. In a practical and systematic manner this DVD demonstrates how the tape is to be used. The basic techniques and the different disorders including their appropriate tape combinations can be viewed and are explained in a structural context.



To purchase please contact Aneid UK, Ltd.

Courses Scheduled in the United Kingdom*

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November 28th / 29th

Instructor - **Harry Pijnappel**

Advanced Course

December 12th / 13th

Instructor - **Harry Pijnappel**

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Instructor - **Esther de Ru**

Sports Course

January 16th / 17th
February 27th / 28th

Instructor - **Marc van Zuilen**



Luton

Lymphatic Course

February 20th / 21st

Instructor - **Josya Sijmonsma**

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For detailed information please visit:

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Neuromuscular Taping

Only for professionals

Cure Tape is registered in Europe as a Class I Medical Device

Product Characteristics:

- No chemical or pharmacological product delivered by tape.
- The adhesive is alcohol free with hypo-allergenic backing in wave form, reducing the risk of skin irritation and allowing the skin to breathe.
- Tape is not latex, but based on cotton fiber; providing elasticity similar to the human skin (130%-140% self stretching).
- Adhesive characteristics of the surfaces are activated by body heat.
- Tape is air and water-permeable, while still being water resistant, allowing the tape to be worn for several days (4 to 5 days) without loss in the quality of effect.



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