BINDEGEWEBSMASSAGE:
AN ELEGANT AND USEFUL TECHNIQUE

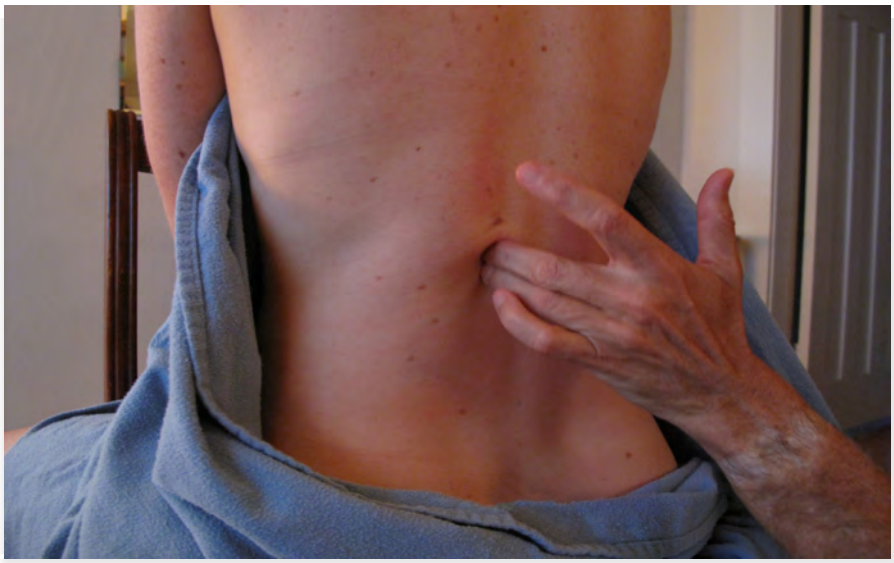
By Brian Utting , LMT

Bindegewebsmassage (Bin-deh-geh-vebs-massag-eh), now often called Connective Tissue Massage, or CTM, was a technique I learned back in the early 80's, and I used it frequently as a massage practitioner. Around 1990, I incorporated it into the curriculum at the Brian Utting School of Massage, and taught it there for the next 17 years. We found that a 7-hour Bindewebsmassage training elegantly demonstrated the relationship between skillful touch and autonomic health and balance, and gave students a powerful tool for relieving symptoms of menstrual cramps, asthma, and migraine headaches.

The appeal to me was direct experience - I found that CTM reduced or eliminated symptoms of dysmenorrhea in over 90% of my clients, and it also had a general calming influence. Most importantly, it only took 20 minutes to complete a basic CTM sequence, which meant a significant benefit relative to the time invested.

BINDEWEBSMASSAGE'S BEGINNINGS

In the late 1929, a German physical therapist named Elizabeth Dicke found herself wheelchair-bound, suffering from a severe and painful condition in her right leg called endarteritis obliterans. Amputation of the leg was considered, and no method of relief was obvious. She began to experiment on her own skin, stroking with fingertips where it seemed most sensitive. After some initial pain, the underlying muscles seemed to relax, and the skin felt warm. After doing this for successive days, and refining her technique as she went along, she experienced not only relief from pain, but gradual restoration of sensation in her leg. She enlisted colleagues to apply similar techniques, and after three months, got the most severe symptoms to subside. Within a year, she was back to work as a physical



therapist (Dicke, Schiliak & Wolff, 1978).

What Dicke had accomplished seemed miraculous, and she immediately sought to refine her technique, and with the help of some neurologist colleagues, propose a physiological rational for its effects. Her technique, Bindegewebsmassage, has since become a mainstream technique in Europe, taught to a variety of practitioners to treat fascial pain and autonomic imbalance (De Domenico, 2007).

A THEORY IS BORN

Dicke and her associates proposed that this specific pattern of stroking the skin not only mobilised the subcutaneous fascia, but also created a reflexive change in visceral (smooth) muscle tension, arterial constriction, and other autonomic functions. Which specific organ or artery seemed to depend on the skin region worked, so Dicke theorised that stroking a specific skin referral zone could create an autonomic (usually parasympathetic) change in the corresponding organ.

Organ and nerve referred pain patterns were by then well documented. Liver pain, for example, is often felt overlaying the right trapezius, around the inferior right scapula, and in the upper right quadrant of the abdomen. But the idea that these viscerotomes were a two-way street – that is, that stroking a dermatome could in turn influence the organ -- was a surprise to many.

Dicke taught a style of fingertip stroking that was done along specific skin regions in a specific sequence. The proposed effect was vasodilation in the target structure, and relaxation of smooth (visceral) muscle. Thus menstrual or intestinal cramping could be relieved, essentially by "tricking" the target organ into feeling it was being massaged.

"That the viscero-cutaneous reflex interconnection is reversible, that is to say, that it not only leads from the internal organs to the skin, but vice versa, is a long-established fact. One of the most elegant and fundamental systems, which conforms almost flawlessly to the workings of the segmental reflexes, is connective tissue massage as prescribed by Dicke."
- Hans Schliack, M.D., Professor and Neurosurgeon, Berlin

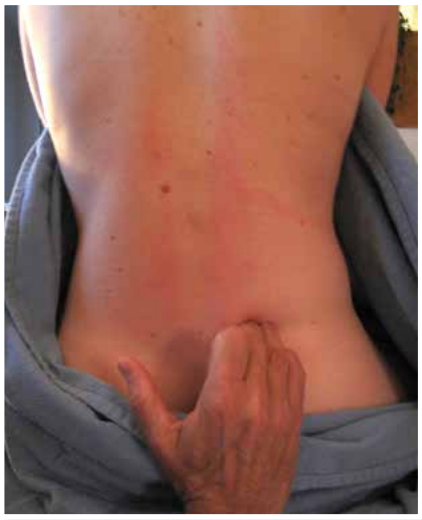
WHAT DOES THE CURRENT RESEARCH TELL US?

As with any treatment modality, both the methods and the theories of CTM have evolved since 1920's Germany. Whereas Dicke's team developed the technique as an adjunct therapy for cardiac, respiratory, digestive, and reproductive dysfunction, modern practitioners use CTM just as often for myofascial complaints. And whereas the original CTM techniques were taught with specific sequences, many modern practitioners are adopting a more fluid approach, treating cutaneous dysfunction where it's found (Prendergast & Rummer, 2012).

A handful of clinical trials have shown CTM-style manipulation has beneficial effects in pain reduction, reduced depression, improved quality-of-life, and moderate short-term increases of beta-endorphins. (Goats & Keir, 1991). These trials add to anecdotal observations from clinicians: that CTM often causes "virtually immediate relief in visceral or myofascial pain" as well as general relaxation. Also noted at times were undesirable autonomic effects, such as dizziness, nausea, and sweating (Prendergast & Rummer, 2012).

The physiologic mechanisms of CTM have become clearer, but much remains uncertain. Good evidence now exists that chronic organ dysfunction can induce changes in sensitivity, inflammation, fluid content, and tissue density in corresponding zones on the body's surface. But what about effects in the other direction? Can skillful skin manipulation create predictable changes in organ function? Preliminary evidence and plausible mechanisms exist to support this idea, but the jury's still out. A handful of animal studies show organ responses after skin stimulation. Broad clinical research suggests that organs, fascia, and skin that share a common nerve segment are also connected by reflexive pathways (Holey, 1995).

But what of Bindegewebsmassage specific sequences? Does stroking each zone have the effect we suppose? Are there known or unknown contraindications? Although the technique has been successfully applied to thousands of patients (De Domenico, 2007), the evidence is still coming in on these questions, so stay tuned.



HOW CTM IS APPLIED

CTM is typically done seated, so that dermatomes are exposed and there is sufficient tension on the subcutaneous connective tissues. The technique is usually applied with two fingers, applied in a steady dragging motion with sufficient depth and tension to contact and mobilize the subcutaneous layer, but not the deepest muscle layers.

Generally the technique begins around the sacrum, moves to the gluteal area, and then travels up the spine and posterior ribs. The intent is to initiate a parasympathetic effect at the sacral/pelvic nerve roots, and then moving into dermatomes that effect more organ-specific reflexes. During application, there is constant assessment of both the local tissue (particularly the mobility and density of the skin and underlying layers), local erythemia, and systemic autonomic effects.

At the end of the session, "balancing strokes" are applied at the collarbones and pectoral area, with intent of stimulating the vagus nerve and thus calming and balancing the system.

REFERENCES

De Domenico, G., (2007). Beard's Massage: Principles and Practice of Soft Tissue Manipulation (5th Edition) Elsevier.

Dicke E., Schiliak H., & Wolff A. (1978). A manual of reflexive therapy of connective tissue. New York: Sidney S. Simon Publishers.

Goats, G.C., & Keir, K.A., (1991) Connective tissue massage. British Journal Sports Medicine; 25:131–133.

Holey, L.A., (1995). Connective Tissue Manipulation: Towards a Scientific Rationale. Physiotherapy. 81. 730-739.

Holey, E.A., (2000) Connective tissue massage: a bridge between complementary and orthodox approaches. Journal Bodywork Movement Therapy; 4:72–80.

Holdorff, B., & Schiffter, R., (2010) Hans Schliack (1919 - 2008): a personal and professional appraisal, Fortschr Neurol Psychiatr; 78(1): 38-44.

Prendergast, S. A., & Rummer, E. H. (2012). Connective tissue manipulation. In Fascia: The Tensional Network of the Human Body (pp. 327-334). Churchill Livingstone.

AUTHOR BIO

Brian founded the Brian Utting School of Massage (Seattle, WA) in 1982. His 1000-hour professional licensing program was considered one of the best in the United States. Brian has been teaching continuing education internationally since 1990. He designs his classes and programs so that the students truly "get" the material and can immediately apply it in their practices, rather than just being exposed to it. With over 30 years of experience, Brian teaches with a rare blend of passion, anatomical precision, humor, common sense, and depth. He was awarded the AMTA's Robert N. Calvert Award for Lifetime Achievement in 2009, and was inducted into the Massage Therapy Hall of Fame in 2014. Brian now owns and operates the Pacific Northwest School of Massage. Visit his website at www.pnwschool.com

Brian Utting will be at the 2019 Massage New Zealand Conference in Hamilton.