



# The Case against Traction as a Clinical Modality

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**The application of spinal traction for treatment of disorders of the neck or spine has one purpose: to lengthen -- and so to decompress -- intervertebral joints. While the reason for the desired outcome -- lengthening -- is obvious, many people have found traction ineffective or have experienced a worsening of their problems. This writing explains why that may have happened and alerts you to a helpful alternative.**

**T**he problem with traction exists in its underlying premise. The premise of traction is that by application of mechanical force, muscles can be lengthened and joints can be relieved of pressure. This premise is out of keeping with the way the muscles and nervous system work.

While lengthening can temporarily be achieved (while traction is being applied), once traction has ended, a counter-reaction to the traction tends to occur: onset of muscular tension that may be even stronger than the original contraction, and long-lasting. (This dynamic applies also to "inversion tables," "spine cages," and "interbody cages.")

The simple reason for such a counter-reaction is that muscles are not mechanical structures that can be stretched and that retain the stretched condition. Muscles are responsive organs controlled by the nervous system, organs that have one function: to contract. Muscles contract because the nervous system causes them to do so. And the nervous system is telling them to do so in cases where medical patients are given traction.

In effect, traction pits a mechanical force (from the tractioning device) against muscles that are actively contracting because the nervous system is causing them to do so. Traction is a tug-of-war with the nervous system. In that tug-of-war, the nervous system always prevails in the end. Even if the nervous system gives in from sheer fatigue, and muscles relax, after rest, the nervous system re-creates the tensions held in the musculature -- the status quo at that time -- to maintain its sense of organization --- since that's its sense of 'normal', given prior conditioning influences (injury or stress) and knowing nothing better (having forgotten the normal, relaxed resting state).

"Conditioning" is a key concept. In this sense, conditioning has the same meaning as "learning" or "adaptation". The nervous system has learned to keep the muscular system contracted in certain patterns that maintain coordination, posture, and residual guarding reactions against old injuries and dangerous mechanical influences (sudden motions outside the range of safety).

It is the guarding reaction that causes the counter-contraction, as the nervous system registers traction as an overpowering or destabilizing influence that interferes with the equilibrium of the person's living system (the feeling of wholeness and being in control of

oneself). The nervous system responds by restoring and *reinforcing* the status quo. Hence, the counter-contraction.

Those are the limitations of traction as a therapeutic approach. The explanation has a kind of finality about it, doesn't it?

What's left? By the reasoning above, only an approach that enables the nervous system to learn a new adaptation can bring about a new muscular equilibrium – one that has muscles relax and permit lengthening. So, what means of teaching (and learning) a new adaptation to movement is available?

## **CLINICAL SOMATIC EDUCATION**

Clinical somatic education is a system of sensory-motor training and learning that specifically teaches the central nervous system a more healthy adaptation to movement, to replace the reflexive after-effects of injuries, nervous tension, and repetitive use patterns.

Somatic education is, therefore, a proper approach to musculo-skeletal conditions for which traction has until now, been considered the indicated therapeutic approach. How clinical somatic education works is a topic for another writing. For now, let's say that clinical somatic education works much faster and more comfortably, and produces a more durable improvement, than traction (people don't tend to return to their previous, painfully contracted condition).

To continue this discussion along those lines, I recommend two writings:

“Clinical Somatic Education – A New Discipline in the Field of Health Care”, by Thomas Hanna, Ph.D. (lengthy)

“Pain Control through Movement Education” (brief)

See [somatics.com/page4.htm](http://somatics.com/page4.htm) for these titles and articles on back and neck injuries.

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