

# Video Watch 'Snippets' - Kyphosis – simple, effective techniques to add to your treatment plans

## Treating T-Spine Kyphosis

by Erik Dalton

To safely exit the birth canal, a newborn's ribcage must be extremely malleable. Fortunately, the chest wall is mainly composed of soft cartilage. Ossification of the sternum doesn't occur for several months after birth, and skeletal maturity isn't complete until the mid-20s. (Fig 1)

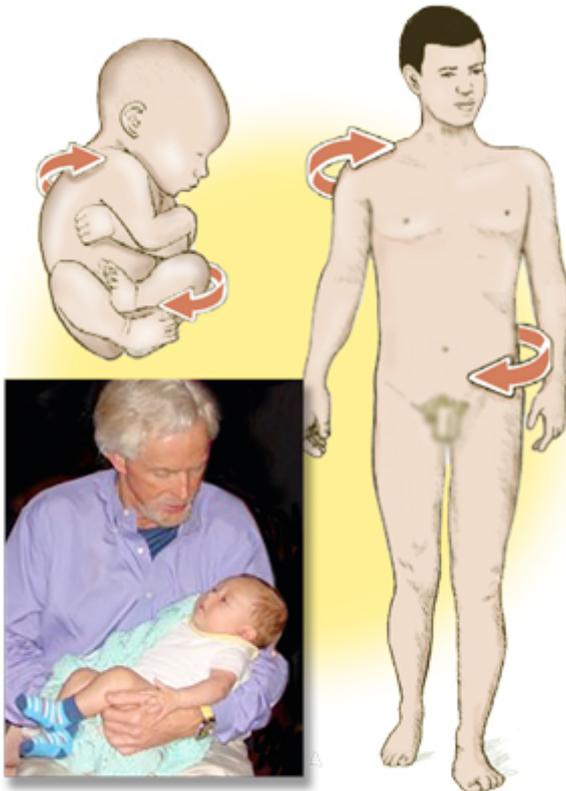


Fig. 1

Illustrated by Laura Maaske - Medimagery

Musculofascial imbalances that lead to slumping may begin developing early in life as children are forced to round their spines to make contact with the back of an adult's chair. Eventually, the soft tissues of the anterior chest become short and tight and the shoulder girdle muscles in back become weak and overstretched, allowing gravity to curve the thoracic spine (t-spine) and jut the head forward.

The natural t-spine curve increases in those who spend a lot of time with their head and arms in a forward posture (sound familiar to any of you bodyworkers?). With the back muscles lengthened and not engaged, they lose their ability to hold us upright. Shortening of the abdominals can be exacerbated by a fitness regimen that overemphasizes abdominal strengthening exercises, like crunches, without balancing them with functional back and core-strengthening exercises.

As witnessed in our baby-boom population, the t-spine and ribcage become less mobile with age. A normal t-spine should have a mild amount of backward curve, which balances the forward curves and neck. But this normal anatomical position is under threat as prolonged slumped postures –

the curse of modern day society – force the thoracic spine into further kyphosis or structural hyper-kyphosis (Fig 2).

Even some of our recreational athletes and fitness junkies are "slumpers." Many spend a substantial part of their day hunched over a computer game or the Internet, or slouching in front of the TV. Pro cyclists and triathletes are particularly at risk as a direct result of their sporting posture (Fig 3).

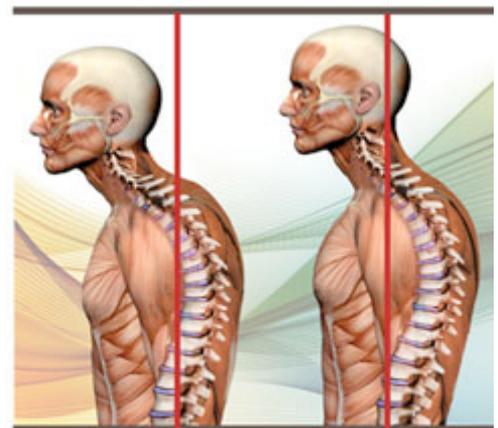


Fig. 2

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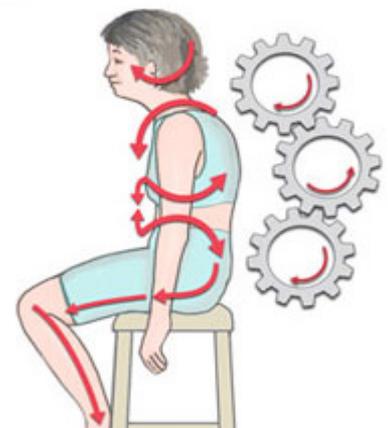
Fig. 3

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Unfortunately, excessive thoracic kyphosis rarely develops in isolation. As the curvature increases, there are accompanying anatomical consequences. While sitting, the cervical spine and head move forward. This causes excessive head-on-neck extension and lower cervical anterior shearing, often creating neck pain and headaches (Fig 4). If treatment is only directed to the cervical spine and not at the thoracic stiffness causing the problem, symptoms may temporarily reduce, but the pain will never go away.

Prolonged slumped sitting and excessive t-spine kyphosis also cause posterior pelvic tilting, which may lead to loss of lumbar lordosis, permanent ligament and muscle elongation, and low back instability. Research by Harrison et al

found that t-spine kyphosis may be linked with low back pain.<sup>1</sup> Increased kyphosis can also limit our ability to breathe freely. The collapsing chest compresses the



diaphragm at the base of the rib cage, and the tightness of the intercostals restricts the lungs' ability to expand.

As time progresses, the t-spine kyphotic posture becomes chronic causing neural and connective tissue adaptations that become difficult to remedy. Pain often accompanies chronic postural kyphosis because of micro-trauma inflicted on musculoligamentous and neural tissues of the back due to excessive stretching. Well-meaning therapists often recommend hyperextension exercises such as the cobra for their kyphotic clients. Backbending stretches such as these require that the whole spine participate in the maneuver. But, if the thoracic spine is rigid, the low back and neck, which are naturally more flexible in backbending, tend to overwork. The resulting localized excessive hyperextension contributes to disc compression, ligamentous damage and neck and low back pain. (**Fig. 6**)



Fig. 6

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## TECHNIQUES

If the t-spine is rigid and locked in forward-bent position, the therapist needs to take active measures to avoid permanent structural changes. If this altered posture is the result of a disease such as Scheuermann's, it's going to be impossible to restore normal spinal alignment. But, proper soft tissue work, postural advice, and home-retraining exercises can help maintain the client's mobility levels.

If a client presents with excessive hunchback (postural kyphosis), always move the thoracic myofascia back toward the midline to place a compressive force on the hump, open up the chest wall to allow thoracic extension, and encourage facet joint closure through joint springing techniques.

## Hyper and Hypo Kyphosis (5:44)

In the video link below, Erik demonstrate a springing technique for mobilizing a rigid ribcage and maneuvers to help flatten the t-spine kyphosis.

Improve posture, function, and back pain with unique myoskeletal alignment techniques. Add this deep tissue fascial treatment to your massage practice.

[https://www.youtube.com/watch?v=8ePgRd8z\\_OI](https://www.youtube.com/watch?v=8ePgRd8z_OI)

## In the video link below, Erik demonstrate technique for Lordosis, Kyphosis and Low Back Pain (5:27)

The "swaybacked" posture can damage ligaments, discs, and initiate protective muscle spasm. In this video, Erik demonstrates a simple deep tissue (fascial mobilization) routine to help reduce excessive lumbar curve. Add this to other low back techniques.

<https://www.youtube.com/watch?v=oHNkfz6CKIQ>

## Massage deep tissue Dowager's Hump Techniques (10:43)

Erik treats a patient suffering chronic head, neck and back pain using myofascial release, deep tissue, and myoskeletal technique. Add this treatment to your massage & bodywork practice.

<https://www.youtube.com/watch?v=gXsvN-bnzmk>

## Dowager's Hump Fix (2:36)

Dowager's Hump can be caused when facet joints are stuck open in the cervical spine with forward head posture. Erik Dalton explores some simple considerations when treating this condition with a hump at the back of the neck.

<https://www.youtube.com/watch?v=2xnV9XyXsIs>

## Client Education – Corrective Exercise

### Posture exercises for severe kyphosis (5:13)

Therapist demonstrating home exercises for client with severe kyphosis

[https://www.youtube.com/watch?v=qGHmey\\_XgKk](https://www.youtube.com/watch?v=qGHmey_XgKk)

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## Reference

1. Harrison D et al (2002) 'How do anterior/posterior translations of the thoracic cage affect the sagittal lumbar spine, pelvic tilt, and thoracic kyphosis?' *Eur Spine J* Jun;11(3): 287-93
2. Gallagher S, Marras WS, Litsky AS, Burr D. Torso flexion loads and the fatigue failure of human lumbosacral motion segments. *Spine*. 2005;30:2265–2273
3. Adams MA, Bogduk N, Burton K, et al. *The Biomechanics of Back Pain*. Edinburgh, United Kingdom: Churchill Livingstone; 2002.
4. Twomey LT. A rationale for the treatment of back pain and joint pain by manual therapy. *Phys Ther*. 1992;72:885–892

## About Erik Dalton

*Developer of Myoskeletal Alignment Techniques™ (MAT)*

*Executive Director of the Freedom From Pain Institute™*

- University of Oklahoma, Clinical Psychology/Philosophy
- Menniger Foundation, Psychology
- Mueller College of Holistic Studies
- Rolf Institute of Structural Integration™
- Certified Advanced Rolf Training

Erik Dalton, Ph.D. earned his philosophy and clinical psychology degrees from the University of Oklahoma. An inspirational seminar conducted by Dr. Ida Rolf launched a zealous mind-body adventure that led Dalton through a series of learning institutions including the Menninger Foundation, Mueller College of Holistic Studies, Michigan State Osteopathic College, and the Rolf Institute of Structural Integration.™

As a Certified Rolfer® in the early 80s, Erik saw a need for a more integrative pain management method. Post-graduate workshops with the legendary Philip Greenman at MSU College of Osteopathic Medicine sparked a passion to wed deep tissue, joint mobilization, and the work of Vladimir Janda. The hands-on success with his chronic pain clients persuaded Dalton to try and share his findings with the broader bodywork community.



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<http://maa.org.au/MemberSupport/tabid/3217/language/en-US/Default.aspx>