

VOCAL POINT

IN TOUCH SPEAKS TO THE AUSTRALIAN PIONEER OF VOCAL UNLOADING, **ANNIE STRAUCH**, APA SPORTS AND MUSCULOSKELETAL PHYSIOTHERAPIST, ABOUT A RELATIVELY NEW TYPE OF PHYSIOTHERAPY SPECIFICALLY TARGETED TO THE LARYNX.

What exactly is vocal unloading and how does it work?

Vocal unloading is the manual therapy for the laryngeal mechanism, the larynx. It encompasses treatment of voice disorders: dysphonia, commonly known as a husky voice, and throat pain syndromes. Dysphonia can be pathological from muscle tension, or it can derive from something happening with the vocal cords' integrity.

Vocal unloading involves manual therapy and rehabilitation of the laryngeal mechanism, taking a holistic approach, including assessment and treatment of the breathing apparatus, cervical spine and TMJ (temporomandibular joint) disorders. The aim of vocal unloading is to unload the larynx and vocal cords, so we can produce efficient voice and allow our vocal folds to vibrate effectively and efficiently. Its other goal is to act as a neuromuscular cycle breaker, to break the maladaptive voice cycle that develops in patients with voice disorders and throat pain syndromes.

You've been referred to as the 'pioneer' of vocal unloading in Australia; how did you first come to be involved in the field?

I learnt techniques from an Australian physio living in the UK—Ed Blake—and I worked at his practice in London. The practice treated West End performers, singers and dancers. I was there as a sports and dance physiotherapist. Many performers were having vocal difficulties; however, their vocal cord integrity was good; it was because they were under a high muscular load with their genre of singing and their vocal cords weren't vibrating efficiently. Singing a high load of eight shows a week, in conjunction with choreography and costumes, meant there was a high, sustained load through the perilaryngeal structures and laryngeal mechanism. I became interested because, after treatment, these patients would go to work that night and sing beautifully. It was an immediate response. We'd treat their bodies ... their hamstrings, glutes and back ... but we would also treat their larynxes and that was so effective. For me, it really opened my eyes to what something like vocal unloading could do for anyone who uses their voice professionally.

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How did you bring the techniques you had learnt back to Australia and what response did you receive?

When I moved back to Australia in 1999 I contacted Debbie Phyland, a speech pathologist at the Melbourne Voice Analysis Centre, as well as a number of ear, nose and throat specialists, and they embraced what I was doing. They started sending patients to me because they would see patients that they could no longer help through their treatment models; however, from a musculoskeletal perspective, there were many contributing factors that were creating, or perpetuating, their dysphonia or throat pain.

Where did vocal unloading derive from and are there any other Australian physiotherapists working in the area?

Laryngeal manual therapy is commonly known as circumlaryngeal manipulation, or laryngeal manual therapy, in other countries such

as the United States, United Kingdom or Europe. In these countries manual therapy is traditionally used or performed by speech therapists/pathologists, and the techniques used are different to the techniques I use. Working with the larynx and voice production is an area that we as physiotherapists haven't fully embraced. I avoid using the word 'manipulation' as it's not really about manipulating the larynx—in the sense of high velocity techniques that physios may imagine. The team at my practice, Performance Medicine, and I have run a couple of courses on vocal unloading and there are now about 12 other people using these techniques in Australia, located in Canberra, Sydney, Ballarat, Bendigo and Brisbane.

How important is vocal unloading for those using their voice as part of their profession, as well as for anyone suffering from a vocal impairment?

It can be for anyone who uses their voice professionally, so it's not just for singers. It's for teachers, physiotherapists (we talk all the time at work), barristers, customer service workers and radio announcers ... anyone who needs their voice to communicate at work.

For those diagnosed with muscle tension dysphonia, manual therapy is indicated. Research conducted in Europe has shown that manual therapy of the laryngeal mechanism is actually more effective than voice retraining and breathing—it gives us a rationale for why you would treat the larynx from a musculoskeletal perspective (other than the reason that the larynx is suspended in a myofascial sling, with intimate relationships with cervical spine, TMJ and thoracic cage). For those with dysphonia they also need to complement their vocal unloading treatment with speech therapy or vocal coaching.

What particular areas of vocal unloading do you believe demand more research focus in the future?

From a biomechanical point of view, more in vivo studies are needed. Further examination of basic muscle activation of the intrinsic and extrinsic laryngeal muscle groups, in various forms of speech, and how these muscles activate within different patient groups is a good starting point. Delving into both cervical spine and lumbopelvic/respiratory studies, and the biomechanical influence of dysfunction of these areas on the voice are also interesting topics to be explored. Chronic throat pain syndromes are also topics that have minimal research available. In terms of research, it's endless.

Where do you see the future of vocal unloading going?

I think this is just the beginning. It's an exciting area that I think physios need to be really open-minded to and, as physios, we need to learn more about the voice. We already know quite a lot about the respiratory system and lumbopelvic control, the TMJ and the upper cervical spine, but we know little about how these factors impact voice projection and vocal quality. The Performance Medicine team and I are looking at doing research on different vocal and performer populations to examine what happens with glottal closure and the impact on their ability to balance and land.

There are so many regions of our bodies that influence the voice; our approach must be holistic and always biopsychosocial. It would be fantastic to have this type of treatment more readily available to patients experiencing voice disorders and throat pain syndromes.