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“Mechanoreceptors and Laryngeal Motor Control – Why Such a Touchy Subject?”

The larynx is essential for many of life's essential and elegant actions such as breathing, airway protection, and voice. Neural control of the larynx for these actions is aided by mechanoreceptors within the laryngeal mucosa. These mechanoreceptors enable the central nervous system to monitor the position and movement of the larynx, the pressure and flow of respiratory air, and provide a surveillance system to protect the airway from aspiration. However, much remains unknown about neural control of the larynx and the role of mechanoreceptors in these activities. Therefore, we have developed new technology to define how mechanosensory mechanisms are associated with human laryngeal control, are affected by neurological disorders such as Parkinson’s Disease and laryngeal dystonia, and can be improved with medical and behavioral approaches to neurorehabilitation.