

Aerodynamic Characteristics of Growl Voice and Reinforced Falsetto in Metal Singing

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© 2018 The Voice Foundation Objectives: The present study aimed to assess the aerodynamic characteristics of vocally healthy metal singers when producing growl voice or reinforced falsetto. Methods: Fifty-four participants (metal singers) were initially enrolled in this study, with 23 meeting the inclusion criteria. Sixteen participants performed growl voice and seven performed reinforced falsetto as a voice resource during metal singing. All participants were asked to undergo rigid laryngeal videostroboscopy to confirm the absence of laryngeal pathology. Then, subjects were aerodynamically assessed while performing growl voice or reinforced falsetto. Results: Higher glottal airflow rate, sound pressure level, and subglottic pressure (P_{sub}) for growl voice samples compared to vowel production without growl voice (keeping the same fundamental frequency [F0]) were found. Higher P_{sub} , sound pressure level, and glottal resistance for high-pitched reinforced falsetto compared to naïve false