

Articulatory kinematics during stop closure in speakers with Parkinson's disease: further data

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This presentation reports articulatory kinematic data during stop closure durations in people with and without Parkinson's disease (PD) as a first step into developing segmental-specific movement profiles of people with dysarthria. Five speakers with PD and seven neurologically-healthy speakers were asked to read three sets of phrases which contain stop consonants varying in place of articulation, the durations of the consonant strings, the duration of consonants in each string, and the location of syllable boundaries within the strings (e.g., for bilabial stops: lee pool, lease pool lee spool, lease spool). For kinematic analysis, labial/lingual function during stop closure was recorded by a 3D EMA system (Wave, NDI, Canada). 144 stop closures (12 participants * 3 stops * 4 contexts) were analyzed to obtain distance, displacement, speed and duration of four measurement points (tongue front, tongue back, upper lip, and lower lip). In the presentation, the findings will be reported with emphasis on the effect of phonetic environment on articulatory kinematic deficits in PD.