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**Aeroacoustic measurements in a human airway model**[1] MICHAEL MCPHAIL, ELIZABETH CAMPO, MICHAEL KRANE, Penn State University — Flow and acoustic measurements are presented for a vocal tract-like geometry with a rigid constriction as a prelude to a study of a compliant constriction that models the vocal folds. Optical flow measurements were taken at the inlet of the constriction and downstream in the jet region. Pressure and acoustic measures were taken on either side of the constriction. Volume flow, two-dimensional flow fields, and radiated sound will be presented for a range of driving pressures. Measurements are used to assess the resistance of the constriction and the measures of the aeroacoustic source. The measurements serve as a validation case for computational aeroacoustic simulations.

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