Non-invasive assessment of lower urinary tract function

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Finally, the development of novel, non-invasive technologies to assess the lower urinary tract may also allow for additional insight into bladder function. As the authors describe, recent investigation has explored assessments of bladder shape, wall thickness, and vibrometry as measures of bladder function and pathology. Additional research has focused on developing technologies to more specifically assess bladder afferent activity given the significant limitations to verbal indicators of sensation used in UDT (e.g., first sensation).

As noted in this, the accuracy of ultrasound in assessing real-time bladder volume measurement is less than ideal. Nevertheless, the study serves as an initial step in the potential use of ultrasonography for measuring voided volume and ultimately, its use throughout lower urinary tract filling/storage and evacuation phases. Additional development is needed, but this study provides valuable insights into the evolution of noninvasive techniques for UDT.

References