

## PAINFUL BLADDER FILLING AND PAINFUL URGENCY ARE DISTINCT CHARACTERISTICS IN MEN AND WOMEN WITH UROLOGIC CHRONIC PELVIC PAIN SYNDROMES (UCPPS) – A MAPP RESEARCH NETWORK STUDY

### Hypothesis / aims of study

“Painful filling” (i.e. pain that gets worse with bladder filling), and “painful urgency” (the urge to urinate due to pain, pressure, or discomfort instead of fear of leakage) have been described in women with interstitial cystitis (IC/BPS). However, only 56% to 87% of IC/BPS patients reported these characteristics. In men with chronic prostatitis (CP/CPSP), we have only limited, mostly anecdotal, information on the prevalence of painful filling and painful urgency. Thus, the clinical significance of painful filling and painful urgency is not well understood in either women or men. Our objectives are to 1) describe bladder pain symptoms in women and men with UCPPS, and (2) correlate these to urologic and non-urologic symptoms or syndromes, and psychosocial measures.

### Study design, materials and methods

The MAPP Research Network enrolled 233 female and 191 male UCPPS participants with IC/BPS and/or CP/CPSP. Participants were asked if their pain was worse with bladder filling (“painful filling”), or if their urge to urinate was because of pain, pressure, or discomfort (“painful urgency”). Participants were then categorized into 3 groups: 1) “both” painful filling and painful urgency, 2) “either” painful filling or painful urgency, or 3) “neither”.

### Results

24.6% of males and 11.6% of females had neither painful filling nor painful urgency. 34.6% of males and 36.9% of females had either painful filling or painful urgency. 40.8% of males and 59.2% of females reported both painful filling and painful urgency. The percentage of UCPPS men who reported bladder pain symptoms was surprisingly high (75.4%).

Among men and women, presence of “painful filling” and/or “painful urgency” was associated with more severe urologic symptoms (worse pain, frequency, urgency), higher physical symptom burden, higher depression scores, and worse SF-12 physical health (all  $p < 0.01$ ). A gradient effect was observed (both > either > neither). Men but not women were more likely to have irritable bowel syndrome, catastrophizing, or report a current UCPPS “flare” as we moved from neither to either to both. Females were more likely to have chronic fatigue syndrome, higher fatigue scores, negative affect, and worse SF-12 mental health in the same pattern.

### Interpretation of results

A surprising large percentage of men with UCPPS (~76%) reported symptoms consistent with bladder hypersensitivity. Future research efforts, particularly involving UCPPS males, should use tools such as the RICE questionnaire to assess bladder pain characteristics (“painful filling” or “painful urgency”). UCPPS patients with these bladder characteristics may represent distinct subgroups or phenotypes. Additional phenotyping studies (e.g. biomarkers, neuroimaging) will be performed to further evaluate these different bladder pain subgroups.

### Concluding message

Male and female UCPPS participants with “painful filling” and/or “painful urgency” have more severe urologic symptoms, more generalized symptoms, and poorer quality of life than those with neither of these bladder characteristics. UCPPS patients with these bladder characteristics may represent distinct subgroups or phenotypes.

### Disclosures

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