

# White matter abnormalities in female interstitial cystitis

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(HealthDay)—Women with interstitial cystitis/bladder pain syndrome have white matter abnormalities, according to a study published in the July issue of *The Journal of Urology*.

Melissa A. Farmer, Ph.D., from the Northwestern University Feinberg School of Medicine in Chicago, and colleagues administered questionnaires on pain, mood, and daily function to 34 women with interstitial cystitis/bladder pain syndrome and 32 healthy controls. Diffusion tensor imaging that models directional water flow along axons or fractional anisotropy was used to evaluate white matter microstructure.

The researchers observed numerous white matter abnormalities that

correlated with [pain severity](#), [urinary symptoms](#), and impaired quality of life among women with interstitial cystitis/bladder pain syndrome. Decreased fractional anisotropy in aspects of the right anterior thalamic radiation, the left forceps major, and the right longitudinal fasciculus characterized interstitial cystitis/bladder pain syndrome. In the right superior and bilateral inferior longitudinal fasciculi the researchers detected increased fractional anisotropy.

"To our knowledge we report the first characterization of brain white matter abnormalities in women with interstitial cystitis/bladder pain syndrome," the authors write. "Given that white matter abnormalities closely correlated with hallmark symptoms of interstitial cystitis/bladder pain syndrome, including [bladder pain](#) and urinary symptoms, brain anatomical alterations suggest that there are neuropathological contributions to chronic urological pelvic pain."

Two authors disclosed financial ties to the pharmaceutical industry.

**More information:** [Abstract](#)  
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