

Correcting metabolic abnormalities may help lessen urinary problems

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Metabolic syndrome is linked with an increased frequency and severity of lower urinary tract symptoms, but weight loss surgery may lessen these symptoms. The findings, which come from two studies published in *BJU International*, indicate that urinary problems may be added to the list of issues that can improve with efforts that address altered metabolism.

Lower [urinary tract](#) symptoms related to urinary frequency and urgency, bladder leakage, the need to urinate at night, and incomplete bladder emptying are associated with obesity in both men and women. To see if these symptoms might also be linked with [metabolic syndrome](#) (a cluster of abnormalities including hypertension, high cholesterol, high blood glucose levels, and abdominal obesity), François Desgrandchamps, MD, PhD, of Saint-Louis Hospital in France, and his colleagues analyzed information on 4666 male patients aged 55 to 100 years who consulted a general practitioner during a 12-day period in 2009. Metabolic syndrome was reported in 51.5 percent of the patients and 47 percent were treated for [lower urinary tract symptoms](#). There was a significant link between metabolic syndrome and treated lower urinary tract symptoms. The risk to be treated for lower urinary tract symptoms also increased with increasing number of metabolic syndrome components. Also, among individuals with lower urinary tract symptoms, symptoms were more severe in those with metabolic syndrome. "The prevention of such modifiable factors by the promotion of dietary changes and regular physical activity practice may be of great interest for public health," the authors concluded.

In another study, researchers in New Zealand looked to see if weight loss, or bariatric, surgery in obese individuals might lessen lower urinary tract symptoms. It's known that such surgery leads to improvement or even resolution of a growing list of health problems commonly associated with obesity such as type 2 diabetes, hypertension, and sleep apnea. The investigators studied 72 patients who underwent the surgery and were followed for one year. There was significant weight loss and a reduction of body mass index after surgery. At six weeks, a significant reduction in overall symptoms was noted, and this improvement was sustained at one year. Also, insulin sensitivity improved, indicating a lessening of individuals' risk for developing type 2 diabetes.

"Interestingly, in our study, improvements in lower urinary tract symptoms were generally seen soon after surgery, and they did not seem to be related to the time course or degree of weight loss," said co-author Richard Stubbs, MD, FRCS, FRACS, of Wakefield Hospital. "Rather, there is an indication that the improvement in the [urinary symptoms](#) is linked to improvements in insulin resistance, which are now known to occur almost immediately following [bariatric surgery](#)."

The investigators noted that it is not a surprise that many symptoms and medical problems associated with obesity improve when weight loss occurs. "What has been a surprise and what is potentially so important is that so many problems, including issues related to [urinary function](#), improve so quickly after bariatric surgery, even before great [weight loss](#) has occurred," said senior author Andrew Kennedy-Smith, FRACS, of Wellington Hospital. "The relationship we have found between these symptoms and insulin resistance is of considerable potential importance. This finding calls into question our fundamental understanding of why these problems arise, and therefore how they might best be treated." Traditional thinking suggests that obesity leads to insulin resistance, but perhaps insulin resistance is itself a major cause of obesity. Therefore, developing effective treatments for insulin resistance may help address a

whole raft of conditions, including lower [urinary tract symptoms](#).

More information: "Association between metabolic syndrome and severity of lower urinary tract symptoms: observational study in a 4,666 European men cohort." Pourya Pashootan, Guillaume Ploussard, Arnaud Cocaul, Armaury De Gouvello, and François Desgrandchamps. BJU International; Published Online: December 8, 2014. [DOI: 10.1111/bju.12931](#).

"Effects of bariatric surgery on untreated lower urinary tract symptoms: A prospective multicentre cohort study." Serge Luke, Ben Addison, Katherine Broughton, Jonathan Masters, Richard Stubbs, and Andrew Kennedy-Smith. BJU International; Published Online: December 8, 2014. [DOI: 10.1111/bju.12943](#).

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