Bacterial infection possible cause of bladder condition

 By [Martin Herrema](https://www.kent.ac.uk/news/authors/4/martin) | 7 July 2016

**A team led by researchers at the University has identified bacterial infection as a possible cause of Overactive Bladder Syndrome (OAB).**

OAB is a condition where the bladder muscle spontaneously contracts before the bladder is full. In the USA, it is ranked in the top 10 of common chronic conditions, competing with both diabetes and depression, with a reported prevalence of up to 31-42% in the adult population.

The researchers, including the Kent team from the [Medway School of Pharmacy](http://www.msp.ac.uk/), found that some OAB patients had a low-grade inflammation which is missed by conventional NHS tests. This low-grade inflammation may ultimately result in increased sensory nerve excitation and the symptoms of OAB.

The study found that in these patients the low-grade inflammation is associated with bacteria living inside the bladder wall. This was an observational study which means that no conclusions can be drawn about cause and effect. However, the findings may prompt the clinical re-classification of OAB and inform future therapeutic strategies. These might include protracted treatment with antibiotics to alleviate the symptoms of OAB in some individuals.

The research, entitled [*Altered Urothelial ATP Signaling in Major Subset of Human Overactive Bladder Patients with Pyuria*](http://ajprenal.physiology.org/content/early/2016/06/27/ajprenal.00339.2015)is published in the journal [American Journal of Physiology](http://www.physiology.org/).

Principal investigator was [Dr Scott Wildman](http://www.msp.ac.uk/about/staff/biological/wildman_scott.html), of the Medway School of Pharmacy, Universities of Kent and Greenwich, and colleagues Alberto Contreras-Sanz, Louise Krska, Dr Claire M. Peppiatt-Wildman and Dr Stephen Kelley.