Researchers at the University of South Florida have designed a catheter that contains a light source and external texture to facilitate bladder and urethral surgery. One of the objectives of this invention is to provide a high quality, safe catheter that will provide plenty of illumination throughout the body during surgery.

A variety of surgeries are being performed on a day to day basis in and around the bladder. With the bladder being such a sensitive part of the body, it can easily be injured while performing surgery. A solution to this would be insertion of a light source directly inside of the bladder, as opposed to the currently used external illumination sources.

The catheter has a silicon lumen design and a fiber-optic light. The light facilitates the location of the bladder and urethra by illuminating these structures during surgery. The catheter has a 180 degree large volume distal tip balloon to facilitate better identification of the bladder during laparoscopic surgery. This will allow the bladder and the urethra to be easily distinguished from other organs in that area of the body. To prevent any harm the light source might produce, the lighting will be covered by silicone tubing that will be directly built around the catheter.

The illumination of the fiber optics inside the catheter extends from the balloon into the area of the urethra, approximately 3-4 cm, so that the urethra can be identified during sling and other procedures. The silicon tubing at the proximal end is textured to facilitate insertion and avoid injury.

Advantages:
- Easily distinguish bladder and urethra
- Illumination through the catheter
- Efficient dilation with 180 degree balloon
- Textured grip

Improve insertion and decrease risk of injury