Researchers at the University of South Florida have developed a safer and more efficient laparoscopic morcellator device.

Morcellators have been used in laparoscopic surgery for many years, and have been especially used in performing laparoscopic hysterectomy and myomectomy procedures in which large uterine and fibroid tissues are removed through small (<2cm) laparoscopic port sites. Morcellators work by dividing tissue into smaller pieces or fragments using a sharp rotating blade. This comes with inherent dangers by using sharp rotating blades in close proximity to vital organs and vessels during normal operation, thus exposing the patient to potentially catastrophic injuries. The device is also very inefficient since large masses are typically removed through a 2cm or smaller shaft, which, oftentimes, takes significant time to accomplish and not infrequently leaves small pieces of tissue behind in the abdomen. Additionally, the FDA has issued a warning against the use of laparoscopic morcellators due to the risk of spreading cancer cells throughout the abdominal cavity if the tissue being removed were to contain unsuspected cancerous tissue.

Our inventors have developed a device that provides for much safer and efficient endoscopic tissue removal by protecting the patient from the cutting blades and by better containing the pieces of tissue. This new system can either be used through a laparoscopic abdominal incision or through a colpotomy incision in the vagina which would allow for a much larger laparoscopic morcellator device and thus significantly increase efficiency of the tissue removal function.

**ADVANTAGES:**
- Decrease likelihood of injury
- More efficient tissue removal
- Decreases spread of potentially cancerous cells

**Safer and More Efficient Laparoscopic Morcellator**

**One Design of the Endoscopic Tissue Removal System**