

# New smart tool surgery technology has its U.S. debut in Buffalo

Patients benefit as UB surgeons bring minimally invasive surgery techniques to clinical sites in the region

By Ellen Goldbaum

Release Date: September 18, 2018

BUFFALO, N.Y. — A new smart tool technology that allows surgeons to perform complex movements deep inside the abdomen was used for the first time in the U.S. this month during two procedures performed at Buffalo General Medical Center. Download a high resolution portrait of Steven D.

The first procedure was a hernia operation called a laparoscopic or minimally invasive TAPP (transabdominal preperitoneal) inguinal hernia. Hernia operations are some of the most commonly performed surgeries, but this one was a special case, according to Alan R. Posner, MD, clinical assistant professor of surgery in the Jacobs School of Medicine and Biomedical Sciences at the University at Buffalo, who performed the procedure with Steven D. Schwaartzberg, MD, professor and chair of the Department of Surgery in the Jacobs School and director of surgical programs at Kaleida Health.

The new technology, HandX, was used to close the peritoneum, the abdominal cavity, after the hernia repair and placement of surgical mesh. "This case was harder than usual," said Posner. "Scar tissue in the abdomen forced us to change our original operative plan. The articulation of the device made suturing possible. Without the HandX, it would have been very difficult."

The second case was a procedure on the esophagus and stomach to prevent reflux, which required extensive suturing.

Developed by Human Xtensions, an Israel-based company, the HandX Operating Platform is described by the company as a "Surgery is moving light-weight, handheld device that can translate the surgeon's natural hand motions into complex movements inside the patient where both patients and surgeons will benefit from advanced instrumentation."

For the past three years, Schwaartzberg has assisted the HandX design team, providing important feedback on design features and usability. A consultant for Human Xtensions and other companies focused on minimally invasive surgical advanced techniques, Schwaartzberg has pioneered the clinical use of advanced instrumentation in surgery in order to lessen recovery times and improve clinical outcomes.

Steven D. Schwaartzberg, MD, Professor and Chair of Surgery and Director of the Department of Surgery at the University at Buffalo, said "Surgery is moving into a new age where both patients and surgeons will benefit from advanced instrumentation," said Schwaartzberg. "HandX is part of that exciting movement." Dept. of Surgery Jacobs School of

The Jacobs School of Medicine and Biomedical Sciences at the University at Buffalo, part of the State University of New York, is among the nation's oldest medical schools. Its faculty and medical residents provide care for the community's diverse populations through strong clinical partnerships and the medical school's practice plan, UBMD. In 2017, the school moved into its dramatic, new, seven-story home in downtown Buffalo, putting superior medical education, clinical care and pioneering research in close proximity. The new building anchors Buffalo's comprehensive academic health center, advancing health and wellness across the life span for the people of New York and the world by educating tomorrow's leaders in health care and biomedical sciences, innovative research and outstanding clinical care.

Kaleida Health is the largest health care provider in Western New York, serving the area's eight counties with state-of-the-art technology and comprehensive healthcare services. Its expert, compassionate healthcare professionals are committed to providing the best possible outcomes and experience for patients and visitors. In addition, Kaleida Health's hospitals support residency-training programs of the University at Buffalo's Jacobs School of Medicine and Biomedical Sciences, training more than 700 residents each year.

Human Xtensions is a medical device company, focusing on reinventing minimal invasive surgery (MIS) with disruptive hand top technology. Founded in 2012 with the vision of making MIS a smart art, Human Xtensions is headquartered in Israel and led by a multidisciplinary team of professionals that bring the best of all worlds, from medicine to technology, and from ergonomics to design. Human Xtensions catalyzes an entirely new medical reality called Arteficient Surgery, with personalized digital platforms that combine the power of surgical robotics with the ease and affordability of hand-held solutions.



## Media Contact Information