

UCI Health www.ucihealth.com

Surgery Made Easier



When the film “Fantastic Voyage” was introduced in the mid-1960s, it was considered pure science fiction.

A miniaturized team of surgeons travels through a dying man’s blood vessels to destroy a life-threatening blood clot deep within his brain. But today, it’s the surgical tools that have shrunk as UCI physicians perform thousands of minimally invasive surgeries each year using the body’s natural pathways.

Guided by advanced imaging systems, doctors can operate on almost any part of the anatomy by inserting tubes called laparoscopes and tiny video cameras into blood vessels through small incisions. Miniature surgical instruments are used to grasp, cut, cauterize, stitch and manipulate tissue, accomplishing the same result as traditional open surgery.

“Minimally invasive surgery can address many problems, including neurological, urologic, orthopedic, gastrointestinal, thoracic, gynecological, cardiac, vascular, cosmetic, bariatric, and ear, nose and throat conditions,” says **Dr. Ralph Clayman**. He is chair of the UCI Department of Urology and co-director of the hospital’s minimally invasive surgery program. Clayman and his team were the first in the world to use laparoscopic methods to remove malignancies affecting the kidney, ureter and prostate gland. Currently, more than 90 percent of procedures related to these organs are performed laparoscopically by UCI urologists.

Forging ahead. UCI surgeons also use minimally invasive procedures to repair aneurysms, hernias and ulcers. Bowel surgery, hysterectomies, anti-reflux operations and the removal of colon tumors, the appendix, bladder, gallbladder, spleen and lung are also routinely performed in this manner.

The benefits of laparoscopic techniques are dramatically illustrated in the way weight-loss surgeries are performed. Older methods involved an incision that extended from the breastbone to the navel. But laparoscopic techniques have made these operations much easier for patients. Performed through several small openings, they result in less pain and a faster recovery for patients—and significantly fewer wound infections than conventional operations. **Dr. Ninh Nguyen**, co-director of the UCI minimally invasive surgery program and an internationally respected laparoscopic surgeon, has further refined these techniques.

At UCI Medical Center, a surgical robot sometimes assists doctors performing minimally invasive procedures. In fact, the first robotic prostate surgery in Southern California was done at UCI by **Dr. Thomas Ahlering**. Physician-operated and computer enhanced, this state-of-the-art robot increases a surgeon’s range of motion and steadiness of hand. Also assisting doctors during minimally invasive surgeries are two high-tech, super-efficient operating rooms that allow staff to manage controls from a touchscreen.

What will happen next? Clayman predicts that developments such as image-guided needle ablative surgery and high-intensity focused ultrasound will usher in a new generation of surgery that requires no incisions at all. “As surgeons and radiologists work side by side, these procedures are rapidly evolving at UCI Medical Center,” he says. “Our goal is to provide Orange County with the most advanced, least invasive therapy for each surgical problem. What we do here today will eventually become commonplace elsewhere.”