Simulation Lab Enables Students to Learn Laparoscopic Surgery Techniques

With laparoscopic surgery, the doctor makes a small incision and inserts a laparoscope – a thin rod that carries a tiny light and a camera that projects magnified images on a screen – to employ small instruments for conducting the procedure. But how does a medical student learn the specialized skills required to cut through the wall of a vein or remove a tumor in such a surgery?

At the Detroit Medical Center, surgeons-in-training practice and perfect their skills in the Surgical Simulation Lab. Using 3-D animation and techniques that include virtual reality, students experience realistic “touch” feedback. According to Dr. David Bouwman, professor of surgery at the Wayne State University School of Medicine, and Director of the Alexander Jeffery Walt Comprehensive Breast Center, “The Surgical Simulation Lab, for the first time, has allowed surgeons to practice good approximations of operations in a controlled environment.”

He also explains what the lab means to WSU medical students. “We have a commitment to offering them this training before they go into their surgical residencies. As a result, I believe what we’re going to see is an acceleration of skill levels that is just unbelievable.”

The comments of WSU medical students corroborate Dr. Bouwman’s assertions. Fourth-year student Bill Curtiss said, “These simulators are great for getting used to using both hands and visualizing your next surgical move.” Fellow fourth-year medical student Delorean Griffen concurs. “Every time I practice in the lab I make daily improvements,” he said.

Research shows that the Surgical Simulation Lab does indeed improve performance, while increasing trainee confidence. It also helps to ensure patient safety.

Expert training to prepare young doctors to perform minimally invasive laparoscopic surgery is important because of the procedure’s advantages over traditional open surgery:

- Smaller incisions, resulting in less scarring
- Shorter hospital stays and recovery times
- Reduced medication requirements

Dr. Donald Weaver, Chief of Surgery at the Detroit Medical Center, and Chairman of the Department of Surgery at WSU’s School of Medicine, envisions another benefit. “Virtually all of the surgical specialties have recognized that it’s important to offer laparoscopic surgery to patients. I think it gives the DMC an opportunity to be unique for patients.”

The Surgical Simulation Lab for training in laparoscopic surgery is just one of a multitude of high-tech wonders that make the DMC a center for world-class medical training and unparalleled patient care. We just think it’s a better way to get better. For more information or to make an appointment, call 1-888-DMC-2500.