

Dr. Dan McRackan Relates The Wonders of Robotic Surgery

With a five-year residency in urology at UNC-Chapel Hill now behind him—a demanding stretch that he completed with the honor of serving as Chief Resident in his final year—Dr. Dan McRackan has joined with Dr. Mark McClure and Cheri Elliott, ANP, at Landmark Urology and Complementary Medicine in Raleigh.

In fact, Dr. McRackan has been a hands-on student of medicine, and especially all aspects of urology, for nearly 10 years since graduating from the College of Charleston in South Carolina. He earned his medical degree at the Medical University of South Carolina.

Much of his time at UNC-CH, says Dr. McRackan, was spent in operating rooms, where he honed his skills in laparoscopy and robotic surgical procedures. “Within the past three years,” he notes, “robotic surgery generally has become much more common, and in fact, it is now highly sought out by many patients who increasingly understand its benefits.

Exquisitely Sensitive

“Much of what we operate on as urologists—especially the prostate—lies deep within the male pelvis,” Dr.

McRackan observes. “And the male pelvis, you can almost imagine, is somewhat like a cave. When you operate anywhere in the male pelvis, with open incisions, it’s always very difficult to see. Sometimes you’re wearing two headlights, and the view is still sub-par.

“The problem is that, surrounding the prostate, there are nerves that run just alongside the prostate that control both erectile and urinary functions. These nerves are very difficult to appreciate to the naked human eye.

“Now we introduce robotic surgery to this scene. It’s much like having a television camera and bright lights inside of a dark cave, illuminating everything and magnifying the view to the tenth power—all in color and 3-D. Now it’s possible to see very precisely the nerve bundles of the prostate that run along the side, and it allows us to distinguish those nerves from the prostate far better than we could ever do in the past. This is an enormous benefit to both the surgeon and the patient. Without question our surgical outcomes are, as a consequence, significantly better.”

When Dr. McRackan is in the OR doing a robotic procedure, he is at a computer console, sitting about 10 feet from the patient. “What I’m looking at is a 10-times magnification of the exact area where I’ll be working, and from this vantage point I’m controlling the surgical

instruments. I have a joystick in each hand, and they are exquisitely sensitive. They can make all of the same movements of the human arm and hand, and other movements that humans simply cannot make. They offer, in fact, more flexibility than we have with our laparoscopic instruments.”

But, he points out, there is still an important role for laparoscopic procedures—“especially hand-assisted laparoscopic techniques, where a surgeon’s hand is inside the body, for example, to get invaluable tactile feedback from having a hand on a large kidney tumor. Smaller kidney tumors are perfect for robotics, but when the tumors are larger, at a later stage of development, laparoscopy is often the preferred choice.”