

Robotic-assisted surgery offers less-invasive option

By Suzy Devers

“I feel better than I’ve felt in years,” says Kelly Ahlstrand. “I’ve been swimming, body surfing, boogie boarding and hiking with my wife, Meghan, and our daughters, Abby and Maddie.”

To hear Ahlstrand describe his action-packed vacation in the Outer Banks of North Carolina, you’d never guess he’d undergone heart surgery just several months before. Ahlstrand, who suffered from mitral valve regurgitation, can credit his quick recovery to expert medical care and to the da Vinci System, a robotic surgical system.

Porter Adventist introduces the da Vinci System

The da Vinci System is most commonly used to treat prostate cancer, endometrial cancer and mitral valve regurgitation, but it can also be used for any abdominal or thoracic (chest and heart) surgery.

The robotic system, now available at Porter Adventist Hospital, allows surgeons to perform major surgery with only a few tiny incisions. “The machine translates your exact hand movements at the surgical site,” explains Dr. Myles Guber, M.D., the cardiothoracic surgeon who repaired Ahlstrand’s mitral valve at Porter Adventist.

To perform surgery, the surgeon sits at a video console and directs the movements of four interactive robotic arms. Each arm is outfitted with highly specialized instruments, including a tiny camera. This allows the surgeon to view a 3-D image of the surgical field magnified up to ten times its original size.

Enhanced clarity, added precision

“The optics are fabulous,” says Guber in describing Ahlstrand’s mitral valve repair. “You get a great view of the valve.” This enhanced clarity offers a significant advantage because it takes a high level of precision to reconstruct the delicate valve tissue.

The surgical instruments also offer added precision. Each instrument is modeled after the human wrist, hand and fingers. Because the robotic instruments can rotate 360 degrees and feature tremor control, they exceed many of the capabilities of the human hand.

It’s important to note that the robot does not perform the surgery. It simply translates the surgeon’s movements and uses this input to guide the instruments.

Less pain, faster recovery time

Guber explains that the da Vinci System differs from traditional surgery in that it does not require a sternotomy or opening of the chest and spreading of the ribs for mitral valve

repair. Instead, the surgeon accesses the valve through tiny surgical openings (ports) in the spaces between the patient's ribs. This less-invasive approach is the major reason most da Vinci patients experience less post-operative pain compared to sternotomy patients.

"We're seeing that the repair is as good as with open sternotomy," Guber adds. "There's no compromise to the repairs." In addition to positive surgical outcomes and less post-operative pain, the da Vinci System has been credited with shorter hospital stays, less scarring, less risk of infection, less blood loss, fewer transfusions and faster recovery time.

Back in the game

"When I heard I wouldn't have to have my breast bone broken, I knew I wanted to go with da Vinci," Ahlstrand says. "I was out of the hospital in three days and back to work in three weeks."

Prior to his surgery, Ahlstrand says he noticed he was slowing down. "But I shrugged it off to the classic symptoms of turning forty," he says. In reality, Ahlstrand's damaged mitral valve was to blame. Because the valve wasn't sealing completely, blood was flowing backwards through the valve. This conflicting force made his heart work much harder and he was feeling it.

Now with his mitral valve repaired, Ahlstrand, says, "I'll be curious to see how things go when hockey season starts up again; last year I missed the season, but I should be a lot stronger now." If his endurance levels while on vacation are any indication, he'll be a force to reckon with on the ice this year.