

In obese prostate cancer patients, robotic surgery reduces risk of blood loss

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In obese prostate cancer patients, robotic-assisted surgery to remove the prostate reduces the risk of blood loss and prolonged hospital stays, a Loyola Medicine study has found.

The study by senior author Gopal Gupta, MD and colleagues is published in the journal *Current Urology*. Dr. Gupta is an assistant professor in the Department of Urology of Loyola University Chicago Stritch School of Medicine.

Researchers examined records of 9,108 [obese men](#) who underwent [radical prostatectomy](#) (removal of the prostate gland and some surrounding tissue). Among all [patients](#), 60.4 percent underwent robotic-assisted radical prostatectomy and 39.6 percent underwent open prostatectomy.

Compared with patients who had [open surgery](#), patients undergoing robotic-assisted surgery were 83 percent less likely to require blood transfusions and 72 percent less likely to require prolonged hospital stays. But robotic-assisted surgery did not reduce the risk of infections and other complications, the study found.

The robotic system allows surgeons to operate through a few small incisions. Movements by the surgeon's hand or wrist are translated into highly precise movements of the surgical instruments. Every maneuver is directed by the surgeon, in real time, as the surgeon views a magnified, 3D, high-definition image of the surgical site.

Prostate cancer is the most common solid organ cancer in men in the United States. One in six men will develop [prostate cancer](#) over their lifetimes, and many will choose to have radical prostatectomies. In the past decade, the use of robotic-assisted radical prostatectomy has surpassed that of open surgery.

More than one-third of adults in the United States are obese. Obese patients can be challenging, because many have related conditions such as diabetes, heart disease and obstructive sleep apnea that can increase the risk of blood transfusions, complications and prolonged length of stay.

Researchers concluded the study results have these implications:

- The finding that robotic-assisted surgery reduces blood transfusion and prolonged length-of-stay even in [obese patients](#) offers a better understanding of the value of robotic surgery in challenging patients.
- For urologists, the finding that robotic and open [surgery](#) have similar complication rates implies that both techniques remain interchangeable. The surgeon's comfort level should dictate which surgical approach is used.
- For obese prostate cancer patients, the broad findings suggest that both surgical approaches are feasible and safe.

In the study, researchers examined records from the 2009-2010 Nationwide Inpatient Sample maintained by the Agency for Healthcare Research and Quality.

Dr. Gupta's co-authors are Chandy Ellimoottil, MD, (first author), Robert Blackwell, MD, Adam Kadlec, MD, Kristin Greco, MD, and Marcus L. Quek, MD, all of Loyola; and Florian Roghmann, MD, Maxine Sun, MD and Quoc-Dien Trinh, MD, of the University of

Montreal Health Center.

The study is titled, "Open Versus Robotic Radical Prostatectomy in Obese Men."

Provided by Loyola University Health System

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