

Smoking linked to worse outcomes after urologic cancer surgery and other major surgeries

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Credit: Vera Kratochvil/public domain

Patients who smoke, as well as those who once had the habit, are more likely to develop complications during and after major urologic cancer surgery, according to a new study that included researchers at Henry Ford Health System.

The multi-institutional study, being presented on Friday, May 15 at the 2015 annual meeting of the American Urological Association in New Orleans, also found that quitting [smoking](#) for even a year "significantly" improves surgical outcomes.

The findings were part of a larger study of 16 major surgical procedures across several specialties - including cardiovascular, orthopedic and cancer surgeries - that linked smoking and [complications](#) during and after the operations.

"Besides demonstrating negative effects of smoking on [surgical outcomes](#), our research found that those effects differed according to the procedure performed," says Akshay Sood, M.D., urologist and researcher at Henry Ford Hospital's Vattikuti Urology Institute.

The researchers drew on the American College of Surgeons National Surgical Quality Improvement Program database to identify 9,014 patients who underwent surgery for cancer of the prostate, bladder or kidney between 2005 and 2011.

Each was classified as a non-smoker, former smoker or current smoker based on the patients' self-reported [smoking status](#) at the time of surgery,

After adjusting for several confounding variables, the researchers assessed the link between smoking status and the 30-day risk of complications, prolonged length of hospital stay, readmission, the need for more surgery and death. They found:

- Current smokers had higher odds of pulmonary and kidney complications, as well as longer hospitalization, after prostate [cancer surgery](#).
- While smokers did not seem to have increased odds of complications following surgery for bladder or kidney cancer,

bladder cancer patients who currently smoked were at higher risk of needing further surgery while former smokers had increased odds for readmission.

- Prostate [cancer patients](#) who had not smoked for at least a year before surgery did not have higher risk of complications when compared to non-smokers, and were at significantly lower risk than current smokers.

In the larger study, of 141,802 total patients who had undergone one of 16 major surgeries, 2,065 patients died within 30 days of their procedure, but there were no significant differences according to smoking status. In addition, smoking had only "a limited effect" on complications following [orthopedic surgery](#).

Otherwise, however, the researchers found that current as well as former smoking negatively affected the results of major surgery, although those effects were lower among former smokers.

"These findings should provide motivation for all patients to quit smoking before undergoing major [surgery](#)," Dr. Sood says. "It's clear that they can expect better results with fewer complications if they do."

Provided by Henry Ford Health System

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