

Ion Robot Spots Lung Nodules, Speeds Up Cancer Diagnosis (Print)

It doesn't need to take months to get a cancer diagnosis anymore. The OSF Lung & Pulmonology team at OSF HealthCare Saint Francis Medical Center in Peoria, Illinois now has access to leading-edge technology, allowing medical providers to scan a person's lungs and get a diagnosis for the patient on the same day.

Introducing the [Intuitive Ion Robot](#), a minimally invasive way to biopsy a patient's lungs and get them answers more efficiently.

"[Robotic bronchoscopy](#) has really become the way of the future in terms of lung nodule diagnosis. It allows us to biopsy very small nodules (dense areas of tissue, or spots)," says Rachael Davis, MD, a pulmonologist with OSF HealthCare. "We can biopsy lung nodules that were not able to be biopsied previously because they were so small. It also allows us to biopsy nodules that are far out on the edge of the lungs that were unreachable before."

The goal of the Ion technology is primarily to diagnose lung cancer early. However, it also gives patients with non-cancerous lung nodules peace of mind. The Ion Robot can stage lung cancer as well.

"We are hoping to diagnose lung cancer while it is very small, at a very early stage, and provide people the opportunity for either surgical or radiation cure of their cancer. That's our number one goal," Dr. Davis says. "But we do have quite a few patients who have lung nodules, and we don't know what they are. So, we're able to provide them with an answer that says, 'this is what your lung nodule is, and it's not cancer.'"

If a person has a history of smoking or one of their family members has received a lung cancer diagnosis, Dr. Davis says it's important to get screened.

"Early-stage lung cancer often is asymptomatic. They have no cough, no shortness of breath or anything else. The most important thing we can do about lung cancer is to encourage people to get screened," Dr. Davis says. "Anyone who has a smoking history should talk with their primary care provider or lung doctor about whether they qualify for lung cancer screening. With that, we can find very small lung nodules and diagnose them early."

Screening remains the greatest tool to cure lung cancer. Some nodules used to be biopsied using a needle from outside the body. The robotic bronchoscopy allows the team to biopsy it from the inside in a much safer way, preventing possible complications. When a lung nodule is diagnosed at an earlier stage, it's much more likely to cure the patient.

"A lung cancer screening is very simple. It's a low-dose CAT scan of the lungs. Most lung cancer screenings are covered by insurance. It's a two-minute procedure," Dr. Davis says. "You get scheduled for a CAT scan. You come in and there's no contrast or IV required. You come in, get your CAT scan, and it's read within 24 hours."

The OSF Lung & Pulmonology team has doubled the number of patients they see each week since launching the technology one year ago at OSF Saint Francis Medical Center. While the team currently does six biopsies a week, the plan is to perform three to four biopsies five days a week by mid-2025.

Initially, most patients are cared for at the OSF HealthCare Cancer Institute. The medical team will then refer patients for the Ion Robot biopsy, keeping the patient on one hospital campus.

If cancerous nodules are found in the patient's lungs, they will be referred to the OSF multi-disciplinary team for further treatment. This includes a surgeon who decides if the lung nodule can be surgically removed and cured. There is also a medical oncologist who can advise if chemotherapy or immunotherapy is needed. Lastly, a radiation oncologist is part of the team. They can provide radiation treatment if necessary.

Dr. Davis says as the OSF Cancer Institute impact grows across the OSF Ministry, the Ion Robot technology will spread to other markets. According to the Society of Thoracic Surgeons, OSF HealthCare ranks in the 99.2 percentile in quality outcomes after lung cancer surgery for all lung surgery programs in the United States.

OSF Cancer Institute offers lung cancer screening events throughout the year. To learn more about lung cancer prevention, and how to get connected with OSF Lung & Pulmonology, visit the [OSF HealthCare website](#).