

Leading-Edge Robotics Transform Cancer Surgery

Robotic Surgery Brings New Hope for Esophageal Cancer Patients

OSF HealthCare is one of the only institutions in the region with the ability to perform **robotic esophagectomies**, a [robotic-assisted surgery](#) for patients with esophageal cancer that partially or fully removes the esophagus.

A safer, more precise procedure

Traditionally, esophagectomies have been high-risk surgeries, requiring large incisions in the chest and abdomen. Recovery could take up to a month in the hospital, followed by months of recovery at home. Robotic-assisted techniques are changing that reality.

Instead of one large incision, surgeons make small incisions in the chest and abdomen. Using the [da Vinci 5 robotic surgery system](#), doctors can operate with more accuracy and control. This allows them to get touch-like (haptic) feedback that helps them feel what's happening during the surgery.

According to a recent report in the [Annals of Thoracic Surgery](#), robotic esophagectomy "proves to be a safe and effective option for patients with midesophageal to distal esophageal cancers."

"The advantages of the robotic platform are lesser length of stay in the hospital, earlier return to work or activity because of shortening incisions and better lymph node yield," says Burhan Hassan, MD, staff thoracic surgeon with OSF HealthCare.

Benefits of robotic esophagectomy

Patients undergoing the robotic approach can experience:

- Faster and easier recovery
- Less blood loss
- Reduced pain during recovery
- Minimal scarring
- Lower risk of infection
- Shorter hospital stays
- Greater accuracy in delicate procedures

"Our length of stay since we started performing robotic esophagectomy has come down to seven days on average, which is five days under the national standard," Dr. Hassan says.

Who is affected by [esophageal cancer](#)?

[Esophageal cancer](#) generally falls into two types:

- **Squamous cell carcinoma** – often linked to smoking and alcohol use
- **Adenocarcinoma** – usually affecting the lower esophagus, with cases on the rise

"While squamous cancer cases have remained steady or even declined, adenocarcinoma cases are increasing, and poor diet is a contributing factor," Dr. Hassan explains. "Reflux is one of the reasons why a patient would have lower esophagus cancer. Reflux is related to diet. Most gastric cancer is traditionally related to diet, that's why it's mostly seen in the Japanese population, because of the diet there. But in the U.S. subset, the biggest cause is reflux."

More frequent use of scans and [EGDs \(esophagogastroduodenoscopy\)](#) has also led to earlier detection of esophageal cancers, giving patients a better chance of successful treatment.

What patients can expect

A robotic esophagectomy typically lasts five to six hours. Patients usually spend one day in the intensive care unit (ICU) and another five to six days in a general hospital room.

Dr. Hassan and his team aim to completely remove the tumor while preserving surrounding healthy tissue. Recent clinical guidelines also recommend shifting away from radiation as a treatment option, instead favoring chemotherapy followed by surgery for better outcomes.

Transforming cancer care

Once considered one of the most invasive cancer surgeries, esophagectomy is being redefined with robotics. For patients at OSF HealthCare, this means faster recoveries, shorter hospital stays and improved quality of life.

To learn more about robot-assisted surgeries at OSF, visit the [OSF HealthCare website](#).