



# Technique for Robotic Transhiatal Esophagectomy

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**ABSTRACT** Minimally invasive esophagectomy is increasing performed for cancers of the esophagus and gastroesophageal junction. This video demonstrates the setup and key steps for a robotic transhiatal esophagectomy with a cervical anastomosis.

## VIDEO

Minimally invasive approaches to gastroesophageal resection have been gaining favor over open techniques due to decreased complication rates in randomized trials<sup>1–3</sup>. The three major operations typically performed are Ivor Lewis esophagectomy with intrathoracic anastomosis; McKeown esophagectomy with three-field dissection and cervical anastomosis; and transhiatal esophagectomy with cervical anastomosis. The choice between these operations often depends on surgeon preference and patient factors.

Our preferred approach for most patients is minimally invasive Ivor Lewis esophagectomy due to lower morbidity and mortality rates reported from single-institution series and national data<sup>4–6</sup>. However, for patients with pulmonary disease or active smoking, we utilize a minimally invasive

transhiatal approach due to the ability to avoid entry into the right thorax and eliminate the need for single lung ventilation. Relative contraindications to a transhiatal approach are high body mass index, large mid-esophageal tumor, or bulky mediastinal nodal disease.

In the accompanying video, we present a robotic transhiatal esophagectomy with a side-to-side stapled cervical anastomosis. The abdominal dissection and conduit creation are performed in similar fashion to other approaches. The da Vinci Xi robotic platform (Intuitive Surgical, Sunnyvale, CA, USA) is used and allows for mediastinal dissection with relative ease, although care must be taken to avoid injury to mediastinal structures in a small space. The neck dissection is performed and connected with the mediastinal dissection so that the esophagus is completely mobilized. The specimen and conduit are extracted via the neck incision and a 60 mm side-to-side stapled anastomosis is created for reconstruction.

**DISCLOSURES** June S. Peng, Moshim Kukar, and Steven N. Hochwald declare no conflicts of interest.

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