Medical research, innovations and technologies continue to save lives. One of these advancements is robotic surgery. Robotic surgery allows physicians to perform surgery using small, precise tools attached to a robotic arm. The surgeon controls this robotic arm with a computer. After making small cuts similar to those made for laparoscopic procedures, the surgeon inserts a camera into the patient’s body, allowing the surgeon to view enlarged 3-D images of the surgical site throughout the procedure.

Although the surgery is called “robotic,” the procedure relies solely on the surgeon’s knowledge, as the robotic arm mimics the doctor’s hand movements to perform the surgery using tiny instruments. These procedures are less invasive for the sake of the patient and allow surgeons to carry out smaller and more precise interventions.

Robotic surgery offers a variety of benefits to patients when compared with open surgery. These include:

- A lower rate of complications
- Less blood loss
- Shorter hospital stay
- Less pain
- Improved quality of life after surgery
- Small incisions for minimal scarring

Because robotic surgery is so beneficial, this type of procedure can be used for a variety of procedures. For this piece, however, the focus is centered on thoracic robotic surgery.

Thoracic robotic surgery is the most advanced, minimal access approach to thoracic surgical pathology and is sometimes an option for treating the following pulmonary conditions:

- Pulmonary (lung) cancer
- Infections
- Pleural-based diseases
- Pulmonary blebs from linear COPD
- Pneumothorax
- Full lymph node dissection from the mediastinum
- Lung volume reduction surgery for emphysema
- Other benign diseases and tumors of the lungs

Robotic surgery can assist with biopsies of lung masses to either stage cancer more accurately or possibly rule it out altogether. This includes the excision of pulmonary nodules.

Still other thoracic conditions can be treated by robotic surgery. These include:

- Esophageal cancer
- Benign esophageal diseases
- Gastroesophageal reflux
- Mediastinal tumors and diseases
- Treatment of myasthenia gravis
- Chest wall tumors
- Sympathectomy for hyperhidrosis (excessive sweating)

At West Tennessee Heart & Vascular Center of Jackson-Madison County General Hospital, robotic thoracic surgery is conducted in a larger operating room suited specifically to accommodate this innovative technology. Cardiothoracic surgeons have state-of-the-art research provided by West Tennessee Healthcare to successfully complete these thoracic minimum-access operations.

Speak with your health care provider about how these innovations can improve your quality of life.