

<b>Presenting Author</b>	Babatunde Adeyemi, DO, Emergency Medicine Resident PGY1, Department of Emergency Medicine, University of Mississippi Medical Center, Jackson, MS
<b>Co-authors</b>	Dr Frederick B. Carlton, Jr., M.D., Professor Emeritus of Emergency Medicine, UMMC, Jackson, MS
<b>Abstract</b>	<p><b>Introduction:</b> Several methods exist to perform a cricothyroidotomy. These techniques, however, may be ineffective with variables that include obesity, unclear anatomical landmarks, and increased depth to access the airway. We describe an improvised technique that allows the rapid securing of an airway in a difficult patient.</p> <p><b>Case Presentation:</b> A 79-year-old male with BMI of 32.7 arrived via EMS after a fall from a roof striking the ground on his left side. He arrived immobilized with a c-collar and a backboard complaining of pain in his anterior chest. CXR revealed multiple left rib fractures with extensive subcutaneous air. Immediately following the CXR, he vomited. His airway, breathing and cervical spine were supported while a left chest tube was placed. Two attempts were made to orally intubate him but were unsuccessful secondary to his obesity, emesis, and blood obstructing adequate visualization. A decision was quickly made to perform a surgical cricothyroidotomy. Landmarks for performing the procedure were completely obscured by his obesity and pronounced subcutaneous emphysema. The neck was prepped, and a midline vertical incision was made in the area where the cricothyroid membrane was anticipated to be. It was then possible to palpate the cricothyroid membrane. Because of the depth of the airway, an assistant facilitated the procedure using a spreader in the surgical wound. A horizontal incision was made in the cricothyroid membrane, and a 5.5 endotracheal tube was inserted into the trachea.</p> <p><b>Discussion:</b> In addition to an initial vertical incision to perform this procedure, a horizontal stab through the skin and cricothyroid membrane, as well as less invasive approaches including needle cricothyroidotomy and a Seldinger technique have been used to secure the airway. With the obesity epidemic and potential additional mitigating factors, health care providers should be aware of the need for an alternative approach in performing a surgical cricothyroidotomy, such as an assistant using a spreader shown in this case.</p>
<b>Learning Objectives</b>	Preexisting conditions and risk factors may dictate medical care including performing a cricothyroidotomy. While multiple techniques exist to perform this procedure, their use may be limited in patients with these risk factors, and the two-person technique described above should be considered first.
<b>Disclosures</b>	All authors and coauthors have no relevant financial relationships to disclose. The author does not intend to discuss an off-label/investigative use of a commercial product/device.