

# Endoluminal endoscopy and natural orifice surgery

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Flexible or rigid endoscopes are introduced into hollow organs or systems, such as the urinary tract, upper or lower gastrointestinal tract and the respiratory and vascular systems. Advances in endoluminal technology now enable more complex procedures to be completed endoscopically where previous transabdominal or transthoracic surgical resection would have been advocated. Examples include endoscopic submucosal resection of complex colonic polyps, transanal endoscopic microsurgery and endobronchial laser resection of tracheal pathology . Natural orifice transluminal endoscopic surgery (NOTES) offers the opportunity for 'scar-free' surgery by performing entire procedures via natural body orifices. While these techniques have been applied in the pelvis, abdomen and thorax, technical limitations and safety concerns have limited adoption. Concern over closure of the visceral puncture site is the principal issue that has prevented widespread uptake, as trans gastric and transcolonic closure of peritoneal entry sites in a safe manner remains problematic. In addition, there are significant cost and training implications that have limited more widespread adoption. Endoluminal endoscopy and natural orifice surgery

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