



The Argument for More Widespread Fellowship Training in AWR/Hernia

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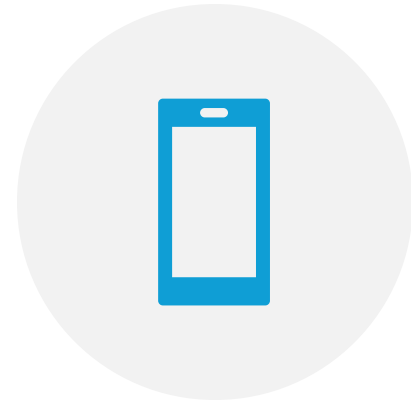
Why more AWR fellowship training?



**THE PUBLISHED
PROOF**



**THE PRACTICAL
PROOF**



THE REAL PROOF



The Published Proof

Hernia
<https://doi.org/10.1007/s10029-019-02062-z>

REVIEW

The reality of general surgery of abdominal wall hernia surg

Surg Endosc (2014) 28:2–29
DOI 10.1007/s00464-013-3170-6

GUIDELINES

Guidelines for laparoscopic treatment of ventral and incisional endohernia Society

Hernia
DOI 10.1007/s10029-017-1668-x

ORIGINAL ARTICLE

International guidelines for groin hernia management

The HerniaSurge Group¹

Surg Endosc
DOI 10.1007/s00464-014-3917-8

GUIDELINES

Update of guidelines on laparoscopic (TAPP) and endoscopic (TEP) treatment of inguinal hernia (International Endohernia Society)

REVIEW

The reality of general surgery training and increased complexity of abdominal wall hernia surgery

- **AWR Guidelines require a ‘tailored approach’**
 - Open, lap, robot
- **Learning curves are steep**
 - TAPP – 50-100 cases, TEP - 250 cases (*Kockerling et al 2018*)
 - Ventral ???
- **Complex hernias are abundant**
 - Inguinal: **71.57%** had >1 unfavourable characteristic (obesity, recurrent, emergent, etc)
 - Incisional ventral: **70.8%**

General surgery training.....is not enough

Subspecialist abdominal wall reconstruction services in Canada



Justification for the subspecialization of AWR

- SCALE
- MONEY
- IMPACT ON GREATER SURGICAL COMMUNITY

Subspecialist abdominal wall reconstruction services in Canada

SCALE → 500,000 ventral hernias per year costing \$3.2billion

- ~70% complex hernias → consensus definition Slater et al. 2014

Patient Factors	
Size and location <ul style="list-style-type: none"> - Hernia ≥ 10 cm in width - Parastomal, lumbar, lateral or subcostal - LOD ≥ 20 % 	Contamination and soft tissue condition <ul style="list-style-type: none"> - Wound class III or IV - Full-thickness abdominal wall defects - Loss of substance (eg post resection) - Distorted anatomy (eg multiple surgeries) - Denervated muscles - Skin grafts - Wound ulcers/non-healing wound - Open/ burst abdomen - Secondary to omphalocele or necrotizing fasciitis) - Presence of ECF
Patient history and risk factors <ul style="list-style-type: none"> - Recurrence (prior mesh repair or CS) - Comorbidities/risk factors that impair wound healing* - Increased intra-abdominal pressure - Previous wound dehiscence - Previous mesh infection 	Clinical scenario <ul style="list-style-type: none"> - Emergency operation with bowel resection - Intraperitoneal mesh removal - Multiple defects ('battle-scarred abdomen') - Primary closure impossible without CS

Patient Severity Classes of Complex Hernia Criteria		
Minor	Moderate	Severe
<ul style="list-style-type: none"> - Only one wound healing impairing risk factor* 	<ul style="list-style-type: none"> - ≥2 wound healing impairing risk factors* - Hernia width ≥10 cm or primary closure impossible without CS - LOD ≥ 20 % - Parastomal, lumbar, lateral or subcostal - Full-thickness defects, loss of substance, distorted anatomy or multiple hernia defects - Skin grafts, wound ulcers, non-healing wound - Secondary to omphalocele - Increased intra-abdominal pressure - Previous wound dehiscence or wound/mesh infection - Intraperitoneal mesh removal - Emergency operation with bowel resection 	<ul style="list-style-type: none"> - ≥2 wound healing impairing risk factors* AND ≥1 'Moderate' class criteria - Wound class III or IV - Open/ burst abdomen - Current mesh infection - ECF - Secondary to necrotizing fasciitis

*Obesity, diabetes, old age, steroid use, smoking, poor nutrition (albumin < 30 g/dl)

2014 SSAT PLENARY PRESENTATION

Surgeon Volume Plays a Significant Role in Outcomes and Cost Following Open Incisional Hernia Repair

MONEY → Less cost with better outcomes by specialist AWR surgeons

- *Aquina et al 2015*; Elective incisional and ventral hernias
 - Every 10 additional cases → 8% ↓ recurrence, 8% ↓ operative duration and 9% ↓ in hospital cost
- *Poulose et al. 2012*; 1% ↓ operations through recurrence = \$32 million US (\$45 million CAD) saved

Hernia (2012) 16:179–183

DOI 10.1007/s10029-011-0879-9

ORIGINAL ARTICLE

Epidemiology and cost of ventral hernia repair: making the case for hernia research

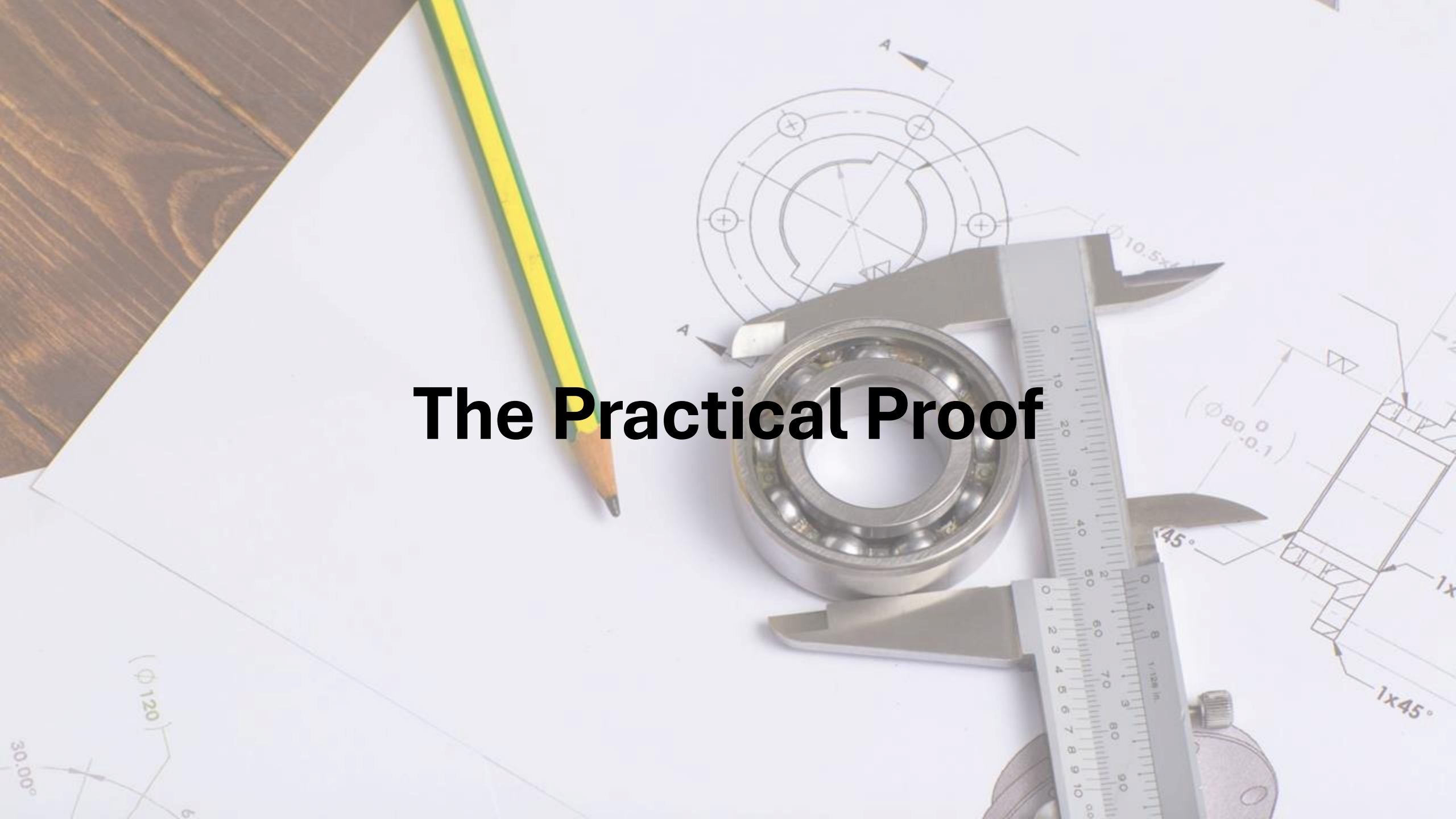
Subspecialist abdominal wall reconstruction services in Canada

IMPACT on wider surgical community

- Academic endeavors → research, quality improvement, guidelines
- Enroll patients into hernia registries → ACHQC, Danish Hernia Registry
- Education → resident teaching, fellowships, courses

The subspecialization of AWR is a necessity, even an inevitability.

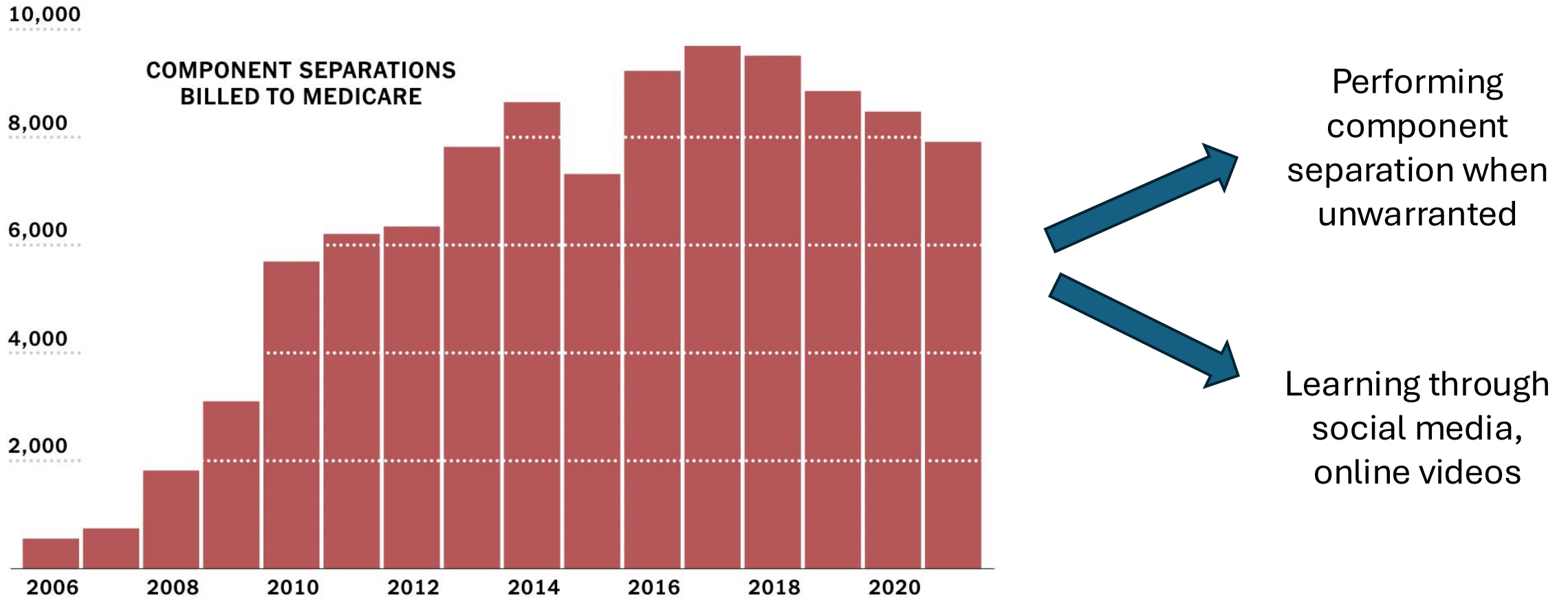
The Practical Proof



Trashing Abdominal Walls

Component Separations Have Soared for Hernia Patients on Medicare

Billings for the procedure increased sharply.





14.1K Surgeon members



★ Rising contributor · February 14 at 3:23 PM · 🌐

Follow-up video for case of giant parastomal hernia discussed at Hernia Summit 2025. Great meeting and many thanks to the great faculty. Comments and critiques welcome.


Self-critique watching video:

- I used the polypropylene progrid and while it worked okay I would probably use a larger sheet of standard parietene if doing again
- I would overlap the primary umbilical a little more but favored lateral overlap with the mesh used.

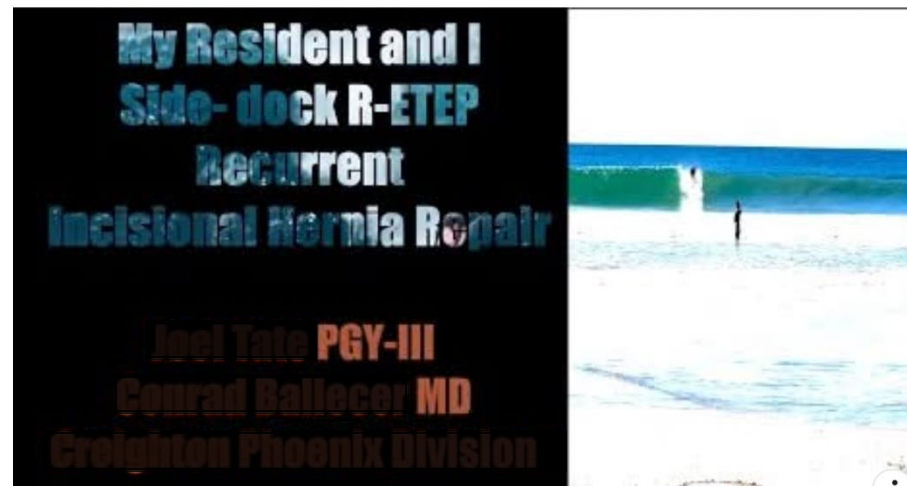
Many thanks.

[See more](#)

Robotic Unilateral TAR and STORRM for Giant Parastomal Hernia

 March 5, 2018 · 🌐

robotic Pauli Parastomal Hernia repair with roboTAR for a wide incisional hernia with a small concomitant paracolostomy hernia. Posted with permission of the patient.— with Eric Pauli at AZ Maria Middelaes.



YOUTUBE.COM

My Resident & I Side dock R eTEP of a Recurrent Incisional Hernia Narrated

Its official!



- As of 2024 designated “Hernia and Abdominal Wall” fellowship
- 100 Total core procedures
 - 30 Inguinals
 - 30 Ventrals (3-10cm)
 - 25 Ventrals (>10cm)
 - 15 Atypical hernias (EC fistula, flank, subxiphoid)
 - 5 evaluations of chronic groin pain

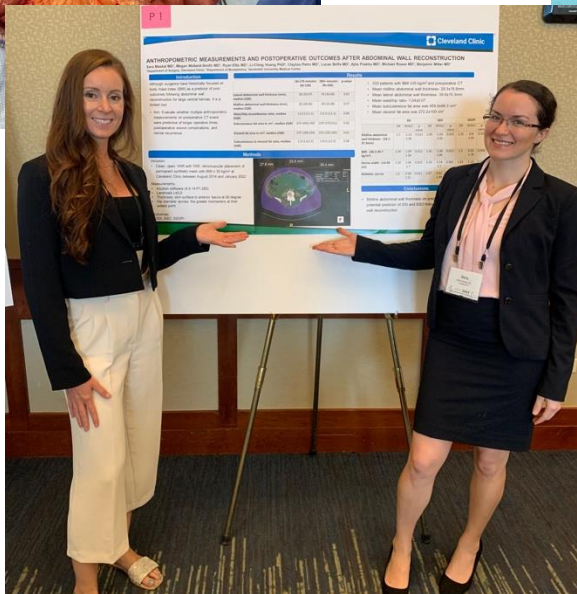
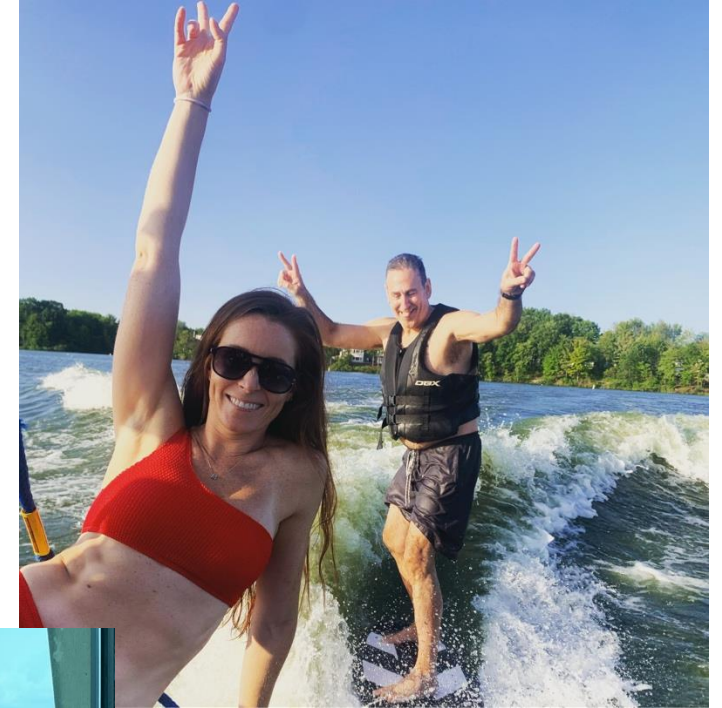
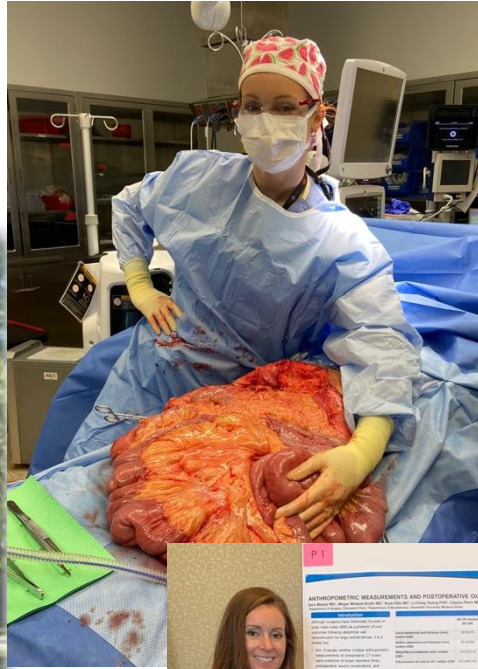
11 Programs listed

Hernia and Abdominal Wall Fellowship Program at Cleveland Clinic	Cleveland, OHIO	2	Lucas Beffa Benjamin T Miller
Hernia and Abdominal Wall Fellowship Program at Penn State Milton S. Hershey Medical Center	Hershey, Pennsylvania	1	Eric Pauli Liz Sodomini



The Real Proof

Hernia and Abdominal Wall Fellowship



A Complete Experience

- **Clinical** volume and complexity
- **Academic**
 - Research – enrolling and designing RCTs, retrospective studies
 - ACHQC
 - Conferences
- **Education**
 - Resident teaching
 - Case conference, journal club





North Toronto
Hernia Program



Surgery
UNIVERSITY OF TORONTO

NOW
HIRING!

- Drowning in volume
- NEED a **fellowship trained** surgeon
- I need someone who can do the big cases
- I want to establish a fellowship program

Take home points

- Clinical need
- Technical complexity
- Abdominal wall programs are expanding
- If we don't train them...social medial will



More AWR fellowships!



Surgery
UNIVERSITY OF TORONTO



CANADIAN
HERNIA
SOCIETY

SOCIÉTÉ
CANADIENNE
DE CHIRURGIE
HERNIAIRE

Thank you

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Nor h Toronto
Hernia Program





Certified Fellowship in Abdominal Wall Surgery – A Collaboration Between the UEMS and the European Hernia Society

- AWS Syllabus
 - 2-years ab wall training
 - Case volume: 200 inguinal, 50 primary ventral, 50 complex incisional
- MUST pass eligibility assessment
- Written /oral examinations
 - Pass: 75%
 - Passing rate: 70%



AWS recognition is important for growing AWS and establishing fellowship training centers with experienced surgeons