



Women in Interventional Endoscopy

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Northern California Society for Clinical Gastroenterology

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Women are under-represented in Gastroenterology

- Approximately 50% of medical school students and 40-50% of third-year internal medicine residents are women.
- Women in GI fellowship have been steady at 25-30% over the last several years.
- Only about 13% of the nation's approximately 13,000 gastroenterologists are women.

Association of American Medical Colleges. The state of women in academic medicine. <https://members.aamc.org/eweb/>

American Board of Internal Medicine. Resident and fellow workforce data. <http://www.abim.org/about/statistics-data/resident-fellow-work-force-data.aspx>.
Published 2015.

Elta GH. The challenges of being a female gastroenterologist. *Gastroenterol Clin North Am*. 2011;40(2):441–7.

Pallardy C. Male and female active physicians: 70 statistics by speciality. *Becker's GI & Endoscopy*. February 13, 2015.

Women are even more under-represented in Interventional Endoscopy

- Very few female GI fellows pursue careers in Interventional Endoscopy
- ASGE Interventional Endoscopy Fellowship Match
 - Established in 2012 to standardize the interventional endoscopy application process
 - Critical first step to ensuring endoscopists have the procedural and cognitive skills to perform these high-risk procedures.
 - Each year, ~15-20% of graduating gastroenterology fellows apply
 - Applicant match rates are approximately 60%
 - In 2019 match, only 12% of matched interventional endoscopy fellows were women
- This is certainly an area deserves more attention and thought

Interventional Endoscopy is a rapidly growing GI sub-specialty

- An evolving and innovative area with a substantial increase in the number of training programs over the last 2 decades
 - ~10 programs in 2000
 - ~100 in 2020
- Encompasses an ever-increasing number of endoscopic procedures and endosurgical approaches

The trend of lower interest in endoscopy among women is longstanding and progressive throughout fellowship

- Survey developed and administered at the 2006 ASGE First Year Fellows' Endoscopy Course to assess attitudes and expectations of GI fellows toward Interventional Endoscopy. Follow-up survey distributed at the end of 2nd year GI fellowship.
- 252/298 (85%) first-year fellows responded.
- 1st year interest in Interventional Endoscopy: 78% (Men), 59% (Women)
- 2nd year: ERCP: 77% (Men), 22% (Women)
EUS: 56% (Men), 30% (Women)

Why might women avoid interventional endoscopy?

- Lack of interest
- Radiation exposure
- Work-life balance
 - Family planning
- High-risk patient scenarios
 - Extra call, less flexible schedule, care for sicker patients and perform riskier procedures.
 - These nuances may make work responsibilities seem more daunting and incompatible with family
- Endoscopy ergonomics putting women at greater risk for musculoskeletal injury
- Current gender distribution of practicing interventional endoscopists
- Less mentorship,
- Fewer female interventional endoscopy role models
- Limited opportunities in Academic & Private Practice
- Saturated/Saturating job markets with less geographic flexibility
- Implicit Bias

Academic vs. Private Practice

Characteristics, goals, and motivations of applicants pursuing a fourth-year advanced endoscopy fellowship

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- **Academic**
 - Interventional Endoscopy practice is best supported by a tertiary care center, but limited availability of academic positions and less geographic mobility.
 - Less scheduling flexibility
 - More travel/speaking engagements
 - Teaching & research responsibilities
- **Private**
 - Sometimes more autonomy in scheduling.
 - Fewer non-clinical responsibilities
 - Need for high clinical volumes
 - Long hours, less back-up
- **Perceived limited opportunity for professional advancement in both settings**
- **Perceived major impact on family life in both settings**

Radiation Exposure

- Fluoroscopy exposure and potential adverse effects on reproduction or a pregnancy has been cited frequently by women as a barrier to pursuing advanced endoscopy.
- Ongoing research to generate definitive data on fluoroscopy risk in interventional endoscopy during pregnancy.
- Overall radiation exposure levels are several-fold lower than radiology/surgical sub-specialties.
- Safe/minimal levels of fetal radiation exposure can be maintained without disruption to interventional endoscopy practice during pregnancy.
- Now only a subset of interventional endoscopy procedures involve radiation exposure.

Similar challenges, but more progress in Interventional Radiology & Surgery

- Women comprise only 8.8% of membership in the Society of Interventional Radiology (IR). Focused initiatives to educate women about pathways to success are associated with an increased proportion of women (up to 24% in 2019 matching into IR programs).
- Unified efforts from the surgical societies, such as establishing mentorship programs for trainees, have increased rates of women in general surgery programs from 14% in 2001 to 40% in 2017.



Aziz HB et al. 2018 ACS Governors Survey: Gender inequality and harassment remain a challenge in surgery. Bulletin of the American College of Surgeons.

Abelson JS et al. The climb to break the glass ceiling in surgery: trends in women progressing from medical school to surgical training and academic leadership from 1994 to 2015. Am J Surg. 2016;212(4):566-72.

Principles underlying this progress in IR & Surgery: Teach trainees to avoid thinking too many steps ahead?

- There are successful women in the field who have already navigated these issues and who can serve as guides to balancing interests and goals in all dimensions of life.
- Female GI trainees (and all trainees in medicine) should approach their interests in the field with the goal in mind, without thinking too far ahead to what it 'might' mean for their lifestyle.
- Goal can be framed as 'pinpoint an ideal focus' and explore positive avenues for making that happen.
- More discussion and transparency surrounding the field may attract more women to enter it, or support those with an interest in the field toward pursuing it.

Shorter term action items

- Ongoing research to understand barriers to recognition of interventional endoscopy as a viable sub-specialty option among women in GI fellowship.
 - Early data suggest that the primary perceived barrier is reconciling the challenges of this field and having a family.
 - Establish some widely available pragmatic approaches which have been successful in overcoming these perceived barriers so women see how they can thrive in the field of interventional endoscopy if this is their goal.
- Research focused on endoscopy ergonomics for women.
- Implementation of programs to facilitate mentorship among women in Interventional Endoscopy.

Reasons for Optimism moving forward

- Things are slowly improving.
- More women trainees in GI fellowship now compared to 5-10 years ago.
- More women moving into positions of visibility (Directors of Endoscopy, Invited Speakers, Academics, Opinion Leaders, Industry Interface)
- The more that female trainees see women performing in positions of leadership at universities and hospitals, speaking at meetings, publishing papers, working with industry, the more this pathway may be perceived as possible.
- Women in Endoscopy (WIE) and ASGE Leadership Education and Development (LEAD) programs are focused on the issue and enhancing trainee/junior faculty mentorship opportunities.
- Men in the field are calling out this issue and supporting female fellows nationally and at their own institutions.
- Ongoing collaborative research among academic women endoscopists to advance knowledge and initiatives in the area.

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As women in GI, we must stand together, advocate for each other,
and translate ideas, initiatives and changes into reality.



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