

Solutions for Successful Colorectal Cancer Screening

Advanced Tools for Early Detection



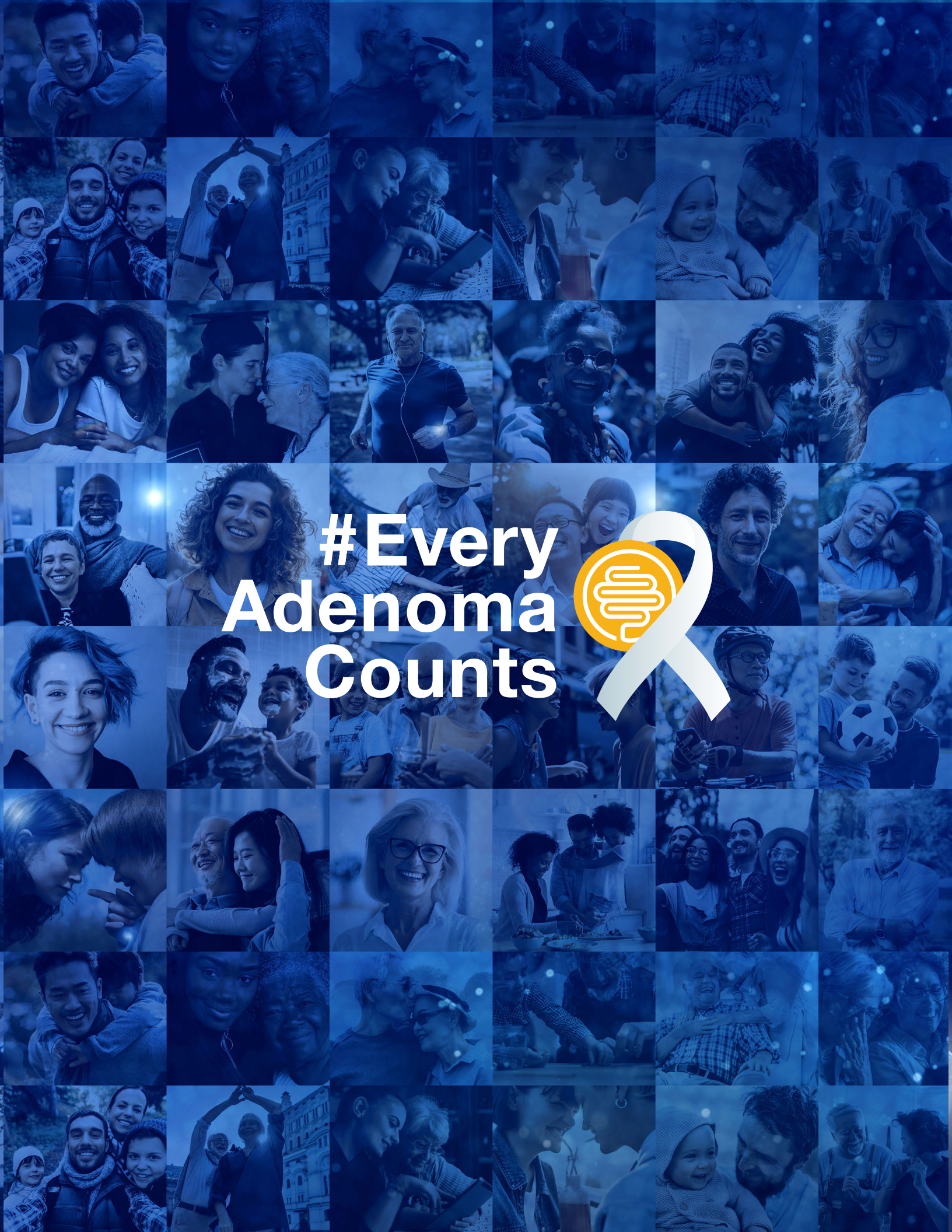


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Every Adenoma Counts

Deadly, Yet Preventable

Colorectal cancer (CRC) is one of the most preventable cancers, yet it is the second leading cause of cancer-related deaths.¹ In the United States, CRC ranks second in the leading cancer deaths. More than 152,000 people will be diagnosed and treated, and 53,000 people will die from CRC, based on 2024 estimates.¹ The key to reducing CRC mortality is encouraging patients to adhere to screening recommendations, and screening colonoscopy is the gold standard.²



Challenges in Colorectal Cancer Screening

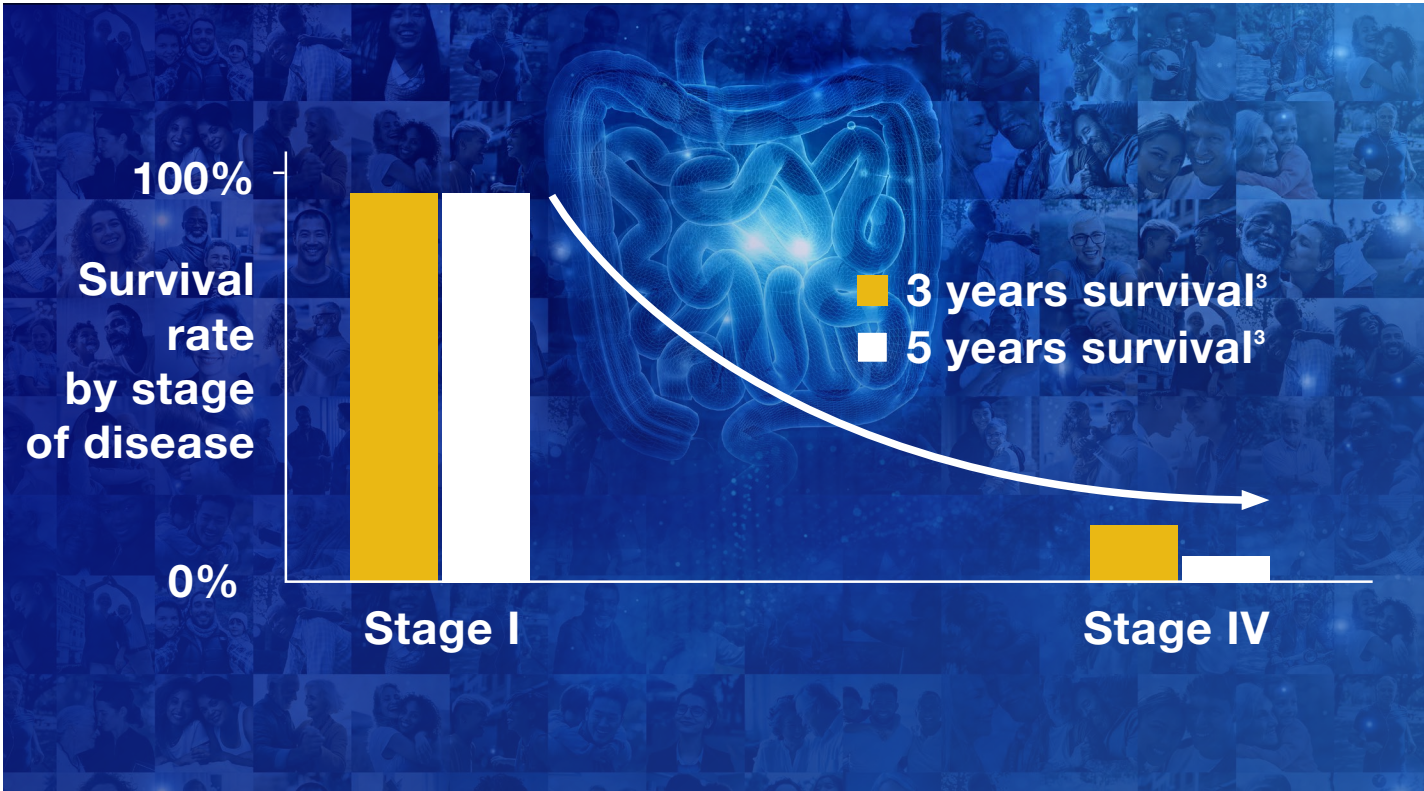
Solutions for Successful Colorectal Cancer Screening

Quality Indicators for Colonoscopy

Adenomas are precancerous growths. Adenoma detection rate (ADR) is the number one quality indicator for a colonoscopy. ADR refers to how often an endoscopist finds at least one adenoma during a CRC screening.²

The Big Picture for Successful Colonoscopy

The American Society for Gastrointestinal Endoscopy (ASGE)/American College of Gastroenterology (ACG) Quality Task Force updated their quality indicators for colonoscopy in 2024. Importantly, the ASGE/ACG Quality Task Force recommends increasing the target ADR, a priority indicator, from 25% to 35% for endoscopists. The Task Force recommends interventions including the ones highlighted in this brochure.^{2,6}



CRC is a preventable cancer, and it is also highly treatable, with a 90% survival rate if caught as a stage 1 cancer.³



Research shows that 26% of adenomas are missed.⁴



A 1% increase in ADR leads to 3% decrease in the risk of interval CRC and 5% decrease in the risk of a fatal interval CRC.⁵

Olympus® Solutions for Improving ADR

Solutions for Successful Colorectal Cancer Screening

Imaging Technology, Mechanically Enhanced Colonoscopy, and Tools to Support Technique

Olympus works tirelessly to develop advanced endoscopy innovations to help improve gastroenterologists' ADR and to enable early diagnosis, treatment, and observation of GI disease. To help increase ADR—the number one quality metric for CRC screening²—Olympus offers three distinct yet complementary solutions: imaging technology, mechanically enhanced colonoscopy, and tools to support technique.

Texture and Color Enhancement Imaging Technology



TXI™ Technology – See Things in a New Light

Olympus' most advanced endoscopy solution, the EVIS X1 endoscopy system, features TXI technology, which is designed to increase the visibility of potentially suspicious lesions and polyps by enhancing imaging color and texture during endoscopic screening.⁷

In a randomized, controlled trial, TXI technology demonstrated a significant improvement in ADR and the rate of adenomas per colonoscopy ≥ 5 mm in size, verses white light endoscopy (WLE).⁸

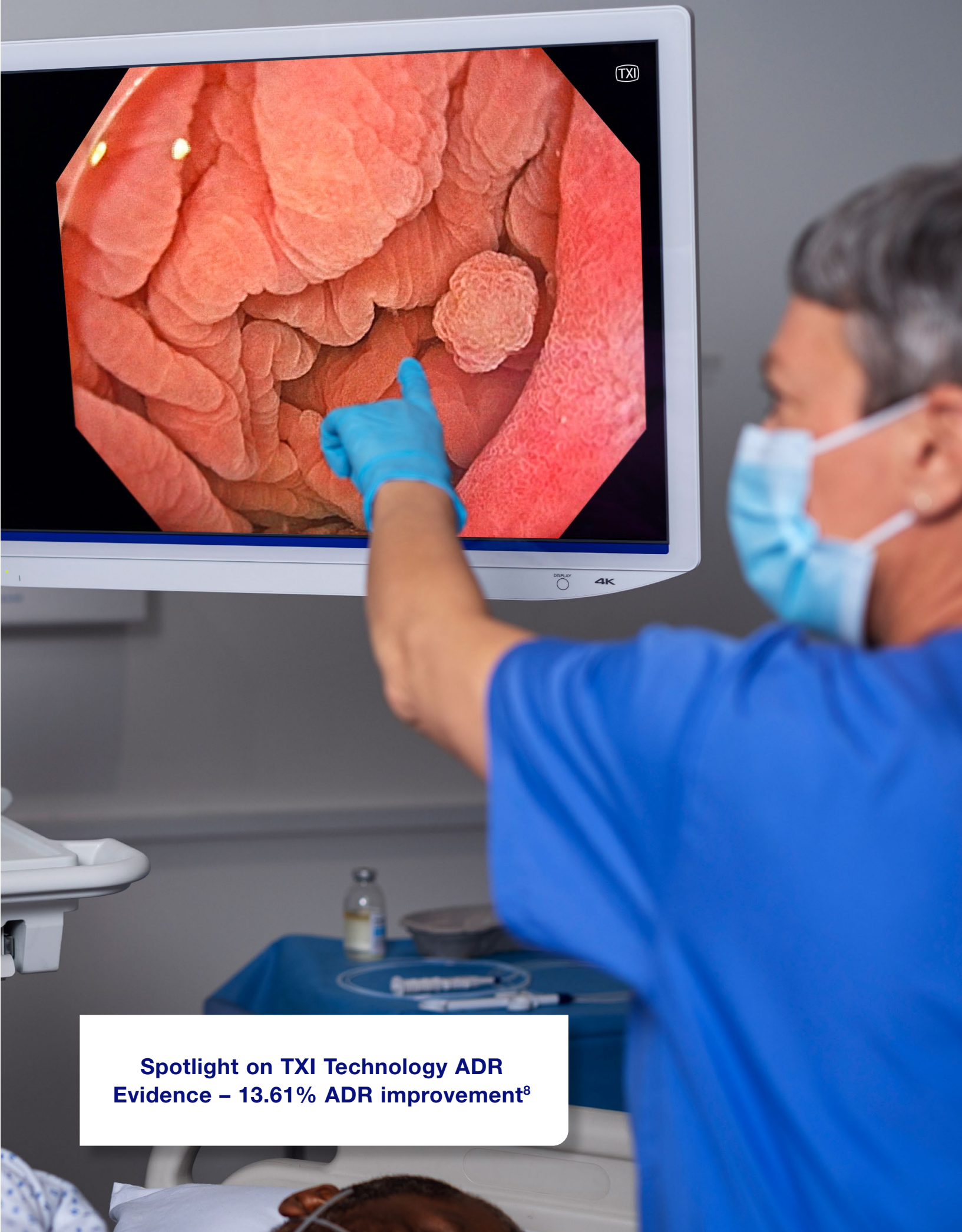


White Light

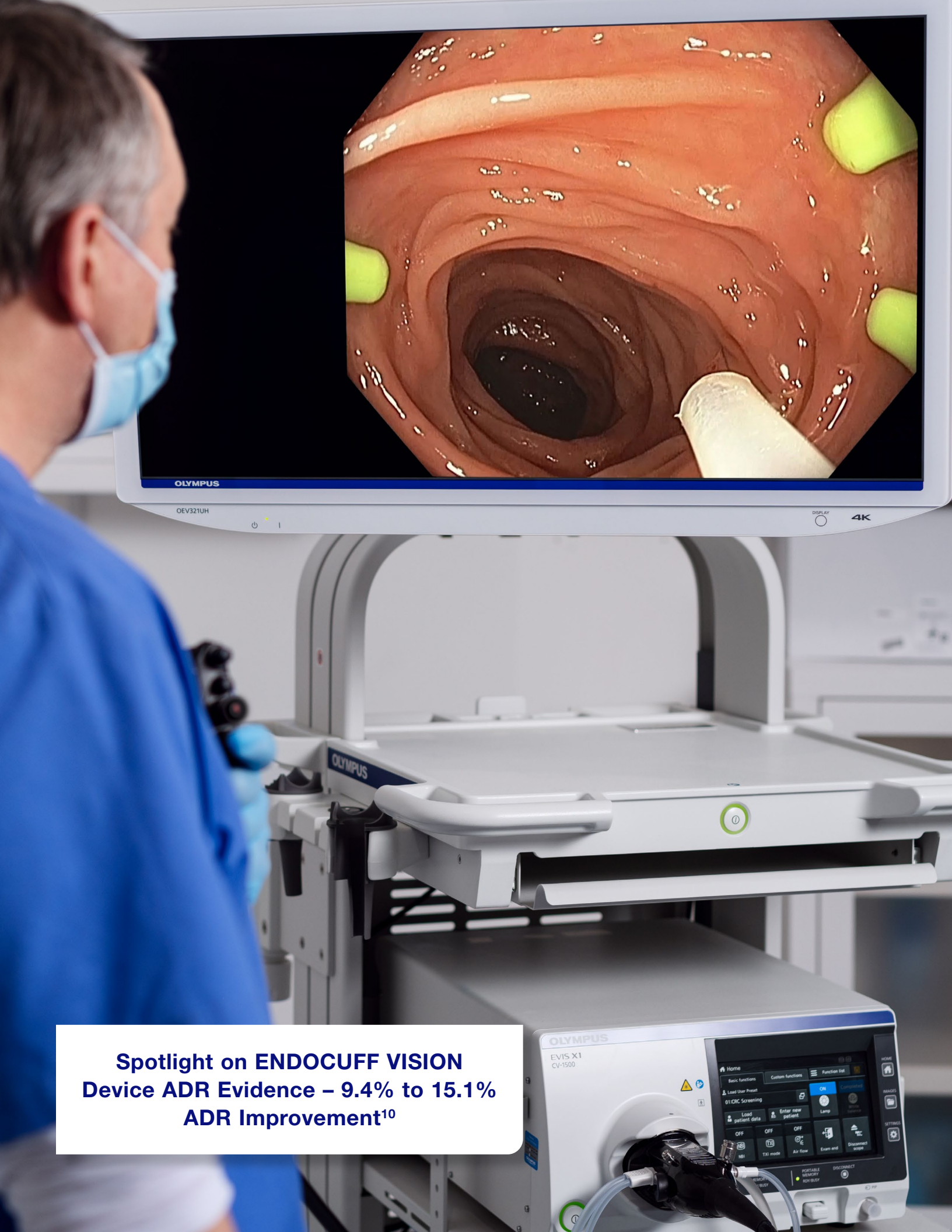


TXI Technology

Images provided by Dr. Ahmed Saeed using a CF-HQ190L colonoscope.
TXI technology is not intended to replace histopathological sampling as a means of diagnosis.



**Spotlight on TXI Technology ADR
Evidence – 13.61% ADR improvement⁸**



Spotlight on ENDOCUFF VISION
Device ADR Evidence – 9.4% to 15.1%
ADR Improvement¹⁰

Olympus® Solutions for Improving ADR

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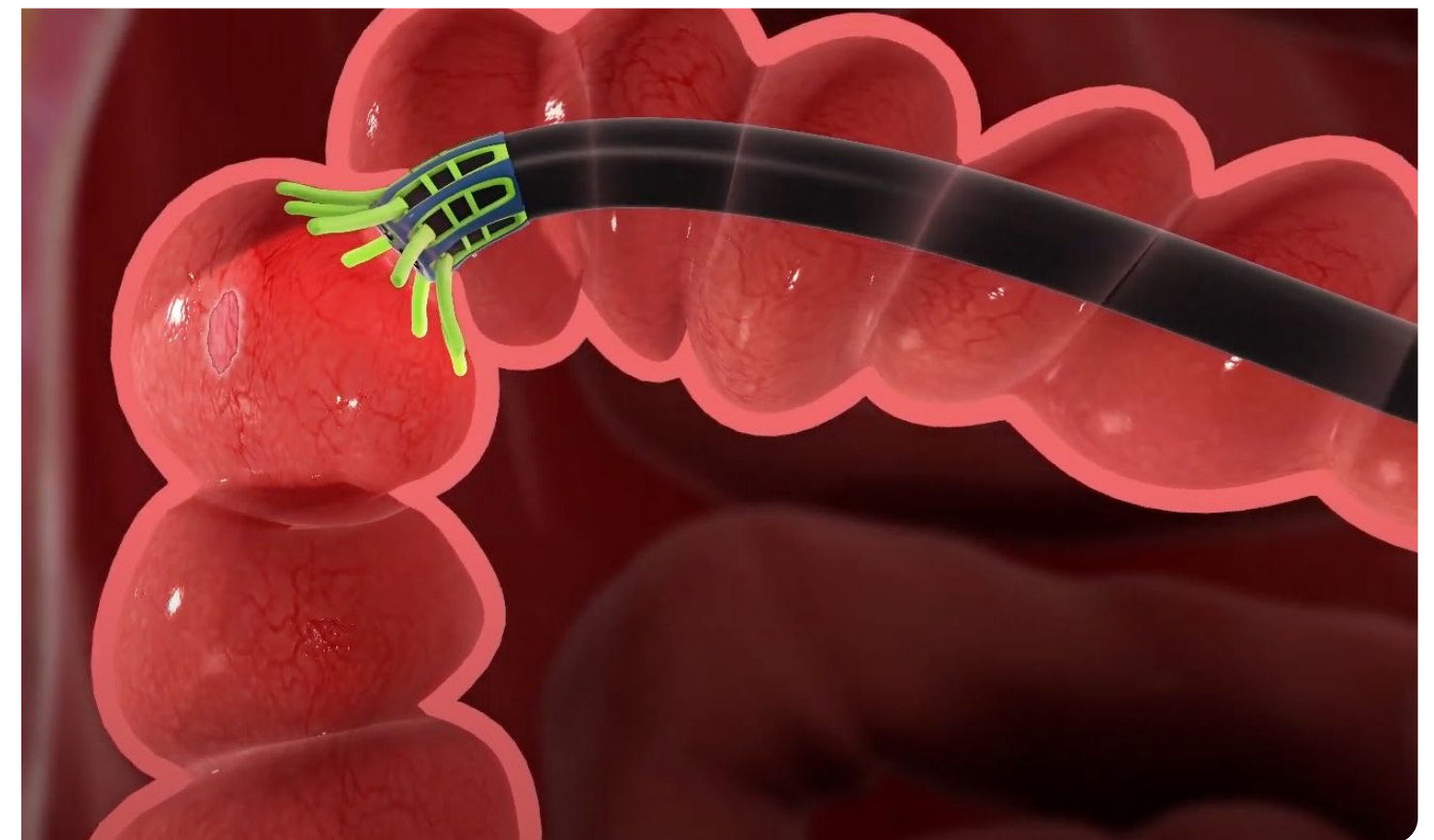
Mechanically Enhanced Colonoscopy



ENDOCUFF VISION™ mechanically enhanced colonoscopy

The ENDOCUFF VISION (ECV) device attaches to the distal end of a colonoscope and is designed to mechanically enhance mucosal exposure, allowing the endoscopist to manipulate colonic folds. The device is intended to improve visualization and control, which may assist in the detection of abnormalities in the colon.⁹

In a meta-analysis, the ENDOCUFF VISION device resulted in a notable increase of 9.4% in ADR, with a range up to 15.1%, resulting in higher detection performance amongst operators with low baseline ADR compared to standard colonoscopy.¹⁰



A rare but potential complication when using ENDOCUFF VISION™ device is the detachment of the device during the procedure. Be prepared to retrieve the device if this were to occur. Ensure ENDOCUFF VISION™ device is used only with compatible colonoscopes, that the colonoscope distal tip is in good condition, and that the device is fully seated on the distal tip prior to the application of lubricant to minimize the chance of detachment.

Olympus® Solutions for Improving ADR

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Tools to Support Technique



Water-aided Colonoscopy

Water-aided colonoscopy, Water Exchange (WE) or Water Immersion (WI), is a practice employed to support scope advancement as an alternative to CO₂ or air insufflation, with the added benefit of enhancing bowel cleanliness and providing a magnification effect of the colon.¹¹

In a network meta-analysis, colonoscopists were 1.41 times more likely to find at least one serrated adenoma per colonoscopy when water-aided colonoscopy techniques were used, compared to high definition WLE alone.¹¹

	Insertion Phase		Withdrawal Phase	
	Direction of Scope Movement Cecum ←		Direction of Scope Movement → Anus	
WE				
WI				
CO ₂				

Lumen with Clean Water

Lumen with Fecal Water

Lumen with Feces

Clean Water

Fecal Water

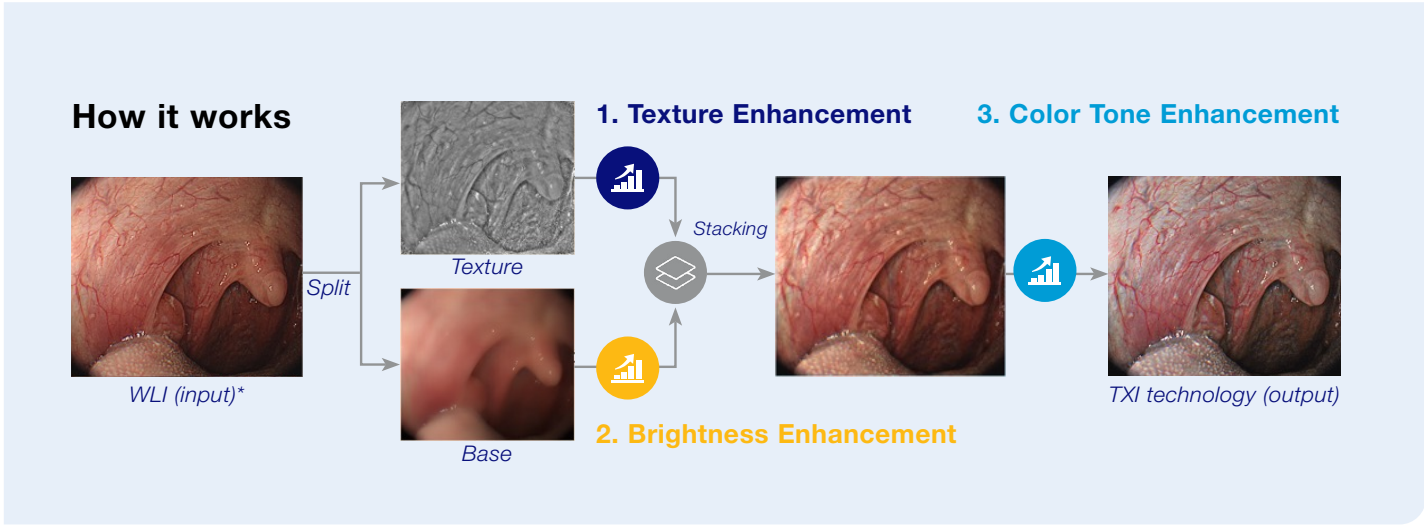


Spotlight on Water-aided Colonoscopy
ADR Evidence – 1.41 Times More Likely
to Detect Serrated Adenoma¹¹

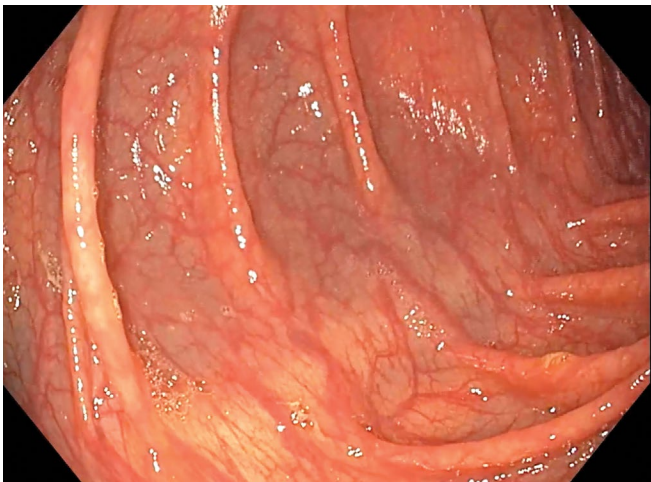
How Does TXI™ Technology Work?

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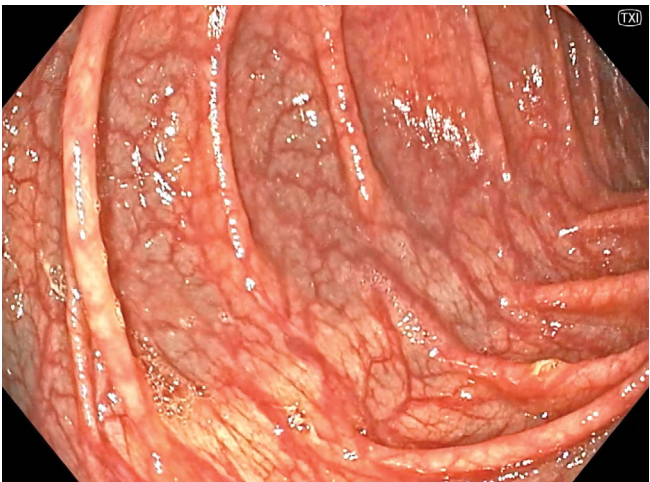
TXI technology is a post-processing technology that is applied to white light imaging that is designed to increase the visibility of potentially suspicious lesions and polyps by enhancing image color, brightness and texture during endoscopic screening.⁷



The technology works by combining the three image processing algorithms: brightness correction of the dark parts of the image; color difference expansion processing; and texture component emphasis processing. The incoming image is split, and the texture and brightness are enhanced before the separate images are merged back together.⁷



White Light



TXI Technology

Images provided by Dr. Charles Snyder using a CF-HQ1100DL colonoscope.



**13.61% Improvement in
ADR Detection⁸**

How Does TXI Technology Work?

Solutions for Successful Colorectal Cancer Screening

TXI Technology and ADR Evidence

Research in a multicenter, randomized controlled trial published in *Gastroenterology* in 2023 demonstrated that TXI technology significantly improves ADR by 13.61%, and the rate of adenomas per colonoscopy ≥ 5 mm in size was significantly higher when compared to white light endoscopy (WLE). Findings underscore TXI technology’s ability to support clinicians in identifying potential precancerous lesions and enhancing the quality of their colonoscopies.⁸



Learn more about clinical data on TXI Technology!

medical.olympusamerica.com/products/evis-x1

Research Available on TXI Technology

	Read “Texture and Color Enhancement Imaging Improves Colonic Adenoma Detection” study summary to learn more about TXI technology.	
	Read “Texture and Color Enhancement Imaging (TXI) Plus ENDOCUFF VISION™ Versus TXI Alone for Colorectal Adenoma Detection” study summary.	
	Read “Texture and Color Enhancing Imaging Versus High-Definition White Light Endoscopy for Detection of Colorectal Neoplasia” study summary.	
	Read “Detection of Colorectal Adenomas with Texture and Color Enhancement Imaging” study summary.	

TXI technology is not intended to replace histopathological sampling as a means of diagnosis.

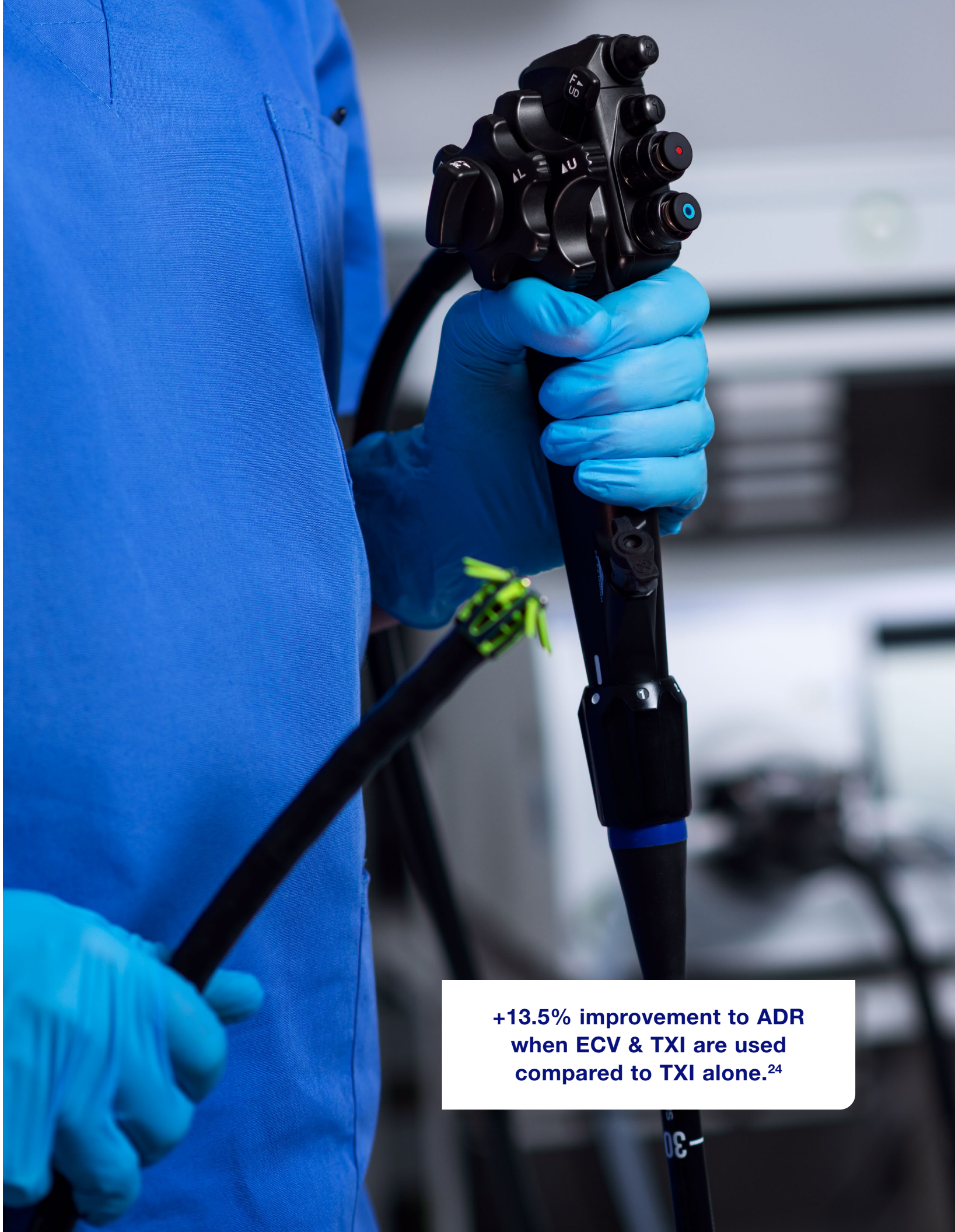
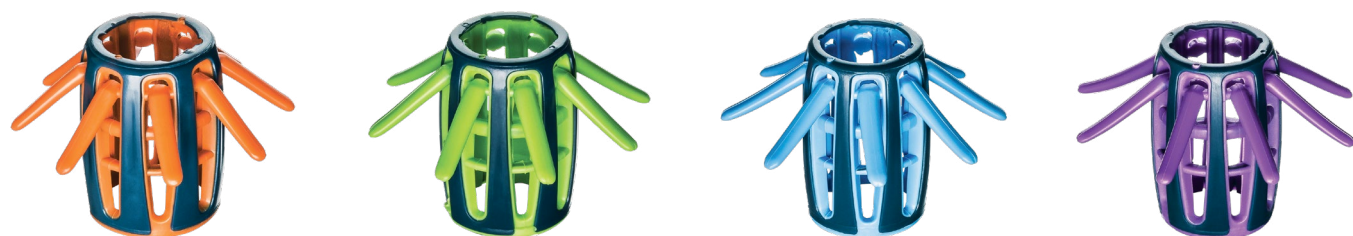
How Does ENDOCUFF VISION™ Device Work?

Solutions for Successful Colorectal Cancer Screening

The ENDOCUFF VISION device is a simple distal attachment that is applied to the end of the colonoscope.⁹ During insertion of the colonoscope to the cecum, the hinged arms of the ENDOCUFF VISION device collapse into the body to minimize intubation force and insertion resistance.⁹

During withdrawal, the arms extend and grip to colonic folds. The ENDOCUFF VISION device is designed to increase ADR by manipulating colonic folds to maximize the viewable mucosa.⁹

The arms of the ENDOCUFF VISION device assist in anchoring the colonoscope to reduce the risk of slippage and allow for controlled withdrawal as well as stability during polypectomy maneuvers.⁹



**+13.5% improvement to ADR
when ECV & TXI are used
compared to TXI alone.²⁴**

How Does ENDOCUFF VISION Work?

Solutions for Successful Colorectal Cancer Screening

ENDOCUFF VISION Device and ADR Evidence

A 2021 meta-analysis of randomized controlled trials published in *Gastrointestinal Endoscopy* demonstrated decreased withdraw time with the ENDOCUFF VISION device, and a notable increase of 9.4% in adenoma detection rate (ADR), with a range up to 15.1% resulting, in higher detection performance amongst operators with low baseline ADR compared to standard colonoscopy.¹⁰

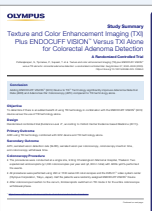
In a network meta-analysis comparing several colonoscopy add-on devices, HCPs performing colonoscopies were 1.88 times more likely to find at least one serrated adenoma per colonoscopy when using the ECV device compared to HD white light.¹¹



Learn more about the ENDOCUFF VISION!

medical.olympusamerica.com/products/endocuff-vision

Research Available on ENDOCUFF VISION Device

	Download “Second-Generation Distal Attachment Cuff for Adenoma Detection in Screening Colonoscopy. A Clinical Randomized Trial” study summary.	
	Download “Second-Generation Distal Attachment Cuff Improves Adenoma Detection Rate: A Clinical Randomized Trial” study summary.	
	Download “Endocuff Vision Reduces Inspection Time Without Decreasing Lesion Detection” study summary.	
	Download “Texture and Color Enhancement Imaging (TXI) Plus ENDOCUFF VISION™ Versus TXI Alone for Colorectal Adenoma Detection” study summary.	

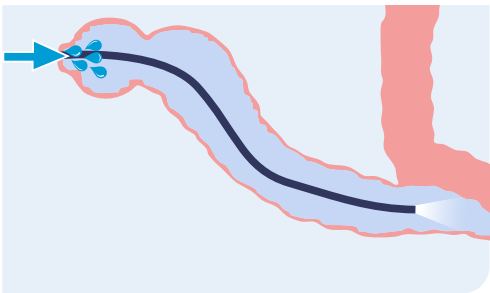
A rare but potential complication when using ENDOCUFF VISION™ device is the detachment of the device during the procedure. Be prepared to retrieve the device if this were to occur. Ensure ENDOCUFF VISION™ device is used only with compatible colonoscopes, that the colonoscope distal tip is in good condition, and that the device is fully seated on the distal tip prior to the application of lubricant to minimize the chance of detachment.

How Do Water-aided Colonoscopy Techniques Work?

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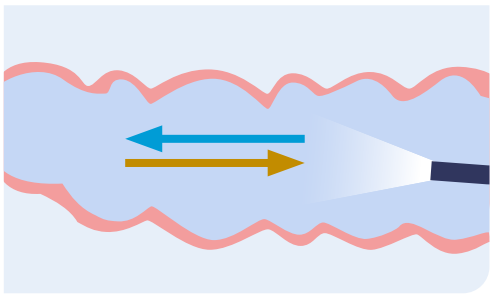
Two techniques are currently employed in water-aided colonoscopy. These are alternatives to air or CO₂ insufflation used to distend the colon enough during insertion to visualize navigation.¹²

Water Immersion



In this technique, the colon is distended by filling it with water, flattening the mucosa for viewing.

Water Exchange

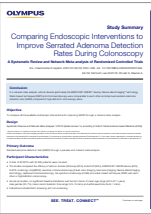


In this approach, water is repeatedly infused then aspirated during the procedure, and the scope is only advanced once the water is clear. Colon mucosa is visualized through the water.

Clinical Study on Water-aided Colonoscopy Techniques

In a network meta-analysis comparing several colonoscopy add-on devices, endoscopists performing colonoscopies were 1.41 times more likely* to find at least one serrated adenoma per colonoscopy when water-aided colonoscopy techniques were used, compared to HD WLE alone¹¹

Resources



Download “Comparing Endoscopic Interventions to Improve Serrated Adenoma Detection Rates During Colonoscopy: A Systematic Review and Network Meta-analysis of Randomized Controlled Trials” study summary.

Olympus® Solutions to Support Water-aided Techniques

Water-aided colonoscopy techniques can be supported with Olympus® pump technology.

Endoscopic Irrigation



The Olympus OFP-2 flushing pump delivers power and control that can irrigate fluid via either the instrument or auxiliary water channels of endoscopes. This allows the washing of gastric and colonic mucosa during procedures for improved visualization. It can also rapidly fill organs with fluid, allowing endoscopic ultrasound.¹³



Learn more about the irrigation pump!

medical.olympusamerica.com/products/pumps/ofp-2

Endoscopic Aspiration



The Olympus® KV-6 suction pump is designed for endoscopic aspiration. The flow change buttons allow a fast vacuum build-up with a single touch. It has a whisper mode for quiet operation and turbo mode for fast suction. Single-use collection systems and disposable filters are available.¹⁴



Learn more about the aspiration pump!

medical.olympusamerica.com/products/kv-6-suction-pump

Improper installation and usage can result in patient pain and/or injury. Install and operate these products in accordance only with the IFU.

Visualization

Solutions for Successful Colorectal Cancer Screening

Because every adenoma counts, every detail of a colonoscopy matters to support success. Olympus has several technologies to enhance visualization during an exam; these technologies include an HD 4K medical grade monitor, Narrow Band Imaging™ (NBI™) technology, and Dual Focus technology.

Do You See What I See? OEV321UH Display Monitor



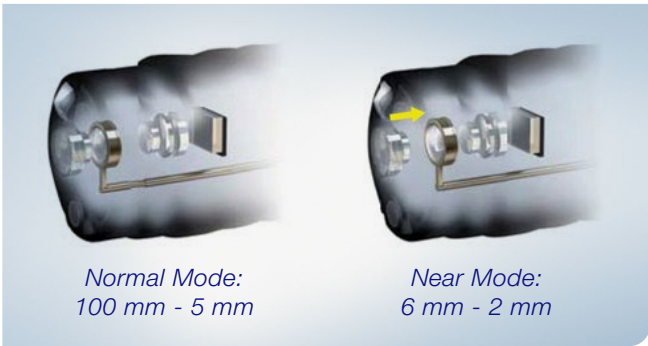
The OEV321UH display monitor completes the image chain to provide high-gradation images and a breadth of features designed to facilitate optimal image quality and ease-of-use.¹⁵



Learn more about 4K monitors!

medical.olympusamerica.com/products/monitors/oev321uh-4k-ultra-high-definition-lcd-monitor

Bringing It Into Focus: Dual Focus Technology



Dual Focus is a two-stage optical lens technology designed to allow physicians to switch from normal to near focus mode with a single button, to conduct close examination of mucosal tissue and capillary networks. In a randomized clinical trial when Dual Focus and NBI technology are used together, endoscopists are more likely to make high confidence predictions of diminutive polyp histology than those using standard focus colonoscopes.¹⁶



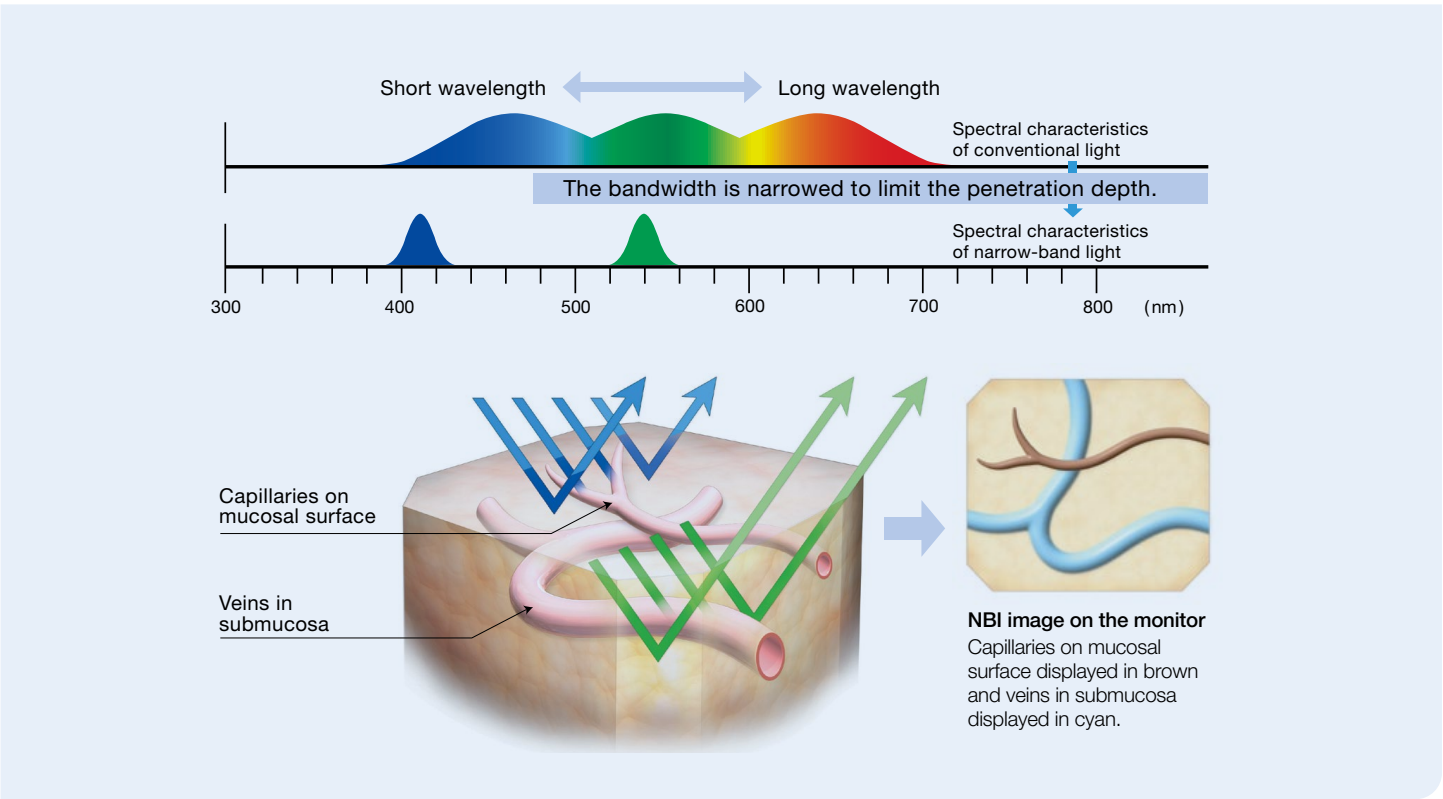
Learn more about Dual Focus technology!

medical.olympusamerica.com/technology/dual-focus

Suspect Before You Resect: Narrow Band Imaging™ (NBI™) technology

NBI technology enhances visualization of the capillary network and mucosal morphology.⁷

NBI technology assists an experienced endoscopist employing a validated polyp classification system such as the NBI International Colorectal Endoscopic (NICE) classification with high confidence, in distinguishing diminutive adenomatous polyps from non-adenomatous polyps during colonoscopy with greater than 93% sensitivity, 85% specificity and a greater than 90% negative predictive value.¹⁷



Learn more about NBI technology!

medical.olympusamerica.com/technology/narrow-band-imaging-nbi-gastroenterology

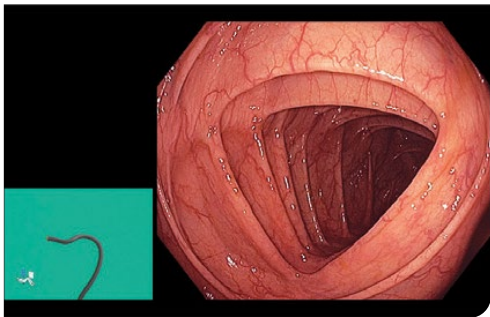
NBI technology is not intended to replace histopathological sampling as a means of diagnosis.

Intubation

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Reaching the cecum is the first key step in a colonoscopy. Olympus offers products to support cecal intubation, such as scope mapping, specialized colonoscope technologies, and insufflation technology.

Recognize Loops as They Form: ScopeGuide™ Technology



ScopeGuide technology is designed to provide a real-time, 3D image of the position and configuration of the colonoscope during a procedure. It is designed to help physicians recognize loops as they form, potentially decreasing insertion time and lessening patient discomfort.¹⁸



Learn more about ScopeGuide technology!

> <https://medical.olympusamerica.com/technology/scopeguide>

Tactile Technology: RIT



Colonoscope technology in most* of Olympus® 190 and 1100 series colonoscopes features Responsive Insertion Technology (RIT). RIT combines three proprietary insertion tube technologies:^{19,20}

- High Force Transmission
- Passive Bending
- Variable Stiffness



Learn more about colonoscope technology!

> medical.olympusamerica.com/products/evix-exera-endoscopy/control

Advance the Scope by Distending and Expanding the Colon



CO₂ Insufflators like the UCR CO₂ regulation unit provides intraluminal insufflation using carbon dioxide to minimize bowel distension.²¹ Since CO₂ is absorbed by the body significantly faster than air, the technology is designed to reduce patient discomfort resulting from bowel distension.²¹



Learn more about the UCR CO₂ regulation unit!

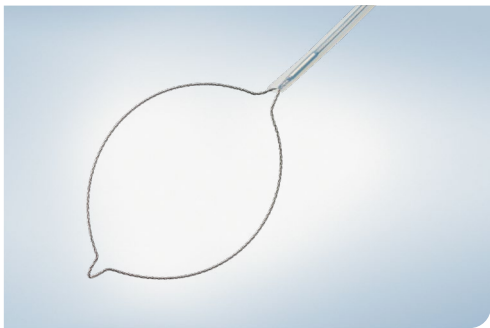
> medical.olympusamerica.com/products/co2-regulation-unit-ucr

CRC Treatment

Solutions for Successful Colorectal Cancer Screening

Olympus is not just dedicated to the imaging technology, mechanics, guidance, technique, and visualization related to early detection. We offer products designed for the evaluation and treatment of GI diseases, such as snares, biopsy forceps, and EndoTherapy devices.

Why Colonoscopy? Polypectomy!



SnareMaster™ Snares for polypectomy are designed for easy insertion into the scope channel. These snares come in a variety of sizes to customize technique based on need.²²

ASGE/ACG Quality Task Force updated 2024 quality indicators and recommended the use of a cold snare technique in ≥ 90% of polypectomy for 4- to 9-mm polyps.² The SnareMaster Plus snare is ideally suited for this purpose.



Learn more about SnareMaster Snares!

medical.olympusamerica.com/products/snaremaster

Do not use these instruments for any purpose other than their intended use as this could cause patient injury or damage to the instrument. Performing polypectomy within the GI tract is a technically demanding procedure and use of associated products such as the SnareMaster™ Plus electrosurgical snare may result in possible electrosurgical risks and patient injury to include, but are not limited to, infection, bleeding, perforation, and mucous membrane damage. When applied to a patient with a pacemaker implanted, the instrument or A cord may cause malfunctioning or failure of the pacemaker, seriously affecting the patient. Before proceeding, always confirm with a cardiologist or the manufacturer of the pacemaker that it is safe to proceed.

Get Answers

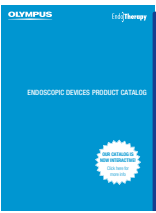
EndoJaw™ Biopsy Forceps—Olympus offers an extensive range of single-use forceps designed for performance and a range of sizes to optimize the task at hand.²³



Learn more about biopsy forceps!

content.medical.olympusamerica.com/products/endojaw-disposable-biopsy-forceps

EndoTherapy Offerings



Download this Olympus® Endoscopic Devices Product Catalog to learn more about our product offerings today!

Patient Focus

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Service and Support Centered Around You



Clinical Support and Education

EndoTherapy Territory Managers (ETM)

ETMs lead ongoing product training sessions and in-servicing of all EndoTherapy products both during procedures and in between cases.

Clinical Endoscopy Specialist (CES)

The CES mission is to positively influence the procedure while making sure that you are using your equipment to its fullest potential.

Clinical Application Specialists (CAS)

The CAS are regionally located, registered diagnostic medical sonographers providing support for EUS and EBUS products

Technical Support

Field Service Engineers (FSE)

The goal of every FSE is to maximize your uptime so you can keep patient care on track.

Technical Support Engineers (TSE)

The TSE's mission is to keep your equipment running smoothly every day.

Infection Prevention Support

Endoscopy Support Specialists (ESS)

Every ESS effort helps enhance the performance and value of your Olympus endoscopy equipment.

Service

Customer Service Representatives

Calls and requests are handled quickly and efficiently, with an emphasis on keeping you and your team performing at maximum efficiency.

At Olympus, we are committed to Our Purpose of making people's lives healthier, safer and more fulfilling. As a global medical technology company, we partner with healthcare professionals to provide solutions and services for early detection, aiming to improve patient outcomes by elevating the standard of care in colorectal screening.



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Solutions for Successful Colorectal Cancer Screening



Let us help support you with solutions for successful CRC screening today!
Contact your Olympus® Sales Representative.

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