

SPEARE HOSPITAL: FIRST IN REVOLUTIONARY AI-ENHANCED COLONOSCOPY



Dr. Joseph Casey
Plymouth General Surgery

We live in a time of remarkable advancements in healthcare technology, and one area that has seen significant progress is the field of colonoscopy. This crucial diagnostic procedure, used to detect abnormalities in the colon and rectum, has been revolutionized by integrating artificial intelligence (AI) into the screening process. Speare was the first and only hospital in New Hampshire to introduce AI-enhanced colonoscopies this year, transforming patient care.

"This is a powerful new ally in the fight against colorectal cancer," says Dr. Joseph Casey of Plymouth General Surgery. "Knowing my partners, Drs. Koren, Hannowell, and Chastanet, it is no surprise that our team was the first in the State of New Hampshire to add this system to our endoscopy unit. We are dedicated to bringing a truly new and innovative technology to our community and our patients. This is an opportunity to use artificial intelligence to improve the quality of the colonoscopies we perform and further decrease the risk of colorectal cancer for our patients."

Colorectal cancer is the third most common form of cancer diagnosed in the U.S., with almost 150,000 new cases yearly. Colo-

noscopies are considered the gold standard in screening for this cancer. Traditionally, colonoscopies have relied on the expertise of highly skilled surgeons to visually inspect the colon and identify any abnormalities or polyps that may be present.

While this approach has been effective, it is not without limitations. The human eye can sometimes miss small or subtle lesions, leading to missed diagnoses or delayed treatment.

Enter artificial intelligence—a technology that can analyze vast amounts of data quickly and accurately. By leveraging machine learning algorithms, AI aids Speare's general surgeons in detecting and classifying suspicious lesions during a colonoscopy. This cutting-edge technology acts as a valuable second pair of eyes, enhancing the diagnostic capabilities of our healthcare providers and improving patient outcomes.

One of the key benefits of AI-enhanced colonoscopy is its ability to provide real-time assistance during the procedure. The AI algorithms can analyze the endoscopic images captured by the colonoscope and highlight areas of interest, such as potential polyps or lesions. This "aug-

mented reality" approach allows our surgeons to focus on the highlighted regions, increasing the likelihood of detecting and removing precancerous growths early on. Early detection is crucial in improving survival rates and reducing the overall burden of colorectal cancer.

AI-enhanced colonoscopy represents a ground-breaking advancement in the field of gastroenterology. This fusion of human expertise and machine learning can potentially improve the accuracy and efficiency of colon cancer screening, ultimately saving lives. As our hospital embraces these technological advancements, we remain committed to providing our patients with the highest standard of care, leveraging the power of AI to enhance their health outcomes.

"Having practiced here in Plymouth for 28 years, I am proud to see that we at Plymouth General Surgery have been able to provide **the best of quality and compassionate care to our community,**" says Dr. Casey. "We continue to strive to challenge and improve ourselves as practitioners and the care we provide."

Together, let us embrace the future of medicine and ensure a healthier tomorrow for all. ♦

