



## Radiologist Spotlight Catherine Buhler, MD

Dr. Catherine Buhler – a board-certified, fellowship-trained women’s imaging radiologist with Radiologic Associates of Fredericksburg (RAF) – is a Virginian through and through. She grew up in the Shenandoah Valley near Lexington and completed all her advanced education in Virginia: a bachelor’s degree in biology from the University of Virginia, followed by several years at Virginia Commonwealth University (VCU), where she received a master’s degree in anatomy, followed by a medical degree. She also completed her internship in internal medicine, residency in diagnostic radiology, and fellowship in breast imaging at VCU.

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## Lung Cancer Screening Program Uses Latest Evidence to Detect Disease Early

Lung cancer is the leading cause of cancer death in the U.S., according to the American Cancer Society, which estimates the disease will take more than 130,000 lives in 2021. Radiologic Associates of Fredericksburg’s lung cancer screening program uses the most up-to-date, evidence-based practices to help catch lung cancers early, when they are far more treatable.

“Our screening program is designed to detect treatable disease, and we have already been able to identify numerous early-stage cancers, which can be referred to a thoracic surgeon for potentially curable treatment,” said Dr. Stacy Moulton, one of RAF’s board-certified, fellowship-trained diagnostic radiologists.

### An evidence-based approach

The U.S. Preventive Services Task Force released updated guidance in March 2021 stating that individuals ages 50 to 80 who have a 20-pack-year smoking history (one pack per day for the past 20 years) and are currently smoking or have quit in the past 15 years should receive annual screenings.

This guidance expands the number of people recommended for annual screening. While private insurers have adopted the new standards under the rules of the Affordable Care Act, the Centers for Medicare & Medicaid Services still follow previous guidelines, which called for screening at ages 55-80 with a 30-pack-year smoking history.

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**Early detection is key**

The overall five-year survival rate for lung cancer is only about 18%, Dr. Moulton said, owing largely to the fact that most lung cancers are not detected until they have reached an advanced stage.

“Unfortunately, most patients don’t visit the doctor until they have active symptoms,” he said. “A lot of smokers have coughs, so it’s not until they are coughing up blood or there is some significant change such as weight loss or fatigue that they come in. By that time, they are at a much more advanced stage, and a much less treatable state.”

A 2017 study by the American Lung Association found that 84% of individuals eligible for lung cancer screenings were unaware of their eligibility. RAF works proactively through healthcare providers and primary care physicians to ensure that those who stand to benefit the most from this tool can access it.

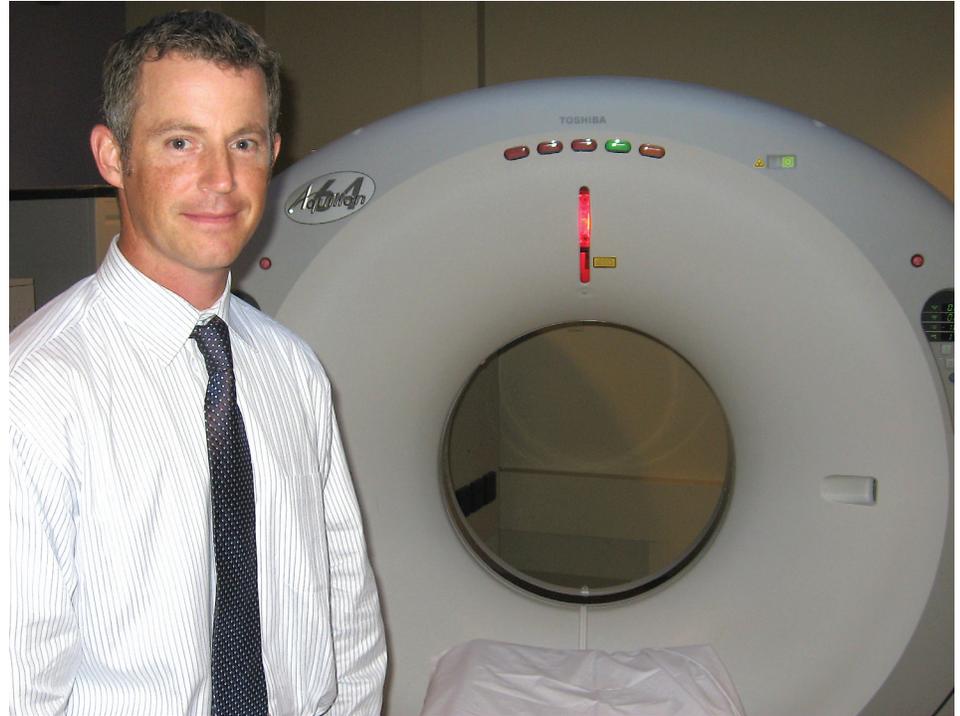
“Every year we are doing more and more screenings, and it is extremely reassuring to me and to the providers we work with that we are identifying early-stage cancers, and we are truly saving lives,” Dr. Moulton said.

**Constantly improving imaging technology**

Lung cancer screenings use a technology known as low-dose computed tomography (LDCT), which is available at both Medical Imaging of Fredericksburg and Medical Imaging of North Stafford.

An LDCT lung scan uses one-quarter the radiation of a chest CT scan, because the image doesn’t have to penetrate bone and significant soft tissues. When needed, RAF radiologists can cut the radiation dose even further by using the new dual-source CT scanner recently installed at Medical Imaging of Fredericksburg. By scanning from two directions, dual-source CT technology can cut the radiation dose for screenings nearly in half.

The patient experience for LDCT screenings is painless and fast. The procedure requires no IV or blood draw,



**Dr. Stacy Moulton has been involved in the lung cancer screening program for over a decade. Here he is pictured in 2011.**

and patients simply check in, wait their turn and lie down on a table that slides them into a machine shaped like a donut.

“Hold your breath and it’s done in a couple of seconds,” Dr. Moulton said.

**Informing the patient at every step**

Before screening can be completely covered by insurance, patients are required to have what is known as a shared decision-making consultation with their primary care doctor. This is an opportunity for patients to learn about some of the risks of screening, including false positive results. Dr. Moulton said it’s not uncommon for a screening to turn up tiny chest nodules. In most cases, these can be monitored and checked on the next screening for any changes, but some may require further examination with more imaging or a biopsy.

CT scanning can detect nodules as small as 1 to 2 millimeters in size. By comparison, a chest X-ray typically doesn’t show nodules until they are 1 centimeter or larger.

“You want to find the 4-millimeter nodule that is considered benign at initial screening,” Dr. Moulton said. “If next year it is 8 millimeters, then you are catching a cancer before it is even a centimeter in size.”

If a screening requires further consultation, RAF radiologists work in concert with Dr. Timothy Sherwood, thoracic surgeon with Mary Washington Healthcare, and with Pulmonary Associates of Fredericksburg and other providers to ensure patients can get the specialist treatment they need.

“This isn’t just an exam,” Dr. Moulton said. “It’s part of a screening program that has been designed to detect and treat cancers early in some of our most at-risk individuals.”

**To learn more about lung cancer screening**, contact Medical Imaging of Fredericksburg at 540-741-7644. Providers can reach Dr. Moulton for a consultation through the RAF Physician Concierge at 1-855-RAF-LINE (1-855-723-5463). ■

## Following her calling

At the age of five, Dr. Buhler was certain of her career path.

“Most girls want to be a ballerina, right?” she said. “I didn’t. I wanted to be a doctor. Practicing with my friend Hillary, who good-naturedly agreed to be my patient, I created concoctions of who-knows-what – and spread them on her to cure the conditions we pretended she had.”

In sixth grade, the aspiring doctor wrote a paper about how she would make her career dream come true. It included detailed notes about where she would go to college and how long her residency would be. “I’ve always been a meticulous planner,” she noted.

The fascination with doctoring continued in the late ‘80s, when her father brought home a computer for his five children. The new device, though not the Nintendo video game system she’d hoped for, did come with entertainment: a built-in game of surgery. “Players could move the computer mouse to perform operations, but I couldn’t get it going fast enough to fix the simplest ailment – appendicitis – before the buzzer rang. Oops. Game over!”

Undeterred, she went on to study biology and pursue the next steps in her career plan.

## Finding her specialty

In her third year of medical school, a colleague observed her talent for reading images. Shortly after, her father was diagnosed with breast cancer, which affects less than 2 percent of men in the U.S. “A local surgeon ignored the lump Dad discovered in his chest. I felt it and advised him to get a second opinion.” A biopsy found breast cancer. After successful treatment, her father healed – while Dr. Buhler found her medical specialty as a breast radiologist.

“When I first explored the field of radiology, the opportunity to use my skills in anatomy truly resonated, but I missed interacting with patients,” she said. “As a breast radiologist, I have the best of both worlds: the science part and the people part. Consulting with patients – and ultimately, helping them toward better health – is highly rewarding.”



Dr. Buhler and family

Dr. Buhler joined RAF in 2012 after completing her fellowship. Today, she provides services to Imaging Center for Women (ICW), a partnership of RAF and Mary Washington Healthcare. With locations in Fredericksburg, Lee’s Hill, and North Stafford, ICW offers leading-edge technologies, including 3D mammography equipment, and innovative health care services designed specifically for women.

RAF’s practice is unique, she noted, as it includes eight fellowship-trained breast radiologists – more than any other group in Virginia. “With our ‘deep bench’ of specialists, we can collaborate more closely, seek second opinions on the spot, and provide our patients with the highest standards of care.”

## Flowing with the river

Dr. Buhler’s husband, John, is a dentist. The two met at VCU in a gross anatomy class, before she started medical school, and were married the following year. They have three sons: Jackson, age 14, and twins Samuel and Alex, age 11. The sixth family member – Rooney the poodle – joins his humans at the TV screen to cheer on the Las Vegas Raiders.

The Buhlers also enjoy outdoor activity of any kind, from hiking, boating, and wakeboarding to hopping rocks on the river. Restaurant connoisseurs, they revel in international cuisine, with a special fondness for Chinese dishes, Japanese sushi, and Mexican street tacos. ■

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Ed Swager, Chief Executive Officer

Radiologic Associates of Fredericksburg (RAF) is the largest provider of medical imaging services in the Fredericksburg, Stafford and Spotsylvania area. RAF's interventional radiology and vascular surgery group, Virginia Interventional & Vascular Associates (VIVA), performs minimally invasive procedures, vascular lab studies and vascular surgery.

RAF publishes *Imaging Advances* periodically for referring physicians and the greater medical community.

For more information, please contact Paige Bishop, Director of Marketing, [pbishop@rafadmin.com](mailto:pbishop@rafadmin.com), (540) 361-1000.



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## Welcome

### Dr. Sherif Osman Joins RAF

Radiologic Associates of Fredericksburg (RAF) welcomes Dr. Sherif Osman to the practice.

He graduated with honors from Cairo University School of Medicine and is fellowship trained with a subspecialty focus on neuroradiology, emergency imaging and cardiothoracic imaging. Most recently, Dr. Osman has served as an Assistant Professor of Radiology at Texas Tech University.

"We are excited to have Dr. Osman join the RAF practice. We are committed to providing the highest level of medical care to our community, ensuring that our staffing level can meet its growing needs. Dr. Osman's experience in emergency imaging brings additional talent and perspective to our practice," said Dr. Chris Meyer, RAF President. ■



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