



## Local Interventional Radiologists perform many kinds of minimally invasive treatments

Part radiologist. Part minimally invasive surgeon. Interventional Radiologists are both, providing imaging-guided treatments for a variety of medical conditions ranging from uterine fibroids to spinal fractures to cancerous tumors.

This fascinating subspecialty of radiology is well represented at Dominion Radiology Associates (DRA). The practice has three physicians who perform Interventional Radiology (IR) procedures in the interventional suite at Chesapeake Regional Medical Center. The suite is equipped with sophisticated medical imaging machines and devices the doctors need during treatments.

“These machines provide detailed, real-time visual guidance, allowing us to see the inside of the body on a screen as we precisely insert catheters, guidewires, devices and pharmaceutical agents through arteries, veins, and organs to deliver treatments. We can remove blockages, stop bleeding, treat tumors and abnormal blood vessels, treat collapsed spinal bones, drain fluid, and more,” explained Dr. Victor D. Lewis.

When minimally invasive treatments are an option, the benefits of interventional procedures over traditional surgeries are well documented, he added, from shorter procedure times and hospital stays, better pain management, and quicker recoveries to improved convenience for patients and significantly reduced risks and costs.

### Wide-ranging treatments

IR treatments available through DRA physicians include bone biopsies to test for cancer, infection, and bone disorders, along with spinal procedures to manage back pain and other conditions, noted Dr. Sanjay M. Patel.

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## New test radically improves diagnosis of heart disease

*Creates 3-D digital image of a patient's coronary arteries*

Local medical providers who suspect a patient has coronary artery disease, the leading cause of death in the United States, can now order a test at Chesapeake Regional Healthcare that generates an interactive 3-D computer model of the patient's coronary arteries. The test – HeartFlow Analysis – shows providers the extent of any coronary blood vessel blockages and their effect on the patient's heart.

“This test is a radically new way of diagnosing coronary artery disease. It's changing the paradigm,” said Dr. Neil B. Green, physician director of PET and cardiac imaging for Dominion Radiology Associates.

“HeartFlow is a safe, non-invasive, rapid test completed in only one breath-hold that provides a highly accurate assessment of a patient's heart,” he explained. “Too many patients have layered or multiple tests to answer the essential two questions of whether their symptoms are due to an artery blockage and if that blockage restricts blood flow to their heart muscle. HeartFlow is the one

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## Radiologist Spotlight: Victor D. Lewis III, MD



Growing up in New England, Dr. Victor Lewis, a board-certified, fellowship-trained interventional radiologist at Dominion Radiology Associates (DRA), was inspired by a long lineage of professionals who put a premium on education. His grandfather was a dentist; his other grandfather, a high school principal; his mother, an elementary school teacher; and his father, an architect.

Particularly intriguing was the legend of his great grandfather. “He was the first Black graduate of the University of Pittsburgh School of Medicine,” Dr. Lewis said. “He graduated fourth in his class in 1904 and was a great diagnostician. But because he was Black, he didn’t have hospital admitting privileges in the days of segregation. He admitted patients through his White colleagues.”

The story of his great grandfather’s relentless devotion to serving patients against all odds made a deep impression. “The idea of pursuing a profession that benefits others was immensely important to me, and I moved down the path to be a physician,” Dr. Lewis said. “I thought I’d be a surgeon or a pediatrician. But in medical school, when each rotation ended up in the radiology department, all signs pointed to radiology as the best fit for me. Radiologists have an integrated perspective on what’s happening with patients. As a visual person, I found Interventional Radiology appealed to my desire to combine high-tech imaging with surgical skills to provide minimally

invasive direct patient care, consultation, and follow-up.”

He received a bachelor’s degree in biology from Brown University in Rhode Island and a medical degree from the University of Pennsylvania, followed by his medical internship, radiology residency, and Interventional Radiology fellowship at the Hospital of the University of Pennsylvania. In 2005, after 19 years of practice in Philadelphia, Dr. Lewis moved to Virginia Beach and joined the group that would later form DRA.

### An ‘absolute privilege’

Dr. Lewis performs a wide spectrum of image-guided, minimally invasive procedures, all designed to get patients back to health through targeted therapy for treating tumors, bleeding, blockages, abnormal blood vessels, collapsed spinal bones, and other conditions in organs throughout the body.

His “superspecialty” area of practice is uterine fibroid embolization (UFE), a minimally invasive procedure for treating uterine fibroid tumors. Dr. Lewis has performed more than 2,300 UFEs in Chesapeake. He serves as the director of Interventional Radiology and medical director of the Uterine Fibroid Embolization Center of Excellence at Chesapeake Regional Medical Center.

“Practicing Interventional Radiology—and having patients’ ultimate trust to care for them before, during, and after a procedure—is an absolute privilege,” Dr. Lewis said. “Just because we can intervene doesn’t always mean we should, however. Patients have to live with the outcomes of our judgments and interventions so it is our responsibility to do the very best job we can. We must always treat our patients as we would want ourselves and our families to be treated.”

### An active approach

Throughout his career, Dr. Lewis has been a key contributor to the Interventional Radiology community, with membership in more than a dozen professional groups. He has held several offices, including president of the Philadelphia Angiography and

Interventional Radiology Society, the nation’s oldest and largest angiography society. He has served also on the board of directors for two area banks and is active in the Virginia Beach Neptune Festival, which hosts thousands of people in several special events throughout the year.

Dr. Lewis and his wife, Jacqui, an interventional technologist, have three grown children: two sons, Kyle and Christopher, and a daughter, also named Jackie. Two granddaughters and a rescue dog, Charlie—a

## Radiologist Spotlight: Sanjay

Dr. Sanjay Patel is a board-certified, fellowship-trained Interventional Radiologist at Dominion Radiology Associates (DRA). He attended college at the University of Zambia in Lusaka, Zambia’s oldest and largest university, and continued there to receive his medical degree in 1988.

Surgery and internal medicine were his top choices, until a colleague in the U.S. suggested he might like radiology. “My initial impression was that radiology involved sitting in a dark room and reading X-rays all day, but as I began to pursue Interventional Radiology (IR) as a discipline, I enjoyed the subspecialty,” he said.

“I appreciate that it’s a field with the potential to provide an exceptional patient experience. Because the procedures we provide are minimally invasive, patients typically experience less pain, with fewer risks and a faster recovery. It’s particularly exciting that the range of conditions that can be treated by IR is vast and continues to expand.”

Dr. Patel moved from Zambia to the United States in 1990. He completed his residency in internal medicine at the McLaren Regional Medical Center/Michigan State University. His radiology residency and fellowship in Interventional Radiology were completed at Louisiana State University Health Science Center. In 2005, Dr. Patel joined the group that would later become Dominion Radiology Associates.

Dr. Patel performs a variety of imaging-guided, minimally invasive procedures. One of his special areas of focus is interventional spine procedures to treat and manage

female Black Lab/American Foxhound mix—complete the family picture.

Devoted to staying physically fit, Dr. Lewis golfs, swims, and bikes regularly. He is also an avid traveler, with a fondness for the northern U.S., Canada, Europe, and the Caribbean (favorite island: Nevis).

A wine connoisseur, he served for five years on the board of the Chesapeake Bay Wine Classics Foundation (preference: red and white Burgundies). Does he make his own? “No way! I said I like *good* wine!” ■

## ay M. Patel, MD



back pain and spine conditions. Patients with acute fractures have benefited from vertebroplasty, which involves injecting cement mixture into the fractured vertebral body, and kyphoplasty, inserting a balloon into the fractured vertebral body to create a space and then fill it with cement mixture. “We have seen many patients who were in immense pain able to walk again with ease after the procedure and resume near-normal activity,” Dr. Patel said.

What does he like most about his work? “Our patients. They make me happy. The staff at Chesapeake Regional Medical Center, particularly the Radiology Department, are phenomenal, too. Soon after I joined the practice, I knew I was with family.” He is also a fan of the Hampton Roads area. “Of all the places I’ve lived, it’s the safest and most serene.”

Two important procedures that are among his specialties: vertebroplasty, where a cement mixture is injected into a fractured spinal bone; and kyphoplasty, where a balloon is first inserted into the fractured bone to create a space that can be filled with the cement.

“After these procedures, most patients, many of whom are seniors, regain lost mobility and can get back to normal activity,” he said.

Uterine fibroids are another painful condition DRA’s Interventional Radiologists address, especially in women in their 30s, 40s and 50s. Physicians can target the fibroids to shrink and make them inactive through a procedure called uterine fibroid embolization (UFE), said Dr. Lewis, who serves as medical director of the Uterine Fibroid Embolization Center of Excellence at Chesapeake Regional Medical Center.

Some of the wide variety of IR treatments DRA physicians provide include the following:

- **Uterine fibroid embolization** to address uterine tumors
- **Vertebroplasty and kyphoplasty** to stabilize injured back bones
- **Epidural steroid injection (ESI)** to relieve back pain
- **Nephrostomy** to improve kidney function, reduce pain and create access for kidney stone removal
- **Biliary and gallbladder drainage** to bypass blocked liver bile ducts
- **Arterial catheters** to treat organ bleeding

- **Balloon angioplasty/stent placement** to open narrow or blocked blood vessels
- **CT and ultrasound-guided biopsies** to diagnose tumors and infections
- **Percutaneous drainages** to treat fluid collections and abscesses
- **Inferior vena cava filter placement** to prevent blood clots from reaching the lungs
- **Central venous port catheter placement** for infusion therapy
- **Varicocele embolization** to treat congested veins

### More than reading X-rays

The work of DRA’s Interventional Radiologists and others in the practice are dispelling the misconception that radiologists spend all their time in dark rooms reading medical images.

Evaluating medical imaging studies is important, but that is not all radiologists do. They diagnose and treat disease and injury through medical imaging and interventional procedures; meet with patients to explain procedures and answer questions; and serve as expert consultants to referring medical providers, recommending diagnostic testing and treatments.

### Contact

Referring medical providers who would like to speak to an Interventional Radiologist can contact the DRA Physician Concierge at **855-RAD-LINE (855-723-5463)**. ■



**dominionradiology.com/  
locations/chesapeake  
(855) 723 5463**

Ed Swager, Chief Executive Officer

Dominion Radiology Associates provides high-quality, high-value medical imaging services to residents of Virginia and Northeastern North Carolina. Through its collaboration with Chesapeake Regional Healthcare, the physician-owned practice serves patients at Chesapeake Regional Medical Center, Chesapeake Regional Imaging's Kingsborough and Kempsville locations and the Jennings Outpatient Center.

DRA publishes *Imaging Advances – Chesapeake* periodically for referring physicians and the greater medical community. For more information, please contact Tammy Gressly, Director of Administrative Operations, at [tgressly@dominionrad.com](mailto:tgressly@dominionrad.com).



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*New test radically improves diagnosis of heart disease continued from page 1*

non-invasive test that can answer both of these important questions in a single visit.”

A major benefit is that the test provides a non-invasive alternative to more invasive procedures used for similar purposes, including cardiac catheterization.

According to a 2014 study published in the *American Heart Journal*, 58 percent of patients undergoing invasive testing were found to have no blockages that significantly limited blood flow.

A second benefit is overall savings in cost of care, according to a 2016 study in the *Journal of the American College of Cardiology*.

### How it works

Referring providers order a standard coronary computed tomographic angiography (CTA) scan to look for any blockages. If more information is needed, they order the HeartFlow Analysis to better understand the impact of the blockage. Ordering the analysis requires no additional patient appointments or scans.

The HeartFlow Analysis takes data from the patient's coronary CTA scan and uses deep learning technology to create a digital 3-D model of the patient's coronary arteries. It then uses computer algorithms to simulate blood flow and assess the impact of blockages on blood flow to the heart.

Within hours, the provider receives the analysis through a secure web interface and can assess, vessel by vessel, if enough blood is reaching the heart. The results help the provider determine the best treatment path for the patient.

Chesapeake Regional Healthcare is the only center in this region offering this test. It is covered in the outpatient setting by Medicare and most major insurers.

### For more information

Referring providers who would like to talk to a radiologist about the test can contact Dr. Green or other radiologists by calling the practice's Physician Concierge at **855-RAD-LINE (855-723-5463)**. ■



## Dr. Jonathan Bulzan Joins DRA

Dominion Radiology Associates (DRA) welcomes Dr. Jonathan Bulzan to the practice. He is serving patients in the Hampton Roads area.

Dr. Bulzan graduated from the Edward Via College of Osteopathic Medicine and completed his diagnostic radiology residency at Eastern Virginia Medical School in Norfolk. He then completed his fellowship in musculoskeletal imaging at the Emory University School of Medicine. ■