

Photo courtesy of Medical Imaging of Fredericksburg



Medical Imaging at Lee's Hill has extended hours and improved MRI.

## Outpatient Imaging Centers Serving Region Expand Capabilities, Extend Hours

Upgrades at several outpatient medical imaging centers are expanding testing options for referring physicians, improving diagnostic image quality, and helping meet increased demand for imaging studies, said Ed Swager, chief executive officer of Radiologic Associates of Fredericksburg (RAF). The changes also are reducing exam time required for completing certain imaging studies, and extending hours of operation for some facilities.

RAF's radiologists provide professional services to four outpatient centers operated by Medical Imaging of Fredericksburg (MIF). The centers are Medical Imaging of North Stafford; Medical Imaging of Fredericksburg on the Mary Washington Hospital (MWH) Campus; the Imaging Center for Women on the MWH Campus; and Medical Imaging at Lee's Hill.

### North Stafford: Expanded X-ray

Medical Imaging of North Stafford has replaced and upgraded X-ray equipment in response to the changing requirements of physicians who refer patients to the facility, Swager said. Equipment originally installed in September 2007 was designed to support the screening of orbits for Magnetic Resonance Imaging (MRI) safety reasons. Over the years, referring physicians requested that the facility add comprehensive X-ray capabilities.

Swager said the new X-ray equipment, installed in October 2009, supports all X-ray procedures needed by referring physicians, including upper and lower extremity imaging, spinal imaging, and imaging of bariatric patients. The new X-ray equipment produces high-quality images that can be distributed to referring physicians electronically through the secure Picture Archive and Communications System (PACS). They can also be compared to prior imaging done on the patient at any MIF or Mary Washington Healthcare facility.

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## Rapid Treatment for Acute DVT Can Save Lives, Reduce Hospital Stay

Interventional radiologists with Virginia Interventional & Vascular Associates (VIVA) report success over the past two years in treating acute deep vein thrombosis patients with isolated pharmacomechanical thrombolysis (IPMT), a procedure that disintegrates blood clots more rapidly than traditional therapies.

An interventional radiologist performs the two-hour, minimally invasive procedure at Mary Washington Hospital or Stafford Hospital using the FDA-approved Trellis® Peripheral Infusion System. The system consists of a catheter with two occluding balloons, drug infusion holes between the balloons, and mechanical drug dispersion capabilities.

Patients are given conscious sedation. VIVA's interventional radiologists make a small percutaneous incision, inserting the catheter into the vein requiring the procedure. Using fluoroscopy to help them guide the catheter into position, VIVA doctors isolate the clot with balloons positioned at each end of the catheter, infuse the clot with fibrinolytic medication, disintegrate it with a tiny oscillating wire, and aspirate the remaining particles.

*Rapid Treatment continued page 3*



The Trellis Peripheral Infusion System for treating acute DVT.

Photo courtesy of Covidien

## Referring Physician Resources



Photo courtesy of  
Medical Imaging of Fredericksburg

## Answers to Frequently Asked Questions

### How do I schedule imaging tests for my patients?

There are several ways to schedule an appointment.

- You may call (540) 741-XRAY (9729) to schedule an appointment.
- You may fax your appointment request to (540) 741-7679.
- You may also schedule your patient's radiological exams online via the scheduling portal. To obtain access to the scheduling portal, please contact Erika Brooks, outpatient physician liaison, at (540) 741-3293 or [erika.brooks@medicorp.org](mailto:erika.brooks@medicorp.org).

### How do I schedule an interventional radiology or vascular surgery consultation or procedure?

To schedule an appointment with an interventional radiologist or vascular surgeon, contact Virginia Interventional & Vascular Associates (VIVA) at (540) 654-9118.

### How do I contact a radiologist or vascular surgeon if I have a question?

If you have questions for an interventional radiologist or vascular surgeon, contact VIVA at (540) 654-9118. For all other radiology questions, contact Radiologic Associates of Fredericksburg at (540) 361-1000.

For more answers to frequently asked questions, visit [www.imagingway.com](http://www.imagingway.com).

## Outpatient Imaging Centers continued from page 1

“As a result of these new capabilities, we are seeing a 40 percent increase in the number of X-ray studies performed at North Stafford while also seeing patient satisfaction of greater than 98 percent,” Swager said.

Medical Imaging at North Stafford also provides ultrasound, Computed Tomography (CT) and MRI studies.

## Lee's Hill: Extended Hours, Improved MRI

Medical Imaging at Lee's Hill has expanded its weekday evening hours to support the freestanding emergency department that opened in the same building, Swager said. As a result, outpatient appointments also can be scheduled later in the evening.

The facility previously was open until 5:30 p.m. weekdays for outpatient studies. These hours of operation have been extended to 8 p.m. Monday through Friday, with Saturday hours offered 7 a.m. to Noon for walk-in X-rays.

“The main benefit is convenience for patients who are commuting, are working, or are providing child care during normal business hours,” Swager explained.

Swager said the facility is also planning a major upgrade of its MRI unit, scheduled for completion in May.

“The magnet strength of the older unit is 0.6 Tesla. The new unit is 1.0 Tesla, which will improve image quality greatly because the increased magnetic field improves the signal to noise ratio, providing an overall improved image. Spatial resolution and contrast resolution will be enhanced, improving diagnostic capabilities,” Swager said.

“The new MRI also will reduce exam times. An MRI for lumbar/spine that now takes 45 minutes, for example, can be completed in 30 minutes with the new unit. We will be able to schedule more MRI studies per day for referring physicians, and enable patients to spend less time in the facility,” Swager added.

Medical Imaging at Lee's Hill has the area's only true “open” MRI. It is open on all sides, benefiting patients who are anxious, claustrophobic, or obese, Swager said. Some MRI units that are advertised as being “open design” really just have slightly wider gantries than traditional MRI machines.

Medical Imaging at Lee's Hill also offers X-ray, ultrasound, CT and bone density scans.

## MIF on the MWH Campus: Improved CT

Medical Imaging of Fredericksburg on the MWH Campus replaced its five-year-old CT unit with more advanced equipment in October 2009. Swager said the new CT unit represents a major upgrade, as it can complete 64 slices (images) in a single rotation compared with the four slices per rotation possible with the older unit.

“The new CT unit requires less time to cover a greater anatomical area,” Swager

explained. “It can reduce exam time by 20 percent while significantly improving diagnostic capabilities.”

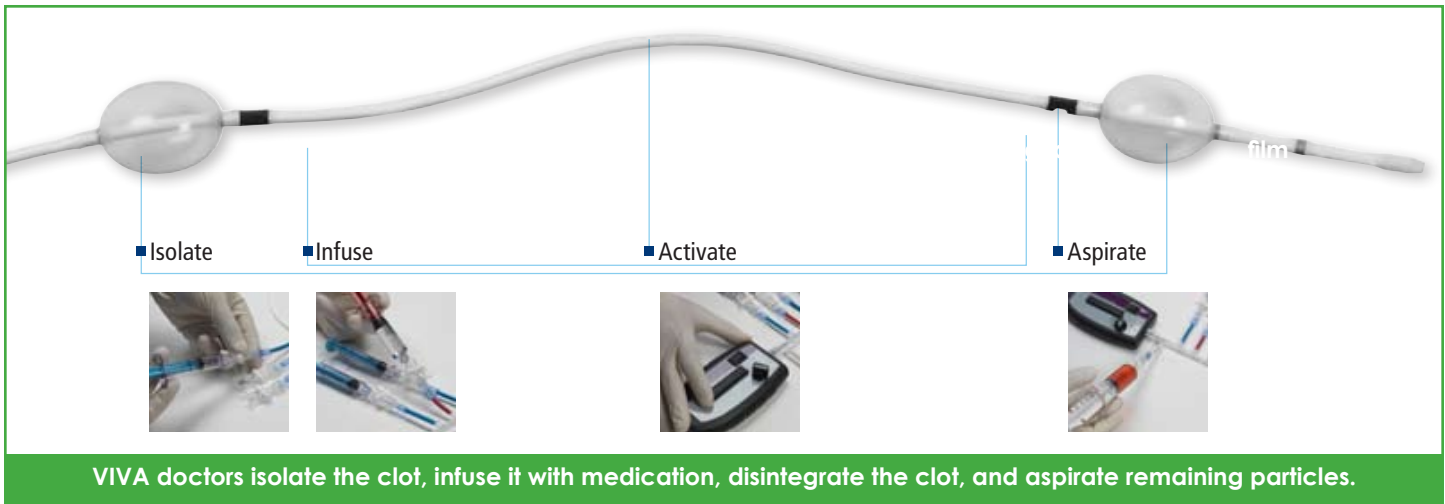
The facility also offers X-ray, fluoroscopy/arthrography, ultrasound, CT, MRI, PET/CT and MRI breast biopsy studies. It provides Saturday morning appointments in addition to weekday appointments, with appointments scheduled later in the day on an as-needed basis. ■

Photo courtesy of  
Medical Imaging of Fredericksburg



For more information, please contact Ed Swager at [eswager@rafadmin.com](mailto:eswager@rafadmin.com) or (540) 361-1000.

*Note: Digital mammography capabilities at the Imaging Center for Women were covered in the Spring 2009 issue of Imaging Advances.*



### *Rapid Treatment for Acute DVT continued from page 1*

John D. Statler, MD, a board-certified, fellowship-trained interventional radiologist with VIVA, said the procedure offers advantages over traditional therapies in appropriate cases. Traditional treatments include anticoagulant medication and catheter-directed thrombolysis.

Anticoagulant medication prevents the clot from enlarging and protects against pulmonary embolism (PE). PE kills on average one in every 100 people diagnosed with deep vein thrombosis (DVT), according to the Society of Interventional Radiology. Anticoagulation does not dissolve the clot, relying on the body to disintegrate it over time. The society estimates that 60–70 percent of DVT patients treated with anticoagulant medication alone develop post-thrombotic syndrome, with permanent leg damage, chronic pain, fatigue, swelling, and, in some cases, severe skin ulcers. Another treatment, catheter-directed thrombolysis, dissolves clots by delivering thrombolytic medication through catheters. However, this treatment also necessitates a 24- to 72-hour intensive care hospital stay and is associated with a risk of bleeding complications.

The IPMT procedure disintegrates clots more rapidly than possible using traditional therapies. This provides faster pain relief to patients and protection against post-thrombotic syndrome, Dr. Statler said. IPMT also requires a shorter hospital stay than catheter-directed thrombolysis and minimizes bleeding risks.

“With the IPMT procedure, we can destroy the clot and relieve pain for most patients within a couple of hours,” Dr. Statler stated. “It requires an overnight hospital stay, rather than intensive care for several days. The risk of bleeding also is lower than for catheter-directed thrombolysis.”

### **Indications and Contraindications**

Dr. Statler noted that the safety and effectiveness of IPMT have been investigated in clinical studies. The American College of Chest Physicians Clinical Practice Guidelines for Venous Thromboembolic Disease, published in CHEST, July 2008, endorsed the procedure for select patients with extensive acute proximal DVT (e.g., iliofemoral DVT, symptoms for <14 days, good functional status, life expectancy of  $\geq 1$  year) who have a low risk of bleeding.

“We suggest pharmacomechanical thrombolysis (e.g., with inclusion of thrombus fragmentation and/or aspiration) in preference to catheter-directed thrombolysis alone to shorten treatment time if appropriate expertise and resources are available,” the guidelines stated.

Dr. Statler said the procedure is most effective for patients who have experienced symptoms for less than two to four weeks. Contraindications for the procedure include active bleeding.

### **Diagnosis and Treatment Options**

The incidence of DVT increases with age and with certain conditions, such as cancer, recent surgery, recent trauma, and extended periods of immobility. According to the Office of the Surgeon General (OSG), DVT and pulmonary embolism contribute to at least 100,000 deaths nationwide each year. The OSG, along with the National Quality Forum and The Joint Commission, has called for more aggressive treatment of DVT.

VIVA performs vascular ultrasound studies to help referring physicians diagnose DVT. The practice’s interventional radiologists and vascular surgeon also provide a spectrum of treatment options that can be used individually or in combination, depending upon the patient’s condition. Treatments include anticoagulant medication, catheter-directed thrombolysis, IPMT using the Trellis system, and inferior vena cava filters. ■

*For more information, contact John D. Statler, MD, at [statler@vivassociates.com](mailto:statler@vivassociates.com) or call (540) 361-1000 and leave a message.*

[www.imagingway.com](http://www.imagingway.com)  
(540) 361-1000

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 services 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 Irene Valentino, RAF Project Manager, [ivalentino@rafadmin.com](mailto:ivalentino@rafadmin.com), (540) 361-1000.

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## Radiologist Spotlight: Lawrence E. (Larry) Southworth, MD



In an age of specialists, Dr. Larry Southworth is a true Renaissance Man. He is not only a physician; he is also a painter, musician, antique collector, world traveler, and devoted grandfather. Board certified in diagnostic radiology, Dr. Southworth has practiced at Radiologic Associates of Fredericksburg for 40 years. Based at Mary Washington Hospital, he consults on patient cases from throughout the RAF system. "I love what I do," Dr. Southworth said. "I'm one of the happiest doctors around."

A Virginia native originally from Bowling Green, Dr. Southworth received his bachelor of arts pre-med from the University of Richmond and his medical degree from the Medical College of Virginia/Virginia Commonwealth University, where he also interned in medicine and surgery. After serving for two years in the U.S. Army as a medical officer, stationed at the Pentagon, he completed his residency in diagnostic radiology at the Duke University Medical Center in North Carolina.

"Over the course of four decades, radiology has changed almost beyond recognition," Dr. Southworth noted. "When I started with RAF, we had just plain X-rays. Today, we have every technology available and have evolved to become an integral part of patient care. It's a challenge to stay on top of the latest technologies and resources. But it also keeps me fully engaged in, and energized by, my work."

In his time away from his practice, Dr. Southworth enjoys painting, an interest spawned at a young age. Most of the subjects in his oil paintings are inspired by nature scenes, typically rendered in hues of red,

yellow, and bright orange. His art has been displayed at LibertyTown Arts in Fredericksburg and Griffin Gallery in Colonial Beach.

"When I can, I paint first thing in the morning, last thing before I go to bed, and intermittently on the weekends," he said. "There is so much beauty to capture and share."

Dr. Southworth's passion for art has been furthered by his world travels. His favorite destination is Provence, on the Mediterranean in the south of France, where many of the world's most renowned painters converged in the 19<sup>th</sup> and 20<sup>th</sup> centuries. "I enjoyed retracing Van Gogh's footsteps and seeing what he saw," Dr. Southworth said. "The landscape hasn't changed much from his day."

Dr. Southworth's artistry extends also to music. He plays the guitar and spent many years with Fredericksburg bands. Although he no longer performs professionally, he still plays for his family, which includes his wife, two daughters who are both school teachers, a stepson, and five grandchildren, ranging in age from six months to 13 years. His 18<sup>th</sup> century home in downtown Fredericksburg, which is filled with period antiques he has collected over the years, is a frequent gathering place for family and friends.

At a time when many his age are retiring, Dr. Southworth shows no signs of slowing down. "Every time I have a week or two off, I can't wait to get back to my work," he said.

He is often asked if there is a tie between his art and his radiology practice, since both focus on images. "Not really," he said. "One is completely emotional and the other, scientific." On the other hand, he noted, his work as a physician brings him close to the full realm of human feelings. "When a patient expresses appreciation, you know you've had a worthwhile day. You've brought something that matters to the table of life." ■

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