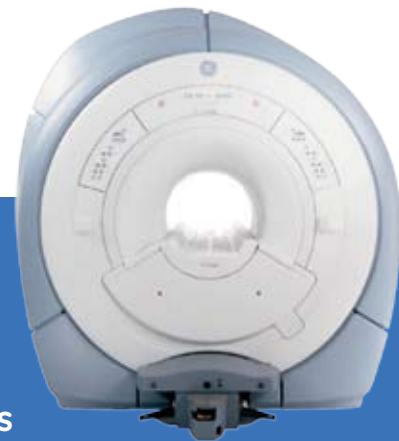


# Success with Signa HDe 1.5T

DRA Imaging P.C. replaces open scanner with HDe



## Perfect Fit

### A Signa HDe MR scanner helps a leading New York imaging center achieve new levels of diagnostic excellence despite space constraints

DRA Imaging P.C. saw an expanding market for high-field MR imaging at its headquarters office in Poughkeepsie, N.Y. The center owners wanted to replace a low-field open MRI system with a high-field scanner to complement an existing GE Signa LX 1.5T system, but physical space availability limited the options.

A GE Signa HDe 1.5T scanner solved the problem, fitting into the available space while providing faster, higher-resolution imaging, plus advanced applications for challenging brain, abdomen, breast and lower extremity angiography exams.

As early as one month after installation in May 2006, the new scanner had made a significant difference in patient diagnoses, received favorable reviews from referring physicians, and significantly increased the number of MR exams that could be performed each day.

#### From Open to High Field

DRA Imaging is a full-service outpatient imaging center with four locations (see sidebar). In 2005, its owners saw a decline in demand for open MR exams and a clear preference among referring physicians for 1.5T images.

"We felt that the patient demand for high-field systems would sustain another magnet," says Richard Friedland, M.D., Director of Outpatient Imaging. "We considered installing a high field system, but unfortunately, because the available room was set up for the open MRI, and much of our cross-sectional imaging was adjacent to it, we didn't have room for most 1.5T systems."

Friedland saw the Signa HDe 1.5T system at the Radiological Society of North America (RSNA) Annual Meeting in November 2005 and knew that it would solve this problem. "It provided us with 1.5T imaging and all the capability of high definition, enabling us to provide excellent images and service to our referrers," Friedland says. "And it fit within the space constraints of our existing low-field scanner room quite easily."

The Signa HDe 1.5T scanner puts GE-exclusive high-definition scanning in a footprint 30 percent smaller than a typical 1.5T system with minimal construction expense.

"It fit within the space constraints of our existing low-field scanner room quite easily."



The GE HD technology platform includes a volume-reconstruction engine and accelerated imaging tools to deliver reconstructions at more than 1,300 images per second, enabling virtually real-time image generation. The HDe system also delivers a complete set of advanced applications:

- PROPELLER for motion insensitive brain imaging.
- LAVA volumetric abdominal imaging for entire liver coverage in a single breathhold.
- TRICKS for “can’t miss” angiographic imaging.
- VIBRANT for bilateral breast imaging in a single exam

### Complete Capability

Friedland observes that the HDe system met all of the needs for the practice. “We’re delighted with the image quality coming from the system, and we’ve heard that same comment echoed by our referring physicians.”

HDe technology made a difference for patients almost immediately. In one case during the first month of operation, a patient with a known malignancy in her right breast received an MR scan using GE’s VIBRANT application, which produces high-quality images of both breasts in a single exam.

“The patient was sent to us with a 2.5-centimeter spiculated malignancy located centrally in the right breast.” Friedland recalls. “The mammography and ultrasound exams of both breasts had been performed at another institution.”

“Based on the MRI exam utilizing VIBRANT, we discovered an 8-millimeter irregular lesion located posteriorly in the left breast that had been previously undetected. Our diagnosis using HDe completely changed the management of that patient.”

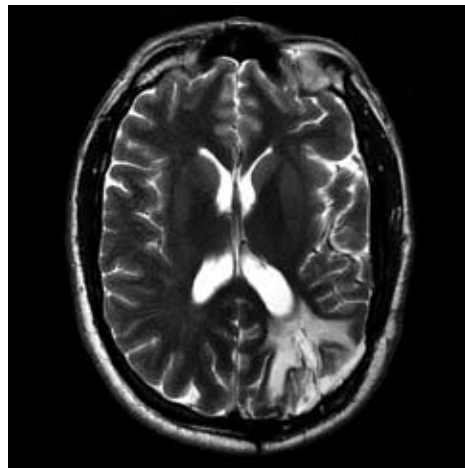
### Advanced MR Imaging

Other advanced applications quickly paid dividends, as well.

**Angiography.** GE’s exclusive application, TRICKS, enables fast, reliable runoff studies and imaging of vessels. “Several times we have used TRICKS to look at complicated extra-anatomic bypass grafts and at the sequence in which those grafts fill and empty,” says Friedland. “In one case, we were able to determine quickly and conclusively that one of a patient’s grafts was occluded.”

**Brain imaging.** GE’s PROPELLER brain imaging application delivers clear, diagnostic images by reducing the effects of physical and physiological motion within the brain. At DRA Imaging, it has helped in imaging children, claustrophobic patients, and others who are unable to hold still for exams.

### PROPELLER for motion-insensitive brain imaging



High resolution 320x320 acquisition in 1:35 that eliminated motion artifacts from this moving patient.

“We find plaques that were not visible on prior scans because of patient motion.”

### TRICKS for “can’t miss” angiography

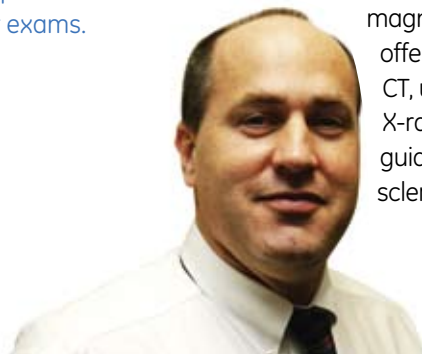


Clear visualization of the lower leg vasculature to help diagnose flow disruptions.

### About DRA Imaging, P.C.

DRA Imaging, P.C., is a full-service outpatient diagnostic imaging center based in Poughkeepsie, N.Y., and with other locations in Fishkill, Hudson and Hopewell Junction (opening in fall 2006).

Since its inception, DRA Imaging has provided the most advanced diagnostic imaging tools available in the region. Besides magnetic resonance imaging, the center offers PET /CT, nuclear medicine, multislice CT, ultrasound, digital mammography, digital X-ray, fluoroscopy, bone densitometry, image-guided biopsy, EVLT for varicose veins, and sclerotherapy.



"We find plaques that were not visible on prior scans because of patient motion," Friedland says. "We are getting a better look at those plaques now because the motion and blurring on some of the very subtle lesions no longer exists. As a result, we can create a whole new baseline for the patient. We are better able to track the progression of disease."

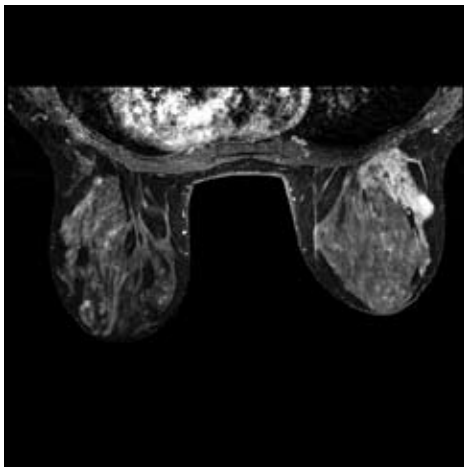
**Body imaging.** "Previously, many technologists preferred the speed of CT for body imaging," Friedland says. "Now, with the volume MR acquisitions of LAVA, they are saying our body MR work is comparable to the body CT work we have been doing. Some even say they might prefer MR to CT, particularly for characterizing certain pathology."

**Musculoskeletal imaging.** "The orthopedic work is really spectacular," Friedland says. "We get crisp, sharp images that enable us to distinguish meniscal tears and to look for subtle abnormalities in cartilage."

### Increasing Patient Throughput

While the HDe system has excellent image quality, it also has delivered shorter exam times, enabling DRA Imaging to scan more patients within the same hours of operation. Most exam slots have been reduced to 30 minutes, from previously being one hour with the lower field system.

### VIBRANT for bilateral breast imaging



Improved lesion conspicuity using the 8-channel breast coil to generate 136 images in 1:57 at 350x350 matrix. Image both breasts in a single exam.

"Part of the reason that we need this system was to reduce our backlog. With the HDe system we've doubled our capacity from the open magnet."

"Part of the reason we needed this system was to reduce our patient backlog," says Laurie Wadsworth, Imaging Director. "With the HDe scanner, we have doubled our capacity from the open magnet. In addition, with the increased speed, we never have to say no to additional patient exams. The answer is always yes."

Wadsworth also observes that the HDe system has been easy for technologists to use. "It's not only patient-friendly and physician-friendly, it's technologist-friendly," she says. "Even though the HDe system includes a great deal of additional software, our technologists grabbed onto it very quickly."

"We expect the HDe system to be an excellent investment."

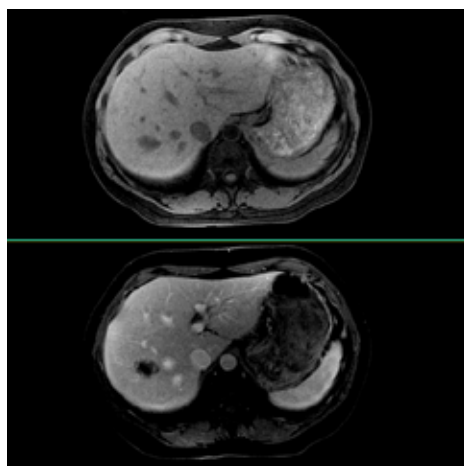
### Competitive edge

Wadsworth and Friedland agree that high-definition MR has improved the competitive standing of DRA Imaging. Local hospitals and other area imaging centers have high-field MRI systems, but referring physicians quickly noticed the difference in images from the HDe scanner.

"Our referrers include neurologists, neurosurgeons, orthopedists, and liver surgeons," Friedland says. "Several of them have told us, 'Clearly, these are the best images I've seen coming out of our area.' Many of these comments came to us in the first week we had the new system in operation."

"The HDe system has been an excellent investment. We've already surpassed our expectations with the advanced applications, shorter scan times, and increased productivity. I think the system is consistent with what our imaging center is trying to provide to our patients and referring clinicians: High-quality diagnostic imaging, without waiting, with the best technology available on the market."

### LAVA for abdominal imaging in a single breathhold



Multi-phase liver acquisition with 24-second breathhold to generate 288 images in 1:59 with the 8-channel body array.

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GE is dedicated to helping you transform healthcare delivery by driving critical breakthroughs in biology and technology. Our expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, and biopharmaceutical manufacturing technologies is enabling healthcare professionals around the world discover new ways to predict, diagnose and treat disease earlier. We call this model of care “Early Health.” The goal: to help clinicians detect disease earlier, access more information and intervene earlier with more targeted treatments, so they can help their patients live their lives to the fullest. Re-think, Re-discover, Re-invent, Re-imagine.

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