

Signa HDi 1.5T MR Fact Sheet

Typical Signa HDi 1.5 MR system procedures:

- Neurological/Brain Imaging
- Spine Studies
- Orthopedic – including elbow, wrist, hip, knee, foot and ankle
- Prostate
- Pelvis – male and female
- Abdominal
- Specialized vascular and cardiac applications
- Functional and spectroscopic imaging



Patient benefits

- Patient comfort and easier exam positions – features generous 60-cm patient opening and full 45-cm field of view
- Reduced rescanning/redundant exams due to patient or organ motion
- Docking table and dual-sided controls for efficiency and patient safety

Physician/technologist benefits

- Enhanced imaging techniques enable easier visualization of anomalies, resulting in more diagnostic confidence than ever before
- High productivity in every aspect of department workflow

RELEVANT STATISTICS AND TRENDS

- 1 in 6 pediatric patients does not respond adequately to sedation – 1 in 14 fails to respond at all
- More than half of diabetic patients have inadequate characterization of lower vasculature prior to surgery
- 25 to 30 percent of brain studies need to be repeated due to motion artifacts on conventional MR systems
- 1 in 10 abdominal exams is rendered inconclusive because of motion artifacts or inadequate resolution on conventional MR systems

HOW WE CAN COMBAT THESE STATS ON THE GE HDi

Specialized HDi imaging techniques

- **PROPELLER HD** allows for excellent image quality in head studies, consistently even with moving, pediatric, elderly and confused patients. With PROPELLER HD, physicians can:
 - Reduce sensitivity to patient motion and susceptibility artifacts
 - Obtain a diagnostic-quality image on almost every scan
 - Produce high-definition images despite the often-severe motion of an unседated child, or on mildly or significantly uncooperative patients
- **TRICKS** (Time Resolved Image Contrast Kinetics) makes it possible for physicians to minimize the trade-off between spatial and temporal resolution that usually occurs with conventional MR angiography. With TRICKS, physicians can:
 - Simplify the very difficult task of contrast-enhanced MRA in the lower extremities
 - Achieve high-resolution detail all the way down into the critical vessels of the foot
 - Minimize the problem of inaccurate contrast bolus timing – simply inject and scan with complete separation of arterial and venous phases
 - Obtain dynamic information as well as the static arterial phases

• **VIBRANT** allows for the imaging of both breasts in high resolution with one injection in one patient visit. With VIBRANT, physicians can:

- Perform a bilateral breast exam in both the sagittal and axial planes as quickly and clearly as a single-breast MR study
- Obtain high temporal resolution without sacrificing spatial resolution
- Minimize fat from breast images with superb reliability

• **LAVA** (Liver Acquisition with Volume Acceleration) provides for better abdominal image quality while overcoming the organ motion challenge. With LAVA, physicians can:

- Produce excellent abdominal image quality on patients who have difficulty holding their breath
- Scan the entire liver of a larger patient in one breath-hold
- Achieve 25 percent more resolution with 25 percent more coverage

