



# WHY SO MANY SURGEONS ARE BUYING THE FONAR UPRIGHT™ MULTI-POSITION™ MRI.

**Michael Brisman, M. D., F. A. C. S., Neurosurgeon, Chief of Neurosurgery, Winthrop University Hospital; Co-Medical Director, The Long Island Gamma Knife, South Nassau Hospital**



“I have been very happy with the Fonar Upright™ MRI. My partners and I purchased the Fonar Upright™ MRI several years ago and had it installed in our new private practice neurosurgery office. Since then, our practice has been thriving. I believe the Upright™ MRI significantly increased the profile of our practice. Patients and physicians alike view the Upright™ in our office as a demonstration of our commitment to excellence. The brain and spine images are outstanding, comparable with the best closed MRI, and much better than most other open MRI's. Also, because I am there when my patients are getting their studies, I am able to focus the study on any area of specific importance that I need. The ability to image the spine in upright, flexion, and extension views has also been critical for our patients to properly assess the full extent of the spine pathology. We can appreciate spine pathology in flexion and extension views that was not apparent in the neutral position. I would recommend the Fonar Upright™ MRI for any large private group of neurologists, neurosurgeons, or orthopedic surgeons.”

**Martin R. Hall, M.D., Orthopedic Surgeon, Founding Partner, Keystone Orthopedic Specialists, Hazel Crest, Illinois and Munster, Indiana**



“Traditional MRI's can miss what is wrong with the patient, or underestimate the severity of a patient's problem, particularly when the problem is affected by axial loading of the joints and anatomical structures or when the patient's pathology is position dependent. The Fonar magnet not only provides high resolution images, it can provide imaging in a variety of positions and postures that cannot be duplicated on high field or open scanners. The ability to scan patients in these additional positions provides me with valuable information about pathological changes that can affect medical and surgical decision making and treatment options. In my opinion, to get a true and complete picture of what may be wrong with someone prior to treatment or surgery, I need to see an MRI of the affected area in an upright, weighted and/or stress-loaded position.”

**John W. Gilbert, M. D., Neurosurgeon, Founder, Spine and Brain Neurosurgical Center, Lexington, Kentucky**



“I have known about neurosurgical research showing lumbar disc pressures being highest in the sitting position since my neurosurgical residency over seventeen years ago; that is why our neurosurgical office became the first in the world to offer positional, weight-bearing imaging using the Fonar Upright™ MRI. The over one hundred peer reviewed scientific articles showing the value of positional imaging and the long-standing need for the technology Fonar has brought to the benefit of the neuroscience and neurosurgical communities are the reasons our neurosurgical practice has bought two additional Fonar Upright™ Multi-Position™ MRI units .... When surgery is indicated, the positional information can also be key in surgery planning .... From our experience with the Fonar Upright™ Multi-Position™ MRI, it is unequivocal in our minds that a recumbent only examination of the spine is inadequate in many cases.”

**Morgan P. Lorio, M. D., F. A. C. S., Orthopedic Surgeon, President, Neurospine Solutions, Bristol, TN**



“The Fonar Upright is the only MRI that lets you image the spine under the effects of gravity. This allows you to best preoperatively plan your cases and thus have image-driven success for your patients. Bending studies allow you to identify surgical lesions missed with recumbent MRI.”



**Rahul K. Nath, M. D., Plastic Surgeon, Brachial Plexus Specialist, Director, Texas Nerve & Paralysis Institute and Brachial Plexus Institute, Houston Medical Center**

“Old technology such as recumbent MRI and CT scans miss significant dislocations of the shoulder in my experience. Because of what I learn about my patients’ pathology that can only be seen on the Fonar Upright™ Multi-Position™ MRI, I have changed my surgical protocols.”

## Leading radiologists understand the importance to surgeons of positional imaging.

**Francis W. Smith, M. D., Radiologist, Professor of Radiology, Center for Spinal Research at the University of Aberdeen, Scotland**



“Because of its unique design, the image quality of the Upright™ scanner is excellent. Having a horizontal magnetic field allows Fonar to use the same receiver coils used on a 1.5 Tesla magnet. Therefore, the image quality is exceptionally good.... In just over 30% of the patients we find things that are not evident in the recumbent position, and these are findings the surgeon must know about before commencing surgery.”

**Manuel S. Rose, M. D., Radiologist, Founder and Medical Director, Rose Radiology Centers, Inc.**



“When Fonar introduced the Upright™ Multi-Position MRI, I immediately realized the diagnostic advantages of the new technology. It lets me perform dynamic positional imaging with weight-bearing. I often see problems that are invisible in recumbent-only scans. My sending surgeons were quick to recognize the diagnostic advantages of the Upright™ MRI, too. It lets them assess spinal and many other problems, not only with the patient recumbent, but in flexion, extension, rotation, lateral bending, as well as with the weight of the body on the spine. Today, I have numerous surgeons who will not consider going to surgery without seeing an Upright™ MR of their patients in the position of the problem. I found the Upright™ MRI such an invaluable improvement in diagnostic capabilities that to date I have four Fonar Upright™ MRI’s in my practice.”



Positional Imaging; One Side of Upright Removed for Photography.

**To purchase a Fonar Upright™ Multi-Position™ MRI, call to speak to a sales representative at 1-888-NEEDMRI (1-888-633-3674). Or expedite your purchase by ordering directly online at [www.fonar.com](http://www.fonar.com).**

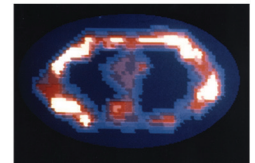
## Fonar Heritage

The Inventor of MR Scanning Timeline, Inventor Contributions



**The world's first MR scanner, (Downstate Medical Center, 1977)**  
Smithsonian Institution, Permanent Collection

- **1969** Original Idea for MR Scanner (Grant Application to Health Research Council of the City of New York)
- **1969** Realizes Need for a Compelling Application to Justify Building Human Scanner. Decides on Cancer Detection
- **1970** Key Discovery Makes the MRI Possible  
Discovery of the marked T1 and T2 signal differences among the normal tissues and also between the normal tissue and cancer tissue. Discovery enables soft-tissue detail previously absent from medical imaging, and early cancer detection; used today to detect cancers worldwide. “NMR developed into a laboratory spectroscopic technique capable of examining the molecular structure of compounds, until Damadian’s ground-breaking discovery in 1971.” (MRI From Picture to Proton, Cambridge University Press, 2003)
- **March 1971** First Article Published (*Science*)
- **Spring 1971** First Ever Scanning Method Proposed (*Downstate Reporter*)
- **March 1972** First MR Patent Filed (3D Serial Voxel Scanning Method). Patent Issued 1974.
- **1976** The Struggle Begins – Expert Declares, “Any further discussion of scanning the human body by MR (NMR) is visionary nonsense.”
- **1976** Construction of First Human MR Scanner Commences
- **1977** Construction Completed; First Human Scan Achieved: Thoracic MRI Image at T-8



- **1980** Fonar Installs First Commercial MRI; Initiates MRI Industry
- **1997** Patent Upheld by High Court on U. S. Patents and the U. S. Supreme Court (1.1 Million Pages of Documentary Evidence Scrutinized and Argued; No Prior Art)

**Special Offer for Physicians.** Free book about the discovery of the MRI: *A Machine Called Indomitable* by Sonny Kleinfeld, Reporter for The New York Times, Times Books. Call Fonar to order: 631-694-2929.

“This book is the account of the development of NMR technology and a profile of one man, Dr. Raymond Damadian, who dreamed of NMR as a weapon against cancer and struggled almost obsessively against great odds to build the first human scanner Indomitable.” – Library Journal