newsday.com
$3.99 | LI EDITION
Sunday
Oct. 12, 2014

Newsday
SPORTS FINAL
THE LONG ISLAND NEWSPAPER

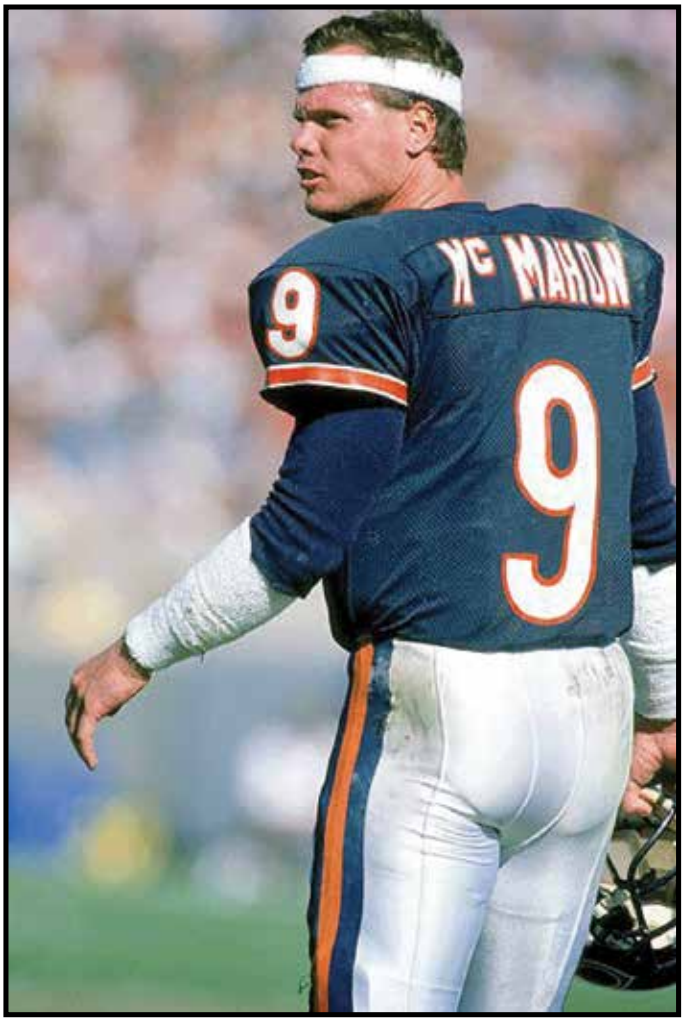
HI 61° LO 47°
SUNNY

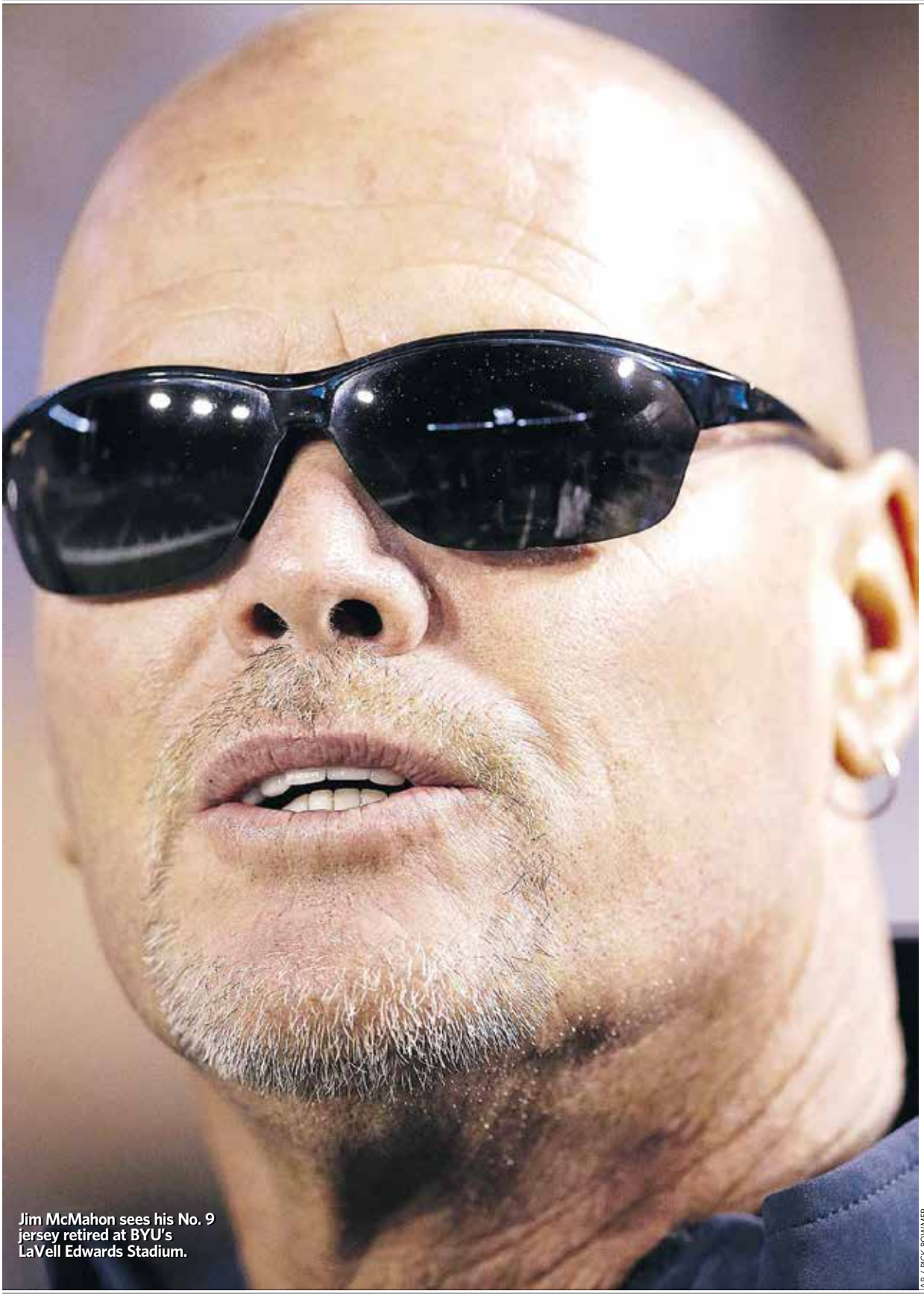
Jim's McMiracle

Headaches and memory loss destroyed his quality of life until two Llers came to the rescue

Jim McMahon had nearly given up hope, resigned to a lifetime of pain and frightening memory loss. He even considered giving up completely and taking his own life.

Then a Long Island doctor helped him find a miracle…





Jim McMahon sees his No. 9 jersey retired at BYU's LaVell Edwards Stadium.

AP / RICK BOWMER

BY BOB GLAUBER
bob.glauber@newsday.com

Jim McMahon had nearly given up hope, resigned to a lifetime of pain and frightening memory loss. He even considered giving up completely and taking his own life.

Then a Long Island doctor helped him find a miracle.

Before meeting Dr. Raymond Damadian of Woodbury, the pain in the 55-year-old former quarterback's head was so excruciating, the throbbing of every single heartbeat in his ears so persistent, that he mostly sought refuge in the bedroom of his home in Scottsdale, Arizona. It was the only way he could find any sort of relief, and even then — just lying on his bed with the lights off — he couldn't completely escape the pain.

"It got to the point where I wouldn't get out of bed for weeks at a time," the former Super Bowl-winning quarterback said.

The acute memory loss was just as troublesome. On the occasions when McMahon did leave his home, he sometimes couldn't remember where he was. Sometimes he'd decide to go out to the store to buy some chewing tobacco, but half an hour later, he'd still be home because he'd forgotten why he wanted to go out. He had to carry a picture of him and his girlfriend, Laurie Navon, with her telephone number in case he forgot who he was or where he needed to go.

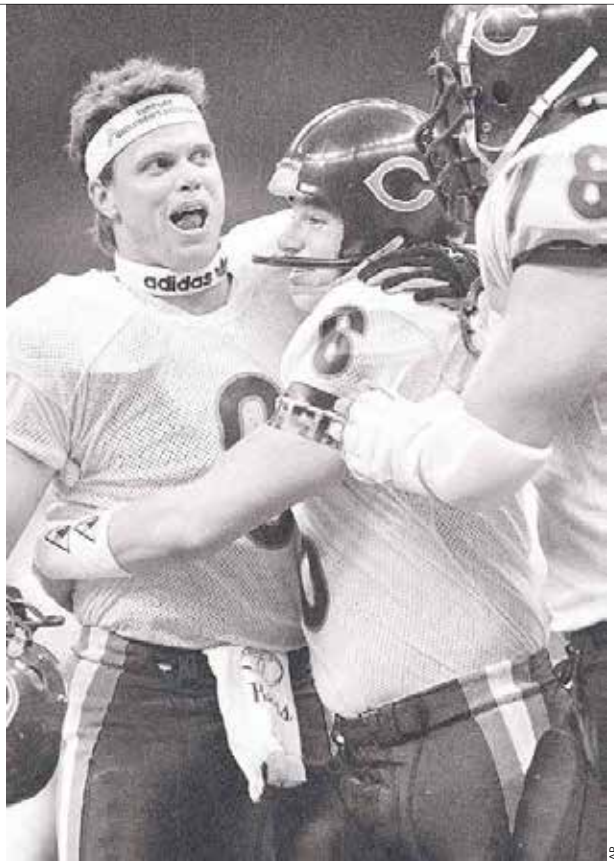
"I'd be driving down the road trying to go home, and I wouldn't know where I was at," he said. "I called my girlfriend and I told her I didn't know where I was. She said, 'What are you driving past?' I said, 'Well, I just saw the casino, and I know I'm supposed to go past that to get home.' I just couldn't get home."

There were thoughts of suicide, he said, especially the times when he'd flash back to his last meeting with former Bears teammate Dave Duerson, who died of a self-inflicted gunshot wound on Feb. 17, 2011.

"I was with him a month before he killed himself," McMahon said. "He'd say, 'Mac, sometimes I'm driving around and I don't know where I'm at.' I told him I do that, too. I started having [suicidal] feel-

Jim's McMiracle

Headaches and memory loss destroyed his quality of life until two LIers came to the rescue



Jim McMahon and Bears teammates had a lot of yuks during their 1985 championship year, but soon it wasn't funny anymore. AP

ings myself. If I had a gun, I might be dead."

McMahon didn't take his own life, but he was resigned to spending the rest of his days in declining health, another sad example of the aftereffects of the multiple concussions he suffered during his 15-year career, which ended with the 1996 season.

A cover story in Sports Illustrated two years ago chronicling his health problems brought McMahon's situation into focus and drew further attention to the league's concussion crisis. He once had been an electrifying personality on the Bears' unforgettable 1985 Super Bowl championship team, but now he was reduced to chronic pain, forgetfulness and suicidal thoughts — a familiar pattern for so many other players damaged by the game.

And then, help

But his haunting story ultimately turned into a life-changing moment for McMahon, thanks to two Long Island residents who had a hunch that McMahon's problems could be traceable not only to numerous concussions but also to issues with his neck.

As it turns out, Damadian and his brother-in-law, Dave Terry of East Quogue, not only may have saved McMahon's life and alleviated much of his suffering, but ultimately could help other former players dealing with similar situations.

"I read the [Sports Illustrated] article two years ago and I'm like, 'Oh, man, I didn't know he was having a problem,' " said Terry, who with Damadian co-founded Melville-based Fonar, the first company to manufacture magnetic resonance imaging (MRI) machines in 1980. "I'd met Jim at a golf tournament about seven years ago and I really got a kick out of him. My brother-in-law was starting a new science, and I thought maybe we can help."

Terry contacted McMahon through a mutual acquaintance and the former quarterback had an MRI at the Fonar facility, where Damadian had begun a new procedure in which patients have the MRI done while sitting down, not in a recumbent position, as in traditional imaging tests.

"Jim's principal problems were headaches and loss of memory, and I asked if he'd ever had an MRI," Damadian said. "He said yes, and I asked what part of his anatomy was scanned, and he said his head."

NEWSDAY / JOHN PARASKEVAS

Dr. Raymond Damadian with his MRI scanner at Fonar headquarters in Melville.

Damadian took a closer look at McMahon's neck and found that the top two vertebrae were misaligned, which caused a blockage of his cerebral spinal fluid.

"If that fluid gets obstructed and backs up, you get symptoms of pressure, numbness, loss of vision, and ultimately, people end up in wheelchairs," Damadian said. "When the fluid is blocked, it backs up into the head, a condition called cranial cervical syndrome."

McMahon said he was never told about any neck problems, believing that his post-NFL issues were solely concussion-related.

"Dr. Damadian said that the only thing that would make something like this happen to your neck is if you got dumped on top of your head," McMahon said. "I told him that's what happened in 1986. But I had taken so many painkillers when I was playing, I couldn't feel anything."

"I got my Jimmy back"

A few days after the MRI, Damadian and Terry accompanied McMahon and Navon to the upstate Rock Hill office of Dr. Scott Rosa, a cranio-cervical specialist. Rosa performed a noninvasive procedure — the Image Guided Atlas Treatment — that aligned the C-1 and C-2 vertebrae near the base of McMahon's skull.

The relief was almost instantaneous.

"When they first did it to me, it was like the toilet flushed," McMahon said. "I thought to myself, 'No wonder I can hear my heart beating. It was bang, bang, bang.' I was having trouble speaking. I couldn't see clearly. But as soon as [Rosa] moved those bones, it was amazing."

Terry saw McMahon shortly after the procedure and was astonished.

"I saw a face that was almost ghostly white flush pink right after it," he said. "I said, 'Jim, how are you feeling?' He said, 'Actually, pretty good.' I said, 'Don't BS me.' He said, 'No, I feel really good. I don't have a headache anymore.' "

Navon, who once thought her boyfriend would never be whole again, almost couldn't

See MCMAHON on A54

BOB GLAUBER'S HOT READS

bob.glauber@newsday.com

Penalties up on defense

The NFL gave fair warning that it would crack down on defensive players, calling penalties in the preseason just about every time a defender so much as laid a hand on a receiver. The trend most certainly has carried over into the regular season, with penalties way up in the passing game.

According to the NFL, nearly four times as many illegal-contact penalties have been called through five games as there were at this point last year (59 to 15). Defensive-holding calls also are way up; last year, there were 52 calls through Week 5, compared to 115 this season.

There also have been 14 more penalties for pass interference and 48 more calls for illegal use of the hands.

But the crackdown on defenders in the passing game hasn't translated to any major changes in overall offensive output. An average of 46.4 points per game have been scored this season. And although that's the most through five weeks at any point since the 1970 NFL-AFL merger, it's barely more than last year's total at the same point.

Not only that, but passing yards are down slightly from last year. There has been an average of 484.4 passing yards per game this year, compared to 497.8 at the same point last season.

Home sweet home

After getting thrashed 43-17 last Sunday in New England, Cincinnati is back home this week to face Carolina. That's good news for the Bengals, who have won 11 straight home games. During that streak, quarterback Andy Dalton has passed for 2,563 yards and 22 touchdowns for a 97.7 rating.

Roethlisberger rules

Much-improved Cleveland, coming off a dramatic 25-point comeback win in Tennessee last week, host the Steelers today. That means we'll really see just how much better the Browns really are.

GETTY IMAGES / KENA KRUTSINGER

Packers QB Aaron Rodgers.

After all, Pittsburgh quarterback Ben Roethlisberger is 18-1 against Cleveland, the best record of any quarterback against a team since the 1970 merger.

Hey Rodgers!

No wonder Aaron Rodgers was telling Packers fans to relax after they panicked because of the team's slow start. Rodgers has been just about perfect in his last four games, posting a 124.4 rating with 11 touchdown passes and no interceptions.

Romo vs. Seahawks

Huge game today for the 4-1 Cowboys, who face the Seahawks in Seattle and will find out just how they stand against elite teams.

One player who is preaching caution about Dallas' quick start is quarterback Tony Romo, who has seen things turn out badly before; the Cowboys finished 8-8 the last three seasons.

"Being 4-1 is great, but we have a long way to go," Romo said. "You want to put yourself in the best position at the end of the year."

The Cowboys hope running back DeMarco Murray continues his torrid pace. Murray leads the NFL with 670 rushing yards and is tied for first with five rushing touchdowns. He has rushed for more than 100 yards in five straight games, joining Hall of Famers Jim Brown and O.J. Simpson as the only players with at least 100 rushing yards in his team's first five games.

GETTY IMAGES / EUGENE GOLOGURSKY

Jim McMahon and Jeremy Roenick attend Players Against Concussions at Pelham CC on Oct. 6.

Jim's McMiracle

MCMAHON from A56

believe what had just happened.

"Laurie was teary-eyed because it was like a miracle," Terry said.

Navon simply said, "I got my Jimmy back."

McMahon needed a few more treatments — and still requires help in making sure his spine is properly aligned — but he is living a relatively normal life again.

There still is some short-term memory loss, but not nearly to the extent he experienced before getting help. And there is joint pain from arthritis, something he understands and accepts after so many years of playing in the NFL. But there also is relief from the symptoms that once threatened his life.

Last month, after completing his bachelor's degree at Brigham Young University, where he starred in college, his number was retired. And on Monday, he appeared at the Pelham Country Club in Westchester to announce the start of the Players Against Concussions foundation, a nonprofit organization dedicating to helping athletes at all levels of sports better understand the dangers of concussions and promoting safety issues to help those sports — including football — continue to thrive.

A promise to help

Despite his recent improvement, McMahon believes he may be suffering from chronic traumatic encephalopathy (CTE), a progressive neurodegenerative disease. He has agreed to donate his brain to the Boston University School of Medicine, said to be the country's leading facility for studying the brains of deceased former players. A recent study conducted there showed that 76 of 79 brains of former football players, including many who played in the NFL, were diagnosed with CTE.

McMahon wants to do his part to advance the science of brain study, although he showed some of his trademark humor in making the decision to donate his brain.

"My girlfriend said, 'You can't just donate your brain.' I said, 'Well, I'm not going to need it if I'm dead.' "

McMahon's case is potentially good news for other former players suffering symptoms similar to the ones he has experienced, especially if their issues are related to neck problems not previously diagnosed. Damadian and Rosa believe the interconnectedness of concussions and neck problems is not given enough consideration. And it's not just with football players.

"The medical profession is generally not aware of it," Damadian said. "[Neck issues] are playing a role in a lot of neurodegenerative diseases, including multiple sclerosis, Alzheimer's disease, Parkinson's, Lou Gehrig's disease and, the one that troubles me the most, childhood autism."

Rosa suggests football players at all levels can benefit from increased focus on neck issues. He, too, believes that other people suffering from neurodegenerative diseases also can find relief.

"We believe that we have come across things and observations which are pieces of the puzzle that the medical and scientific people didn't know about," he said. "The technology has enabled us to see things we've never seen before. If the observations we're seeing continue as a trend, it's quite plausible that we might very well change the course of humanity and mankind forever."

GOOD OUTCOMES

If your goal with your MRI diagnostic images is to achieve a
GOOD OUTCOME,
you have to SEE IT ALL.

SEEING IT ALL
is what ultimately provided the
GOOD OUTCOME for Jim McMahon.

Patient seated in the FONAR UPRIGHT® MULTI-POSITION™ MRI

GOOD OUTCOMES

Photo of the range of positions available in the FONAR UPRIGHT® MULTI-POSITION™ MRI for imaging the fully weight-loaded patient in the ENTIRE RANGE of body positions he/she can position himself/herself. Indeed, the patient can be asked to briefly position himself/herself in the exact position that generates his/her pain so that images of the patient in the position that explicitly generates the patient's pain can be nailed down.

GOOD OUTCOMES

The objective of every treating physician in the care of his/her patient is a

GOOD OUTCOME.

Fundamental to that **GOOD OUTCOME** is the CORRECT DIAGNOSIS!
THE WRONG DIAGNOSIS GENERATES the POOR OUTCOME that was initially experienced by Jim McMahon.

Thus, for the treating physician seeking the **GOOD OUTCOME** for his patient, he/she is acutely aware of the reality that the soundness of his/her diagnosis dictates the OUTCOME of his/her patient. The treating physician, as a result, is therefore keenly aware that the soundness of the diagnosis banks on the accuracy and completeness of the pre-treatment diagnostic examination, which further depends upon the degree to which all the possible sources of the patient's symptoms have been examined.

In the instance of back pain, cervical, thoracic and lumbar, the key to the coveted

GOOD OUTCOME

is a patient examination that explores completely all of the situations that give rise to the patient's pain (e.g. the pain, symptoms and CSF flow abnormalities generated when the patient is in the recumbent position; the pain, symptoms and CSF flow abnormalities generated when the patient is fully weight-loaded in the upright position; the pain, additional symptoms and CSF flow abnormalities generated when the patient is fully weight-loaded in the upright flexion or extension position) (pg. 2). The full range of pain-generating body positions can only be achieved by taking advantage of the power of the UPRIGHT® fully weight-loading MRI examination that can obtain images of the patient in **ALL** of his/her pain-generating positions (pg. 2).

It is further self-evident that only with an examination by the FONAR UPRIGHT® fully weight-loaded, Multi-Position™ MRI that "SEES IT ALL" (pg. 2) can a sufficiently comprehensive diagnosis be achieved. Only the UPRIGHT® fully weight-loaded Multi-Position™ MRI can optimize the **OUTCOME** for the patient. The recumbent-only conventional MRI that images solely the **non-weight-bearing recumbent position** cannot assure the optimal **OUTCOME** for the patient. It does not visualize the positions (UPRIGHT® fully weight-loaded) that many back-pain patients report are the positions that give rise to their pain.

In short, a **GOOD OUTCOME** cannot be assured by a recumbent-only MRI scan that examines the patient in the position that for many is the least pain-generating position (weightless and recumbent). A **GOOD OUTCOME** can only be assured by an MRI scan that SEES IT ALL, i.e. fully weight-loaded and in its multiple potential pain-generating positions (pg.2).

GOOD OUTCOMES

The **GOOD OUTCOME** is therefore assured only by SEEING IT ALL (pg. 2), while SEEING IT PARTLY (e.g. recumbent-only) could result in a significant number of POOR OUTCOMES as it was in Jim McMahon's case.

Thus, if a **GOOD OUTCOME** is the OBJECTIVE of treatment, it is EXTREMELY IMPORTANT that you SEE IT ALL before commencing treatment, and if you need to SEE IT ALL, the FONAR UPRIGHT® Multi-Position™ MRI is CRUCIAL to doing so.

Otherwise, with incomplete image evaluation (i.e. not weight-loaded and no multi-position image analysis), the treatment plan could be misguided (as in Jim McMahon's case). Conventional treatment without SEEING IT ALL resulted in uninterrupted progression of Jim's symptoms proceeding ultimately to dementia, impaired ambulation and intolerable cranial and cervical pain.

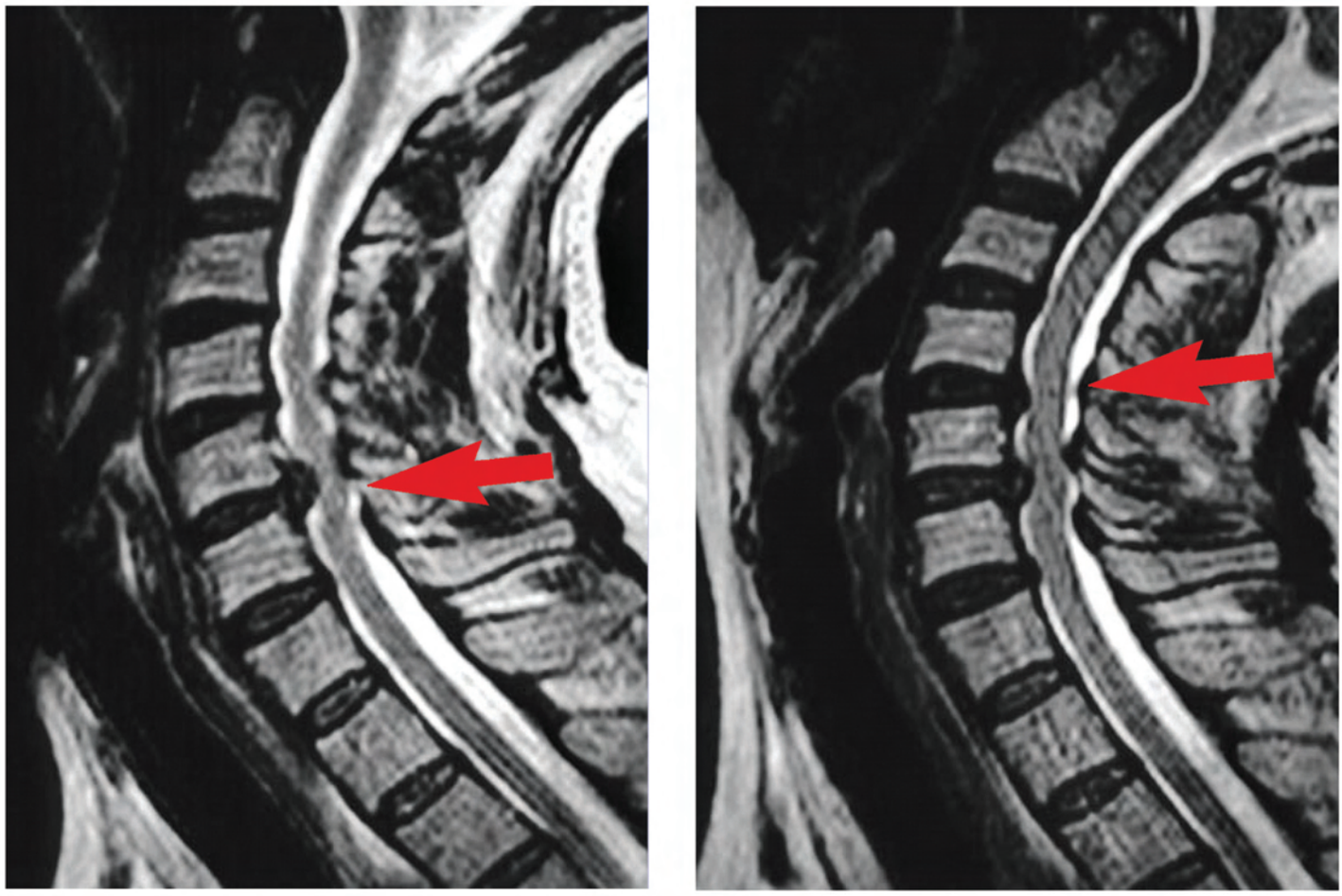
Not until a complete UPRIGHT® fully weight-loaded multi-position examination of Jim's neck in the FONAR UPRIGHT® Multi-Position™ MRI was performed was the real source of Jim's symptoms revealed. The UPRIGHT® fully weight-loaded imaging of Jim's neck uncovered severe degenerations and dislocations of Jim's cervical vertebra secondary to his tackle football traumas that were not known to exist prior to his FONAR UPRIGHT® weight-loaded Multi-Position™ MRI imaging. Dislocations of his cranio-cervical junction (C/1 and C/2) were revealed together with obstructions of his cervical CSF flow that was the result of his C/1-C/2 dislocation. The increased ICP (IntraCranial Pressure and cortical CSF pooling that resulted from malalignments of Jim's cranio-cervical junction (C/1 and C/2) was relieved by successful realignment of Jim's cranio-cervical junction by Dr. Scott Rosa utilizing his IGAT (Image Guided Atlas Treatment)[1] technology.

Accordingly, as exemplified by Jim McMahon's case and the following patient case histories, if a **GOOD OUTCOME** from treatment is the objective, the UPRIGHT® fully weight-loaded multi-position image analysis of your patient is necessary (as it was in the case of Jim McMahon). Only the UPRIGHT® MRI SEES IT ALL.

1 - Guided utilizing the FONAR UPRIGHT® Multi-Position™ MRI

CASE HISTORY #2

Case History #2 is another example of a patient where the absence of the FONAR UPRIGHT® Multi-Position™ MRI examination would have produced an **unexplainable** POOR OUTCOME from the patient's treatment.



Upright Neutral **Upright Extension**

As described by her treating physician:

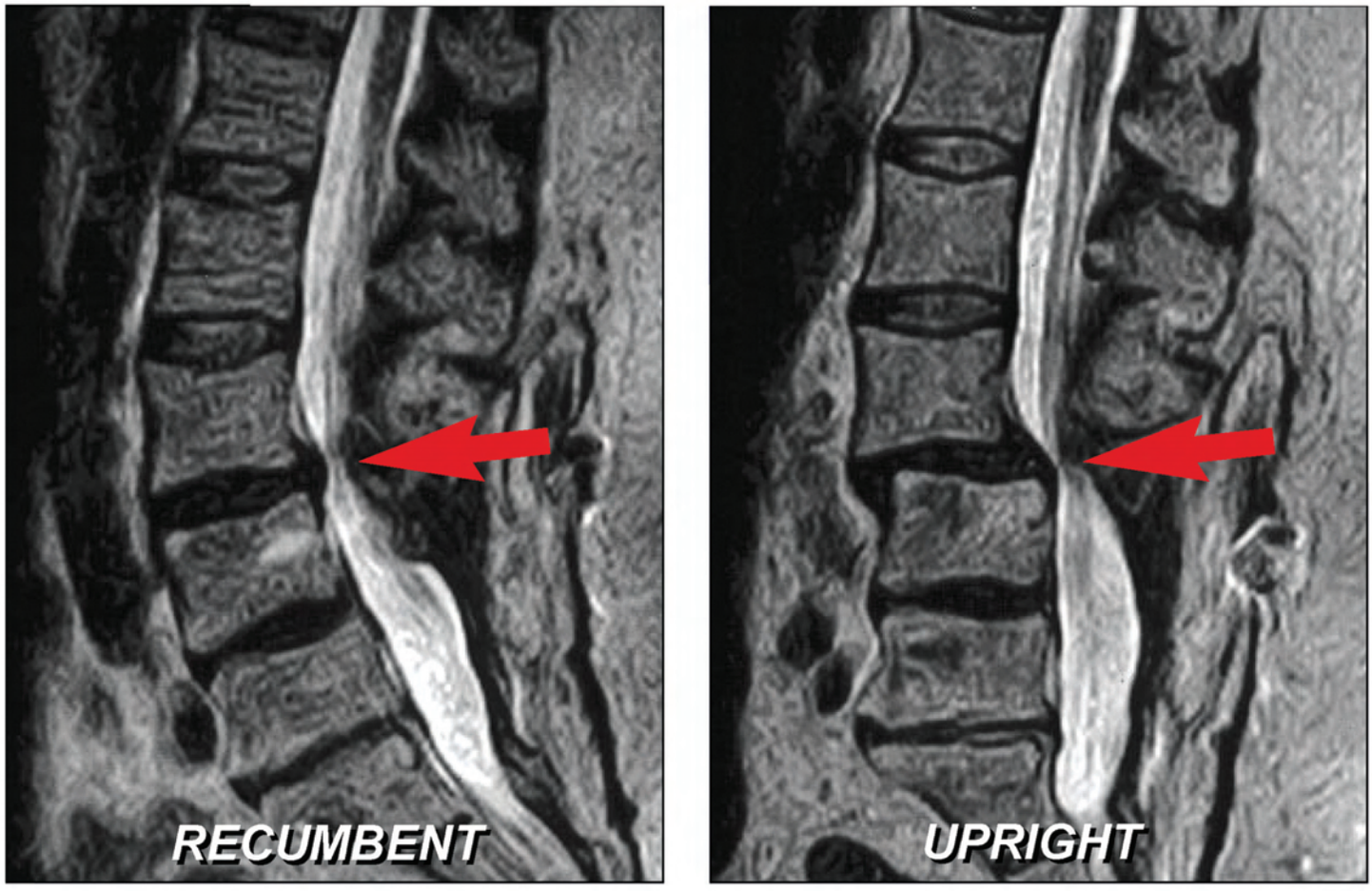
"A 62-year-old woman with chronic neck pain of **30 years duration** that radiated into the patient's shoulders, sought upright weight-bearing flexion-extension MRI to visualize the origin of her pain. Her neutral-sitting examination showed a C5-6 disc herniation (red arrow), but upon extension an additional disc herniation appeared at C4-5 (red arrow).

"The patient is currently being treated conservatively. She is hoping presently that surgery can be avoided, but the spine surgeon participating in her case, reports that should it come to surgery, it is critical to know of the existence of the disc herniation occurring on extension at C4-5.

"Surgical cervical disk repair invariably includes fusion of the involved cervical level, and since cervical herniation is frequently associated with spinal instability at the involved level, any surgeon, unaware of the herniation and potential instability at C4-5, would fuse C5-6, unaware that a fusion of C5-6 might provoke added instability at C4-5 and added cervical symptoms. The result would be POOR OUTCOME from surgery and NO EXPLANATION for the unsatisfactory result, since traditional recumbent-only MRI without extension would not have visualized the existence of the disc herniation at C4-5."

GOOD OUTCOMES

CASE HISTORY #3



same patient...same scanner...same day

A 57-year-old woman presented with pain of one year's duration following failed back surgery performed in 2001 (laminectomy and an L4, L5, S1 fusion).

The patient continued to experience persistent low back-pain, accompanied by sensations of coldness and numbness in both thighs and legs. The patient often required mechanical support to stabilize her walking.

During the year following surgery, the patient sought help from multiple medical specialists. She provided her recumbent MRI Images to them. She was told the images showed nothing that could account for her symptoms and that nothing more could be done. Her surgeon rejected the prospect of additional surgery. A Florida neurologist suggested to her that her problem was "in her head."

The imaging center that evaluated her recommended she be scanned in the FONAR UPRIGHT® Multi-Position™ MRI due to the possibility that an UPRIGHT® scan, unlike the conventional recumbent scan, is weight-bearing and "might uncover something." Her family physician wrote the prescription, and the patient drove from her home in the Florida panhandle to the closest FONAR UPRIGHT® Multi-Position™ MRI center, which at the time was in Tampa over 425 miles away.

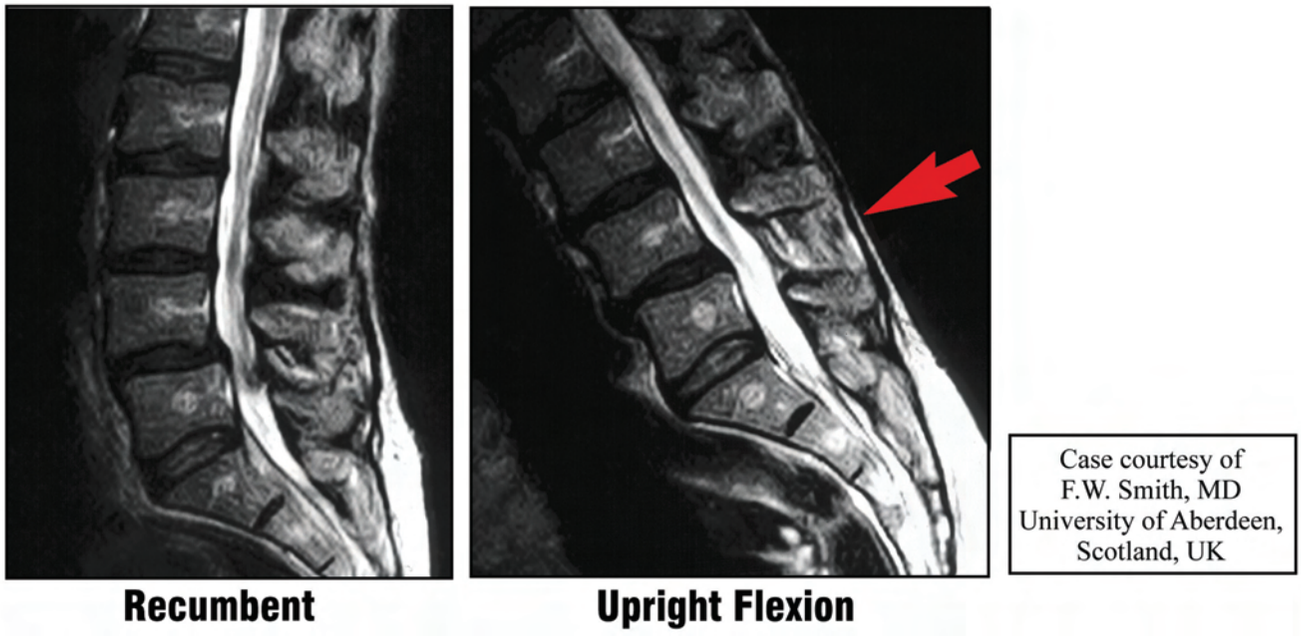
The patient was scanned in the FONAR UPRIGHT® Multi-Position™ MRI in early 2002, one year after her spinal fusion. Both UPRIGHT® and recumbent scans were performed on her in the FONAR UPRIGHT® Multi-Position™ MRI.

The recumbent MRI (left image) exhibited only a normal lumbar lordotic curve and a slight bulge of the L3-4 intervertebral disc (red arrow), consistent with her prior recumbent MRI scans. The FONAR UPRIGHT® scan (right image) revealed, however, a marked position-dependent subluxation (anterolisthesis) at L3-4 (red arrow) and an accompanying spinal stenosis that were not visible on the recumbent MRI.

The patient's FONAR UPRIGHT® Multi-Position™ MRI images established that there was a genuine physical basis for her symptoms, whereas her recumbent MRI images had failed to do so. The new UPRIGHT® images supplied her surgeon with the necessary evidence that additional surgery was warranted to correct her problem.

A fusion was performed at L3-4 one month after the patient's UPRIGHT® MRI scan. The surgical outcome was positive. Almost four years post-op (2005), the patient remained symptom free and reported to FONAR, "Thank you for giving me my life back."

CASE HISTORY #4



LIGAMENTOUS RUPTURE & ASSOCIATED SPINAL INSTABILITY
(You need the Upright-Flexion scan to see the ligamentous rupture at L4/L5)

Case History #4 Courtesy of F.W. Smith, M.D. University of Aberdeen (Aberdeen, Scotland, UK) finds that

THE MAJORITY **(52%)** OF LOW BACK PAIN SCIATICA PATIENTS EXHIBIT MRI IMAGE ABNORMALITIES NOT SEEEN BY THE CONVENTIONAL RECUMBENT-ONLY MRI!

The **GOOD OUTCOME** of your low back-pain sciatica patient, accordingly, mandates an UPRIGHT® multi-position MRI examination.

Case History #4 is the history of a low back-pain patient studied by Professor Francis W. Smith, MD, using his FONAR UPRIGHT® Multi-Position™ MRI scanner at the University of Aberdeen, Scotland, UK. The patient was one of 25 patients in his clinical study "Positional Upright Imaging of the Lumbar Spine Modifies the Management of Low Back Pain and Sciatica" published in Clinical MRI in 2006 (Vol. 15, Issue 3) and presented at ESSR (2005) Oxford, England. In this study, Professor Smith found that **52%** of the low back-pain patients exhibited "abnormalities in one or more of the seated postures that were not evident in the . . . supine examination." The result was the same as experienced in Jim McMahon's case. As evident in the MRI images of Case History #4, the torn interspinous ligament visualized in the UPRIGHT® flexion MRI images (red arrow) was not visualized in the recumbent-only L-spine image nor was the anterior disc herniation of L4-5 or its resulting retro-listhesis of L5.

Clinical MRI Volume 15, Issue 3 (2006)

"Positional Upright Imaging of the Lumbar Spine Modifies the Management of Low Back Pain & Sciatica"

F.W. Smith, M.D. et al., University of Aberdeen, U.K.

Paper presented at the ESSR (2005) Oxford, England

In a study of 25 patients with low back pain and sciatica referred to the Upright MRI for lumbar spine MRIs following at least one prior "normal" recumbent MRI within 6 months of referral:

"Thirteen patients (52%) demonstrated abnormalities in one or more of the seated postures that were not evident in the … supine examination."

"Each of the thirteen patients has undergone appropriate surgery and six months post-surgery they remain symptom free."

In short, the desired **GOOD OUTCOME** requires "SEEING IT ALL", i.e. making the CORRECT DIAGNOSIS and not suffering the consequences of an INCORRECT DIAGNOSIS as Jim McMahon did. In particular, it requires imaging the anatomy in its normal physiological state, namely UPRIGHT® fully weight-loaded in the positions in which it normally operates (e.g. flexion and extension).

The **GOOD OUTCOME** consequently requires the same image evaluation that produced the **GOOD OUTCOME** for Jim McMahon, i.e. a fully weight-loaded MRI examination of the anatomy in its normal positions of operation and ciné visualization of CSF flow in these positions, together with the quantitative measurement of that CSF flow (in cc/sec and cm/sec) that the FONAR UPRIGHT® Multi-Position™ MRI provides.

In conclusion, if your goal is to secure the same **GOOD OUTCOME** achieved by Jim McMahon, your only option is to obtain the same fully weight-loaded multi-position MRI in the UPRIGHT® POSITION that Jim obtained with his scan in the FONAR UPRIGHT® Multi-Position™ MRI.