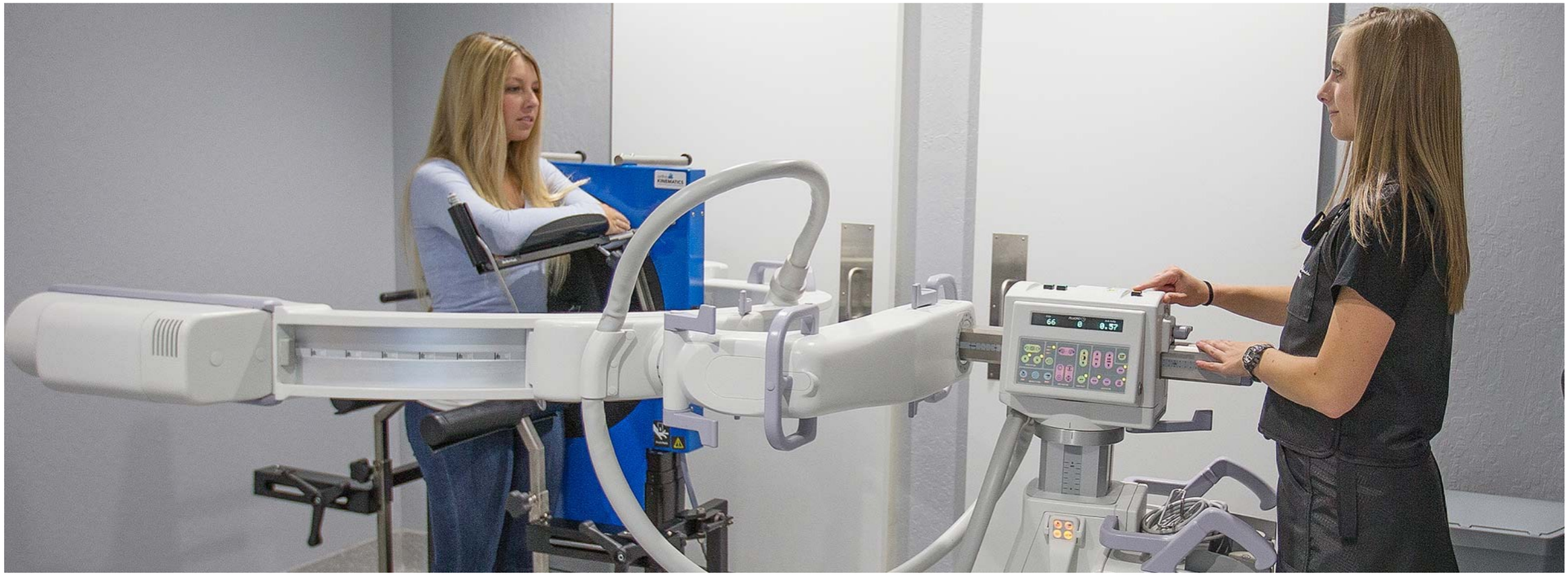
AOMSI
DIAGNOSTICS



AOMSI is a diagnostic provider that utilizes Vertebral Motion Analysis to more accurately evaluate spinal deficiencies. AOMSI's executive team has over 20 years of experience in Orthopedics, imaging, and medical operations. Led by Dr. Jeffrey Langmaid, a prolific influencer in the orthopedic community and Nick Lancaster, a healthcare executive with experience in operating and scaling medical practices, AOMSI is positioned well to partner with Chiropractors, Pain Management Specialists, and attorneys.

The Vertebral Motion Analysis (VMA), is an FDA-cleared quantitative spine motion diagnostic study intended to be used an adjunct to standard flexion/extension bending x-rays of the lumbar or cervical spine.

Both VMA as well as standard flexion/extension bending x-rays of the spine are used to assess for the presence of lumbar or cervical radiographic instability. Such assessments are routine in the diagnostic workup of patients that present with spine symptoms of a suspected mechanical origin.

AOMSI is the only diagnostic provider utilizing VMA technology in Florida and currently has locations in Tampa, Jensen Beach (coming soon), Orlando (coming soon), Ocala (coming soon), Gainesville (coming soon), Lake City(coming soon), and Spring Hill (coming soon).

Dr. Jeffrey Langmaid

Managing Partner

CLINICAL DIRECTOR, TOTAL SPINE CARE NETWORK, LASER SPINE INSTITUTE, 2017
Develop new market initiatives, analyze business opportunities, and develop Total Spine Care protocol.

PHYSICIAN, LASER SPINE INSITUTE 2014 - 2017
First contact physician and clinical decision maker for the larges surgical spine practice in the world.

FOUNDER/OWNER THE EVIDENCE BASED CHIROPRACTOR 2012 - PRESENT
Research-based marketing and practice growth company serving thousands of chiropractors across the globe.

SPEAKER/WRITER, FEATURE AT ORTHOPEDIC CONFERENCES, EVENTS and INDUSTRY PUBLICATIONS WORLDWIDE 2012 - PRESENT
Speaker at over 100+ orthopedic events, Top Rated influencer with over 10,000 physicians reached each week.

CO-DIRECTOR, FLORIDA ORTHOPEDIC INSTITUTE 2012 - 2014
Responsible for Florida Orthopedic Institute's Orthopedic Total Wellness Program

Nick Lancaster, M.B.A.

Managing Partner

OPERATIONS DIRECTOR, TOTAL SPINE CARE NETWORK, LASER SPINE INSTITUTE, 2017 - 2018
Develop new market initiatives, analyze business opportunities, and develop Total Spine Care Network.

DIRECTOR OF PROVIDER RELATIONS, LASER SPINE INSTITUTE 2012 - 2017
Responsible for enterprise new business development and implementing new revenue channels including, Military Relations, Physician Relations, Personal Injury, University Relations and Worker's Compensation.

927th AEROMEDICAL STAGING SQUADRON, HONORARY COMMANDER, MACDILL AFB, FL 2016 - PRESENT
Civilian liaison for MacDill AFB's Aeromedical Staging Squadron.

DIRECTOR OF OPERATIONS, KING'S WAY EYE CLINIC 2007 - 2012
Responsible for all clinical operations and business operations.

AOMSI DIAGNOSTICS

Vertebral Motion Analysis is an FDA approved facial recognition software that tracks vertebral bodies across video images making it possible to produce accurate and repeatable measurements of intervertebral motion as the spine bends.

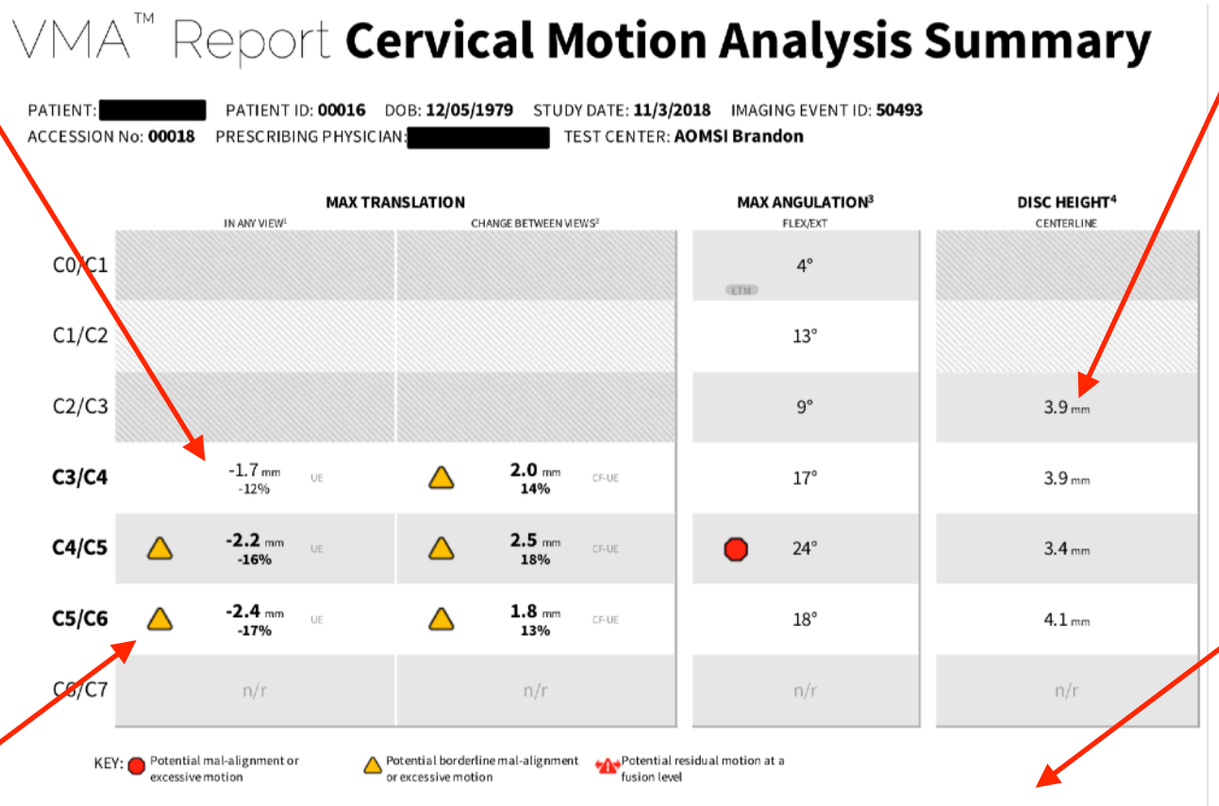
The results are then translated to a video and objectively evaluated and produced into a color coded graphic report.

Medically Defensible

Provides data to assess stability and/or alteration of motion segment integrity, which is critical in many injury cases.

Repeatable

Gone are the days of physicians subjectively drawing lines on films. VMA data provides unmatched specificity (99.5%) and exactness measurements within 1/10 of a millimeter.



VMA™ Report **Cervical Motion Analysis Summary**

PATIENT: [redacted] PATIENT ID: **00016** DOB: **12/05/1979** STUDY DATE: **11/3/2018** IMAGING EVENT ID: **50493**
ACCESSION No: **00018** PRESCRIBING PHYSICIAN: [redacted] TEST CENTER: **AOMSI Brandon**

	MAX TRANSLATION		MAX ANGULATION[3]	DISC HEIGHT[4]
	IN ANY VIEW[1]	CHANGE BETWEEN VIEWS[2]	FLEX/EXT	CENTERLINE
C0/C1			4° LTM	
C1/C2			13°	
C2/C3			9°	3.9 mm
C3/C4	-1.7 mm -12% UE	2.0 mm 14% CF-UE	17°	3.9 mm
C4/C5	-2.2 mm -16% UE	2.5 mm 18% CF-UE	24°	3.4 mm
C5/C6	-2.4 mm -17% UE	1.8 mm 13% CF-UE	18°	4.1 mm
C6/C7	n/r	n/r	n/r	n/r

KEY: Potential mal-alignment or excessive motion; Potential borderline mal-alignment or excessive motion; Potential residual motion at a fusion level

Signed by: Darren Buono, on 11/7/2018 at 8:21 AM CST

Objective

Qualitative and quantitative information that is specific, exact, and verified by an independent third-party medical radiologist.

Easy to Understand

Beautiful reporting and outcome assessments make things easy for the patient, doctor, and attorney.

Davis, RJ, et. al. "Measurement Performance of a Computer Assisted Vertebral Motion Analysis System." International Journal of Spine Surgery (2015). Vol 9. Article 36

Scientifically Valid

Featured in The Spine Journal, International Journal of Spine Surgery, Radiography, Spine.

AOMSI DIAGNOSTICS

CASE LAW

"The VMA software is a quantitative imaging software application intended to be used to process any diagnostic imaging modality…from digital image files in DICOM format. It is designed for physicians and clinical professional who are interested in the analysis of alignment and motion in medical images, particular in musculoskeletal images of the spine."

-FDA Indication for Use

The VMA technology of video fluoroscopy has successfully **passed** multiple Daubert Challenges:

- Benton and Benton v. Murrah. No. CV 06-70-1

- Arkansas Court of Appeals. No. CA 06-1289

AOMSI DIAGNOSTICS

Flexion-extension films are technology from the 1940's that shows a high degree of variability and subjective results which is difficult to defend to in litigation

"We believe that no useful information can be derived from {the flexion-extension} procedure.." - Dvorak and Panjabi, 1991

Now, the VMA provides a solution to this problem with highly specific testing the eliminates variability and provides objectivity.

The VMA provides information that the flex/extension x-ray misses, including **ligament laxity**, **translation**, **angulation** and **disc height.**

Flexion/Extension X-Rays:

- X-rays of uncontrolled bending
- Easy for patients to avoid painful positions
- Minimizes the opportunity to showcase existing injuries only 6 images reviewed
- *5.5% prevalence of spinal instability*
- *Less instability is typically associated with less functional impairment*

AOMSI Diagnostics:

- Device controls the bending
- The VMA assures sufficient bending and analyzes over 160 images during the entire bend of the patient.
- *11.5% prevalence of lumbar instability*
- *More instability is typically associated with greater functional impairment*

AOMSI DIAGNOSTICS

VMA™ Report **Cervical Motion Analysis Summary**

PATIENT: [redacted] PATIENT ID: **0005** DOB: **07/05/1979** STUDY DATE: **9/22/2018** IMAGING EVENT ID: **44713**
ACCESSION No: **000006** PRESCRIBING PHYSICIAN: [redacted] TEST CENTER: **AOMSI Brandon**

PATIENT LEVEL ALERTS:
NONE

	MAX TRANSLATION		MAX ANGULATION[3]	DISC HEIGHT[4]	INSTRUMENTED LEVELS[5]
	IN ANY VIEW[1]	CHANGE BETWEEN VIEWS[2]	FLEX/EXT	CENTERLINE	MAX. CONFIRMABLE ANGULATION
C0/C1			10°		n/a
C1/C2			8°		n/a
C2/C3			13°	3.4 mm	n/a
C3/C4	-1.4 mm -12% UE	1.0 mm 9% UF-UE	22°	3.5 mm	n/a
C4/C5	-1.2 mm -11% CE	1.1 mm 11% CF-CE	24°	2.9 mm	n/a
C5/C6	-1.2 mm -11% CE	1.0 mm 9% CE-UF	21°	2.8 mm	n/a
C6/C7	-1.0 mm -9% CE	0.8 mm 7% CE-UF	18°	4.0 mm	n/a

KEY: Potential mal-alignment or excessive motion; Potential borderline mal-alignment or excessive motion; Potential residual motion at a fusion level

FIRST LETTER: Controlled (**C**) vs. Uncontrolled (**U**) bending. second letter: Standing (**S**) vs. Lying (L) bending. third letter: Flexion (**F**), Extension (**E**), Patient Left (**L**), Patient Right (**R**), or Neutral (**N**) view. **XTP** = Cross table prone. **XTS** = Cross table supine. **LTM** = Less than minimum motion threshold. See *Quantitative Definitions* page of this report package for further definition and reference thresholds. See *Endnotes* page for all footnotes.

Click here to download a sample personal injury report

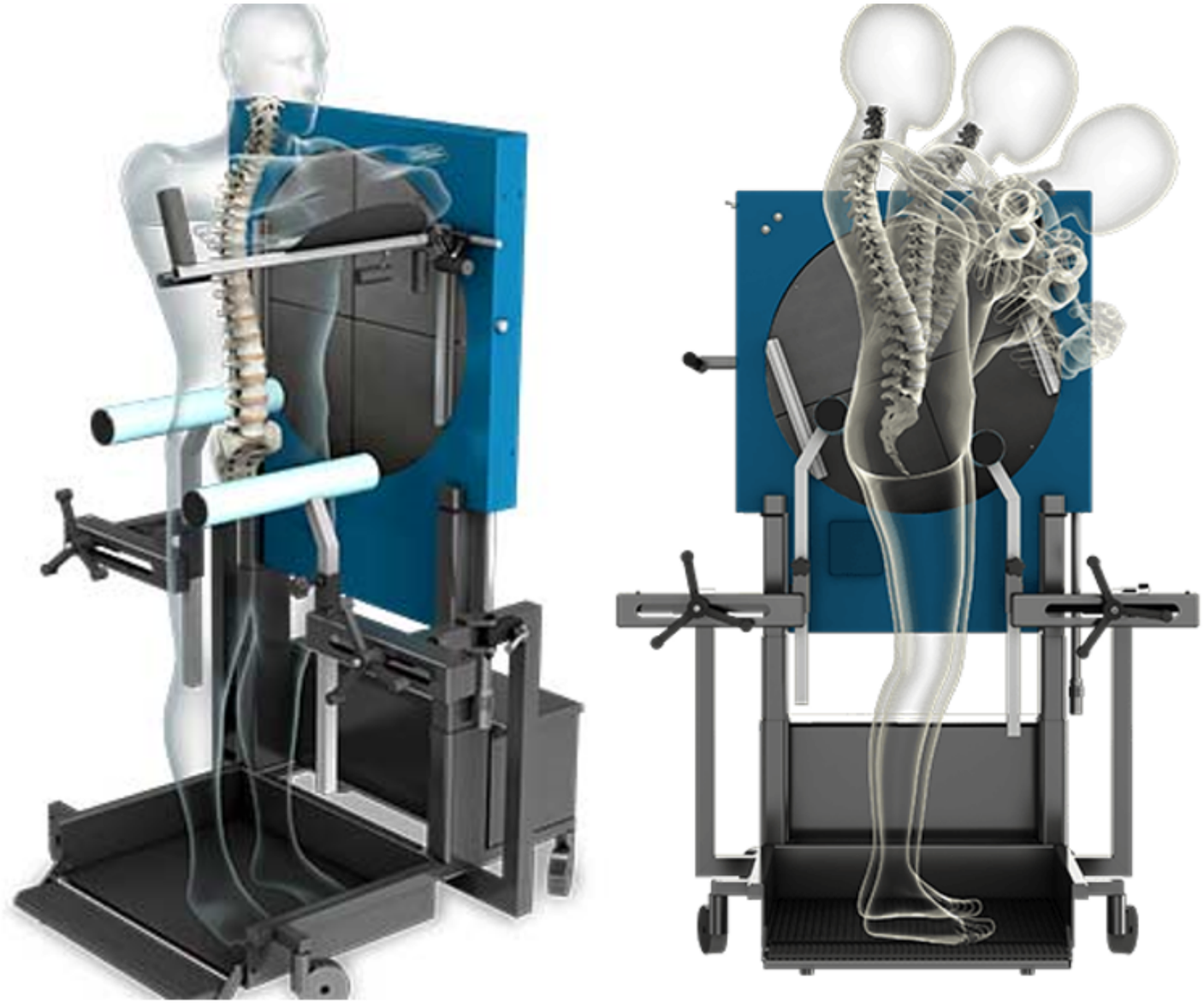
AOMSI DIAGNOSTICS

Proven and Established Diagnostic Technology

- FDA-cleared for use with the lumbar and cervical spine

- Uses standard C-arms (fluoroscopes) to generate images

- Covered under existing category I CPT codes
  (typically uses the “unspecified fluoroscopy code” 76496)



AOMSI DIAGNOSTICS

Clinical Validation & Strong Science

Impact	Details	Reference
Sensitivity and Specificity	A Level I evidence study of 509 patients and 73 asymptomatic controls. VMA demonstrated no less than a 41% increase in the sensitivity of detecting lumbar radiographic instability, with the same 98%+ specificity. This study used a .3mm threshold for instability.	*Davis, RJ, et. al. "Measurement Performance of a Computer Assisted Vertebral Motion Analysis System." International Journal of Spine Surgery (2015). Vol 9. Article 36*
Radiation Dose	The radiation exposure from 74 VMA studies was directly compared to the radiation exposure from 27 flex/ex studies. The VMA resulted in a 17% reduced radiation exposure (Dose Area Product) as compared to flex/ext	*Mellor, F. et. al. "Moving back: The radiation dose received from lumbar spine quantitative fluoroscopy compared to lumbar spine radiographs with suggestion for dose reduction." Radiography. Vol. 20, Issue 3, pp. 251-257, Aug 2014*
Measurement Repeatability	VMA markedly reduced variability of lumbar intervertebral measurements compared with a digitized manual analysis. The VMA is more precise, more exact, and gives a high measure of repeatability.	*Yeager, MS, et. al. "Reliability of computer-assisted lumbar intervertebral measurements using a novel vertebral motion analysis system." The Spine Journal. 14 (2014) 274-281. [2013 Outstanding paper Runner Up]*
Measurement Accuracy	In studies submitted to the FDA, VMA measurements were demonstrated to be accurate to within 0.2-0.4° (angulation) and 0.5- 0.7 mm (translation). This is comparable to what was reported a prior peer-reviewed accuracy study of the VMA software.	*Breen. AC, et.al. "An objective spinal motion imaging assessment: reliability, accuracy, and exposure data." BMC Musculoskeletal Disorders. 7:1 (2006)*

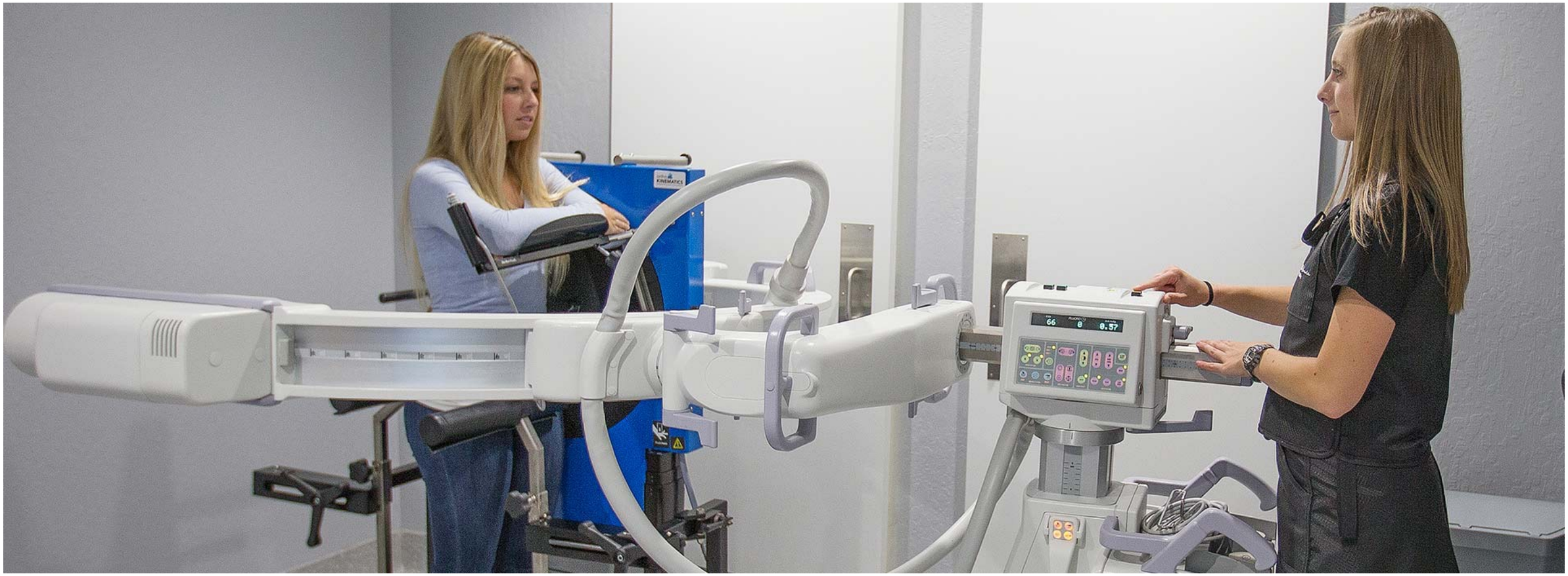
AOMSI DIAGNOSTICS

VMA vs DMX

	VMA (Vertebral Motion Analysis)	DMX (Digital Motion X-Ray)
Motion	Controlled *bolstered & guided motion – improves sensitivity and maintains specificity (Davis, IJSS, 2015)*	Uncontrolled
Radiation	30% Lower radiation exposure due to pulsed fluoroscopy– (Yeager, Spine J, 2014)	High level Fluoroscopy required, more radiation exposure for the patient.
Includes Classic Flex/Ext	Yes	No
Stabilized and Detailed View	Yes *isolate individual vertebral levels to get both quantitative and visual information.*	No
Output	report of spinal motion, repeatable, independent, validated by a third party medical radiologist	Motion video only (There is a “qualified” read service, which will give a qualitative read only, otherwise “assessed” by prescribing physician)
Data	**Spine Journal 2013** 70% more accurate **IJSS 2015** 40% more sensitive **Radiography** less radiation than standard flex/ex	(Okawa, 1998) Patients with chronic low back pain **did not show** a significant difference with (DMX interpretation) when compared with volunteers.
Coverage	**Generally covered by insurers**, used in reversal of denials The VMA typically uses the “unspecified fluoroscopy” code which CMS has guided as the appropriate code for this test	**Generally not covered** by US payers, Insurers Position: “Investigational and Not Medically Necessary for all indications” due to lack of evidence that there is a significant impact on clinical care.

AOMSI DIAGNOSTICS

If your clients with neck and back injuries aren't getting an vertebral motion analysis scan by AOMSI Diagnostics…



…why not?

AOMSI DIAGNOSTICS