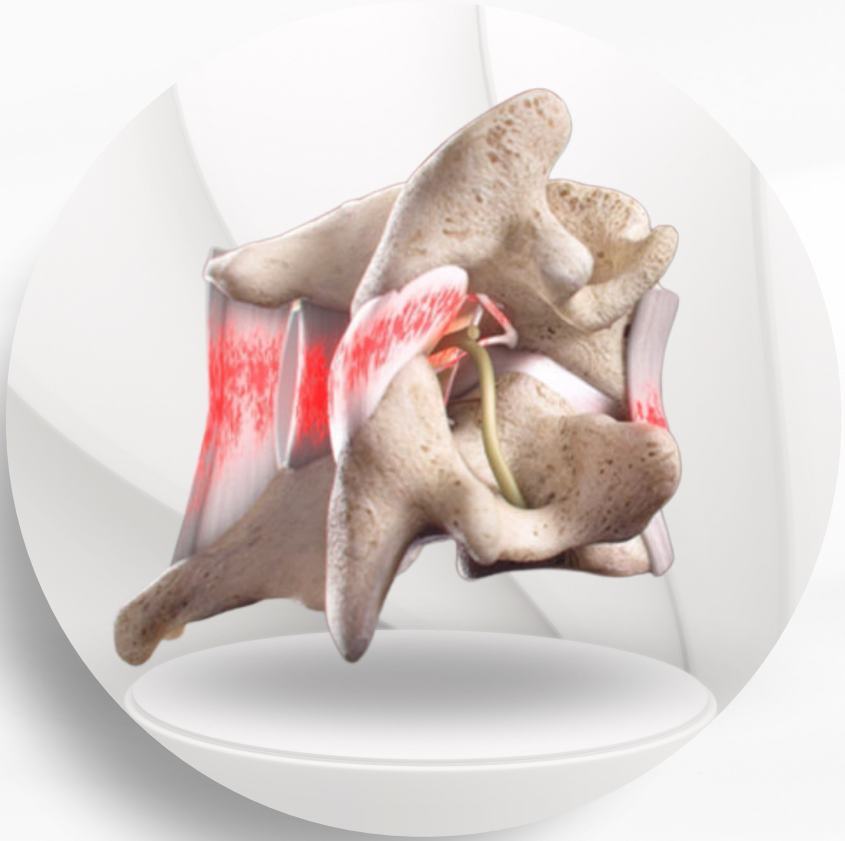




**SPINAL
KINETICS**
Spinal Ligament Injury Testing

FDA
CLEARED



THE ATTORNEY'S GUIDE FOR

SPINAL SOFT TISSUE INJURIES

THE FUTURE OF RESOLVING SPINAL INJURY CASES. **DON'T GET LEFT BEHIND.**

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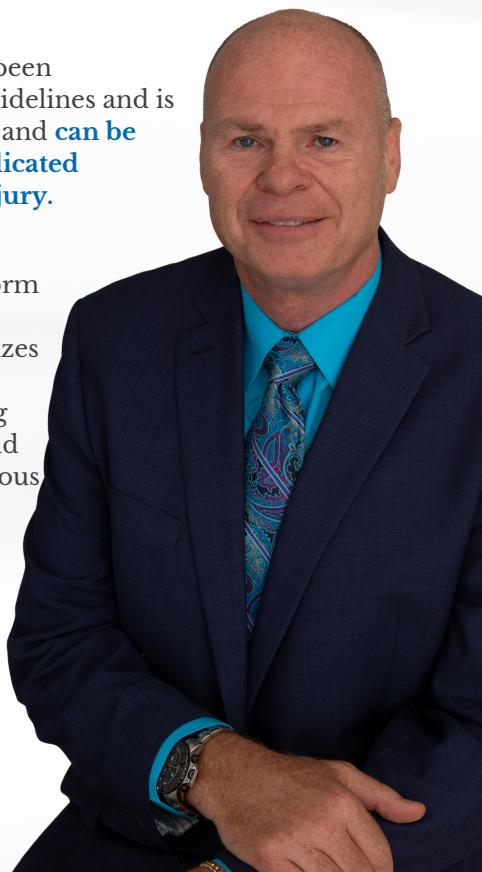
INTRODUCTION

You can break down “*spinal soft tissue injuries*” into two types of damage: *disc* ligament injuries and *non-disc* ligament injuries. Today’s overwhelming concern for disc injuries and the near disregard for non-disc ligament injuries leads to very serious problems:

- Patients still complaining of symptoms despite a negative MRI.
- Lack of objective documentation to justify necessary treatment.
- Disc herniations being treated as pre-existing conditions by insurers due to lack of supporting evidence to indicate otherwise.

This non-disc ligament injury has been referenced in countless national guidelines and is widely accepted as serious trauma and **can be responsible for many more complicated symptoms than the simple disc injury.**

Our board-certified medical radiologists at Spinal Kinetics perform Computerized Radiographic Mensuration Analysis™, which utilizes an FDA-cleared AI-assisted technology that enables the treating doctor to determine the severity and location of any non-disc ligamentous **spinal ligament injury** that causes spinal instability.



“30% of your personal injury cases have **surgical levels** of non-disc ligament injuries. You won’t know it’s there unless you test for it.”

Jeffrey Cronk, DC JD
CEO of Spinal Kinetics

CRMA™

The Gold Standard in Spinal Injury Diagnosis

Computerized Radiographic Mensuration Analysis (CRMA™) marks a significant advancement in spinal injury diagnostics, employing FDA-cleared technology and conducted under the scrutiny of board-certified medical radiologists. This third-party analysis ensures an objective and unbiased assessment, setting CRMA apart from in-house excessive motion testing commonly performed by chiropractic providers.

In-house methods, while useful, often face skepticism from insurers due to the potential for perceived bias. In contrast, CRMA's external, radiologist-reviewed approach provides a robust foundation for legal cases, offering unparalleled credibility.

For attorneys, understanding the difference between CRMA and in-house diagnostics is crucial. CRMA's rigorous, unbiased process not only enhances the reliability of spinal injury claims but also strengthens the pursuit of justice for affected clients.

CRMA represents a leap towards more accurate, dependable spinal injury assessments, positioning it as a key asset in spinal injury litigation.

CORRELATING TO THE DISC

You're probably very familiar with disc injuries and their symptoms. If your client *does* have a disc injury, you should know that the **non-disc ligament injuries can make the disc injury a lot worse.**



It is imperative that this non-disc ligament injury be found and treated to prevent further degradation of the disc.

When a disc injury is the only diagnosis, it can be written off as pre-existing condition by insurers due to lack of supporting evidence of any new injury.

NON-DISC LIGAMENT INJURY

SYMPTOMS

Have you ever encountered a client with continuous symptoms after their injury, only to be disappointed by a negative MRI report? The fact is, **there are many more complicated symptoms associated with the non-disc ligamentous injury than the disc injury.**

SPINAL LIGAMENT INJURY SYMPTOMS (NON-DISC)

- Autonomic Nerve System
- Axial (local) Pain
- Balance Difficulty
- Cervical Radiculopathy
- Cervicocranial Syndrome
- Dizziness
- Drop Attacks
- Dysregulation
- Ear Fullness
- Increased Intracranial Pressure
- Meniere's Disease
- Migraine Headaches
- Parasthesias (Upper Extremities)
- Post-Concussion Syndrome
- Radicular (radiating) Pain
- Swallowing Difficulty
- Tinnitus
- TMJ Pain
- Vagus Nerve Compression
- Vertebrobasilar Artery Ischemia
- Vertigo
- Visual Disturbances
- Whiplash-Associated Disorder

DISC INJURY SYMPTOMS

- Local Pain
- Radiating Pain

Ref: <https://emedicine.medscape.com/article/306176-clinical>
<https://emedicine.medscape.com/article/306176-overview>
<https://emedicine.medscape.com/article/95444-clinical>

DAUBERT VS. FRYE STANDARD

Does a CRMA™ stand up to the Daubert vs. Frye standard? **YES.**

Why? *For the same reason that an X-ray is a standard and accepted test for diagnosis, courtroom evidence, or treatment plans.*

What about measuring X-rays? *Have we been measuring X-rays for years with accuracy to diagnose and treat patients? YES.*



A CRMA™ is an X-ray report.

It is a specialized report focusing on the excessive motion that indicates damage to the non-disc spinal ligaments.

PRE-LITIGATION **VALUE**

The spinal ligament injury increases your pre-litigation value in the same way a disc herniation or a fracture provides value to the case. It delivers objective proof of injury and medical necessity for the treatment or care provided.

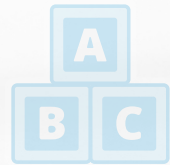
Objectivity

The report gives clear and measurable findings of how many *degrees* or *millimeters* of abnormality exists, removing much subjective interpretation.



Simplicity

Objective Report + Guidelines with Consensus =
Very little room for refutability.



Consensus

The number of approved guidelines and references mentioning this injury are great in number, some of which can be found later in this booklet.





"No competent personal injury lawyer can do justice to these serious ligamentous injuries by dismissing them as "run-of-the-mill" soft tissue injuries.

"Many are serious injuries that can be objectively proven with Computerized Radiographic Mensuration Analysis *which can turn a \$20,000 case into a \$1 million case.*"

- Douglas E. Schmidt, Esq.



Douglas E. Schmidt has over 40 years of experience, in over 6,000 cases, in bringing justice to the victims of Personal Injury and Wrongful Death.

He is the recipient of the Award of Merit of the American Bar Association and has received the Distinguished Service Award of the Minnesota Trial Lawyers Association.

He has successfully tried over 500 cases to a jury, judge or arbitrator in 4 states. He has been AV rated by Martindale Hubbell for 35 years.

PRE-LITIGATION VALUE

OBJECTIVITY

The findings are clearly objective and based on an FDA-Cleared AI-assisted program to determine measurements. The resulting report is based on measured facts rather than opinion that is left open to be debated.



SPINAL KINETICS
 STATE OF THE ART CRMA®
 Spinal Ligament Injury Testing
 246 Tansley Dr. Suite 1 New Richmond, WI 54017 Ph: (877) 508-9729

Computerized
 Radiographic
 Mensuration
 Analysis

Patient Information

Name	EXAMPLE PATIENT	FFD	40	Injury Date	APR 15 2021
Age/Gender	42 YEAR(S) OLD/MALE	DOB	DEC 10 1978	Image Date	MAY 10 2021
Referring Doctor	DR EXAMPLE SMITH, DC	DPI	182.73	Report Date	MAY 11 2021

COMPUTERIZED RADIOGRAPHIC MENSURATION ANALYSIS CRMA®

This Radiographic Mensuration Report is compiled upon evidence based objective biomechanical analysis for Roentgenometric mensuration of the spine. This evaluation will not include a pathological report. The report results will provide the referring physician with radiologic analysis necessary to help determine the severity and location of any spinal ligament injury, as well as to help the treating provider to better determine the need for other ligament assessment imaging such as MRI. The Radiographic Images used were of acceptable quality and in compliance with standard protocols for X-ray imaging. This report follows the AMA Guides to the Evaluation of Permanent Impairment, 5th & 6th edition. This report is based on computerized printout and the accepted consensus of what these numbers indicate. All findings in this report must be correlated clinically in order to objectively establish the severity and location of any spinal instability. (4,5,8,9) These reports are also utilized to better determine surgical need or activity restrictions such as return to play parameters in contact sports.

Lateral Cervical Spine

Cervical Motion Study

Atlas lateral shift is 2.73 mm during left lateral bending and 1.44 mm during right lateral bending. The angular motion segment integrity is ratable at C5. The translational motion segment integrity is abnormal which may be clinically significant and must be clinically correlated.

IMPRESSIONS

1. Cervical motion study indicates Angular Motion Segment Integrity change at C5. The impairment of the cervical region is due to ratable Loss of Motion Segment Integrity and is ratable at 25% for cervical spine (AMA Guides, Fifth Edition, Errata). This patient's digital analysis reveals Loss of Motion Integrity at C5=20.17° yielding an impairment estimate based on plain film forensics at 25%. Motion Segment Integrity Translational variation is abnormal at C2-C3, C3-C4, C6-C7. This patient's digital analysis reveals C2-C3=1.1mm, C3-C4=1.28mm, C6-C7=1.14mm. These abnormal measurements indicate spinal ligament damage/sub-failure and clinically significant ligament injury.
2. Abnormal translation or angulation finding on flexion/extension studies are highly suggestive of ligament and connective tissue damage. These findings are considered clinically significant. Any measurements over 1 mm of translation and/or over 7° angular variation, are considered to be clinically significant and in excess of normal motion of the cervical spine.

A. Farook, MD

Dr. Aamer Farook
 MD
 Consultant Radiologist
 Electronically Signed, Signature on File



"If you process your claims through Spinal Kinetics to get that objective identification, the settlements should go up unless the attorney just doesn't have the skills to get it into that high range. If the settlements are higher, then you're absolutely going to see fewer reductions, fewer requests for you to cut your bills back."

- Mr. James Mathis

Mr. James Mathis has extensive professional experience in the Insurance Industry having held management positions with Allstate and Farmers Insurance and continues ongoing review of insurance procedures, processes, literature and claim files in his capacity as a consultant.



Mr. Mathis has dedicated the last 25 years to personally training doctors and attorneys how to expertly manage PI cases to maximize settlement whenever possible.

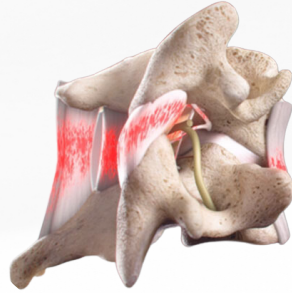
James Mathis is an expert witness in all 50 states and consultant for trial defenses and discovery preparation with extensive experience in discovery process' for bad faith, extra-contractual, breach of contract and consumer violation lawsuits.

PRE-LITIGATION VALUE

SIMPLICITY

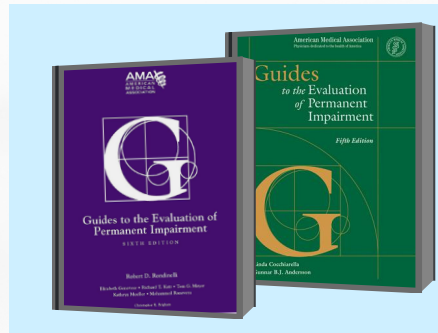
The simplicity is that there are only two components to the spine*:

- Bone
- Ligaments (discs and non-disc ligaments)



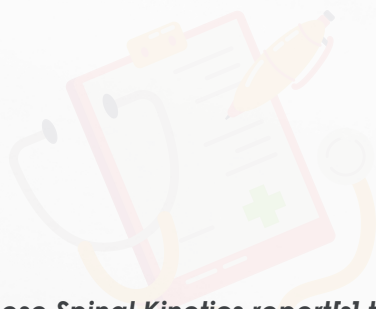
Up until recently, only the discs and bones were being examined for injury - however, the discs only make up for approximately 10% of the spinal ligaments and therefore significant injuries were consistently being overlooked.

Since this injury has already been researched and referenced in guidelines such as the *AMA Guides for the Evaluation of Permanent Impairment* and more, **it can be a simple process for the adjusters to review this report and effectively determine a higher value for the case due to better documentation of the injury.**



*Parts such as the spinal cord, nerves, and muscles are adjacent to the spine, and not the spine itself.

“



"And we have been able to use these Spinal Kinetics report[s] to make a big immediate difference in an offer. Where in situations, we have an offer, and we were sort of at a standstill, then all we did differently was give a Spinal Kinetics report and then that ultimately led to a big breakthrough in the negotiations.

"So we definitely have seen the benefits of the reports, both when we do them early on in the stages, and also when we use them to salvage an impasse."

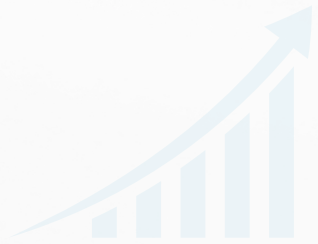
KAL
KAL
ATTORNEYS

PRE-LITIGATION VALUE

CONSENSUS

National guidelines & medical studies refer to spinal ligamentous injuries as **serious injuries**. Case value is greatly determined by well-documented, established injuries.





*"By learning about a ligament injury and how to document them for impairment **it was just going off the charts in terms of value.**"*

- Mark Blane, Esq.



Mark Blane is solo-practicing attorney and a two-time best selling legal author who specializes in personal injury law in downtown San Diego.

His book, "*Wolf in Sheep's Clothing*", on the day of its release, hit the Best Sellers List in two categories on Amazon reaching #1 in the Insurance category and #42 in the Personal Finance category. He was also inducted into the National Academy of Best-Selling Authors. His other book, "*Protect & Defend*" also hit the Best Sellers List on Amazon in two different categories. He is the author of 10 injury consumer guides.

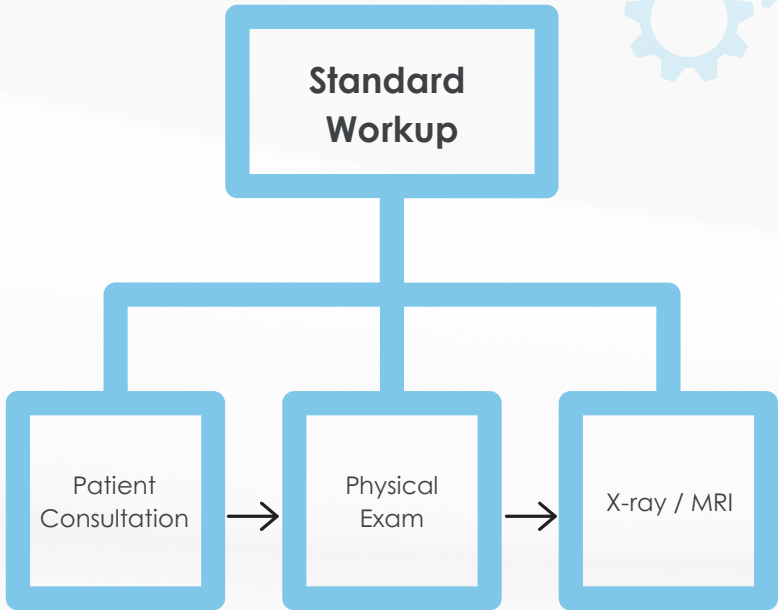
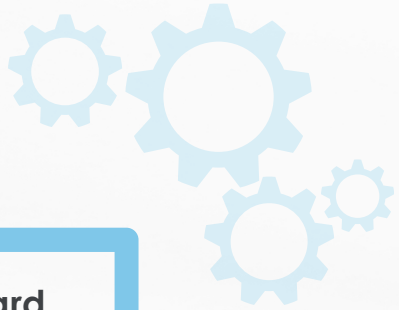
HOW THE CRMA® FITS INTO A STANDARD DOCTOR WORKUP

Let's start with what your doctor's current full workup typically looks like:

- Patient Consultation
- Physical Exam
- Spinal X-rays and/or MRI

X-rays are a long-standing and necessary component of the diagnostic work included in your client's case. This imaging helps identify fractures, disc degeneration, and other abnormalities. **When paired with the CRMA™ report, it can also show significant non-disco ligamentous injuries,** which, if present, can greatly worsen a disc injury or otherwise lead to a myriad of symptoms not linked to disc injuries.

This provides required documentation for extended care, therefore higher settlements and less early-care cut-offs.



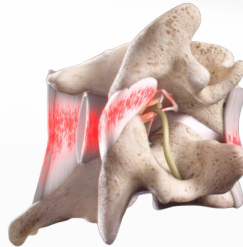
↑
CRMA™ report
is based on the
X-ray study.

GUIDELINES & **REFERENCES**

The guidelines dictating the care and justified treatment for these injuries refer to the injury in terms of translational and angulation damage as depicted below.



TRANSLATIONAL DAMAGE



ANGULATION DAMAGE

Up to 1 mm of translation is normal, anything above is abnormal. If there is 3.5 mm or more motion it is severe and could require surgery if not stabilized with conservative care.

Up to 7° of angular difference is normal, anything above 7° is abnormal. Anything 11° or more can be surgical if not stabilized with care.

On the following page are excerpts of several of these guidelines and where they mention this injury.



CROFT CARE GUIDELINES

Table 1 – Grades of Severity of Injury

Grade I	Minimal; No limitation of motion; No ligamentous injury; No neurological findings
Grade II	Slight; Limitation of motion; No ligamentous injury; No neurological findings
Grade III	Moderate; Limitation of motion; Some ligamentous injury; Neurological symptoms
Grade IV	Moderate to Severe; Limitation of motion; Ligamentous instability; Neurological symptoms; Fracture or disc derangement
Grade V	Severe; Requires surgical management/stabilization

Table 2 – Guidelines for Frequency and Duration of Care in Cervical Accelerations/Deceleration Trauma (2)

	Daily	3x/wk	2x/wk	1x/wk	1x/mo	T ₀	T ₈
Grade I	1 wk	1-2 wk	2-3 wk	<4 wk	— ¹	<11 wk	<21
Grade II	1 wk	<4 wk	<4 wk	<4 wk	<4 mo	<29 wk	<33
Grade III	1-2 wk	<10 wk	<10 wk	<10 wk	<6 mo	<56 wk	<76
Grade IV	2-3 wk	<16 wk	<12 wk	<20 wk	— ²	— ²	— ²
Grade V	Surgical stabilization necessary—chiropractic care is post-surgical						

T₀ = treatment duration; T₈ = treatment number.
¹ Possible follow-up at 1 month.
² May require permanent monthly or p.r.n. treatment.



AMA GUIDES FOR THE EVALUATION OF PERMANENT IMPAIRMENT

Guides to the Evaluation of Permanent Impairment

15.6 DRE: Cervical Spine

15.6a Criteria for Rating Impairment Due to Cervical Disorders

For cervical problems localized to the cervical or cervicothoracic region, use Table 15-5. If the cervical spine problem also leads to isolated bowel and/or bladder dysfunction not due to cervicogenital damage, obtain the appropriate estimate for bowel and

bladder dysfunction from the gastrointestinal and urology chapters (Chapters 6 and 7) and combine these with the appropriate cervical spine DRE category from DRE I to V, listed in Table 15-5. If the a vical spine problem is due to cervical tract involvement, use Table 15-6 alone.

The DRE cervical categories are summarized in Table 15-5.

Table 15-5 Criteria for Rating Impairment Due to Cervical Disorders

DRE Cervical Category I 0% Impairment of the Whole Person	DRE Cervical Category II 5%-6% Impairment of the Whole Person	DRE Cervical Category III 15%-18% Impairment of the Whole Person	DRE Cervical Category IV ¹ 25%-28% Impairment of the Whole Person	DRE Cervical Category V ² 35%-38% Impairment of the Whole Person
No significant clinical findings, no radiologic evidence of injury, no documented neurologic impairment, no significant loss of motion, segment energy, and no other indication of impairment related to injury or disease, no fracture.	Clinical history and examination findings are compatible with a specific injury. Imaging studies indicate minimal loss of motion segment energy, and no other indication of impairment related to injury or disease, no fracture.	Significant signs of radiculopathy such as pain and/or sensory loss in a dermatomal distribution, objective motor weakness, loss of muscle strength, or sensory deficit in a specific area of the extremity to a physician, aggressive physical therapy, and/or nonsteroidal anti-inflammatory drugs, without objective findings, no fracture of the structural integrity.	Objective findings of radiculopathy such as pain and/or sensory loss in a dermatomal distribution, objective motor weakness, loss of muscle strength, or sensory deficit in a specific area of the extremity to a physician, aggressive physical therapy, and/or nonsteroidal anti-inflammatory drugs, without objective findings, no fracture of the structural integrity.	Objective findings of radiculopathy such as pain and/or sensory loss in a dermatomal distribution, objective motor weakness, loss of muscle strength, or sensory deficit in a specific area of the extremity to a physician, aggressive physical therapy, and/or nonsteroidal anti-inflammatory drugs, without objective findings, no fracture of the structural integrity.



EVICORE SURGICAL GUIDELINES

Comprehensive Musculoskeletal Management Guidelines: Spine Surgery V2.0 2018

CMM-601.1: General Guidelines

- The determination of medical necessity for the performance of cervical fusion with and without discotomy is always made on a case-by-case basis.
- For prior authorization requirements, see **CMM-600.1: Prior Authorization Requirements**.
- The presence of urgent/emergent indications/conditions warrants definitive surgical treatment. Confirmatory advanced imaging studies are required. The following criteria are **NOT** required for confirmed urgent/emergent conditions:
 - Proximal directed non-surgical management
 - Proof of smoking cessation
 - Recent (within 6 months) plain X-rays of the cervical spine
 - Absence of unmanaged significant behavioral health disorders
- Urgent/emergent conditions for cervical fusion with and without discotomy include **ANY** of the following:
 - Acute/unstable traumatic spinal fractures or dislocations with or without neural compression
 - Central cord syndrome
 - Documentation of progressive neurological deficit on two separate physical examinations
 - Severe or rapidly progressive symptoms of motor loss, bowel incontinence or bladder incontinence/retention due to a neurocompressive pathology
 - Epidural hematoma
 - Infection (e.g., discitis, epidural abscess, osteomyelitis)
 - Myelopathy
 - Occipitocervical and/or Atlantoaxial (C1-C2) instability (non-traumatic) due to **ANY** of the following:
 - Rheumatoid arthritis
 - Congenital abnormality of occipitocervical/C1-C2 vertebrae
 - Os odontoidum
 - Neoplasms of the spine
 - Primary or metastatic neoplastic disease causing pathologic fracture, cord compression or instability
 - Documentation of severe debilitating pain and/or dysfunction to the point of being incapacitated
 - Flexion-extension plain X-rays demonstrate instability and include **ANY** of the following:
 - >3.5 mm sagittal plane translation
 - >20% sagittal plane translation of vertebral body width
 - >11 degrees relative sagittal plane angulation

For more guidelines and resources, visit our Resource Center online:



WHY CHOOSE SPINAL KINETICS?

Established in early 2008, we possess an unmatched level of experience with this procedure among medical radiology services, setting a benchmark for excellence and expertise in the field.

Undiagnosed injuries don't get better with time, they lead to chronic pain and unresolved symptoms, that's why our mission to leave no spinal ligament injury undetected.



IS FDA-CLEARED



IS FULLY ALIGNED WITH AMA AND SURGICAL GUIDELINES



WITHSTANDS LEGAL AND INSURANCE CARRIER SCRUTINY



REMOVES SUSPICION OF TREATMENT PROVIDER BIAS

For more information on this injury, visit our website at www.thespinalkinetics.com.

