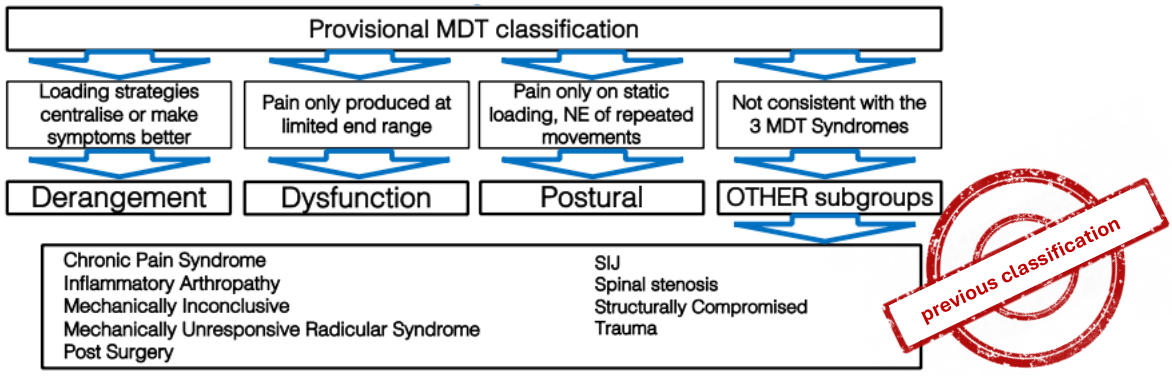
July 2026

# MII Classification and Assessment Form Update Summary

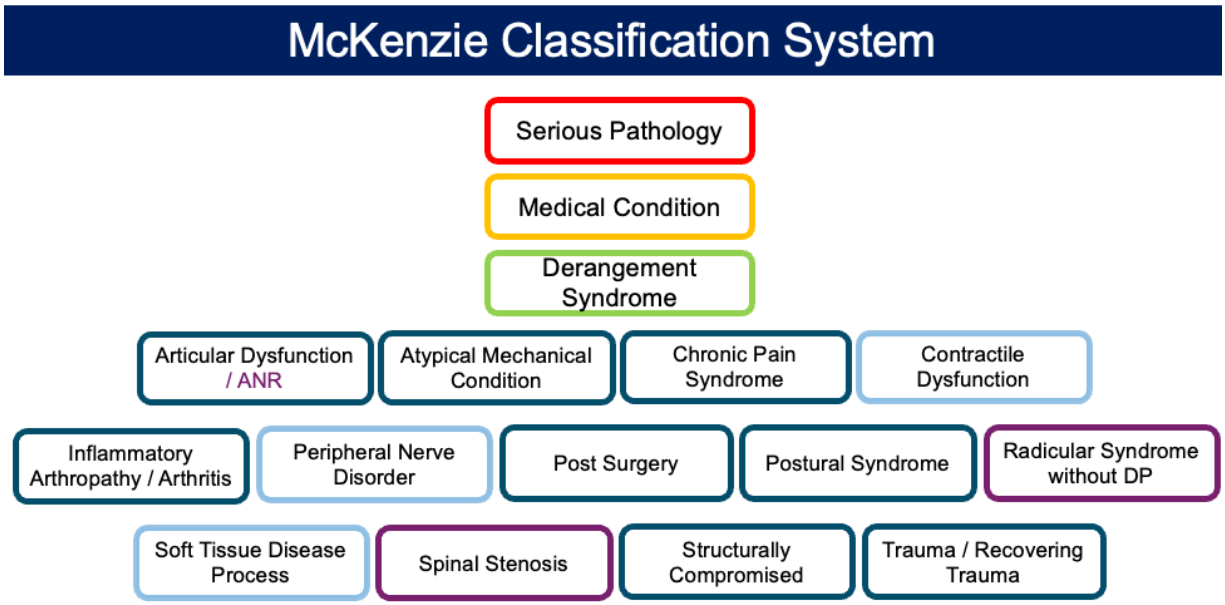
## Classification Update

### Overall Structure of Classifications

The structure of the McKenzie classifications has been revised. Previously, classifications were divided into 'The 3 McKenzie Syndromes' and 'OTHER' subgroups, as illustrated below. There were two separate tables of OTHER classifications, one for the spine and one for the extremities.




There is now no differentiation between the 'McKenzie Syndromes' and OTHER classifications. A total of 16 classifications are included with three prioritised, as shown below. Some classifications are specific to the spine (purple boxes/text), some specific to the extremities (light blue boxes) and the rest apply to both.



## New Classification

A new classification, 'Medical Condition', has been introduced. This classification is intended for clinical presentations that do not meet the criteria for Serious Pathology but warrant prompt medical evaluation due to suspected non-musculoskeletal causes.

## Classification Name Changes

There are a number of instances where the names of the classifications have been changed:

- Mechanically Inconclusive is changed to 'Atypical Mechanical Condition'
- Mechanically Unresponsive Radicular Syndrome is changed to 'Radicular Syndrome without Directional Preference'
- Inflammatory Arthropathy is changed to 'Inflammatory Arthropathy / Arthritis'
- Peripheral Nerve Entrapment is changed to 'Peripheral Nerve Disorder'

## Classification Definition Changes

Definitions have been updated for all classifications with the exception of: Articular Dysfunction, Contractile Dysfunction, Derangement Syndrome, Postural Syndrome and Post Surgery.

## Classification Criteria Change

Criteria and characteristics have been revised across all classifications except: Contractile Dysfunction, Derangement Syndrome and Postural Syndrome.

## Serious Pathology Classification

The 'Serious Pathology' classification now includes expanded and more detailed information on common clinical findings, a broader range of clinical examples, and more comprehensive referencing.

## New Classification Table as below:

| MDT Classifications<br>Serious Pathology and Derangements are considered to be ruled out before any other classification can be concluded | | |
|---|---|---|
| **Serious Pathology** | **Common Clinical Findings (Red Flags)** | **Clinical Examples** |
| Malignancy | History of cancer (higher % breast, colorectal, prostate, lung, thyroid, and kidney).[1-3]<br>Unexplained weight loss (5%-10% of body weight over 3-6-months).[1-3]<br>Age over 50 years.[1,4]<br>Not improved after one month.[1,5]<br>The pain characteristics may be described as: worsening, constant, 'band-like' pain, unfamiliar pain, night pain driving person to get up.[1,3] | Spine: Usually metastases from a primary site.<br>Can affect any region of the spine, but most commonly the thoracic spine.<br>Extremity: e.g., long bone metastatic disease. |
| Fracture spine | Recent trauma, osteoporosis, female, older age, history of corticosteroid use, previous spinal fracture, thoracic pain, midline bony tenderness.[1,3,6]<br>Combinations of red flags seem more informative than red flags in isolation.[3,6] | Compression fracture,<br>Fractured odontoid process |
| Fracture extremity | Recent trauma, osteoporosis, female, older age, history of corticosteroid use.[7,8]<br>LE fractures: +ve Ottawa knee rule, foot/ankle rule. | |
| Infection | Comorbidities that suppress immunity: Diabetes, HIV, RA, long-term steroid use, smoking, alcohol abuse.[3]<br>Social / Environmental: IV drug use, obesity, TB history or from TB endemic country, poor living conditions, recent surgery, or other infection.[2,3,9]<br>Symptoms: Fever, pain, radicular pain, tenderness.[9,10]<br>For wounds: increasing pain, wound breakdown.[11] | Epidural abscess,<br>Discitis,<br>Transverse myelitis.<br>Post-op infection |
| Neurological | **Cauda Equina Syndrome:**<br>Unilateral or bilateral radicular pain, reduced dermatomal sensation, and myotomal weakness are often present.[3]<br>Saddle sensory disturbance, bowel/bladder/sexual dysfunction.[1,3]<br>**Cord Compression:**<br>Often insidious onset, older age, altered gait and coordination, frequent falls, loss of dexterity, unilateral or bilateral paraesthesia UEs or all 4 limbs<br>UMN findings: hyperreflexia, +ve Babinski/Hoffman's/ inverted supinator sign/Tromner sign/Lhermitte's, bowel/bladder/sexual dysfunction, atrophy of hand intrinsics, clonus.[12-14]<br>**Progressive neurological deficit** | Cervical or thoracic myelopathy. |
| Vascular | **Myocardial infarction:** pain in chest, jaw, arm or shoulder, shortness of breath, feeling weak, lightheaded or faint.[15]<br>**Cervical:** History of recent trauma, smoking, hypertension, high cholesterol, vascular disease, headache, neck pain, unsteadiness/ataxia, dizziness, diplopia, dysarthria, dysphasia, drop attacks, aphasia, ptosis, nausea/vomiting, facial palsy, paraesthesia or weakness upper limb or lower limb, paraesthesia face.[16-19]<br>**Lumbar:** older age >65, male>female, history of smoking, hypercholesterolemia, family history of vascular disease including hypertension and AAA.[20,21]<br>If large AAA, can cause abdominal/flank pain, pulsatile abdominal mass, diaphoresis. Majority are asymptomatic.[23]<br>**Extremities:** Increasing age, recent surgery or trauma, vascular disease, obesity, history of deep vein thrombosis (DVT) or peripheral arterial embolism, period of immobilisation, long distance travel, smoking, oral contraception, hormone therapy, pregnancy, malignancy.[24,25]<br>Lower/Upper extremity DVT can be symptomatic or asymptomatic, limb pain, asymmetrical swelling, warmth, tenderness, +ve Homans' sign.[23,24]<br>Acute compartment syndrome: swelling, pain, pallor, pulselessness, paralysis, and paraesthesia. Confirmed with intramuscular pressure measurements.[25] | Other example: Cerebral vascular accident<br>Vascular pathologies of the neck.<br>Abdominal aortic aneurysm.<br>Deep vein thrombosis, Peripheral arterial embolism.<br>Recent significant trauma/ crush injury. |

| Classification | Definition | Criteria / Characteristics | Clinical Examples |
|---|---|---|---|
| Medical Condition | Condition that is suspected by the clinician to warrant prompt medical evaluation | This condition does not meet Serious Pathology criteria for urgent referral, but prompt medical evaluation is indicated. | Herpes zoster (shingles), metabolic syndrome, migraine, Parkinson's,<br><br>psychological disorders,<br><br>stress fractures/symptomatic spondylolysis, visceral referred |
| Articular Dysfunction /<br><br>Adherent Nerve Root (ANR) | A clinical presentation where pain is produced consistently and only at a limited end-range of a movement<br><br>When involving the nerve root (ANR), the symptom is produced consistently and only at end range when the nerve root is tensioned | Duration usually longer than 6 weeks. In both the history and examination, pain is only produced at a limited end range of movement. Pain is always local, intermittent, and consistent, it never remaining worse. The symptom is never present when the joint is not at end range. Gradual improvement in range over time with appropriate movement.<br><br>Adherent nerve root: This rare presentation has characteristics consistent with AD, except that leg or arm symptoms, rather than local pain, is produced and only when the nerve root is tensioned, rather than at joint end range. | |
| Atypical Mechanical Condition | Musculoskeletal condition not meeting the criteria of any other MDT classification | Symptoms are affected by positions, movements, or certain types of loading BUT not in a recognisable pattern that is consistent with any other MDT classification. This is a diagnosis of exclusion as all other MDT classifications are ruled out. | |
| Chronic Pain Syndrome | Clinical presentation with a pain-generating mechanism primarily influenced by neurophysiological changes (nociplastic driver of pain) and modulated by psychosocial factors | Pain is regional rather than discrete in distribution and persists usually > 3 months.<br><br>Disproportionate pain response to mechanical/thermal stimuli (hypersensitivity phenomena heterogeneous and unpredictable)<br><br>Associated with inappropriate beliefs and attitudes about pain.<br><br>Presence of comorbidities (fatigue, sleep disturbances, cognitive problems, increased sensitivity to sound/light)<br><br>Cannot entirely be explained by neuropathic or nociceptive pain.<br><br>It can develop without a clear pathoanatomic underlying cause (primary chronic pain) or can have a pathoanatomic underlying cause, which may no longer be present (secondary chronic pain) | **Chronic primary pain syndromes**:<br><br>Chronic widespread pain, Chronic primary musculoskeletal pain, Complex regional syndrome, Chronic primary headache, Orofacial pain.<br><br>**Chronic secondary pain syndromes:**<br><br>Chronic secondary musculoskeletal pain, Chronic postsurgical or post-traumatic pain,<br><br>Chronic secondary headache or orofacial pain,<br><br>Chronic cancer-related pain |
| Contractile Dysfunction | A clinical presentation where pain is produced with sufficient loading of the musculotendinous unit. | With sufficient load, pain is experienced during resisted movement or testing at any point through the range. The symptom on resisted movement will usually occur in one direction and cease after loading. Discomfort may also | |

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| | Subgroups: tendinopathy and muscular | be experienced when the tissue is stretched / compressed but passive movements remain full. | |
| Derangement Syndrome | A clinical presentation which demonstrates Directional Preference in response to loading strategies and is typically associated with movement loss | Demonstrates Directional Preference, where a specific direction of repeated movement and/or sustained position results in a clinically relevant improvement in symptoms. This improvement is usually accompanied by an improvement in function or mechanics or both. A common feature in the spine is Centralisation.<br>Symptoms can be intermittent or constant, local, referred or radicular and can change locations.<br>In the spine it can present with an acute deformity. | |
| Inflammatory Arthropathy /Arthritis | Joint inflammation resulting from an overactive immune system. It usually affects many joints throughout the body at the same time but could involve just one joint.<br>Can be divided into Systemic<br>OR<br>Local | Usually constant pain, night pain, morning stiffness 45-60', excessive movements exacerbate symptoms, worse after being inactive (am, getting up from their desk), family history, irritable bowel syndrome, other systemic signs e.g., enthesitis, dactylitis, uveitis etc.<br>Diagnosis may be confirmed by relevant blood tests (HLA-B27, CRP / ESR).<br>Could respond to appropriate medication.<br>Localised area but with inflammatory type pattern as stated above. | Ankylosing spondylitis, gout, non-specific inflammatory arthritis, psoriatic arthritis, rheumatoid arthritis (RA), sero-negative arthritis, systemic lupus erythematosus,<br>Modic 1 changes |
| Peripheral Nerve Disorder | Altered nerve function and/or pain secondary to damage, illness or disease affecting the peripheral nerve | No relevant spinal symptoms. The most frequent symptoms are numbness and paresthesia.<br>Pain, weakness, and loss of deep tendon reflexes may accompany these symptoms.<br>Diagnosis may be confirmed with nerve function tests such as electromyography (EMG) and nerve conduction studies. | A) Local mononeuropathy: carpal tunnel syndrome, tarsal tunnel syndrome, peroneal nerve entrapment at fibular head, Meralgia Paresthetica, thoracic outlet syndrome.<br>B) Systemic polyneuropathy: Diabetes Mellitus, inflammatory diseases such as SLE. |
| Post Surgery | Presentation relates to recent surgery | Recent surgery and still in post-operative protocol period and improving within typical timelines. | |
| Postural Syndrome | A clinical presentation where symptoms are produced only during prolonged static loading | Symptoms are only produced during prolonged static loading, never with movement. Always local and intermittent.<br>There is no movement loss and no effect of repeated movements | |

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| Radicular Syndrome without DP | Collection of signs and symptoms of variable etiologies secondary to pathology of the nerve root and/or dorsal root ganglia. Symptoms do not centralise or remain better with repeated movements or positions.<br><br>Note: Patients who have a Derangement classification may also have radicular signs and symptoms, in these cases a Directional Preference will be present. | Symptoms present in a radicular pattern in the upper or lower extremity, accompanied by varying degrees of neurological signs and symptoms.<br><br>Repeated movements or positions do not result in centralisation or symptoms remaining better.<br><br>It can present with low or high tissue reactivity. | Herniated disc, annular tear. |
| Soft Tissue Disease Process | A fibroblastic or degenerative disease process affecting inert soft tissue | Each disease process has a unique clinical presentation, natural history and response to interventions. | Dupuytren's contracture, frozen shoulder, plantar fascia syndrome |
| Spinal Stenosis | A condition in which there is diminished space available for the neural and vascular elements in the spine secondary to structural or degenerative changes in the spinal canal or foramina. The clinical presentation is due to the direct or indirect compromise of the neural and vascular structures. | **Lumbar central:** Typically, older population. Leg symptoms, most likely bilateral, are consistently relieved with flexion activities, including sitting, and exacerbated with standing and walking<br><br>Often history of chronic LBP and typically has major loss of extension.<br><br>**Cervical and lumbar foraminal stenosis:** In cervical spine, nerve root symptoms are produced by ipsilateral rotation, lateral flexion or lower cervical extension. Relieved by contra lateral positions and/or flexion. In lumbar spine, extension and/or lateral movements towards painful side likely to produce symptoms. | |

| Classification | Definition | Criteria / Characteristics | Clinical Examples |
|---|---|---|---|
| Structurally Compromised | Soft tissue and/or bony changes compromising joint integrity and impairing normal function. | Mechanical symptoms such as: restricted ROM, clunking, locking, catching, instability.<br><br>History of trauma or long history of symptoms.<br><br>Structural or degenerative changes that may be managed conservatively +/- other medical intervention. | **Spine:**<br>Healed fractures, instability due to RA, late stage of symptomatic OA,<br><br>severe osteoporosis, some spondylolistheses,<br><br>some structural scolioses, upper cervical structural.<br><br>**Extremities:**<br>ACL tear, joint dislocation, late stage of symptomatic OA, labral tear,<br><br>symptomatic meniscal tear. |
| Trauma / Recovering Trauma | Recent traumatic incident or cumulative overload associated with onset of symptoms, and the subsequent resolution of those symptoms. | Symptoms are typically constant in the initial stages and worsened with excessive movement or activity. Recovering Trauma is established when pain is reducing in intensity, is intermittent and status is improving within typical timelines | Ankle ligament sprain, whiplash associated disorder. |

July 2026

## McKenzie Assessment Form Update

- Address and phone number taken off from new form
- Examination of change of posture has been updated from:
    - better / worse / no effect
      to
    - no effect / effect
- For the lumbar form, static tests have changed from:
    - Sitting slouched / erect / lying prone in extension / long sitting
      to
    - Kyphotic sitting / lordotic sitting / long sitting / lying prone in extension
- Provisional Classification: All the new classifications are laid out with tick boxes for the clinician to complete.