CEP | Providers

Clinically Organized Relevant Exam (CORE) Back Tool

This tool will guide the family physician and/or nurse practitioner to recognize common mechanical back pain syndromes and screen for other conditions where management may include investigations, referrals and specific medications. This is a focused examination for clinical decision-making in primary care.

Overview of Tool and Key Points

Throughout this tool, key messages for your patient are embedded in each section as indicated by a key symbol ( ).

Section A: History

- A patient's history can help identify:
  - Back or leg dominant pain
  - Intermittent or constant pain
  - Associated aggravating movement
  - Non-mechanical vs. mechanical pain
  - Red flags ( ) and yellow flags ( )

Red Flags

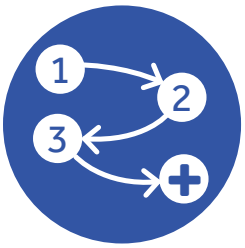
- NIFTI is a mnemonic for common red flags
- Red flags indicate the potential presence of an underlying serious pathology
- Cauda Equina symptoms require urgent surgical evaluation

Yellow Flags

- Yellow flags indicate the potential of psychosocial risk factors for developing chronic pain
- Yellow flags can be picked up on any visit
- If significant, CBT or 1:1 psychoeducation counselling may be necessary for pain management

Section B: Physical Examination

- An examination refutes or supports the back pain pattern identified in history
- Referred leg pain will have a normal neurological exam
- Radicular (nerve) pain will have a positive straight leg raise (SLR) with reproduction of leg pain and possible abnormal neurological signs
- Interpretation of range of motion includes the pain response to flexion and extension movements



Section C: Initial Management

- Goals may include "to reduce pain" and "to increase activity"
- Frequent movement in small doses recommended
- Self management involves patient driven goals for motivating behaviour change like exercise, medication compliance or activity modification
- Remember that all recovery positions and/or exercises should be customized to the individual patient. This section offers a starting point with links to additional resources

Section D: Referrals (if required)

- Based on your findings, the patient **may** require referral to:
  - rehabilitation
  - surgery
  - specialist(s)
  - imaging or laboratory tests

Supporting Material

Supporting Tools

Opioid Risk Tool [1]

Patient Education Inventory [2]

Personal Action Planning for Patient Self Management [3]

The Keele STarT Back Screening Tool [4]

Additional Tools For Providers

Pharmacy Table: Acute and Subacute Low Back Pain – Phamacological Alternatives [5]

Pharmacy Table: Acute and Subacute Low Back Pain – Topical and Herbal Products [6]

Evidence Summary for Management of Non-specific Chronic Low Back Pain [7]

Opioid Manager Switching Opioids Form [8]

Additional Tools For Patients

Back Book [9]

General Recommendations for Maintaining a Healthy Back [10]

So Your Back Hurts... [11]

What You Should Know About Acute Pain [12]

What You Should Know About Chronic Pain [13]

Imaging Tests for Lower Back Pain: When You Need Them – And When You Don't [14]

Dr. Mike Evans' Low Back Pain Patient Self-Management Video [15]

Stamp or fill in

Patient Name: _____

Chart #: _____

Date of Birth: _____ Date of Visit: _____

Section A: History

Work through questions 1–6 to evaluate the patient's history.

Question 1: Where is your pain the worst? [16]

- ❑ Back/ Buttock Dominant → **Question 2:** ❑ Constant → Rule out red flags → **Question 3:** ❑ Flexion (possibly also Extension) — If improved with prone extension, will respond faster. → **Pattern 1**
- ❑ Back/ Buttock Dominant → **Question 2:** ❑ Intermittent → **Question 3:** ❑ Extension only — Flexion relieved. → **Pattern 2**
- ❑ Leg Dominant → **Question 2:** ❑ Constant → Rule out red flags → **Question 3:** ❑ All movements hurt — If improved with rest positions, surgical treatment less likely. → **Pattern 3**
- ❑ Leg Dominant → **Question 2:** ❑ Intermittent → **Question 3:** ❑ Walking and/or Standing — Relieved with sitting or flexion. → **Pattern 4**

If pattern of pain is not identified, patient has **non-mechanical pain**

Question 4: Is there anything you can NOT do now that you could do before the onset of your low back pain? [16]

❑ No

❑ Yes → Rule out Yellow Flags

What? _____ **Why?** ❑ Back/Buttock Pain ❑ Leg Pain

Confirm this is consistent with Question 1

Question 5: Have you had any unexpected accidents with your bowel or bladder function since **this** episode of your low back pain started? [16]

❑ No

❑ Yes → Rule out Cauda Equina Syndrome

Question 6: If age of onset < 45 years, are you experiencing morning stiffness in your back > 30 minutes? [17]

❑ No

❑ Yes → Systemic Inflammatory Arthritis Screen [18]

Section B: Physical Examination [19]

NOTE: Bolded green-coloured tests are the suggested minimum requirements of the exam.

		Additional Findings	Abnormal L	Abnormal R
Gait	Heel Walking (L4-5) Toe Walking (S1)			
Standing	**Movement testing in flexion** **Movement testing in extension** Trendelenburg test (L5) Repeated toe raises (S1)			
Sitting	**Patellar reflex (L3-4)** Quadriceps power (L3-4) Ankle dorsiflexion power (L4-5) **Great toe extension power (L5)** **Great toe flexion power (S1)** **Plantar response, upper motor test**			
Kneeling	Ankle reflex (S1)			
Lying	Supine **Passive straight leg raise (SLR)** Passive hip range of motion Prone Femoral nerve stretch (L3-4) Gluteus maximus power (S1) **Saddle sensation testing (S2-3-4)** Passive back extension (patient uses arms to elevate upper body)			

Red Flags (check if positive)

The acronym NIFTI can help you remember red flags. [21, 22, 42, 43]

Indication	Investigation ①
❑ **Neurological:** diffuse motor/sensory loss, progressive neurological deficits, cauda equina syndrome	Urgent MRI indicated
❑ **Infection:** fever, IV drug use, immune suppressed	X-ray and MRI
❑ **Fracture:** trauma, osteoporosis risk/ fragility fracture	X-ray and may require CT scan
❑ **Tumour:** hx of cancer, unexplained weight loss, significant unexpected night pain, severe fatigue	X-ray and MRI
❑ **Inflammation:** chronic low back pain > 3 months, age of onset < 45, morning stiffness > 30 minutes, improves with exercise, disproportionate night pain	Rheumatology Consultation and Guidelines

Acute Cauda Equina syndrome is a surgical emergency. [23]

Symptoms are:

❑ Urinary retention followed by insensible urinary overflow
❑ Unrecognized fecal incontinence
❑ Distinct loss of saddle/perineal sensation

❑ No red flags ② → **Continue reviewing history**

① **Imaging tests** like X- rays, CT scans and MRIs are not helpful for recovery or management of acute or recurring low back pain unless there are signs of serious pathology. [14, 41]

② Your examination today **does not demonstrate that there are any red flags present to indicate serious pathology,** but if your symptoms persist for > 6 weeks, schedule a follow-up appointment. [14, 41]

Yellow Flags [21, 22, 24] ③

Psychosocial Risk Factors for Developing Chronicity

For those with low back pain > 6 weeks or non-responsive to treatment, consider asking:

Questions to ask	Look for
"Do you think your pain will improve or become worse?"	Belief that back pain is harmful or potentially severely disabling.
"Do you think you would benefit from activity, movement or exercise?"	Fear and avoidance of activity or movement.
"How are you emotionally coping with your back pain?"	Tendency to low mood and withdrawal from social interaction.
"What treatments or activities do you think will help you recover?"	Expectation of passive treatment(s) rather than a belief that active participation will help.

A patient with a positive yellow flag will benefit from education and reassurance to reduce risk of chronicity. If yellow flags persist, consider additional resources: Keele StarT Back [4]; The Patient Health Questionnaire for Depression and Anxiety (PHQ-4). [25]

❑ No yellow flags → **Continue reviewing history**

③ If you are **feeling symptoms of sadness or anxiety,** this could be related to your condition and could impact your recovery, schedule a follow-up appointment.

♂ : Key message for your patient

Section C: Initial Management [16, 19, 26]

	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Non-Mechanical Pain
Commonly Called [27]	Disc Pain	Facet Joint Pain	Compressed Nerve Pain	Symptomatic Spinal Stenosis (Neurogenic Claudication)	❑ Non-spine related pain
Medication [5,6,7] ④	❑ Acetaminophen ❑ NSAID	❑ Acetaminophen ❑ NSAID	❑ May require opioids if 1st line pain meds not sufficient ⑤	❑ Acetaminophen ❑ NSAID	↓ Consider other etiologies prior to pain medications ↓ Consider internal organ pain referral such as kidney, uterus, bowel, ovaries
Recovery Positions [28]					
Starter Exercises [29]	Repeated prone lying passive extensions (i.e. hips on ground, arms straight). 10 reps, 3 x day	Sitting in a chair, bend forward and stretch in flexion. Use hands on knees to push trunk upright. Small frequent repetitions through the day	"Z" lie (see image above) **Caution:** exercise will aggravate the pain so start with pain reducing positions	Rest in a seated or other flexed position to relieve the leg pain	
Exercises	ISAEC [35]; HealthLink BC [34]; SASK Pattern 1 [30]	ISAEC [35]; HealthLink BC [34]; SASK Pattern 2 [31]	ISAEC [35]; HealthLink BC [34]; SASK Pattern 3 [32]	ISAEC [35]; HealthLink BC [34]; SASK Pattern 4 [33]	❑ Spine pain does not fit mechanical pattern
Functional Activities [36]	❑ Encourage short frequent walking ❑ Reduce sitting activities ❑ Use extension roll for short duration sitting	❑ Encourage sitting or standing with foot stool ❑ Reduce back extension and overhead reach	❑ Change positions frequently from sit to stand to lie to walk	❑ Use support with walking or standing. Use frequent sitting breaks	↓ Consider centralized pain medications (i.e. anti-depressants, anti-seizure, opioids) ↓ Consider pain disorder
Follow-up	❑ **2–4 weeks** if referred to therapy, or prescribed medication ❑ **PRN** if given home program and relief noted in office visit	❑ **2–4 weeks** if referred to therapy, or prescribed medication ❑ **PRN** if given home program and relief noted in office visit	❑ **2 weeks** for pain management and neurological review	❑ **6–12 weeks** for symptom management and determination of functional impact	
Self Management [37-40] ⑥	Once pain is reduced, engage patient for self management goals	Self management can be initiated in 1st or 2nd session with most patients	Patient is not usually suitable for self management due to high pain levels and possible surgical intervention	Self management can be initiated in 1st or 2nd session with most patients	

ISAEC = Inter-professional Spine Assessment and Education Clinics; **SASK** = Saskatchewan Spine Pathway Group Healthy Back Exercises

④ **You may need pain medication** to help you return to your daily activities and initiate exercise more comfortably. It is activity, however, and not the medication that will help you recover more quickly. [14, 22, 41]

⑤ **Short acting opioid medication may be used for intense pain** such as leg dominant constant symptoms related to nerve radiculopathy. [14, 22, 41]

⑥ **Low back pain is often recurring** and recovery can happen without needing to see a healthcare provider. You can learn how to manage low back pain when it happens and use this information to help you recover next time. [14, 22, 41]

Notes:

Provider Name: _____

Provider Signature: _____

⚷ : Key message for your patient

Section D: Referrals (if required)

❑ **Rehabilitation referral**

Rehabilitation Referral Criteria (4–12 treatments)
- ❑ Absence of red flags
- ❑ Pain is managed well so that patient can tolerate treatment
- ❑ Pain has mechanical directional preference – varies with movement, position or activity
- ❑ Patient is ready to be an active partner in goal setting and self management

❑ **Surgical referral**

Surgical Referral Criteria [23]
- ❑ Failure to respond to evidence based compliant conservative care of at least 12 weeks
- ❑ Unbearable constant leg dominant pain
- ❑ Worsening nerve irritation tests (SLR or femoral nerve stretch)
- ❑ Expanding motor, sensory or reflex deficits
- ❑ Recurrent disabling sciatica
- ❑ Disabling neurogenic claudication

❑ **Specialist referral**
- ❑ Physiatry
- ❑ Cognitive Behavioural Therapy
- ❑ Pain specialist
- ❑ Multidisciplinary Pain Clinic
- ❑ Rheumatologist
- ❑ Other: _____

❑ **Imaging (Refer to 🚩 red flags)** ❑ **Laboratory tests (Refer to 🚩 red flags)**

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