

**Specific Question:**

In adult patients with non specific low back pain without radicular signs does the use of neurological tests compared to no neurological tests affect treatment choice and patient outcome?

**Clinical bottom line**

There is no published research evidence to answer this question.

Expert opinion in this field suggests for the time it takes to complete a neurological screen we should be doing this as routine with all patients with low back pain.

However it is also acknowledged that it is acceptable not to complete a neurological screen as long as the reasons for not undertaking this can be clinical reasoned.

**Why is this important?**

Non specific low back pain (LBP) is a common complaint seen in primary care settings. It has become apparent that there is significant variation in clinical practice and a lack of consistency across services with regards to whether a neurological assessment should be carried out as part of a routine assessment for this cohort of patients.

Therefore we wanted to establish whether undertaking neurological testing on adult patients with non specific LBP with no radicular symptoms should be done as routine on initial assessment or not? Does it add any clinical value to our choice of treatment plan and does it alter or improve management and patient outcomes?

**Search timeframe**

**Inclusion Criteria**

	Description	Search terms
<b>Population and Setting</b>	Adults (adults being classed as 16 years old & over) with non specific lower back pain (LBP) without radicular symptoms/ sciatica symptoms/ referred leg pain. Presenting in primary care.	Mechanical low back pain, MLBP, mechanical, low back pain.
<b>Intervention or Exposure</b>	Neurological tests – reflexes, Myotomes,	Neurological tests, neurological assessment,

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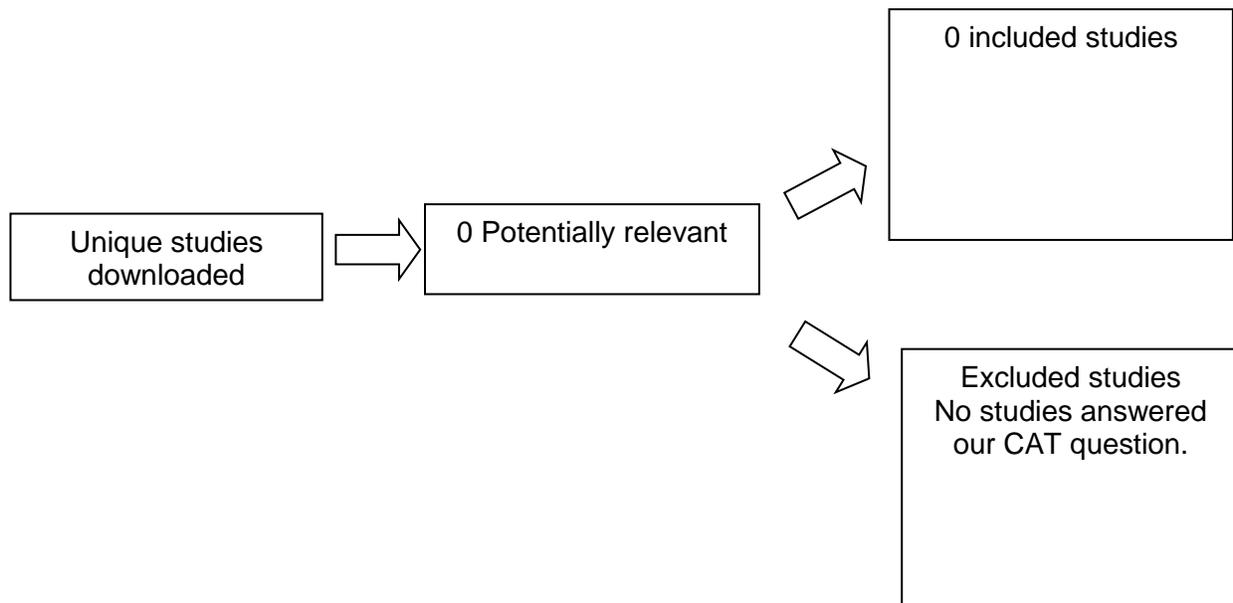
	Dermatomes, clonus, Babinski, Straight leg raise (SLR), Slump test, and foot drop observed on gait analysis.	Neurological examination, reflex, reflex's, myotome, dermatome, clonus, Babinski, straight leg raise, SLR, slump test, drop foot.
<b>Comparison, if any</b>	No neurological tests.	
<b>Outcomes of interest</b>	Treatment options: Physiotherapy, Surgery, Pain, Function.	
<b>Types of studies</b>	RCT,SR Cohort study	

**Routine Databases Searched**

Clinical Knowledge Summaries, PEDro, BMJ Updates, Clinical Evidence, TRIP, Database, NICE, HTA, Bandolier, The Cochrane Library, Medline, Cinahl, Embase, PsycInfo, Professional websites. Joanna Briggs Institute, Web of science, Sports discus and Pub med

**Date of search-** 4<sup>th</sup>-17<sup>th</sup> April. Completed 17.04.2020

**Results of the search**



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## Summary

There was no research evidence found that allowed us to answer this question.

## Implications for Practice/research

Whilst there is no empirical evidence to answer this question, personal communication with experts in this field suggest most would undertake a neurological examination. It was felt that the time it takes to undertake these tests is minimal and it can influence treatment decisions. It was also felt that the subjective history i.e. special questions such as asking patients about sensory loss, saddle anaesthesia, weakness, bowel dysfunction, bladder dysfunction and sexual dysfunction acts as a partial screen that then would guide whether you would go on to complete a full neurological examination. Clinical reasoning is key. It is also recognised that opinion will vary on this topic and clinical teams may need to discuss their local approach to this issue. Evidence of 'Red Flag pathology will require adherence to local and national guidelines/pathway.

Currently, given the COVID situation, in our service some patients are being assessed initially virtually through telephone or video consultations. Subjective questions highlighted above will be important in this context to determine the risk vs benefit of bringing patients in for a face to face for further assessment, including a neuro examination. In essence does the benefit outweigh medical risk of attending?

Local audits may help to establish current practice and any variations prior to discussions around improving consistency.

### Current clinical guidelines:

There is nothing in the NICE (NG59) LBP and sciatica over 16's: assessment and management guideline to indicate if a neurological examination should or should not be performed routinely with this cohort of patients.

<https://www.nice.org.uk/guidance/ng59>

The NICE Clinical Knowledge Summaries (CKS) for LBP without radiculopathy recommends that a neurological examination is performed when assessing this cohort of patients. <https://cks.nice.org.uk/topics/back-pain-low-without-radiculopathy/diagnosis/diagnosis/>

The NHS England back pain and radicular pain pathway (2017) supports the view that a full neurological assessment should be carried out with all low back pain patients irrespective of referred/ radicular symptoms. The pathway was informed by clinical consensus which was unanimous regarding this matter.

<https://www.boa.ac.uk/uploads/assets/e26cc007-74c3-4b22-94e408dd54ac79da/spinal%20pathfinder.pdf>

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The National Back pain Pathway (July 2020) states that in order to identify if immediate referral to A&E or a spinal service is required all patients with acute or deteriorating back +/- radicular pain should be assessed for Cauda Equina Syndrome in primary care.

**What would you tweet? (140 characters)**

Is a neurological examination required for all patients with Low Back Pain (LBP)?  
Although no evidence is available, experts recommend that all patient that present with LBP have a neurological examination