

Surgery and Other Invasive Interventions for Low Back Pain

Definition and Scope

Low back pain (LBP) is defined as pain, muscle tension or stiffness localised between the costal margin and above the inferior gluteal folds, with or without leg pain (sciatica)¹. This policy does not include acute back pain due to fracture, dislocation, tumours, infection, inflammatory disorders or progressive neurological deficit. **Patients with suspected cancer or cauda equina compression*, should be referred directly to secondary care².** This policy links to the Radiofrequency Denervation Policy for chronic back and neck pain ([policy](#)).

Policy

Referral for treatment should be through the MSK service/pathway.

It is the responsibility of referring and treating clinicians to ensure compliance with this policy. Referral proforma should be attached to the patient notes to aid the clinical audit process and provide evidence of compliance with the policy. For patients not meeting the policy criteria, clinicians can apply for funding to the Exceptional Cases Panel by completing the exceptional funding section of the [referral proforma](#).

Referral for Diagnostic Testing and Surgery

- Funding for surgery will be provided only as laid out in the pathway overleaf. Spinal fusion and disc replacement are not funded.
- Imaging often does not change management, hence referral for MRI or CT scans should only be made by secondary care consultants or specialists working in CCG commissioned MSK services.

Corticosteroids and Local Anaesthetics Injections

- Epidural injections will be funded for patients with severe radicular pain. Epidural injections **will not be funded** for non-specific low back pain (with no associated radicular pain) and for central spinal canal stenosis.
- In patients with radicular pain due to proven lumbar pathology (on MRI or CT), up to 3 epidural injections, 6 months apart, will be funded when there is evidenced improvement.

Other Diagnostic Tests and Interventions that will not be Funded

- Injections for non-radicular low back pain (Facet joint/Epidural injections).
- Provocative discography and X-rays.
- Injection of substances as diagnostic tools, including nerve root or joint blocks, excluding medial branch block to assess suitability for radiofrequency denervation or prior to surgery.
- Nucleoplasty and intradiscal electrothermal therapy (IDET).
- Percutaneous intradiscal radiofrequency thermocoagulation (PIRFT).
- Transcutaneous electrical nerve stimulation (TENS).
- Therapeutic ultrasound, laser therapy and interferential therapy.
- Traction and lumbar supports.
- Prolotherapy or injection of other therapeutic substances.
- Acupuncture.

* Symptoms of cauda equina: severe back pain, saddle anaesthesia, incontinence or sexual dysfunction.

Patients who smoke should be advised to attempt to stop smoking and referred to stop-smoking services – see [stop smoking policy](#).

Patients who are overweight or obese should be offered referral to the appropriate weight management service.

- I The STarT Back tool can be used to assess medical and psychological risk – please see Appendix attached.
Possible indicators of poor outcomes: fear/pain avoidance; low mood; job dissatisfaction; ongoing litigation.
- II Conservative therapy – medication and referral for physiotherapy and lifestyle/ergonomic advice. Patients should be encouraged to be physically active and to carry on with normal activities.
Patients may be referred to CCG commissioned MSK services for physiotherapy.
Along with an exercise package, consider offering:
- Manual therapy including manipulation, mobilisation or soft tissue techniques (massage), with or without psychological therapy.
 - Psychological therapies using a cognitive behavioural approach, when presenting with significant psychosocial obstacles to recovery (avoiding normal activities based on inappropriate beliefs about their condition) or when previous treatments have not been effective.
- III NSAIDs and Paracetamol have only a placebo effect in the treatment of low back pain. Opiates are effective in the short-term and should be used with caution. The following are **not** recommended for the management of low back pain:
- Selective Serotonin Reuptake Inhibitors (SSRIs), Serotonin–Norepinephrine Reuptake Inhibitors (SNRIs) or Tricyclic Anti-depressants (TCAs).
 - Anticonvulsants.
- IV Consider referral for secondary care if suspected underlying mechanical cause of the low back pain, eg stenosis or disc prolapse. Imaging is generally not recommended in a non-specialist setting for low back pain, with or without sciatica.
- V Only perform radiofrequency denervation in people with low back pain after a positive response to a diagnostic medial branch block. See details in the policy for [radiofrequency denervation](#) for neck and back pain.
- VI For patients for whom nonsurgical management has failed:
- For patients with radicular pain (due to spondylolisthesis, spinal stenosis or lumbar disc prolapse) surgery gives some benefit, but this is not conclusive in all trials and conservative management with land-based exercise should be used prior to surgical intervention.
 - Spinal decompression may be considered for people with radicular pain when non-surgical treatment has not improved pain or function and their radiological findings are consistent with radicular symptoms.
 - Spinal fusion or disc replacement should not be offered unless part of a randomised controlled trial.
- VII Refer to NICE neuropathic pain pathway for further details:
<https://pathways.nice.org.uk/pathways/neuropathic-pain>
- VIII Consider epidural injections of local anaesthetic and steroid in people with acute and severe radicular pain. Epidural injection should not be used in central spinal canal stenosis.

Further details available at the CCGs pain pathways page:
[Assessment and Management of Patients with Chronic Low Back Pain](#)

Patients Without Symptoms of Nerve Root Compromise

For patients without radicular pain, there is insufficient evidence in support of therapeutic injections with corticosteroids, anaesthetics or prolotherapy (the injection of an irritant solution with the aim of strengthening connective tissues and reducing muscle pain)¹⁴. Trials of spinal fusion surgery³⁻⁶ show no advantage of surgery over intensive rehabilitation and it has been suggested that it is not cost effective compared to intensive rehabilitation⁷. It is recommended that, in patients without radicular pain, where conservative treatment fails, intensive rehabilitation with cognitive behavioural therapy is given⁸. It is recommended that patients with non-specific lower back pain undergo at least two years of conservative therapy/intensive rehabilitation before surgery is considered and, in these cases, surgery should only be conducted in carefully selected patients with maximum 2-level degenerative disc disease¹.

Patients with Symptoms of Nerve Root Compromise

Symptoms of nerve root compromise include bilateral or unilateral calf, buttock or thigh pain, numbness or muscle weakness, radiating pain and numbness/tingling and/or weakness on pulling or stretching of nerve root.

In patients with radicular pain, surgery can improve pain, function and quality of life compared to conservative therapy^{9, 10}, but it is recommended that conservative therapy with exercise is attempted before surgery¹¹. It has been recommended that patients with sciatica are not referred for at least one month, and only in cases where symptoms are severe and debilitating¹².

In patients with radicular pain, symptoms may resolve⁸ and, therefore, following diagnostic testing, only patients with severe spinal stenosis or disc prolapse should be directly referred. In other patients, conservative treatment may be effective and pain could be effectively managed by epidural injections of local anaesthetic and steroid. However, where symptoms persist for six months, these patients may also be referred.

Referral for Diagnostic Tests

In patients with non-specific LBP, the use of radiographic diagnostic tests, is not recommended, and it is recommended that tests should not be used unless a specific cause is strongly suspected¹. There is a strong recommendation against the routine use of MRI in patients with LBP¹³ and NICE recommend that, imaging is generally not recommended in a non-specialist setting for low back pain with or without sciatica. It does not often change the initial management and outcomes of someone with back pain. This is because the reported imaging findings are usually common and not necessarily related to the person's symptoms.

Many of the imaging findings (for example, disc and joint degeneration) are frequently found in asymptomatic people and, therefore, requests for imaging by non-specialist clinicians, where there is no suspicion of serious underlying pathology, can cause unnecessary distress and lead to further referrals for findings that are not clinically relevant¹⁴.

Corticosteroid Injections

For patients with non-specific back pain, NICE does not recommend the use of therapeutic injections¹⁴. Although there appears to be short-term pain relief, trials do not show evidence of longer-term benefit on pain and function in patients with non-specific LBP^{16, 17}, spinal stenosis¹⁸⁻²⁰ or radicular LBP^{21, 22, 23}. However, epidural steroid injections may bring short-term relief and are recommended as an option in patients with persistent acute and severe sciatica due and some trials show relief to patient suffering radicular pain as a result of herniated lumbar disc⁸.

Other Diagnostic Tests and Interventions that Will Not Be Funded

The evidence for provocative discography is weak and it is not recommended as a diagnostic tool⁸. NICE recommends that X-rays should not be used in patients with non-specific LBP¹⁴. There is insufficient evidence for the use of selective nerve root blocks as diagnostic tools⁸, however, it is recommended prior to radiofrequency denervation or spinal surgery. For patients with non-specific back pain, NICE does not recommend the use of therapeutic ultrasound, laser therapy or interferential therapy, transcutaneous electrical nerve stimulation, intradiscal electrothermal therapy (IDET) or radiofrequency denervation, lumbar supports, traction or therapeutic injections. Prolotherapy (the injection of an irritant solution with the aim of strengthening connective tissues and reducing muscle pain) is not recommended for patients with non-radicular back pain⁸. For patients with radicular back pain, evidence for the majority of these interventions is also limited¹⁵.

Numbers of People Affected

Low back pain is a common disorder, affecting around one-third of the UK adult population each year¹⁴. Around 20% of people with low back pain will consult their GP about it¹⁴. In patients experiencing lower back pain, symptoms usually improve within weeks, however, about 10% remain off work and about 20% have persistent symptoms at 1 year¹⁵.

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Glossary

Cauda equina compression:	Rare syndrome that can be extremely serious and should be treated as an emergency. It can lead to paralysis of the lower body and significantly impair or even cause the loss of all sensation to the bowel and bladder.
Discectomy:	Surgical removal of the soft part of the disc that is out of place.
Discogenic back pain:	Pain that emanates from the intervertebral discs.
Disc prolapse:	Protrusion of the intervertebral disc.
Prolotherapy:	Injection of an otherwise non-pharmacological and non-active irritant solution into the body, generally in the region of tendons or ligaments, for the purpose of strengthening weakened connective tissue and alleviating musculoskeletal pain.
Sciatica:	Pain that radiates from the back into the buttock or leg and is most commonly caused by prolapse of an intervertebral disk, the term may also be used to describe pain anywhere along the course of the sciatic nerve.
Spinal fusion:	The placement of a bone graft between the vertebrae.
Spinal stenosis:	Narrowing of the spinal canal that results in nerve compression.

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The Keele STarT Back Screening Tool

Patient Name: _____ Date: _____

Thinking about the **last 2 weeks** tick your response to the following questions:

	Disagree 0	Agree 1
1 My back pain has spread down my leg(s) at some time in the last 2 weeks	<input type="checkbox"/>	<input type="checkbox"/>
2 I have had pain in the shoulder or neck at some time in the last 2 weeks	<input type="checkbox"/>	<input type="checkbox"/>
3 I have only walked short distances because of my back pain	<input type="checkbox"/>	<input type="checkbox"/>
4 In the last 2 weeks, I have dressed more slowly than usual because of back pain	<input type="checkbox"/>	<input type="checkbox"/>
5 It's not really safe for a person with a condition like mine to be physically active	<input type="checkbox"/>	<input type="checkbox"/>
6 Worrying thoughts have been going through my mind a lot of the time	<input type="checkbox"/>	<input type="checkbox"/>
7 I feel that my back pain is terrible and it's never going to get any better	<input type="checkbox"/>	<input type="checkbox"/>
8 In general I have not enjoyed all the things I used to enjoy	<input type="checkbox"/>	<input type="checkbox"/>

9. Overall, how **bothersome** has your back pain been in the **last 2 weeks**?

Not at all	Slightly	Moderately	Very much	Extremely
<input type="checkbox"/>				
0	0	0	1	1

Total score (all 9): _____ Sub Score (Q5-9): _____

The STarT Back Tool Scoring System

