

ACUTE LOW BACK PAIN

Background

- Most patients with acute back pain have self-limited episodes that resolve on their own; many do not seek medical care. For patients who do seek medical care, pain, disability, and return to work typically improve rapidly in the first month.¹
- Individuals with no **red flags** have a good prognosis, 90% recover within 6 weeks- although a low level of pain may persist and recurrences are common.²

Diagnosis

Nonspecific low back pain makes up 85-90% of back pain²

Work up should be directed to identifying 4 major serious pathology: Infection, fracture, malignancy and cauda equina.

Red flags may help identify patients with a severe underlying etiology, in whom a more aggressive evaluation is appropriate.

Red Flags

Fracture

-prolonged steroid use -trauma/fall -age > 50

Malignancy

-Weight loss -age >50
-history of cancer -(increasing) pain at night
-(continuous) pain at rest

Cauda Equina

-Saddle anesthesia -new bladder dysfunction -Fecal incontinence

Infection

-immune deficient -fever -IV drug use

Evaluation

Physical Examination

General appearance

Vitals signs: temperature

Abdominal exam: palpation of aorta, tenderness, palpation for masses

Back: curvature, CVA tenderness, spinal tenderness, muscle spasm, focal tenderness, limitations with range of motion

Neurological

- Rectal exam: sphincter tone

- Extremities: deep tendon reflexes, muscle strength, heel and toe walking

- Assessing for the presence of nerve root involvement based on pain distribution and the neurological exam (see below)

Neurological findings associated with nerve root impingement³

Nerve root	Weakness	Altered Sensation	Altered reflexes
L2	Iliopsoas-hip flexion	Anterior thigh/groin	None
L3	Quadriceps-knee extension	Anterior and lateral thigh	Patellar
L4	Ankle dorsiflexion-heel walking	Medial ankle and foot	Patellar
L5	Great toe dorsiflexion	Dorsum of foot	None

Documentation

- Pain assessment
- Functional status
- Patient history, including notation of presence or absence of red flags
- Assessment of prior treatment and response
- Employment status

Extra-vertebral Causes to Consider

AAA

Urologic: Nephrolithiasis, pyelonephritis/
perinephric abscess, prostatitis, renal tumors

GYN: endometriosis

Abdominal sources: Pancreatitis

Axial spondylarthritis⁴

- low back pain persisting for more than 12 weeks in a patient under age 45
- insidious onset of pain
- morning stiffness (≥ 30 minutes)
- improvement of low back pain with movement rather than at rest
- awakening at night or early in the morning because of pain
- alternating buttock pain
- progressive stiffness of the spine
- accompanying peripheral arthritis, enthesitis, uveitis
- concomitant psoriasis or inflammatory bowel disease

Treatment of Acute Low Back Pain⁵

Non-Pharmacological Treatment Options

- Most patients with acute or subacute low back pain improve over time regardless of treatment.
- Modify activity (bending, lifting) to avoid exacerbating activities, but avoid prolonged bedrest
- nonpharmacologic treatment with superficial heat, massage, acupuncture, or spi-

Pharmacological

If pharmacologic treatment is desired, clinicians and patients should select non-steroidal anti-inflammatory drugs or skeletal muscle relaxants.

Acetaminophen has not been shown to be effective and should therefore be avoided.⁶

Opioids should only be considered as **a last resort** in patients who have failed the aforementioned treatments and only if the potential benefits outweigh the risks for individual patients and after a discussion of known risks and realistic benefits with patients.

Consider referral to the Back & Spine Care Center at (402) 717- BACK for patients not improving.

Patient Education

Etiology of low back pain

Favorable prognosis

Minimal value of diagnostic imaging

Activity and work restrictions

When to contact a clinician

Preventive strategies to avoid future episodes

- walking, swimming, Pilates, yoga and Tai Chi have shown benefits

Psychosocial risk factors for chronification (“yellow flags”)⁴

– depressive mood, distress (i.e., negative stress, mainly related to occupation or workplace)

– pain-related cognitions: e.g., catastrophizing tendency, helplessness/hopelessness, fear-avoidance beliefs

– passive pain behavior: e.g., markedly defensive and fearful/avoidant behavior; excessively active pain behavior: task persistence, suppressive pain behavior

– pain-related cognitions: thought suppression

– somaticizing tendency

References

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- 6) Machado GC, Maher CG, Ferreira PH, et al.: Efficacy and safety of paracetamol for spinal pain and osteoarthritis: systematic review and meta-analysis of randomised placebo controlled trials. *BMJ* 2015; 350: h1225.