

LOW BACK PAIN: 1-page Summary

TERMINOLOGY:

- acute low back pain < 6 weeks, subacute low back pain 6 -12 weeks, chronic low back pain > 12 weeks

CAUSES:

- Mechanical lbp (97%):
 - musculoskeletal low back pain (70%) = muscle/ligament strain, usually 20-40yo, repetitive strain injury, inactivity, depression, obesity. 85% will improve within 4-6 weeks with conservative management.
 - degenerative disk/facet joint disease/spondylolisthesis (10%). Older patients, usually chronic. Stiffness when rising from seated position, worse with standing, flexion, extension.
 - spinal stenosis (3%). Spinal canal narrowing from degenerative changes, usually >55yo, M>F, neurogenic claudication, worse with extension. Prognosis fair: 70% remain stable, 15% gradually worsen.
 - sciatica (4%). Sharp shooting pain down post/lat leg below knee, worse with valsalva and most movements. Often +SLR and crossed SLR. Usual etiology is HNP. 75% improve within 3m with conservative management, 85-90% can be treated non-operatively.
- Visceral disease (2%): gi (duodenal ulcers, pancreatitis, biliary colic), gu (prostatitis, pyelonephritis, cystitis, nephrolithiasis), gyn (endometriosis, pid), AAA
- Non-mechanical lbp (1%): cancer->cauda equina, inflammatory arthritis, infection (diskitis, osteomyelitis, shingles)

HX:

- General pain survey (OPQRST); Which positions make it better/worse? How does it affect functioning?
- 3 BIG questions:
 - Sx suggestive of nerve root involvement
 - red flags: bowel/bladder dysfxn, saddle anesthesia, hx trauma, ivdu, cancer, constitutional sx (fever, weight loss), unrelenting nocturnal pain (tumor, infection), progressive neurologic deficit
 - psycho-social factors which might prolong recovery (depression, compensation issues, substance abuse)

PE:

- Inspect, Palpate, Range of motion, Special maneuvers (IPROMSe)
 - Inspect gait, stance, skin
 - Palpate spine, paraspinal muscles, SI joints, hip joints
 - ROM – flexion, extension, lateral rotation
 - Strength
 - Best test S1 motor is stand on toes 4x (plantar flexion)
 - Best test L5 motor is walk on heels (also 1st toe dorsiflexion)
 - Sensation: L5 lateral calf and mid dorsal surface of foot, S1 lateral dorsal surface of foot
 - Reflexes: Achilles (S1-2) affected if S1 root involved. Patellar (L4-5) not commonly affected
 - Special maneuvers:
 - Straight leg raise (SLR) + if pain reproduced with passive elevation of LE < 60 degrees. Pain must radiate below knee (85% sens, 40% specific for disk involvement)
 - Crossed SLR + if pain reproduced in ipsilateral leg with passive elevation of contralateral leg < 60 degrees. Pain must radiate below knee (25% sens, 90% specific for disk involvement)

EVAL:

- Do not routinely obtain imaging in patients with nonspecific lbp.
- Image lbp when “severe or progressive neurologic deficits are present or when serious underlying conditions are suspected on the basis of history and physical examination (strong recommendation, moderate-quality evidence)”

RX:

- Acute lbp: Tylenol, NSAIDs, muscle relaxants, superficial heat, advice to remain active, spinal manipulation, benzodiazepines, tramadol, opioids. There is good evidence of no benefit to exercise therapy for acute lbp
- Subacute and chronic lbp: Tylenol, NSAIDs, TCAs, benzodiazepines, tramadol, opioids, spinal manipulation, exercise therapy, massage, acupuncture, yoga, CBT

Additional information/reference:

Chou, Roger, MD et al. Diagnosis and Treatment of Low Back Pain: A Joint Clinical Practice Guideline from the American College of Physicians and the American Pain Society. Annals of Internal Medicine (volume 147, pages 478-491)