

1. Where is your pain the worst? (*this is to differentiate back-dominant vs. leg-dominant pain*) *Leg pain below the knee is most helpful
2. Is the pain intermittent (*even for a few seconds*) or constant?
3. How do the symptoms limit you? Personal care, house, yard, recreation, work.

Intermittent back-dominant pain is mechanical and benign and patient can be reassured

About 90% of patients with acute low back problems spontaneously recover activity tolerance within 1 month.

Red Flags for potentially serious conditions

Possible fracture	Possible tumor or infection	Possible cauda equina syndrome
Major trauma, such as MVA or fall from height Minor trauma or even strenuous lifting in potentially osteoporotic patient** **Major risks for osteoporosis: - elderly > 65 - post menopausal - steroid use - alcohol - past OP #	Age over 50 or under 20 History of cancer. Constitutional symptoms such as recent fever or chills or unexplained weight loss. Recent factors for spinal infection; recent bacterial infection (e.g. urinary tract infection); IV drug abuse; or immune suppression (steroids, transplant, or HIV). Pain that is worse when supine; severe nighttime pain.	Saddle anesthesia Recent onset of bladder dysfunction, such as urinary retention, increased frequency or overflow incontinence Severe or progressive neurological deficit in the lower extremity.
Examination		
Investigations (if no red flags – not needed in first month)		
Lumbar-sacral x-ray	CBC, ESR, CRP, U/A	Immediate consultation
	Bone scan	Imaging

Associations with chronic pain syndrome:

- Blame Compensation
- Family issues
- Poor sleep
- Legal issues

Secondary gain – F A C E

- Finance
- Affect
- Control
- Escape

List not exhaustive





BACK PAIN - NON-PHARMACOLOGICAL TREATMENT OPTIONS*

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Activity as tolerated ✓	♦for acute or recurrent low back pain (LBP) of less than 3 weeks, resuming ACTIVITY AS TOLERATED is encouraged! For uncomplicated back pain, bed-rest generally unnecessary and actually associated with longer recovery ¹ Specific exercises helpful only in chronic lower back pain. ^{2,3}
Physiotherapy	♦useful in acute (<30 days), subacute (30-90 days), persistent (3-6 months) and chronic (>6 months) LBP; active exercise better than passive tx
Spinal Manipulation	♦conflicting results; some short-term improvement in pain & activity levels ⁴ ; most useful in subacute illness; Massage – somewhat effective in persistent LBP ⁵
Psychosocial intervention	♦ important for interrupting progression to chronic pain behavior pattern ; factors should always be explored when progress is slower than expected
Multidisciplinary intervention	♦intensive coordinated multidisciplinary programs are effective for recurrent/persistent low back pain of 3 months or more duration ^{6,7}
Other: Patient education re. pain, posture, etc.; Hot / Cold therapy -useful acute relief; TENS -some efficacy?; Lumbar support -not particularly effective ⁸ ; Acupuncture -unclear ⁹ ; Radiofrequency neurotomy ...	

BACK PAIN – PHARMACOLOGICAL TREATMENT OPTIONS*

Class	Role	Comments	Sample Agents	Trade Name	Sample Dose	\$  /30day
Acetaminophen	✓ option in mild-mod pain; ≤4g/day	♦if chronic, monitor hepatic/renal fx	Acetaminophen 325,500mg	Tylenol	650 _{mc} -1g QID	\$15 ^{OTC} x▼
Acetaminophen with Codeine	✓ useful for relieving pain in acute , uncomplicated back pain ☒ not generally recommended in subacute/chronic pain	♦ Caution: may be habit forming in some patients; hepatotoxicity when used with muscle relaxants; adverse GI effects common with codeine	Acet.300mg + Caffeine 8mg Acet.300mg + Caffeine +Codeine 30mg	Tylenol #1 Tylenol #3	2 tabs q4-6h (max 12tabs/d) 1-2 tabs q4-6h (max 12tabs/d)	\$55 ^{OTC} *x⊗ *max 50tab/mo in SK \$35
NSAIDs 	✓ effective for acute , uncomplicated low back pain; equal efficacy but pts may respond to one & not another ¹⁰ ♦less effective if sciatica or nerve root complications; lack evidence in chronic	♦ Caution: risk of ulcers ; worsening renal function, HF, HTN; CNS effects ♦ coxibs somewhat less likely to cause adverse GI events (ulcers); may be preferred in high-GI-risk patients	Ibuprofen 200,300,400,600mg; susp Ketorolac 10mg tab;30mg inj Naproxen 125,250,375,500mg Celecoxib 100,200mg Rofecoxib 12.5, 25mg, susp	Motrin/Advil Toradol {7d max} Naprosyn Celebrex Vioxx ≤50mg od ≤7d	600mg TID 10mg po QID 375mg BID 200mg OD-BID 12.5-25mg OD	\$15 ^{OTC} ≤400mg tab \$70x⊗ \$15 \$54-100⊗ \$52⊗
Strong Opioids	♦useful for fixed periods in severe acute pain , especially if NSAIDs ineffective, not tolerated or contraindicated; ♦ in sub-acute & chronic pain, long-acting (SR) opioids may be indicated in conjunction with non-pharmacological therapies if pain is a significant barrier to function!	♦ Caution!!: sedation, constipation ; sporadic use/overuse may adversely affect cognitive/overall function ♦ careful patient selection important to limit dependence or intentional abuse; when used appropriately, addiction is not a major problem. ♦ Duragesic [®] cautions: 12hr onset delay; potent; lack of low strength; delayed resp depression	Hydromorphone SR 3,6,12,24,30mg cap Oxycodone SR 10,20,40,80mg Morphine SR 12hr 15,30,60,100,200mg Morphine SR 24hr 20,50,100mg Morphine pump options Fentanyl Patch 25,50,75,100ug/hr	Hydromorph-Contin Oxycontin MOS-SR _{30,60mg} MS-Contin/Ratio Kadian - Duragesic 25ug/hr ≅ 90 mg/d morphine	3-6mg q12h 10-20mg q12h 30mg q12h 15-30mg q12h 20-50mg q24h variable 25ug/hr ≅ 90 mg/d morphine	\$50-70 ⊗ \$60-90 ⊗ \$45 \$35-48 \$35-55 \$+++ \$+++ ⊗▼
Muscle Relaxants <small>(misnomer?: some suggest little/no actual relaxant effect)</small>	✓ possible short-term role for symptom relief during first week ^{11,12} ; little evidence to support their use in literature; (effect linked to sedation!) ☒ not generally for chronic use in LBP	♦ Caution: drowsiness, impaired cognitive/overall function; falls, dependence ; hepatic toxicity with chronic use &/or acetaminophen. (risk may often exceed benefit)	Baclofen 10,20mg tab; intrathecal Cyclobenzaprine 10mg Dantrolene 25, 100mg cap Tizanidine 4mg tab (2mg tab x) Diazepam / Clonazepam Methocarbamol +Acetam. Methocarbamol +ASA	Lioresal  Flexeril (TCA like) Dantrium Zanaflex Valium / Rivotril Robaxacet /ES Robaxisal /ES	5-10mg TID 5-10mg TID 25-100mg TID 2-4mg TID various 2 tabs QID 2 tabs QID	\$18-28 \$27-47 ⊗ \$44-83 \$44-80 ⊗ \$15-25 \$95 ^{OTC} x⊗ \$95 ^{OTC} x⊗
Tricyclic Antidepressants (TCAs) <small>(antidepressants with both serotonergic/norepinephrine activity appear to have better efficacy in tx of pain)¹³</small>	♦ may be indicated if comorbidities: depression, poor sleep, neuropathic (burning) pain or persistent headache ♦some non-TCA antidepressants (e.g. venlafaxine) also alternatives ♦literature equivocal re. efficacy in LBP ¹⁴ , but useful in chronic pain ¹⁵ (amitriptyline most studied in chronic pain)	♦ Caution: dose-dependant SE's - hypotension, dry mouth, drowsiness, confusion, constipation, urinary retention, wt gain; arrhythmia potential ♦ start low-dose HS, ↑ slowly &/or consider 2° amine TCAs (e.g. nortriptyline ¹⁶ & desipramine) often better tolerated than amitriptyline	1° TCAs Amitriptyline 10,25,50mg (10-150mg HS) 2° TCAs Desipramine 10,25,50,75,100mg (10-150mg HS) Nortriptyline 10,25mg cap (10-75mg HS)	Elavil Norpramin Aventyl	25-50mg HS 25-50mg HS 10-25mg HS	\$11-15 \$15-20 \$11-15
Anticonvulsants	♦indicated only for specific types of neuropathic (lancinating/stabbing) pain	♦ Caution: somnolence, dizziness, etc.; many DI's with carbamazepine	Carbamazepine 200mg Gabapentin  100,300,400mg	Tegretol Neurontin	200mg BID 300mg BID-TID	\$14 \$40-60

Other: Topical Rubs^{OTC} ♦Often contain menthol or capsaicin; These may provide some temporary local relief but not particularly useful in back pain ♦**Epidural steroids** may be cautiously useful in spinal stenosis ♦**Botox injection** ⊗⊗ costly; effectiveness dependent on expertise ♦**Miacalcin** ⊗⊗ if vertebral fractures ♦**Bisphosphinates** ⊗⊗ in Paget's, OP etc. ♦**Methotrimeprazine** –additive analgesic/sedation

↓ dose for renal dysfx DI's=drug interaction fx=function GI=stomach HF=heart failure HTN=hypertension SE=side effect SR=sustained release tx=treatment x=non-formulary in SK ⊗=exception drug status SK ⊗=prior NIHB ⊗not NIHB OTC=over the counter

***Overall approach to low back pain is to MOVE FROM PASSIVE modalities** (drugs, chiropractic therapy, massage therapy and passive physical therapy) **TO ACTIVE rehabilitation consisting of EXERCISES!**

♦ **acute** (<30 days), **subacute** (30-90 days), **persistent** (3-6 months), **chronic** (>6 months)



Red Flags (possible fracture, tumor or infection, or cauda equina syndrome) are potentially serious conditions. See www.RxFiles.ca/acrobat/CHT-BackPain-2pg.pdf

Treatment of Low Back Pain^{17,18}

Red Flags (assessment considerations):

- ♦pain when recumbent
- ♦saddle anesthesia
- ♦pseudoclaudication
- ♦age >55y or <20
- ♦recent UTI
- ♦trauma (major)
- ♦pain persisting >1mo

Tx Guidelines:

- ♦symptomatic relief can be accomplished with OTC medication and/or spinal manipulation
- ♦during acute phase, bed rest >4 days may further debilitate the patient
- ♦low-stress aerobic activity & exercise OK in first 2 weeks; may delay trunk muscle exercises
- ♦recommend return to work/normal activities as soon as possible
- ♦if problems persist, reassessment required
- ♦address nonphysical factors (psych/socioeconomic)-

Back Pain Treatment Options: REFERENCES

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