Joe Kim, MD

Adventist Medical Evangelism Network
Pain Management
October 28, 2016

(all references have not been updated in this presentation in the presenter notes section, please email with questions: kimjoe54@yahoo.com)

Objectives

Curbing the opioid epidemic:

Indications for therapy

Initiating/terminating therapy

Complying to state and federal regulations

5-minute low back pain consult:

Identifying red flags

Indications for conservative management

Indications for costly assessment

Exercise for Invalids

"Invalids should have out-door exercise...A part of the prescription for every such patient should be light physical labor, pleasant employment out of doors…

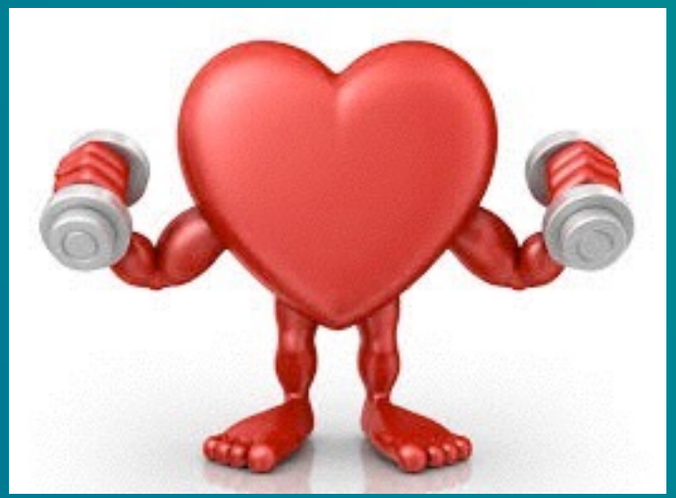
"Let this class of sufferers have pleasant employment out of doors, *suited to their several conditions*, both as to the *nature* of the work, and the *time* they should be engaged in it…

"Many that are very feeble can walk if they *only think so*. They have not the disposition, and you will hear them plead, "Oh! I cannot walk. It puts me out of breath, I have a pain in my side, a pain in my back." …Try to exercise moderately at first. Have rules to govern you. Walk! yes, walk! if you possibly can, walk! Try it a short distance at first, you that think walking is impossible. You will no doubt become weary. Your side may ache, your back give you pain, but this should not frighten you. Your limbs may feel weak…If you would only walk, and possess a perseverance in the matter, you could accomplish much in the direction of recovery…

…Continue this exercise, and let no one dissuade you from it." {HR July 1, 1868}

Treatment

- Get through acute episode
- New behaviors
- New thoughts



Mindfulness & Yoga

- Yoga
  - Hinduism, Buddhism, Jainism
  - 500 BC? ascetic and Sramana movements
  - Hatha and Raja yoga
- Ultimate goal is maksha (liberation)
  - freedom from ignorance: self-realization and self knowledge
  - Strong evidence short-term, moderate for long term LBP control

Mindfulness & Yoga

- Mindfulness from word *Sati*
  - 1500 BC, related to Hinduism initially
    - Buddhist influence
- Jon Kabat-Zinn (Zen Buddhist)
  - Meditation involves endogenous opioid pathways

Ellen White

- Arguments against opioids
  - Not search out cause of illness
  - Create habits/appetites
    - One stage of debasement to another

Statistics

- 20% visits for non cancer pain receive opioid Rx
- In 2012: 259 million scripts written
- 2012 NHIS: 11.2% adults have daily pain

Data

- For pain ≤ 12 weeks:
  - better pain
  - improve function
- Chronic therapy: ?
  - Yet 3-4% of adult US population

The epidemic

- Drug OD is leading cause of accidental death in US in 2014
  - almost 19,000 from prescription pain Rx
  - over 10,000 heroin
- Study of 15-64 year olds
  - 1/550 died median 2.6 years (1/32 when 200 MME)
- 1999 to 2008 OD rate and sales both 4x's

What we know

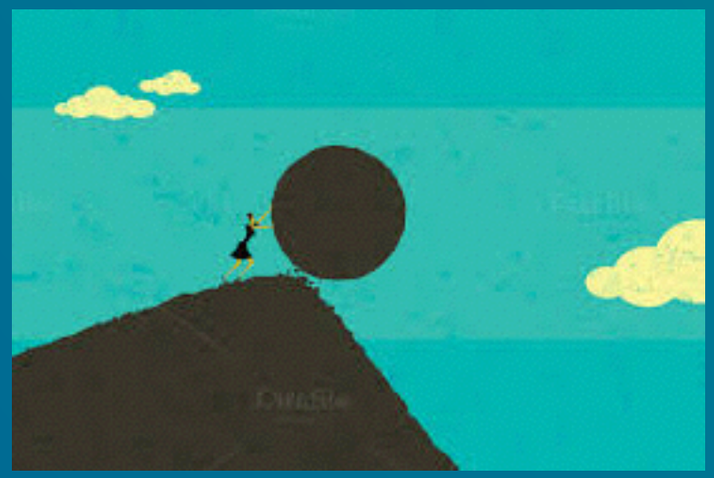
- No study prove benefit (>1 year)
- Risks increase with dose
- Screening tools difficult to use

Successful therapies

- Exercise therapy
- CBT
- Non-opioid pharmacology
  - acetaminophen, NSAIDs, anticonvulsants, antidepressants.
- Interventional therapy (e.g. injections)

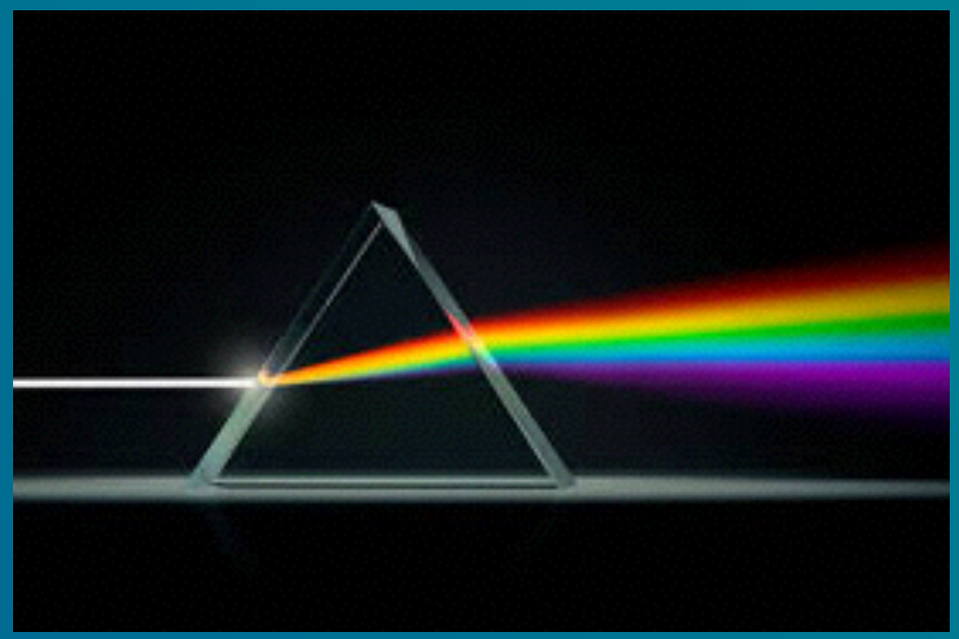
Evidence

- Exercise therapy: high quality evidence for hip/knee OA
- Multimodal therapy > mono therapy
- Mixed results with injection therapy
- Limited:
  - LBP
  - Headaches
  - Fibromyalgia



More meds

- **P**sychotherapy
- **R**ehabilitative
- **I**njection
- **S**urgery
- **M**edications



More meds

- **A**nti-inflammatory
- **A**ntidepressants
- **M**embrane stabilizers
- **M**uscle relaxants
- **O**pioids

More Likely to harm

- Higher doses
- Benzodiazepine use
- Sleep disorders (OSA)
- Hepatic/renal insufficiency
- Elderly
- Pregnancy
- Mental Health
- History of substance abuse

Beginning Therapy

- Well-defined treatment goals: emotional, social, physical
- How to discontinue

Beginning Therapy

- Discuss risks
- Expected benefits
- Patient/Clinician responsibilities

Discuss risks

Respiratory
Constipation
Dry mouth
Nausea/vomiting
Drowsiness
Tolerance/dependence
Risk to others

Expected Benefits

- Improvement of function is primary goal

Responsibilities

- Periodic reassessment
- Use of drug monitoring program
- Drug screens

Use of PDMP

- Multiple prescribers
- High daily dosage
- Every 3 months-1 year
  - Ideally each visit

Urine Drug Screens

- Before initiation
- At least yearly
- 2-3 times/year moderate risk
- 3-4 times/year severe risk

Choice of medications

- Short acting first
- Extended release/long-acting
  - 60 mg morphine at least one week
  - abuse deterrent does not mean no risk for abuse
  - consider longer dosing interval for renal/hepatic patients
  - avoid combining

Escalating doses

- Higher doses
  - Risk of MVA, opioid use disorder, overdose
    - overdose risk 2.0-8.9 greater when above 100mg/day (MED); compared to 1-20mg
    - no completely safe dose
    - Greater care: ≥ 65, renal/hepatic

Escalating Doses

- Recommend 5 half-lives
- Offer naloxone as doses escalate

Inheriting the high dose

- Now an established body of scientific evidence
- Offer tapering plan with possible pauses

Onset of pain

- Majority initial acute episode resolve 2-4 weeks
- 2-3% go on the disabling chronic LBP
- 60%-68% recurrence rate

Acute Pain

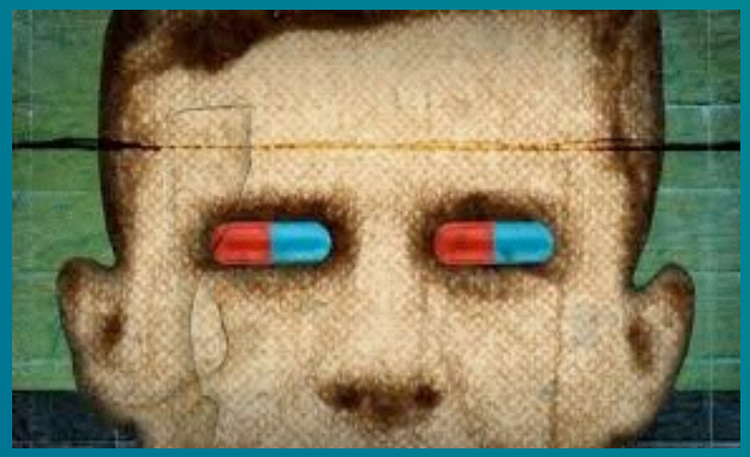
- Non-malignant, infections, fractures, etc.
  - 3-7 day course of opioid
  - avoid “just in case” tablets
  - avoid ER/LA for acute pain

Revisiting

- 1-4 weeks after initiation or escalation
  - even sooner with methadone
- Stable ≤ 3 months
- Shorter intervals
  - depression/mental health issues, h/o abuse
  - more than 50MME/day
  - on other CNS depressants

Assessing risk

- EtoH use
  - h/o overdose, substance use disorder
- Higher dose (≥ 50mg MME/day)
- Use of benzo's
- Sleep disordered breathing (assoc with CHF, obesity)



Assessing risk

- Hepatic/Renal insufficiency
- Age ≥ 65
- Mental health disorders

Naloxone

- For increased risk: http://prescribetoprevent.org
  - H/O overdose, substance use disorder
  - Taking benzodiazepines
- Return to high doses after break

Tapering

- Longer history of use: slower, may need pause
- 10-50% weekly
- Rapid over 2-3 weeks
  - in cases of overdose
- If not taking, no taper needed
- May need psychosocial support

Useful links

- Interagency Guideline on Prescribing Opioids for Pain (2015)
- CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016
- Model Policy on the Use of Opioid Analgesics in the Treatment of Chronic Pain

5-minute consult

Risk factors

- Age
- Male/family history
- Lack of exercise/sedentary lifestyle
- Obesity
- Psychological
- Menopause/osteoporosis/pregnancy
- Caffeine?

Risk factors-severe

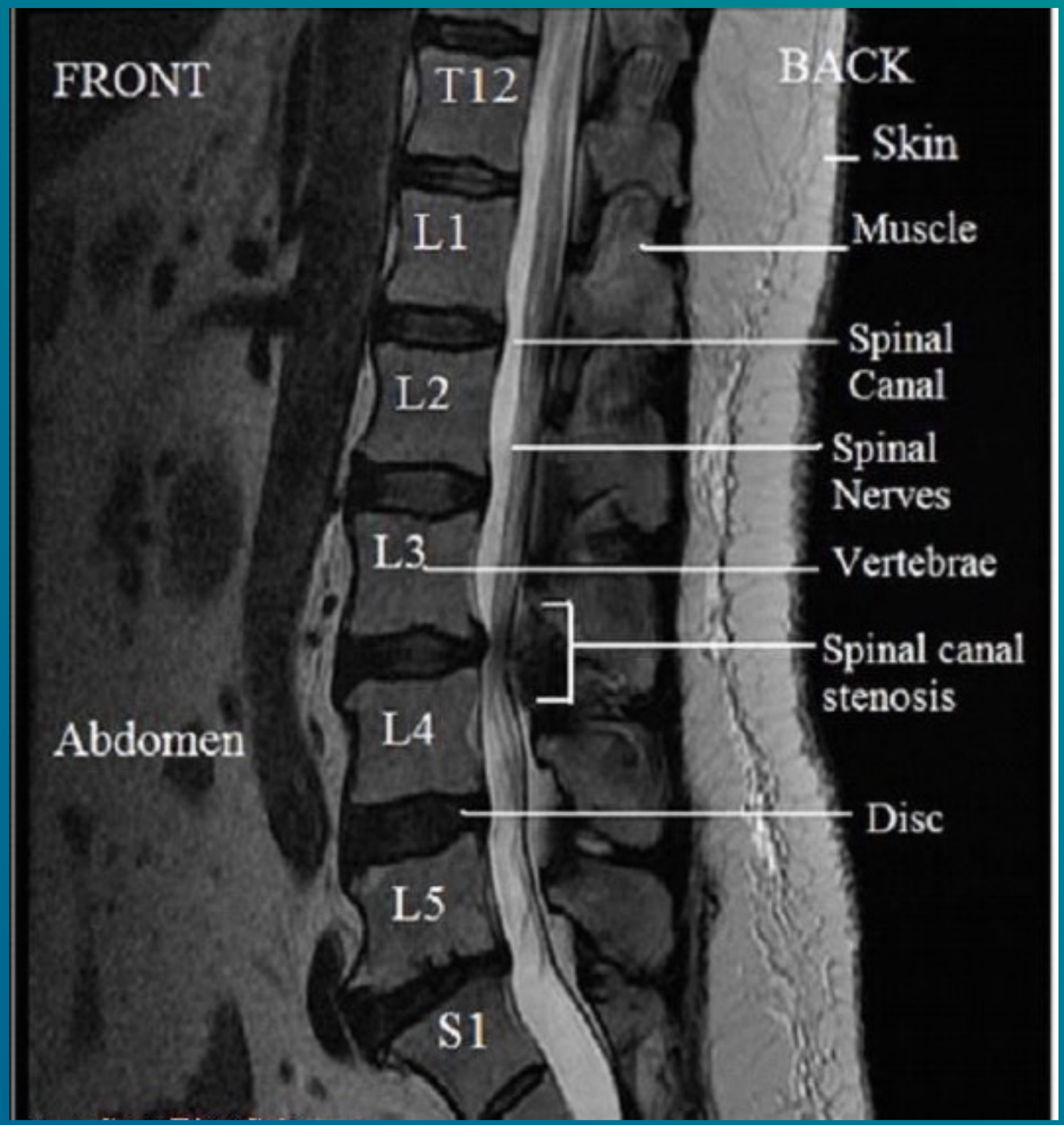
- Jobs: heavy lifting, machine tools, motor vehicles
- Tobacco

Risk factors-moderate

- Joggers
- Cross country skiers

What can go wrong?

- Strain/sprain
- Herniated disc
  - bend forward/back
- Spinal stenosis
- Spondylolisthesis/ spondylolysis/spondylosis
- Scoliosis
- Steroids, infections, tumor



Red Flags

History

Cancer
Unexplained Wt. Loss
Immunosuppression
Prolonged use of steroids
IV drug use
UTI
Increase with rest
Fever
Trauma
Bowel/bladder incontinence
Urinary retention

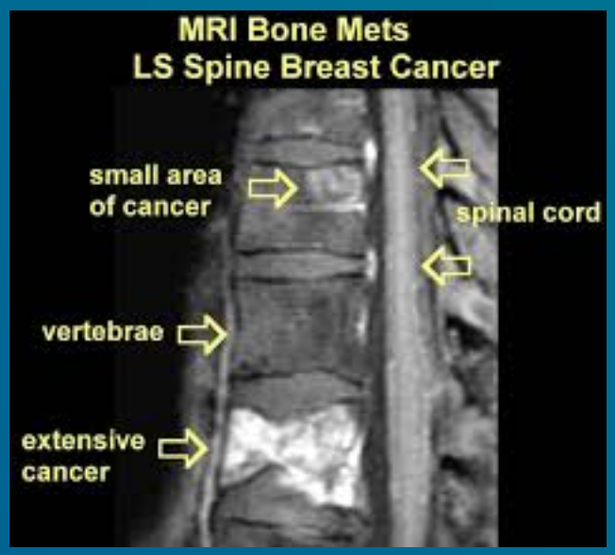
Red Flags

Physical

Saddle anesthesia
Sphincter tone
Major motor weakness
Fever
Vertebral tenderness

Assessment

- Labs
  - Usually not needed initially for acute pain
  - Tumor/infection? : CBC, ESR



Assessment

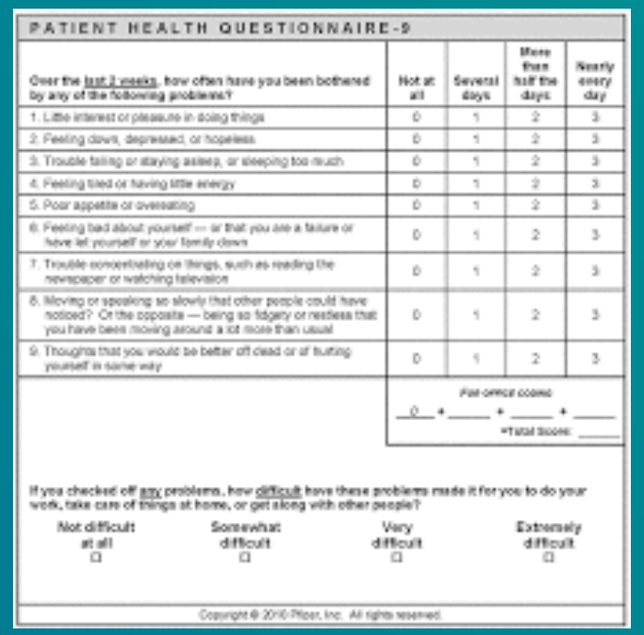
- Radiology
  - Not recommended first month unless:
    - Age > 50
    - Compression fracture
      - osteoporosis, steroid use
    - At 2 months, mixed evidence if not radiculopathy

Assessment

- Radiology
  - Advanced imaging
    - infection
    - cauda equina syndrome
    - cancer with impending cord compression
    - if potential candidates for surgery/injection

Assessment

- Psychosocial stress
  - Strong predictor of outcomes
- Methods of assessment still being graded

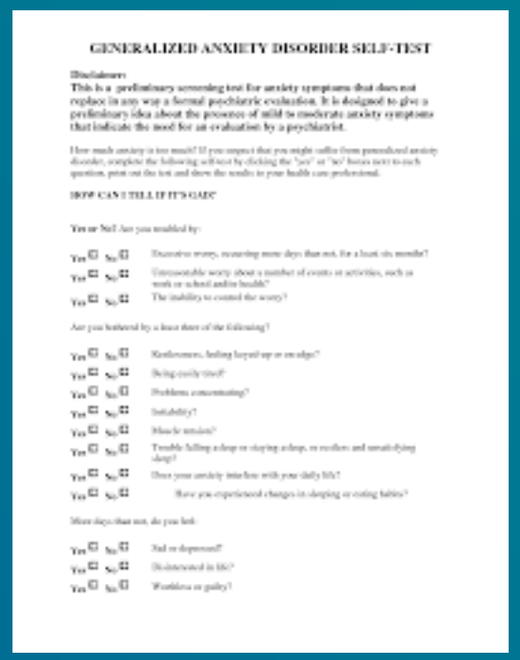


PATIENT HEALTH QUESTIONNAIRE-9

Over the last 2 weeks, how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so figgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3
	For office coding: 0 + ____ + ____ + ____ =Total Score: ____			

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
☐	☐	☐	☐



GENERALIZED ANXIETY DISORDER SELF-TEST

Disclaimer:
This is a preliminary screening test for anxiety symptoms that does not replace in any way a formal psychiatric evaluation. It is designed to give a preliminary idea about the presence of mild to moderate anxiety symptoms that indicate the need for an evaluation by a psychiatrist.

How much anxiety is too much? If you suspect that you might suffer from generalized anxiety disorder, complete the following self-test by clicking the "yes" or "no" boxes next to each question, print out the test and show the results to your health care professional.

HOW CAN I TELL IF IT'S GAD?

Yes or No? Are you troubled by:

Yes ☐ No ☐ Excessive worry, occurring more days than not, for a least six months?
Yes ☐ No ☐ Unreasonable worry about a number of events or activities, such as work or school and/or health?
Yes ☐ No ☐ The inability to control the worry?

Are you bothered by a least three of the following?

Yes ☐ No ☐ Restlessness, feeling keyed up or on edge?
Yes ☐ No ☐ Being easily tired?
Yes ☐ No ☐ Problems concentrating?
Yes ☐ No ☐ Irritability?
Yes ☐ No ☐ Muscle tension?
Yes ☐ No ☐ Trouble falling asleep or staying asleep, or restless and unsatisfying sleep?
Yes ☐ No ☐ Does your anxiety interfere with your daily life?
Yes ☐ No ☐ Have you experienced changes in sleeping or eating habits?

More days than not, do you feel:

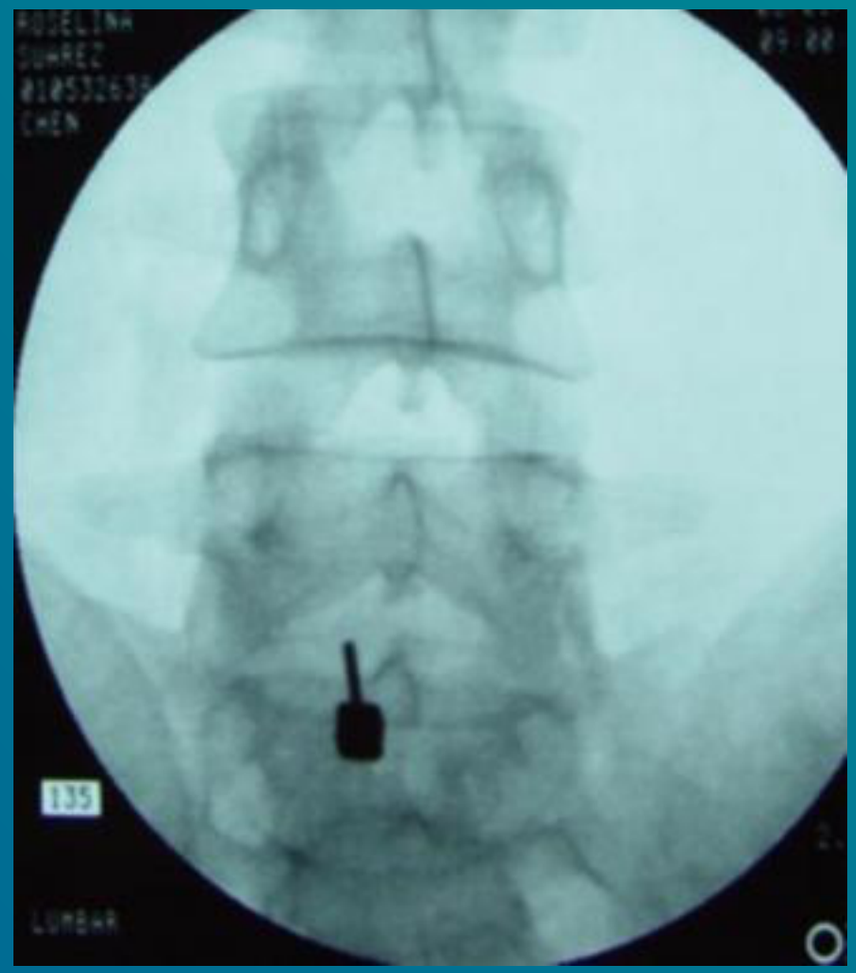
Yes ☐ No ☐ Sad or depressed?
Yes ☐ No ☐ Disinterested in life?
Yes ☐ No ☐ Worthless or guilty?

Treatment

- Opioids first few days do not return to full activity sooner that NSAIDS/tylenol
- Muscle relaxants > placebo, = NSAIDS
- Oral steroids not recommended

Treatment

- Nothing**
- Conditioning: PT home exercise
- Posture
- Chiropractic
- Massage
- Acupuncture
- Injections



Evidence

- Good evidence of moderate efficacy
  - Chronic/subacute
    - CBT
    - Exercise
    - Spinal manipulation
    - Interdisciplinary rehabilitation
    - medium-firm mattress > firm
    - lumbar support, cold?

Evidence

- Good evidence of moderate efficacy
  - Acute: Heat

Specifics

- Ultrasound
- TENS
- Heat/cold

- Moderate evidence heat wraps, small short term reduction acute/subacute LBP
- Better when with exercise
- Insufficient evidence for cold
- Mixed comparing cold to heat

Exercise

- Numerous studied with acute effects of exercise
- Chronic: Jones, et al.
- Increases pain tolerance (not threshold)
- Release of endorphins

Exercise

- May be helpful for chronic LBP
- Specific exercise not effective for acute
  - strengthening, McKenzie (MDT), Williams, stretching
  - earlier McKenzie study with bias
- Poor evidence which exercise better

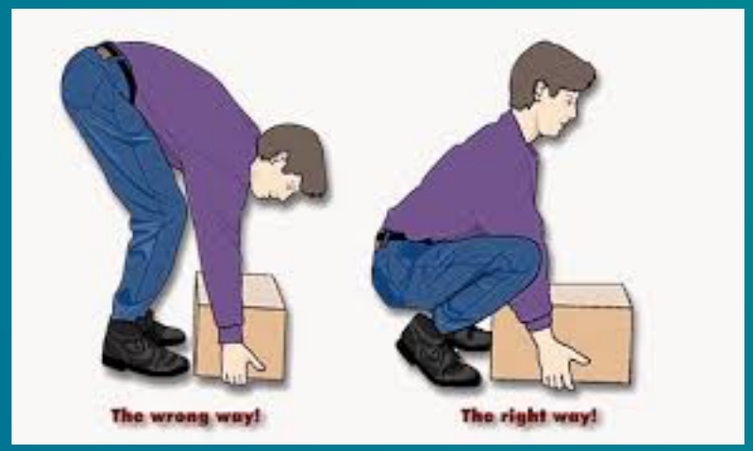
Exercise

Back exercise programs

- Endurance
- Strengthening: with supervision
- Flexibility: with supervision
- Passive PT interventions
  - not demonstrated “sustained” benefit

Specifics

- Proper lifting



- Sleeping
- Sitting

Other Nonpharmacologic

- Spinal manipulation
  - PT = chiropractor (symptoms, fxn, satisfaction, disability, recurrences, subsequent visits)
    - only marginally better than booklet
  - BJM study chiropractic > PT (conflict with Swedish study)
  - Trials need longer-term follow up

Other Nonpharmacologic

- Meta-analysis 2003
  - 39 RCT: sham, PCP care, analgesics, PT exercise, back school
    - No evidence superior to other standard treatment for acute or chronic LBP
- 2016 meta-anlysis
  - 9 RCT (4 included)
  - manipulation > sham

Herbal Therapy

- Devil's claw, willow bark, capsaicin
  - seem safe
  - benefits from small to moderate

Herbal Therapy

- Similar to 12.5 mg Vioxx
  - Willow bark: short term studies, 240mg,
    - Loss head-to-head diclofenac
  - Devil's claw: short term, 50-100mg (poor quality evidence)
    - No safety concerns with study of 4,300 patients
- Tumeric: knee OA > placebo (6 mos), 250mg
  - Studies at 8,000/day x 3 mos (no toxicity)
  - Bioavailability considerations
- Cat's claw: 100mg > placebo (knee OA)

Natural

- Cloves (eugenol): topical
  - Similar to benzocaine before
- Methyl salicylate
  - Birch leaf, wintergreen essential oil
- Capsaicin:
  - poor compliance
  - 8% patch: study on neuropathic pain
  - Cream: 3 trials, moderate quality evidence better than placebo

Massage

- Studies had risk of bias; low/very low quality evidence
- Better than sham
- Similar to exercise
- Superior to
  - joint mobilization
  - relaxation tx, PT, acupuncture, self-care ed

Acupuncture

- Moderate short-term improvement in both pain and function. (Chou, et al)
- In comparison study (Standaert, et al)
  - No impact on chronic LBP
  - Exercise and spinal manipulation did help
  - Not effective versus sham (Fulan, et al)