

# *Pain: Multidimensional Evaluation and Treatment*

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## *Objectives*

- Attendees will:
  - Understand classification of pain
  - Understand the multidimensional aspects of chronic pain
  - Understand multidisciplinary strategies for the treatment of chronic pain

## *What is Pain?*

- International Association for the Study of Pain definition:

Pain: An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.



**"Pain is a more terrible  
lord of mankind than  
even death itself"**

Albert Schweitzer

**"Those who do not feel  
pain seldom think that  
it is felt"**

Samuel Johnson, 18<sup>th</sup> Century

## *Classifications of Pain*

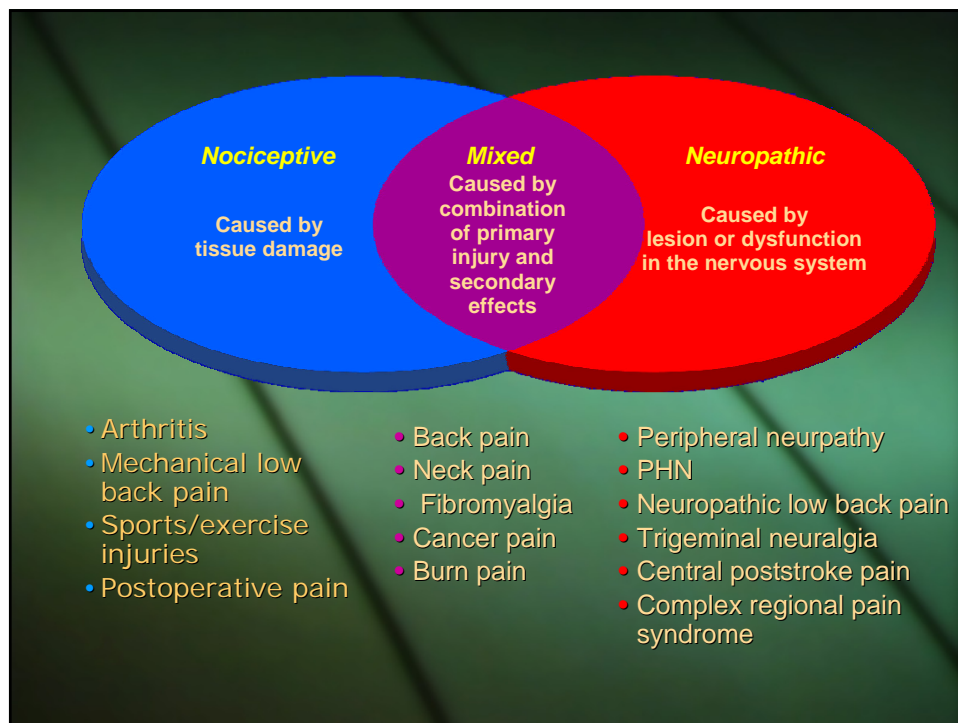
- Source (system):
  - Nociceptive
  - Neuropathic
  - Visceral
- Time: Acute versus Chronic
- Cancer vs Non-cancer (malignant vs non-malignant)

## *Nociceptive Pain*

- Pain from normal pathways
- Localized or referred
- Example treatments:
  - Treat cause: fractures, metastases to bone
  - Treat symptoms (meds/therapies)
  - Protect the injured body part
  - Tincture of time
  - Restore function

# Neuropathic Pain

- Pain from the nervous system itself
- Burning, tingling, "shock-like", "numb pain"
- Localized or radiating--usually follows nerve(s)
- Often associated with sensory changes
- Example treatments:
  - Treat the cause: decompression, metabolic
  - Anticonvulsants
  - Antidepressants
  - Steroids
  - Opioid
  - Neuromodulation



## *Acute Pain*

- Serves a purpose
- Tends to resolve- often no Dr. visit
- Cause often obvious
- Treatments may be curative
- Rest often helpful
- Can be nociceptive, neuropathic, visceral, etc

## *What is "Chronic?"*

- Pain lasting longer than some arbitrary duration: often **6 months**
- Pain lasting longer than anticipated duration.

## *Chronic Pain*

- In general, no known benefit to the individual
- Original cause may be unknown/healed
- Etiology is difficult to more difficult to determine
- Often frustrates person, family, provider

## *Chronic pain: Many Challenges*

- There is no objective test that measures pain
- More than a simple cause & effect
- Associated with confounding factors
- More than 10 X variation in opioid requirements

## *Chronic Pain Co-Morbidities*

- Depression
- Insomnia
  - Pain, worries about future, treatment induced
- Fatigue
  - Deconditioning
- Sexual-dysfunction
  - Pain, treatment, or mood induced
- Anxiety
- Disability

## *Low Back Pain*

- May be acute or chronic
- Nociceptive: mechanical, myofascial, discogenic, facetogenic
- Neuropathic: radiculopathy
- Cancer related
- Referred from nearby joints

## *Treatment of Pain: Pharmacologic*

- Non-steroidal anti-inflammatory
- Opioids
- Antidepressants
- Anticonvulsants
- Steroids
- Local anesthetics
- Topicals
- Muscle Relaxants
- Others

## *Treatment of Pain: Non-pharmacologic*

### Behavioral and cognitive

- Relaxation
- Distraction
- Meditation
- Reframing
- Biofeedback
- Guided imagery

### Physical and rehabilitative

- Active
  - Exercise
- Passive
  - Cutaneous stimulation
  - Superficial heat/ cold
  - Massage
  - Transcutaneous electrical nerve stimulation

### Invasive

- Anesthesia techniques
  - Neural blockade/neurotomy
  - Steroid injections
  - Neuromodulation
  - Implanted pumps
- Neurosurgical techniques
  - Brain stimulation
  - Rhizotomy/cordotomy
  - Fusions/disc replacement

### Alternative and complimentary

- Acupuncture
- Chiropractic & Osteopathic
- Homeopathic
- And many more...

## *Traditional Medical Model*

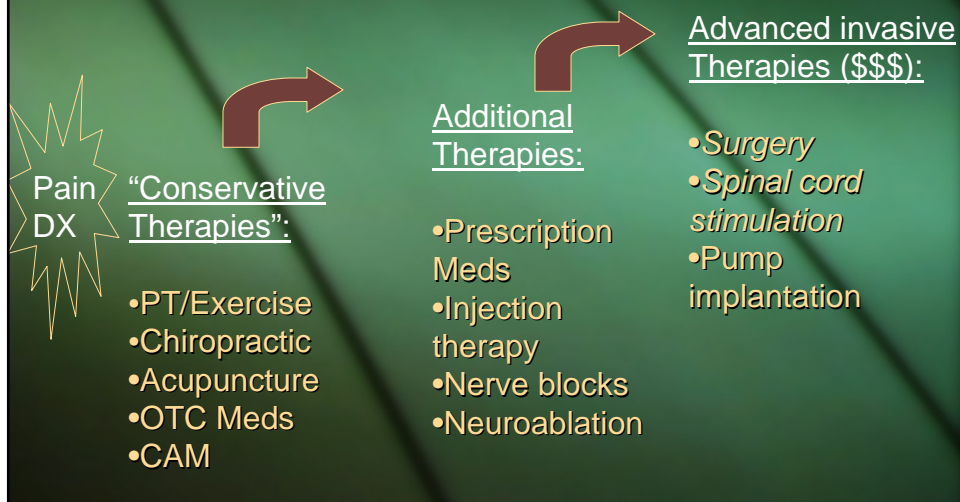
### Biological-Sensory-Physical

- Diagnosis
  - Anatomic and/or physiological disruption
  - Objective findings
  - Imaging (the more expensive, the better)
- Treatment
  - Restore normal anatomy/physiology, i.e., “fix it”
  - Disrupt pain pathways, reduce inflammation, muscle spasm, hammer mu receptors with opioids

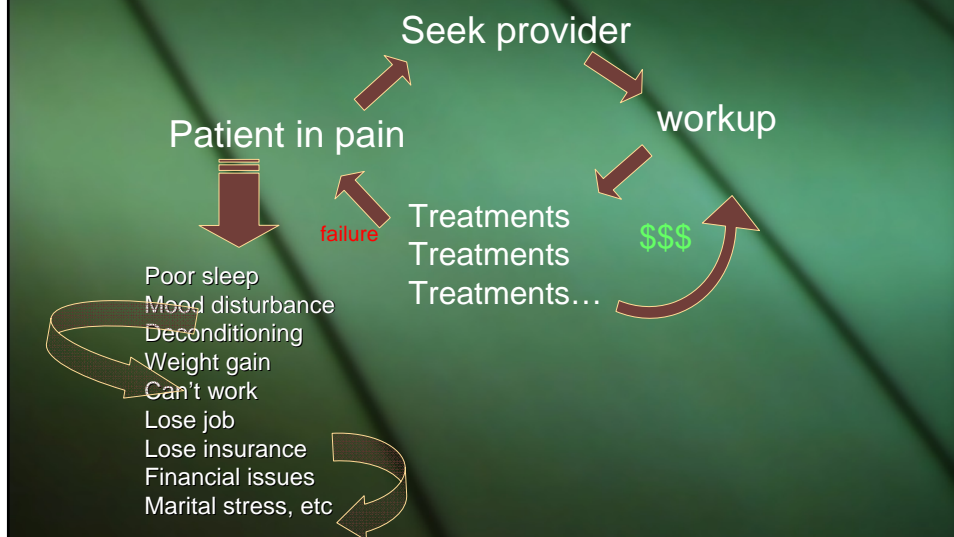
## *Traditional Medical Model Limitations*

- Pain-pathology disconnect
  - Pain without or disproportionate to tissue pathology/injury
  - Persistent pain after injury has “healed”
  - Surgery can’t “unbreak the egg”
- May not address medical co-morbidities
- May not address function, vocational & social issues
- Acute treatments options not effective for chronic
- This model often leads to provider shopping, disappointing and excessively interventional care

## Progression of "traditional" Pain Treatments



## Cycle of Futility: Chronic Pain



## *Multidimensional Model of Pain*

- Biological-Sensory-Physical
- Affective: pain - mood - stress interrelate
- Behavioral: actions & pain shape each other
- Cognitive: comprehension, conditioning
- Functional, social & environmental: work, family, financial, leisure, disability issues
- Cultural/spiritual: frames experience

## *Multidimensional Approach to Treating Chronic Pain*

- Assess Biological-Sensory-Physical
  - Make best medical diagnoses
  - Treat conservatively first. Refer to pain specialist for high acuity and/or complexity, neurological deficits, chronic issues, etc.
- Assess moods
  - Treat or refer to specialist
- Assess sleep
  - Treat / refer to specialist
- Assess cognitive structure
  - Educate, provide/refer for CBT
- Assess functional status
  - Address impact on family, occupation, leisure activities, etc.
- Understand/acknowledge cultural & spiritual issues

## *Structured programs: "Pain Rehabilitation"*

- May include analgesic medication withdrawal
- Team Approach
  - Physician/PhD/NP "pain specialist"
    - Psychiatrist, psychiatrist, neurologist, anesthesiologist, addictionologist, internist/family med
  - Psychologist
  - Physical & occupational therapist
  - Social worker/case manager
  - Educators/vocational counselors
  - Nutritionist
  - Other practitioners
- None in central Oregon :(

## *Outcomes from Multidisciplinary Pain Management Programs*

- Decreased pain scores, depression & catastrophizing scores
- Improved quality of life
- Improved physical function
- Reduction in medical costs
- Reduction in repeat back surgery
- Volker Hugel, MD, et. al. "Impact of a Functional Restoration Program on Pain and Health-Related Quality of Life in Patients with Chronic Low Back Pain," *Pain Medicine* 7 (6), Pages 501-508, 2006
- W. Michael Hooten, et. al. "Treatment Outcomes after Multidisciplinary Pain Rehabilitation with Analgesic Medication Withdrawal for Patients with Fibromyalgia". *Pain Medicine* 8 (1) Pages 8-16, 2007

## *Summary: Effective Pain Management Strategies*

- Take the larger view - be Multidimensional!
- Make the best medical diagnosis possible
- Choose therapies appropriate for medical, rehabilitation, and psychological diagnoses
- Consult specialists when indicated

## *Resources*

- American Pain Society:
  - [www.ampainsoc.org/](http://www.ampainsoc.org/)
- American Pain Foundation
  - [www.painfoundation.org/](http://www.painfoundation.org/)
- National Pain Foundation
  - [www.nationalpainfoundation.org/](http://www.nationalpainfoundation.org/)
- American Chronic Pain Association
  - [www.theacpa.org](http://www.theacpa.org)
- MedlinePlus: Pain Treatment
  - [www.nlm.nih.gov/medlineplus/pain.html](http://www.nlm.nih.gov/medlineplus/pain.html)