

# Meeting the Chronic Pain Care Needs of Older Adults: *What is the role of the PCP?*

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University of Pittsburgh



**VA**



**U.S. Department of Veterans Affairs**

Veterans Health Administration

*Geriatric Research, Education, and Clinical Centers*

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**PAIN**



**MENTAL  
ILLNESS**

# Learning Objectives

1. Identify key psychosocial treatment targets in the older adult with chronic noncancer pain.

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  - Depression, anxiety and other psychosocial factors are often overlooked as significant contributors to PAIN INTERFERENCE...

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1. Identify key psychosocial treatment targets in the older adult with chronic noncancer pain.
  - Depression, anxiety and other psychosocial factors are often overlooked as significant contributors to PAIN INTERFERENCE...
  - ...the key vital sign in patients with chronic pain.

# Learning Objectives

2. List the pathognomonic features of myofascial pain.

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  - Myofascial pain (MP) is arguably the most common chronic pain condition. PCPs trained using allopathic principles have often not been educated about MP.

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2. List the pathognomonic features of myofascial pain.
  - Myofascial pain (MP) is arguably the most common chronic pain condition. PCPs trained using allopathic principles have often not been educated about MP.
  - As the most effective treatments are non-pharmacological, competence around MP diagnosis and treatment can save costs and morbidity.



# Learning Objectives

3. Describe treatment modifications that practitioners may wish to consider for the older adult with pain and dementia.

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3. Describe treatment modifications that practitioners may wish to consider for the older adult with pain and dementia.
  - Dementia may not be clinically obvious.
  - Recognizing it in the older adult with chronic pain can profoundly impact pain management.

“Can you make this pain go away?”

“Can you make this pain go away?”

NOW

YOUR PAIN

YOU

Your pain has you.



SOON

YOU

YOUR PAIN

You have your pain.

# Materials on Course Website

- Chronic pain management guide pdf
- Electronic link to guide
- Chronic low back pain series of articles pdf and link
- Myofascial pain PE video

# Learning Objectives

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2. List the pathognomonic features of myofascial pain.
3. Describe treatment modifications that practitioners may wish to consider for the older adult with pain and dementia.

# Case

- 71-year-old white male Veteran with low back pain for over 10 years.
- No leg symptoms, pain in back sitting and standing, better with movement. Right worse than left.



# Pain Enjoyment General activity

- **SEVERITY:** During the past week, what number best describes your pain, on average? (0=no pain, 10=pain as bad as you can imagine)
- **INTERFERENCE:** During the past week, what number best describes:
  - How pain has interfered with your enjoyment of life?
  - How pain has interfered with your general activity?  
(0=does not interfere, 10=completely interferes)

# Case

- 71-year-old white male Veteran with low back pain for over 10 years.
- No leg symptoms, pain in back sitting and standing, better with movement. Right worse than left.
- PEG scores (*Krebs E et al 2009; J Gen Intern Med 24: 733*)
  - Average 7-day pain: 5
  - Interference with enjoyment of life: 6
  - Interference with general activity: 7

## PHYSICAL EXAMINATION

General: Pleasant, well-groomed, NAD

Neurological: Alert, OX3, strength and reflexes normal throughout, gait stable and coordinated.

Psychiatric: No SI/HI, tearful when talking about pain, PHQ9=17; negative coping statements, fear avoidance beliefs

Musculoskeletal: Mild scoliosis, tautness and tenderness of right parathoracic/paralumbal erector spinae

# Treatments recommended

- Duloxetine 20 mg per day for 7 days, then call to check in.
- Acetaminophen 975 mg po tid
- Chiropractic referral

# Case FU – 1 month

<b>Parameter</b>	<b>Baseline</b>	<b>1 month</b>
PEG pain	5	3
PEG enjoyment interference	6	5
PEG gen activity interference	7	5
PHQ-9	17	15

# Case FU – 1 month

Parameter	Baseline	1 month
PEG pain	5	3
PEG enjoyment interference	6	5
PEG gen activity interference	7	5
PHQ-9	17	15

## Recommendations:

1. Increase duloxetine to 60 mg po qd.
2. Continue chiropractic and acetaminophen.
3. Begin walking program

# Case FU – 2 months

- Overall, “40-50% better”
- Can get out of bed without difficulty
- Walking ~ 2 blocks per day
- Less irritable – “more mellow”
- Taking pride in chores around the house

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- Overall, “40-50% better”
- Can get out of bed without difficulty
- Walking ~ 2 blocks per day
- Less irritable – “more mellow”
- Taking pride in chores around the house
- **But ran out of acetaminophen one week ago...**



# Case FU – 2 months

Parameter	Baseline	1 month	2 months
PEG pain	5	3	7
PEG enjoyment interference	6	5	3
PEG gen activity interference	7	5	0
PHQ-9	17	16	5
Insomnia severity index	11		2
Fear avoidance beliefs	23		9

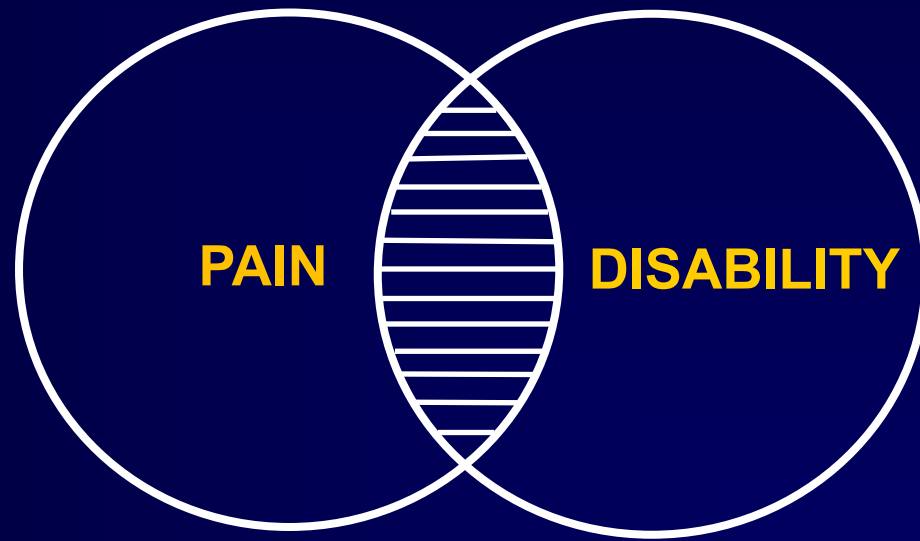
# TAKE HOME POINT(S)

- Reduction of pain may not be required to reduce pain interference.
- In this case effective treatment of depression reduced pain interference.

# Chronic Pain



PAIN: THE 5<sup>TH</sup>  
VITAL SIGN



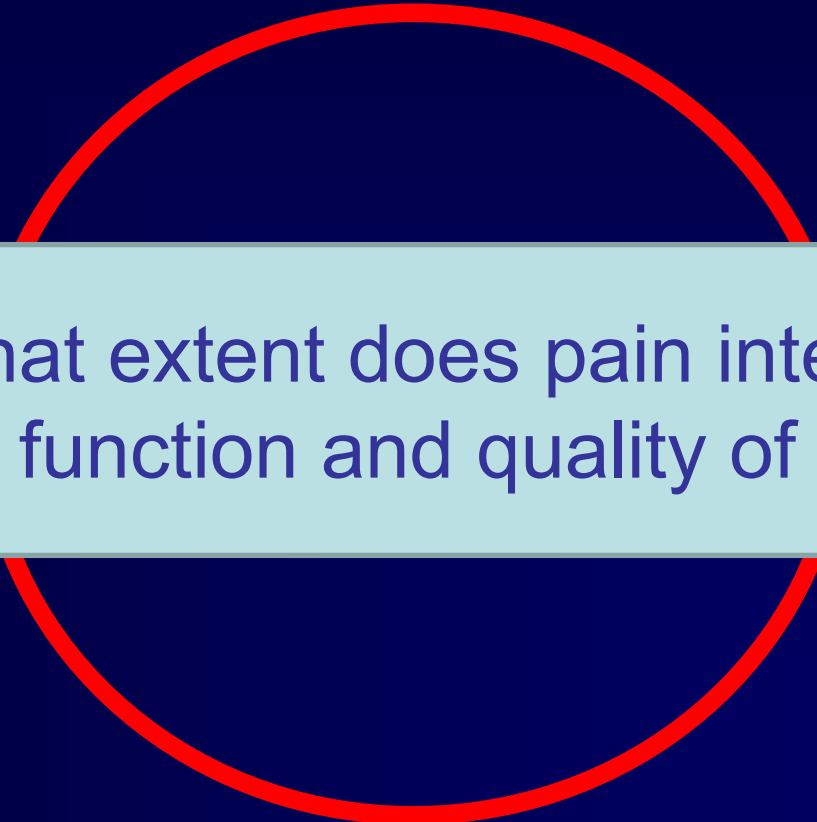
**PAIN**

**DISABILITY**

# Chronic Pain

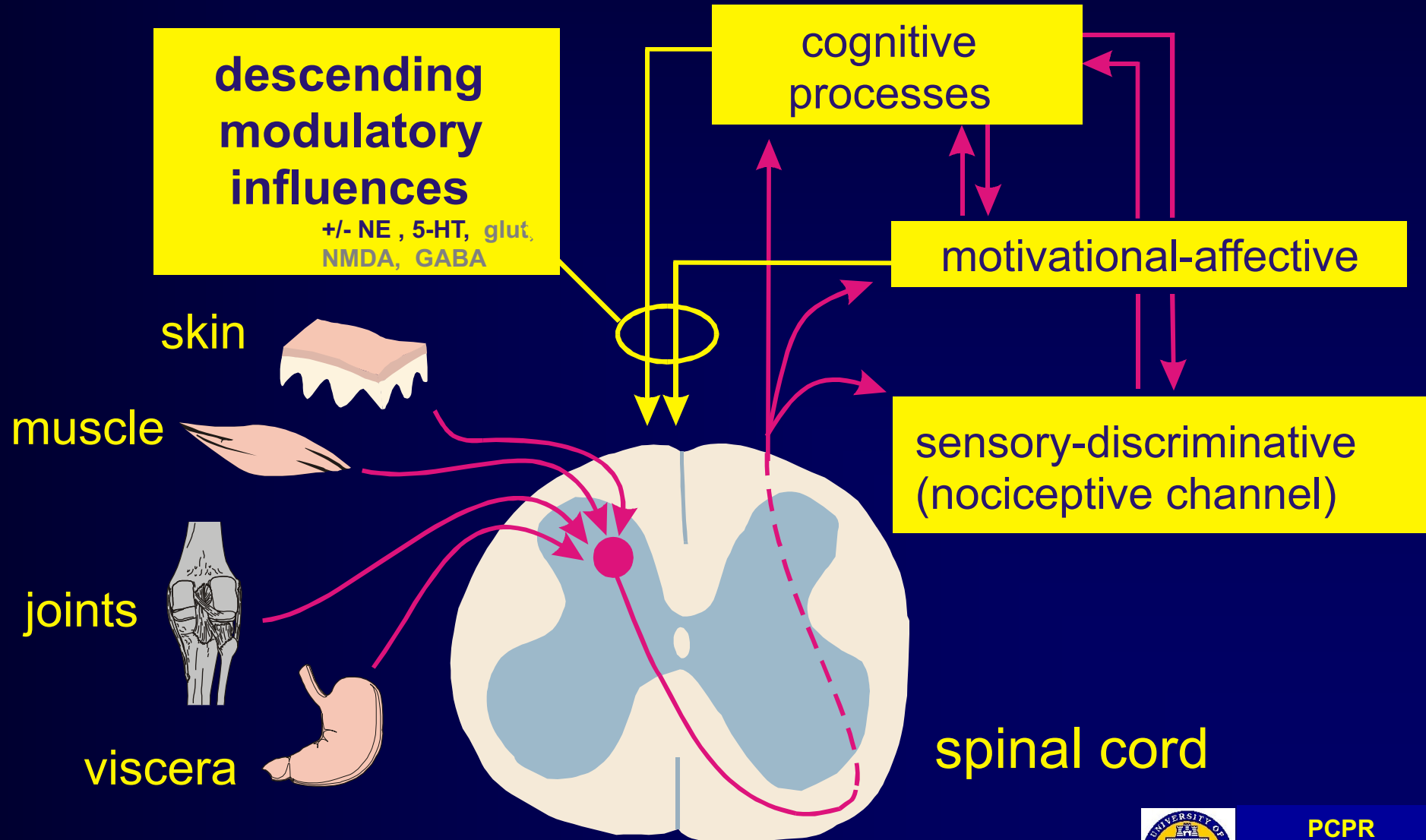


PAIN  
**INTERFERENCE:**  
THE 5<sup>TH</sup> VITAL  
SIGN



To what extent does pain interfere  
with function and quality of life?

# Basic Understanding of Pain Channels



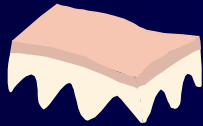
# Basic Understanding of Pain Channels

**descending  
modulatory  
influences**

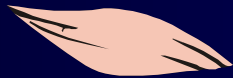
+/- NE, 5-HT, glut,  
NMDA, GABA

**Depression/Anxiety**  
**Insomnia**  
**Maladaptive Coping (fear avoidance  
beliefs, catastrophizing)**  
**Low Self-Efficacy**  
**Fibromyalgia**  
**Dementia**

skin



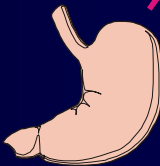
muscle



joints



viscera



**sensory-discriminative  
(nociceptive channel)**

**spinal cord**





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**Depression/Anxiety**

**Insomnia**

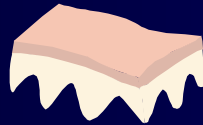
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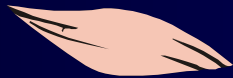
**Fibromyalgia**

**Dementia**

skin



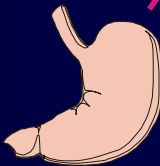
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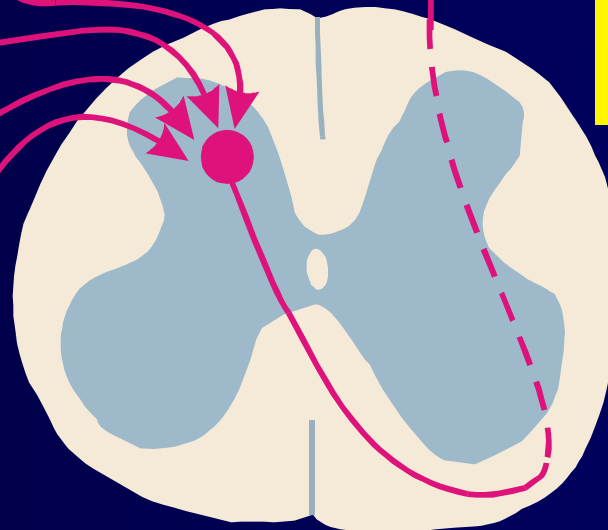


viscera



sensory-discriminative  
(nociceptive channel)

spinal cord



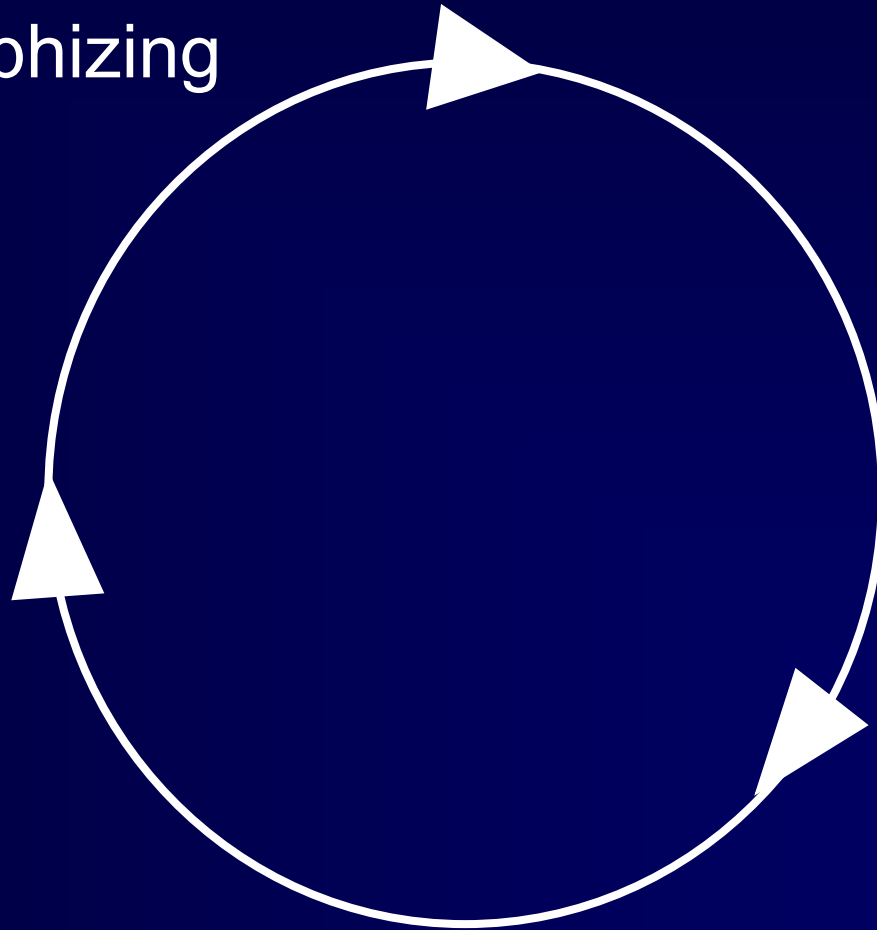
# Screening statement for fear avoidance

- Do you agree/disagree:

“It’s not really safe for a person with my pain problem to be physically active.”

# Fear-avoidance model

Pain  
Catastrophizing



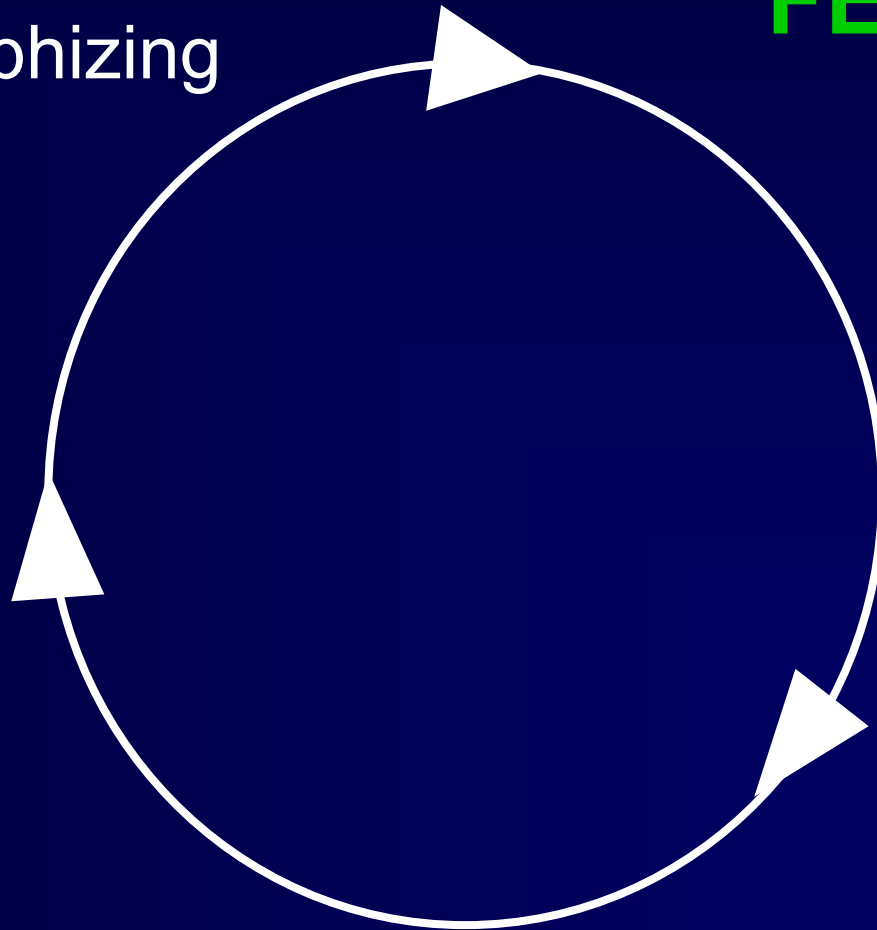
# Pain Catastrophizing

- Rumination
- Magnification
- Helplessness

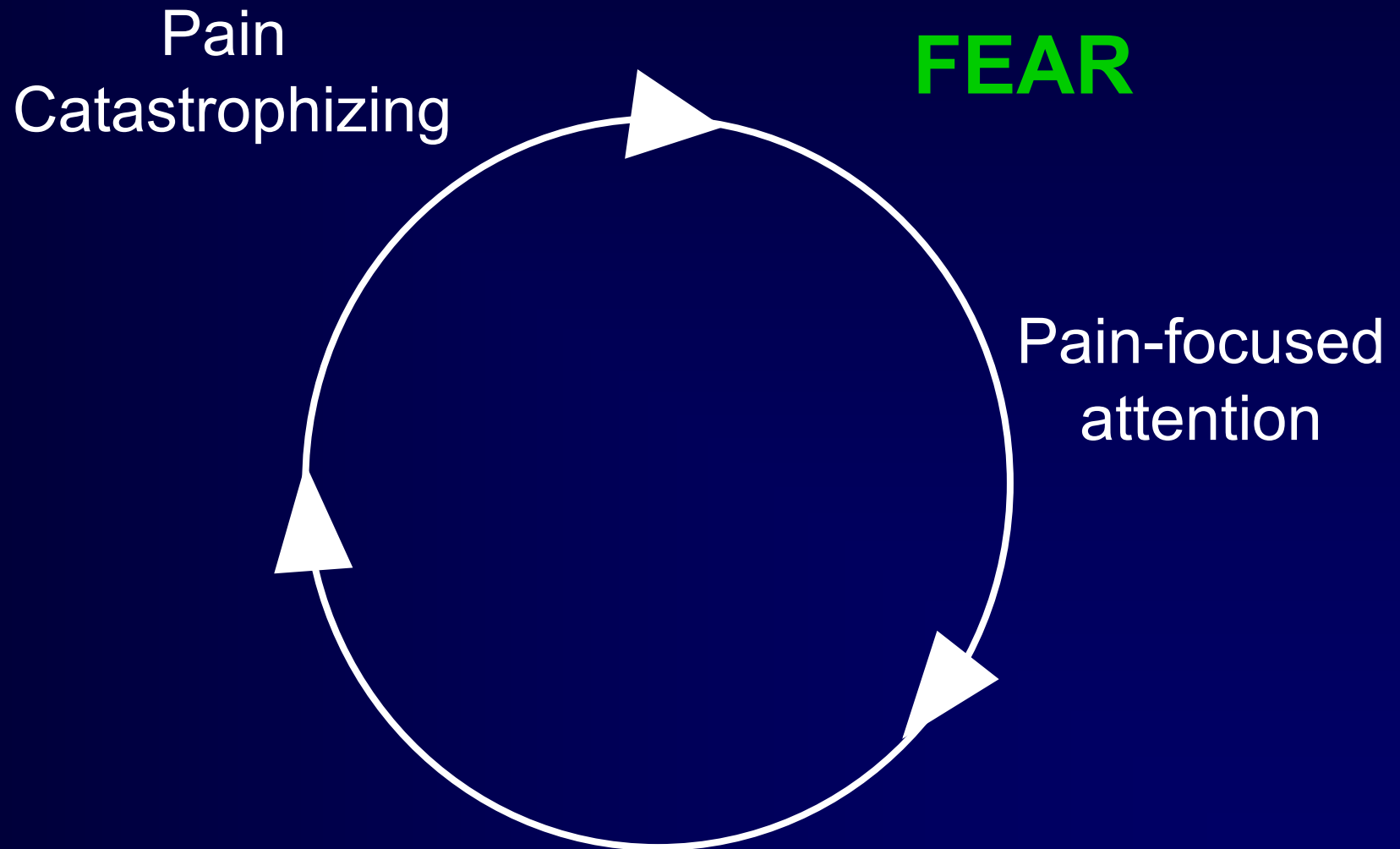
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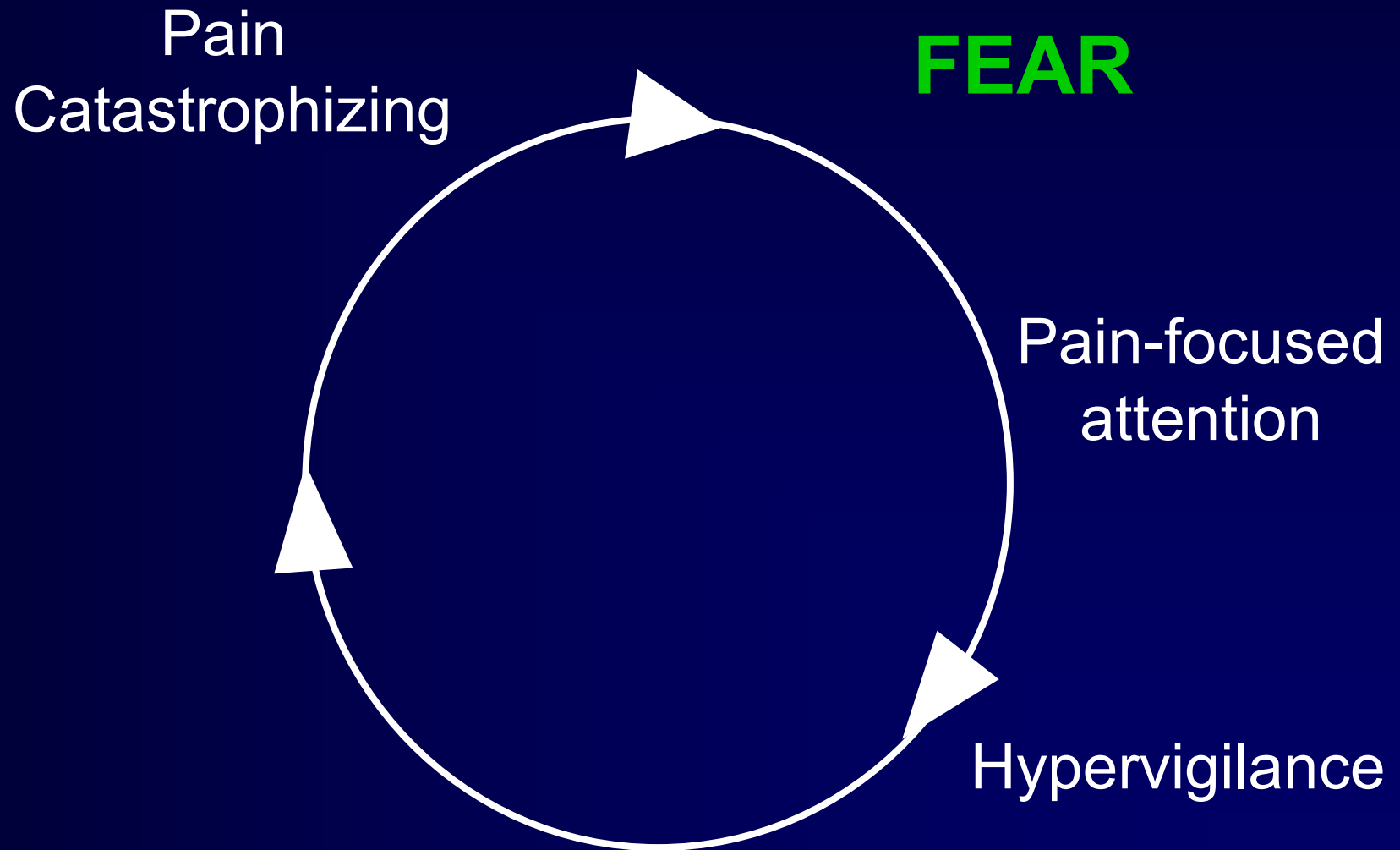
**FEAR**



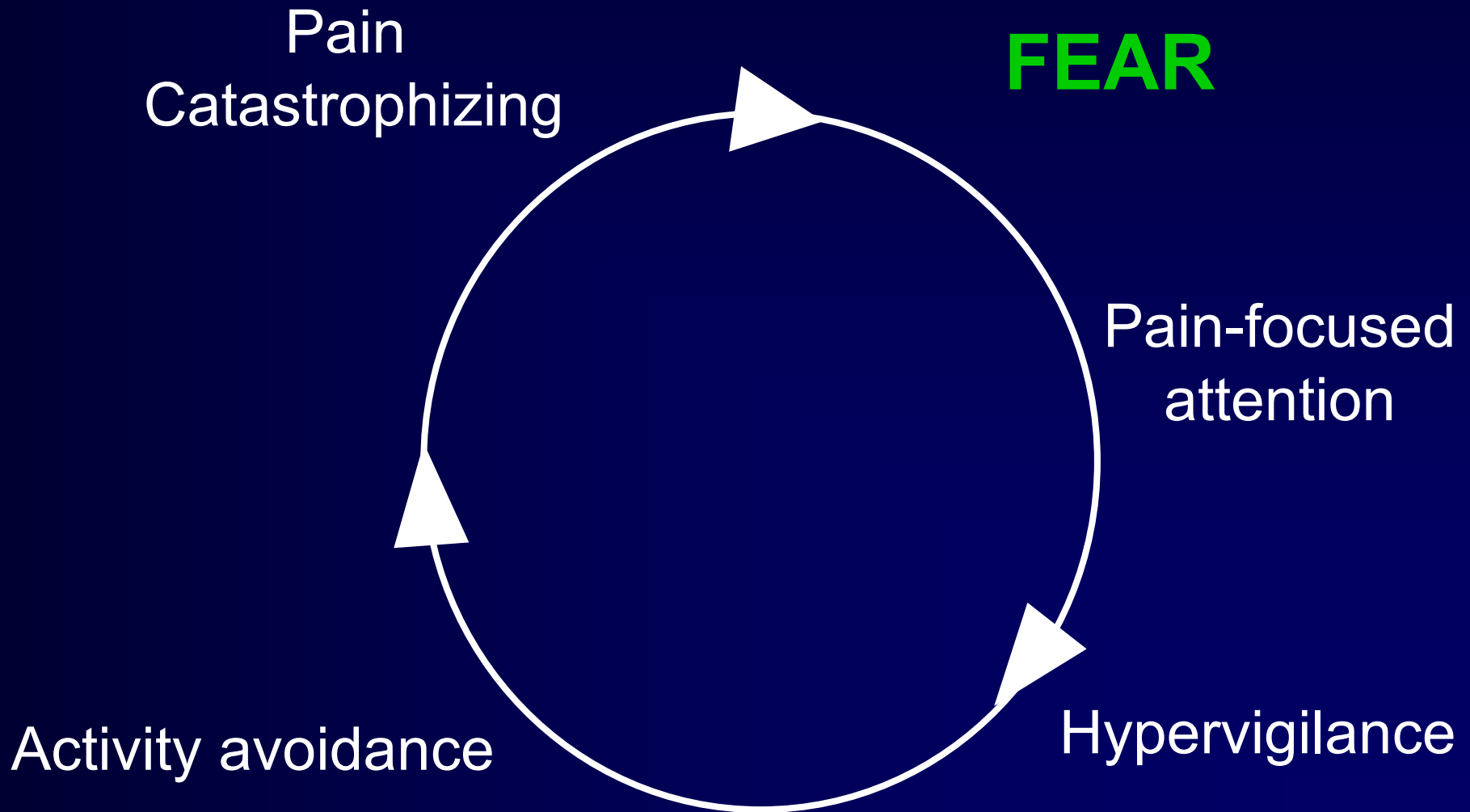
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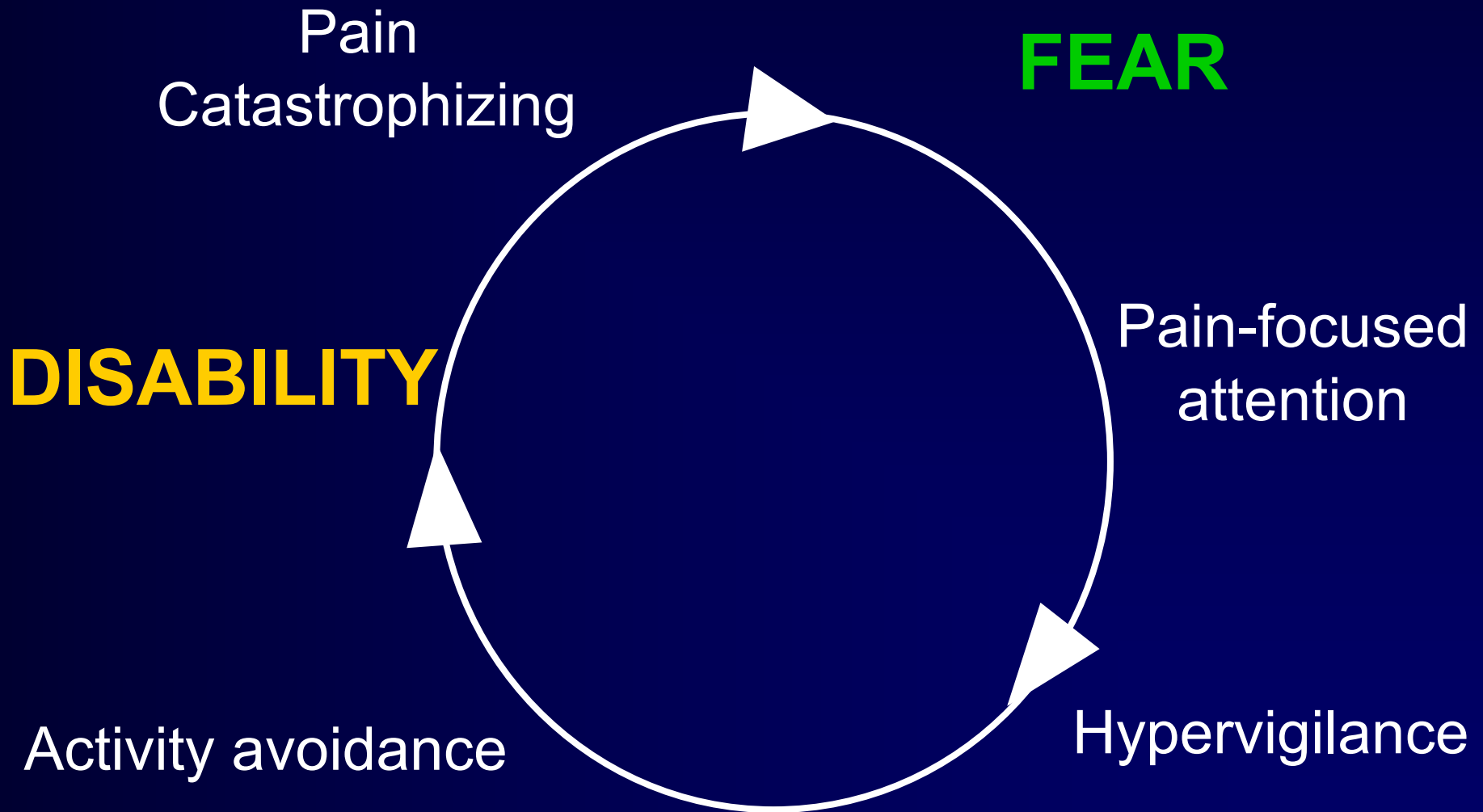


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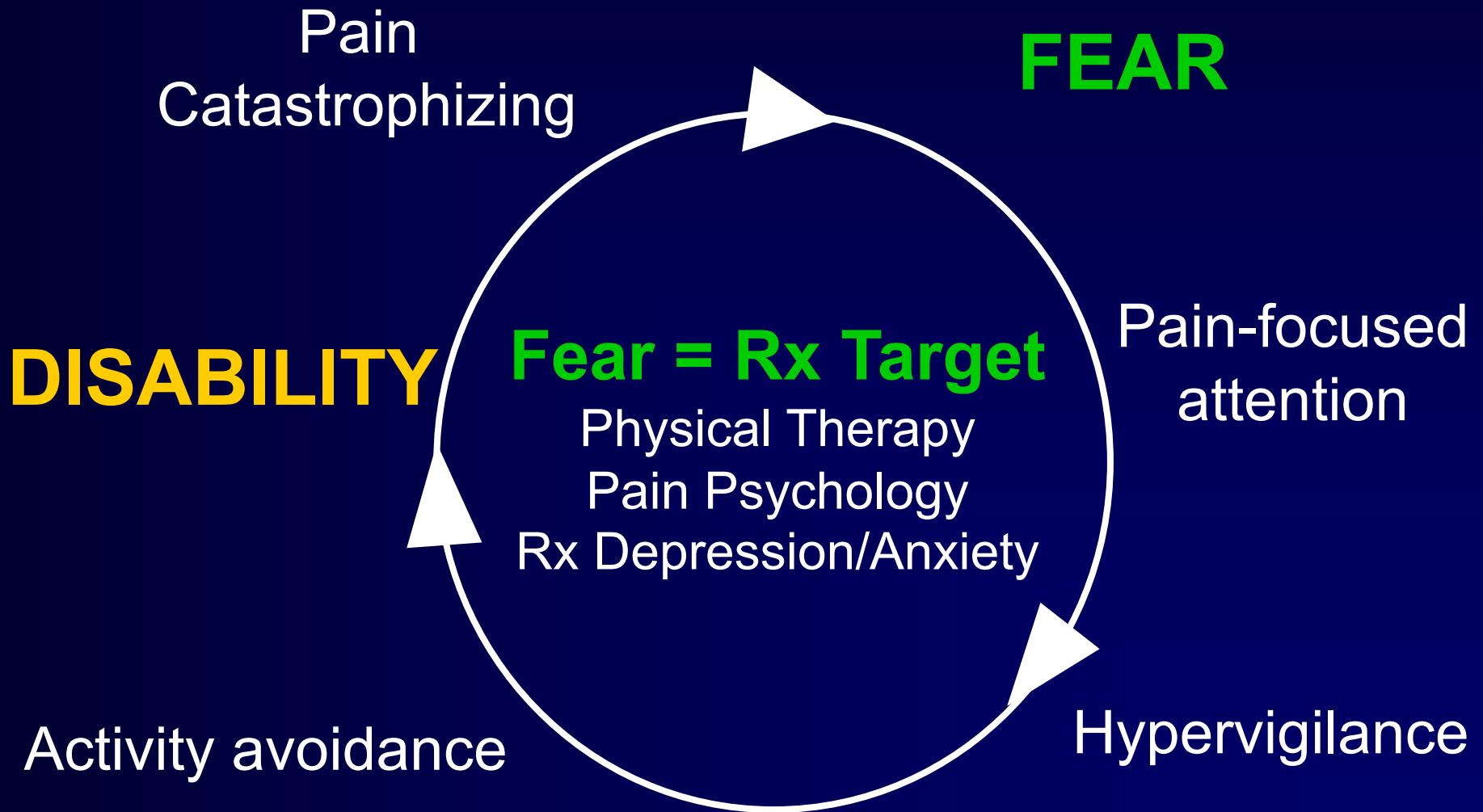




# Fear-avoidance model



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# Basic Understanding of Pain Channels

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+/- NE, 5-HT, glut,  
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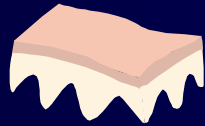
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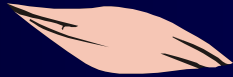
**Fibromyalgia**

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skin



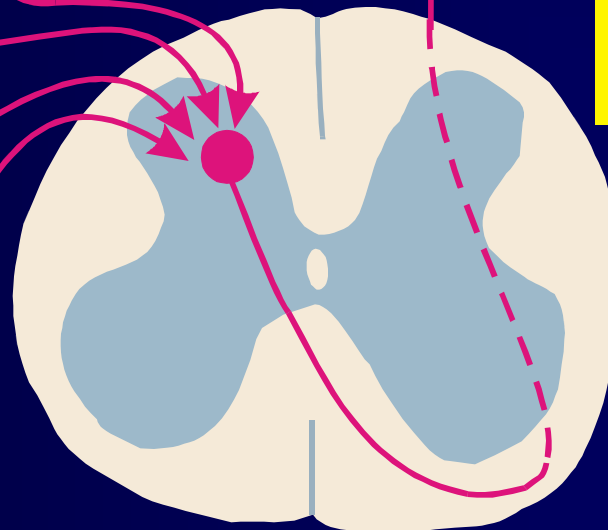
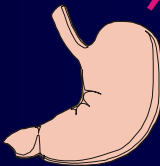
muscle



joints



viscera



sensory-discriminative  
(nociceptive channel)

spinal cord



**PCPR**  
Pittsburgh Center  
for Pain Research

# Screening for low self-efficacy

How confident are you that you can:

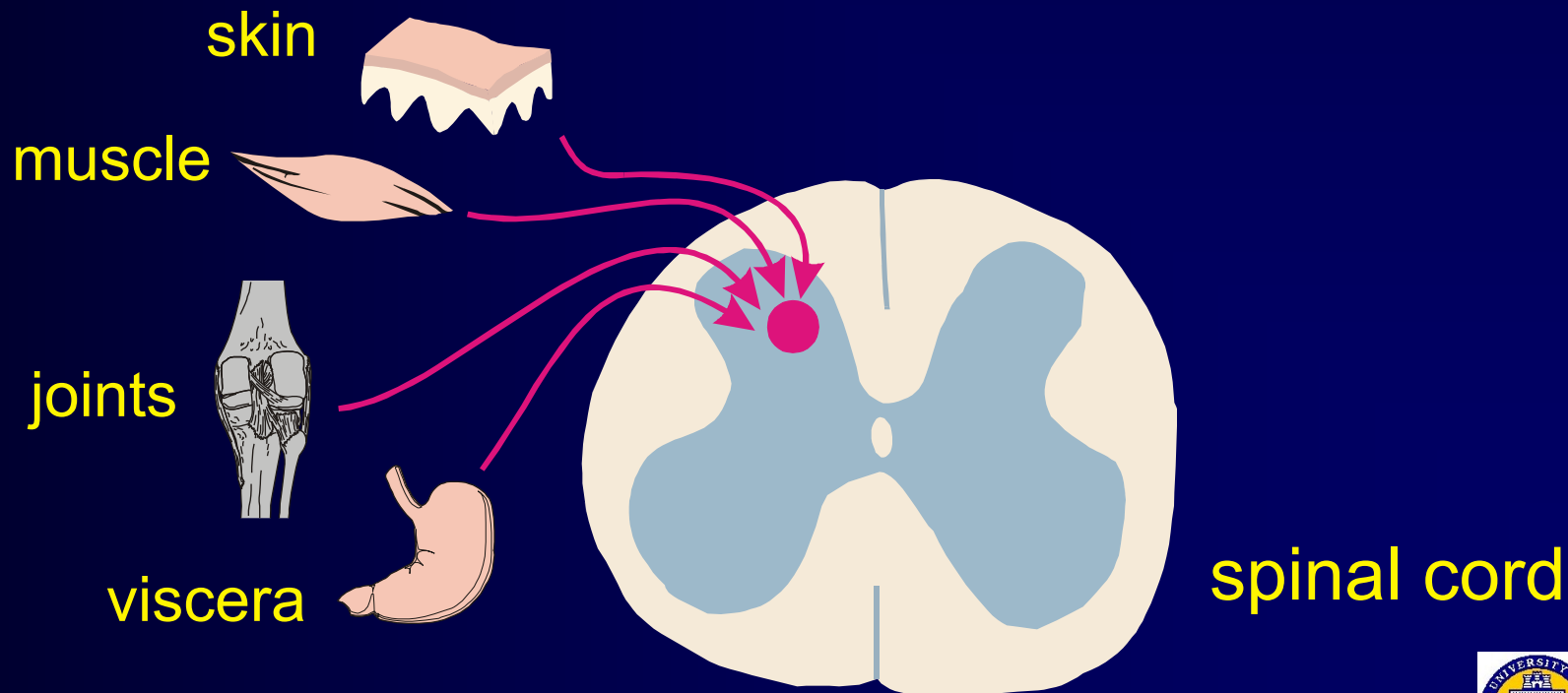
- Do some form of work (e.g., housework, paid/unpaid work) despite the pain?
- Live a normal lifestyle despite the pain?

0 = not confident at all and 6 = completely confident; total score of 8 or higher is desirable. Total score of 5 or less implies that patient needs help with self-efficacy.

# Low pain self-efficacy predicts poor pain treatment outcomes and is modifiable.

- Kate Lorig's Self-Help Program for people with arthritis
  - *Lorig K et al 2005, Arthritis Rheum 53(6): 950*

# Basic Understanding of Pain Channels



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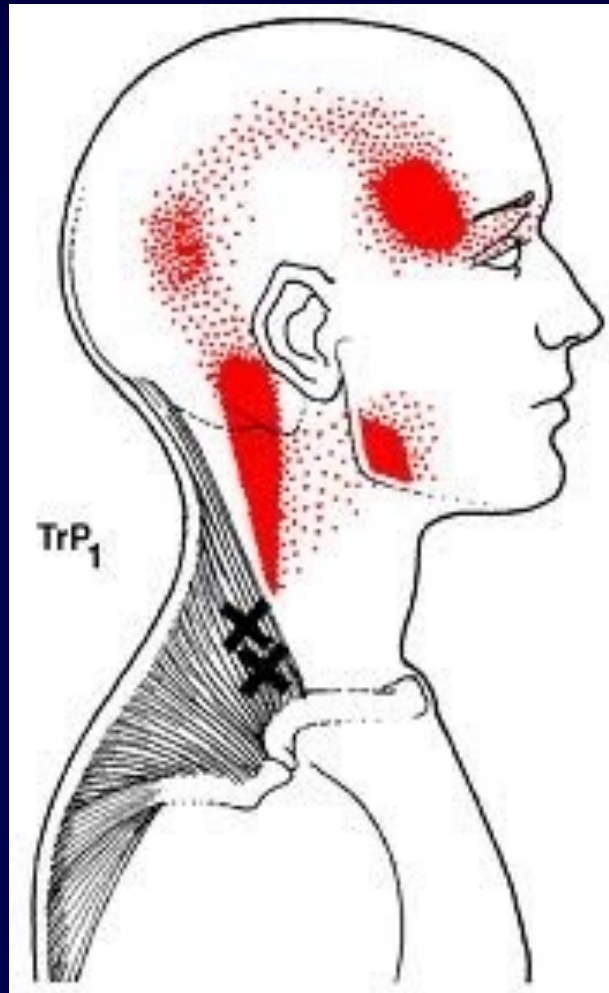


**PCPR**  
Pittsburgh Center  
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# Learning Objectives

1. Identify key psychosocial treatment targets in the older adult with chronic noncancer pain.
2. List the pathognomonic features of myofascial pain.
3. Describe modifications to treatment that practitioners may wish to consider for the older adult with pain and dementia.

# WHAT IS MYOFASCIAL PAIN (MP)?



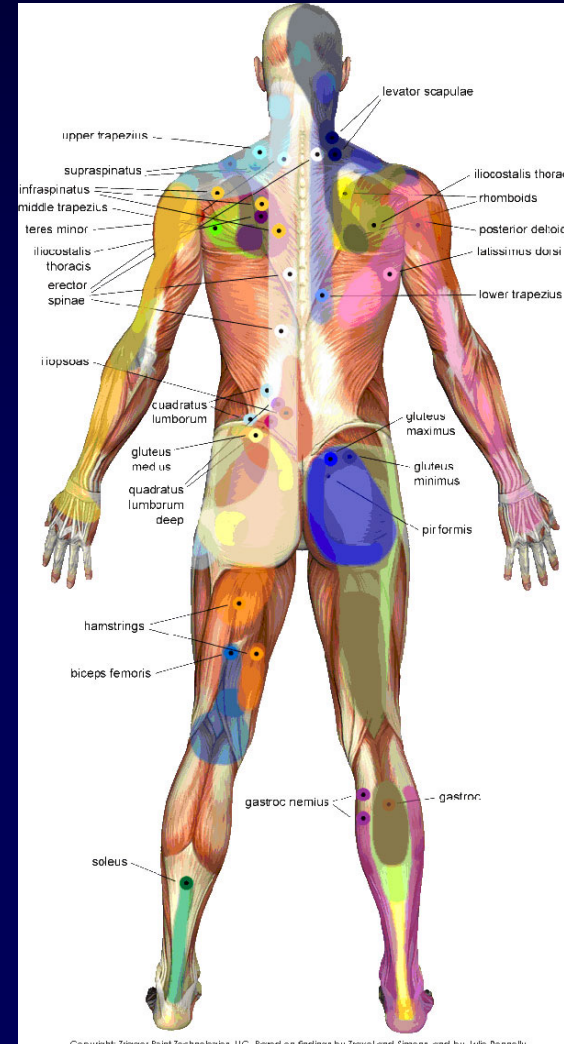
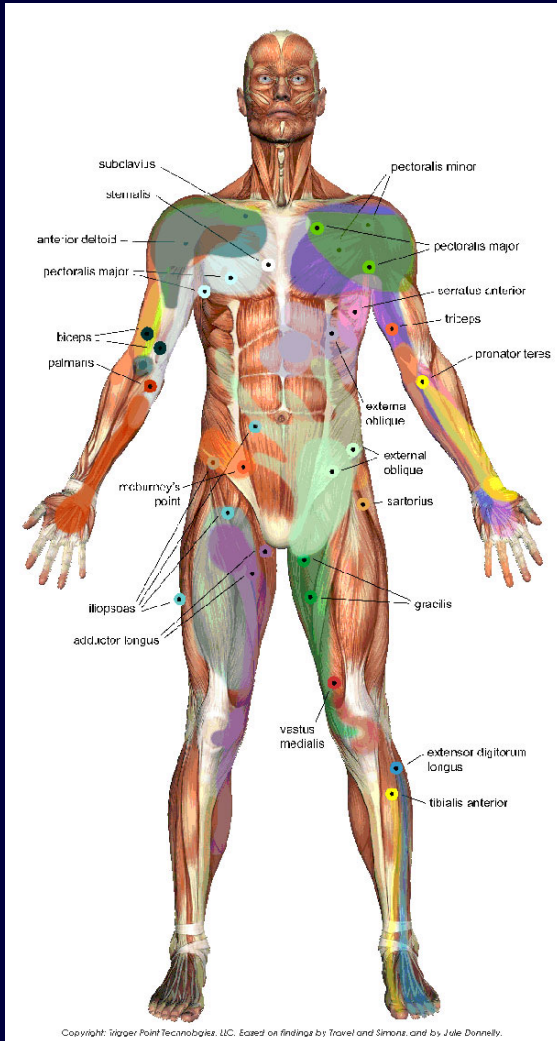
Simons DG, Travell JG, and Simons LS, "Trapezius Point 1" Travell & Simons' Myofascial Pain and Dysfunction: The Trigger Point Manual (2<sup>nd</sup> Edition) 1999, p.279



# MP IS COMMON IN OLDER ADULTS

96% of those with CLBP

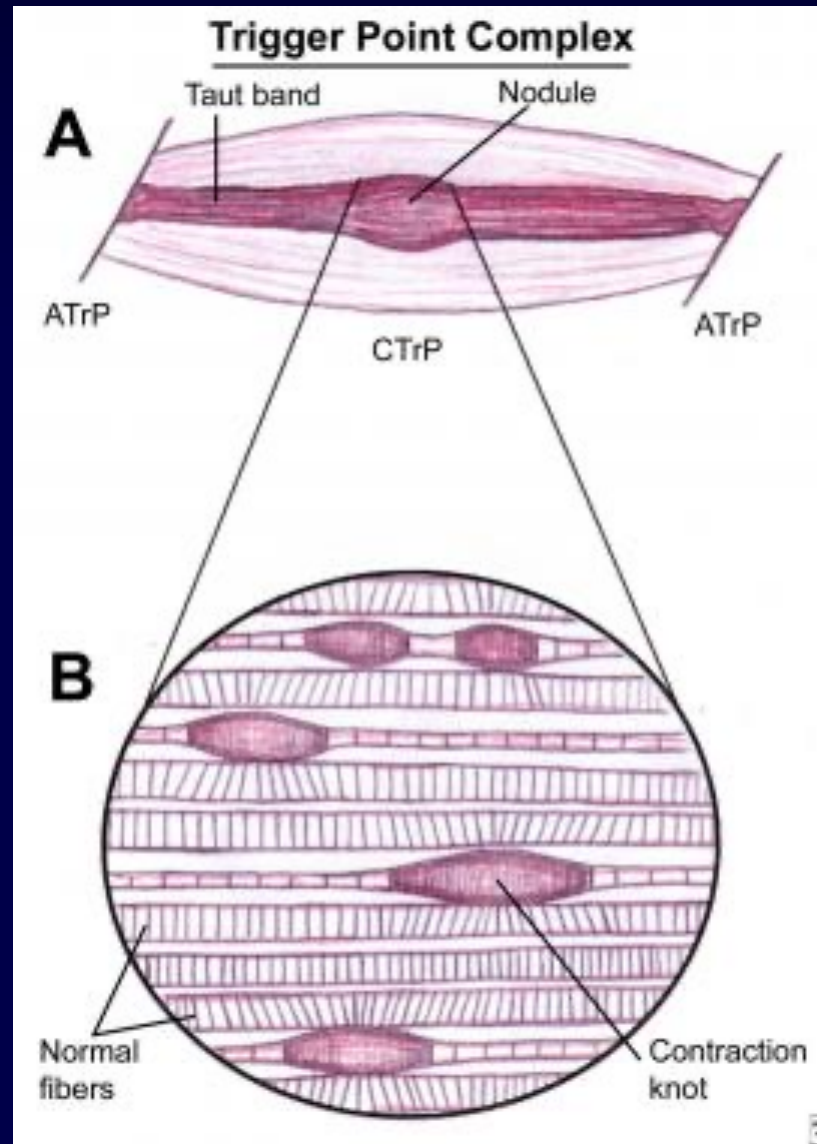
- *Weiner et al, J Am Geriatr Soc 2006; 54: 11-20*



Cassidy Phillips PL, "TP massage ball man"  
Trigger Point Technologies, LLC 2002

# MYOFASCIAL PAIN: PATHOGNOMONIC FEATURES

- Taut Band: The group of tense muscle fibers extending from a trigger point to the muscle attachments.
- Trigger Point: Hypersensitive palpable nodules in skeletal muscle residing within taut bands.



Simons DG, Travell JG, and Simons LS, "Trigger Point Complex" Travell & Simons' Myofascial Pain and Dysfunction: The Trigger Point Manual (2<sup>nd</sup> Edition) 1999, p.70

# MP vs. FIBROMYALGIA

## MYOFASCIAL PAIN

- Regional disorder
- Taut bands and **trigger** points on exam
- May coexist with many other pain conditions, including fibromyalgia

## FIBROMYALGIA

- Systemic disorder
- Hyperalgesia without palpable abnormalities – **tender** points
- Often associated non-restorative sleep, fatigue, AM stiffness

# ELEMENTS OF MP HISTORY

Pain **worsens** with:

- Cold
- Incorrect intensity or type of activity
- Psychological stress
- Illness
- Excessive pressure or stretching

# ELEMENTS OF MP HISTORY

Pain **improves** with:

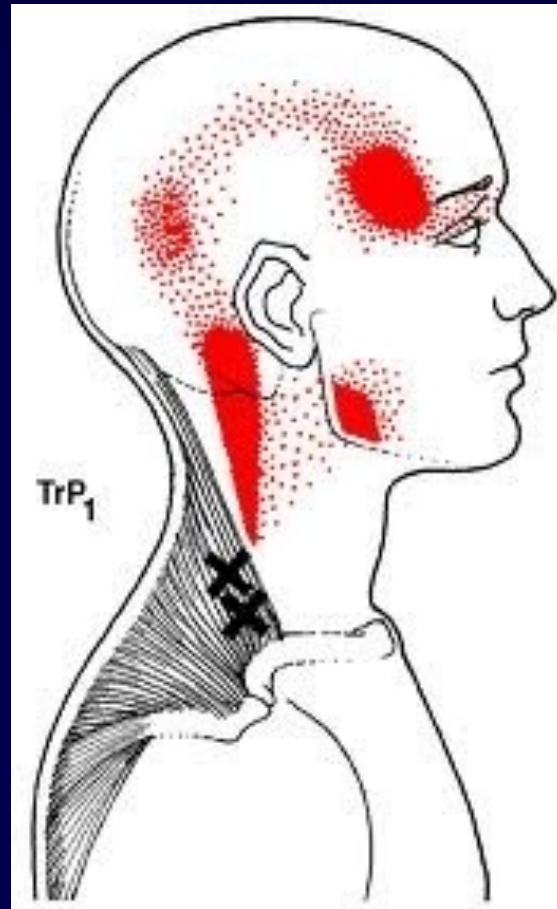
- Heat
- Gentle activity
- Gentle pressure/stretching
- Relaxation

# SYMPTOMS ASSOCIATED WITH MP

- Pain (aching, stabbing, burning) that radiates

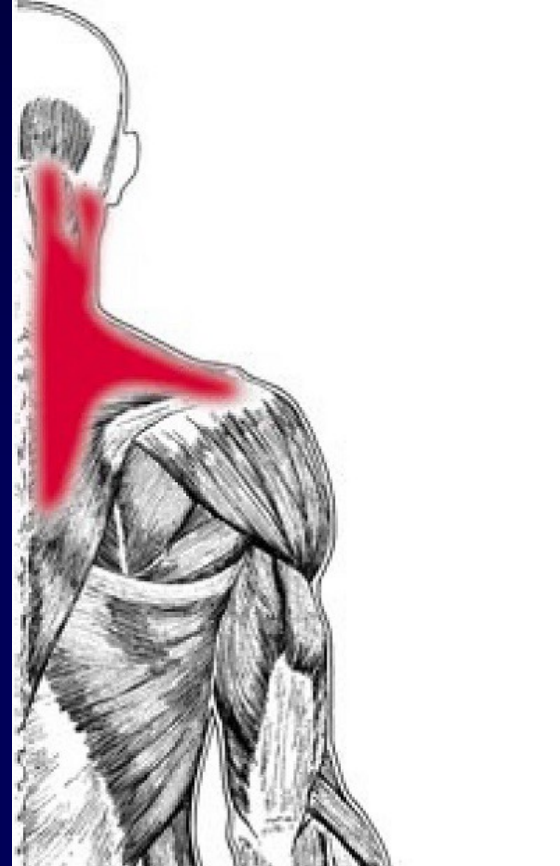
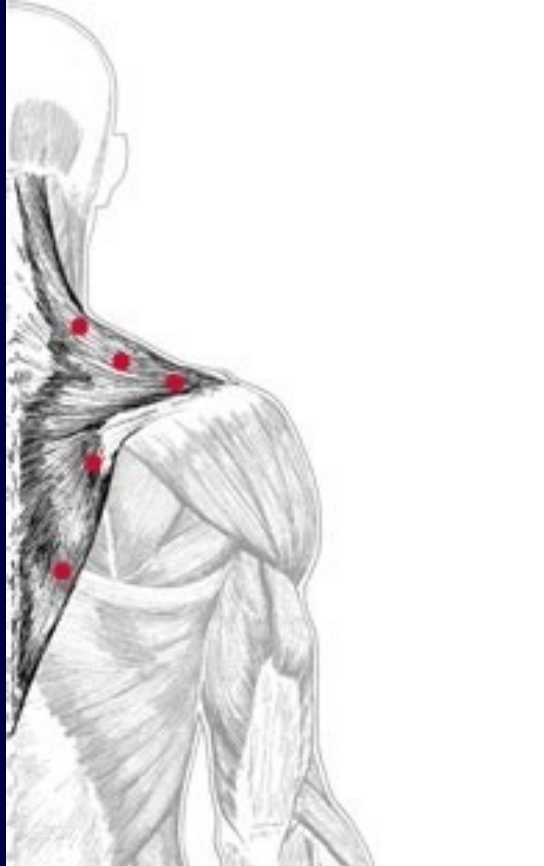


# TRAPEZIUS



Simons DG, Travell JG, and Simons LS, "Trapezius Point 1" Travell & Simons' Myofascial Pain and Dysfunction: The Trigger Point Manual (2<sup>nd</sup> Edition) 1999, p.279

# TRAPEZIUS MP



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# SYMPTOMS ASSOCIATED WITH MP

- Pain (aching, stabbing, burning) that radiates
- Paresthesias, numbness
- Weakness
- Autonomic phenomena – piloerection, sweating

# SYMPTOMS ASSOCIATED WITH MP

- Pain (aching, stabbing, burning) that radiates
- Paresthesias, numbness
- Weakness
- Autonomic phenomena – piloerection, sweating

MP can mimic neuropathy and/or radiculopathy.

# ASSESSING MYOFASCIAL PAIN

## **The Physical Examination**



# HONING YOUR PHYSICAL EXAM SKILLS

## Tip 1: Palpate WITH INTENTION

- Direction perpendicular to fiber direction
- Firmly enough to elicit pain (if there is severe spontaneous pain, start more gently)

# HONING YOUR PHYSICAL EXAM SKILLS

## Tip 1: Palpate WITH INTENTION

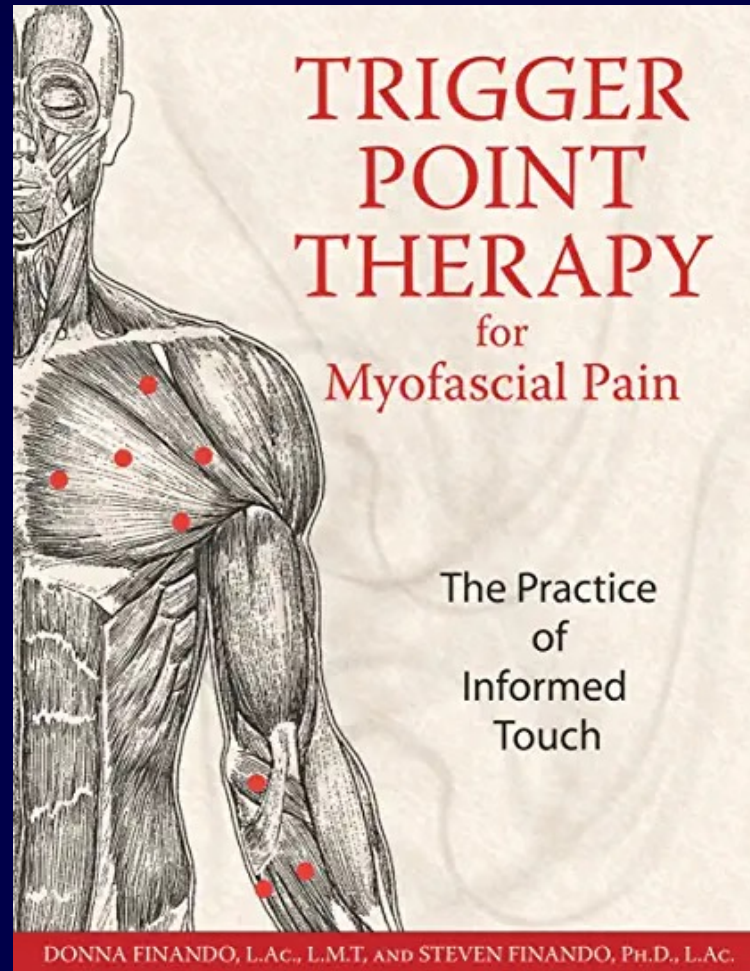
- Direction perpendicular to fiber direction
- Firmly enough to elicit pain (if there is severe spontaneous pain, start more gently)

## Tip 2: Practice on friends and family

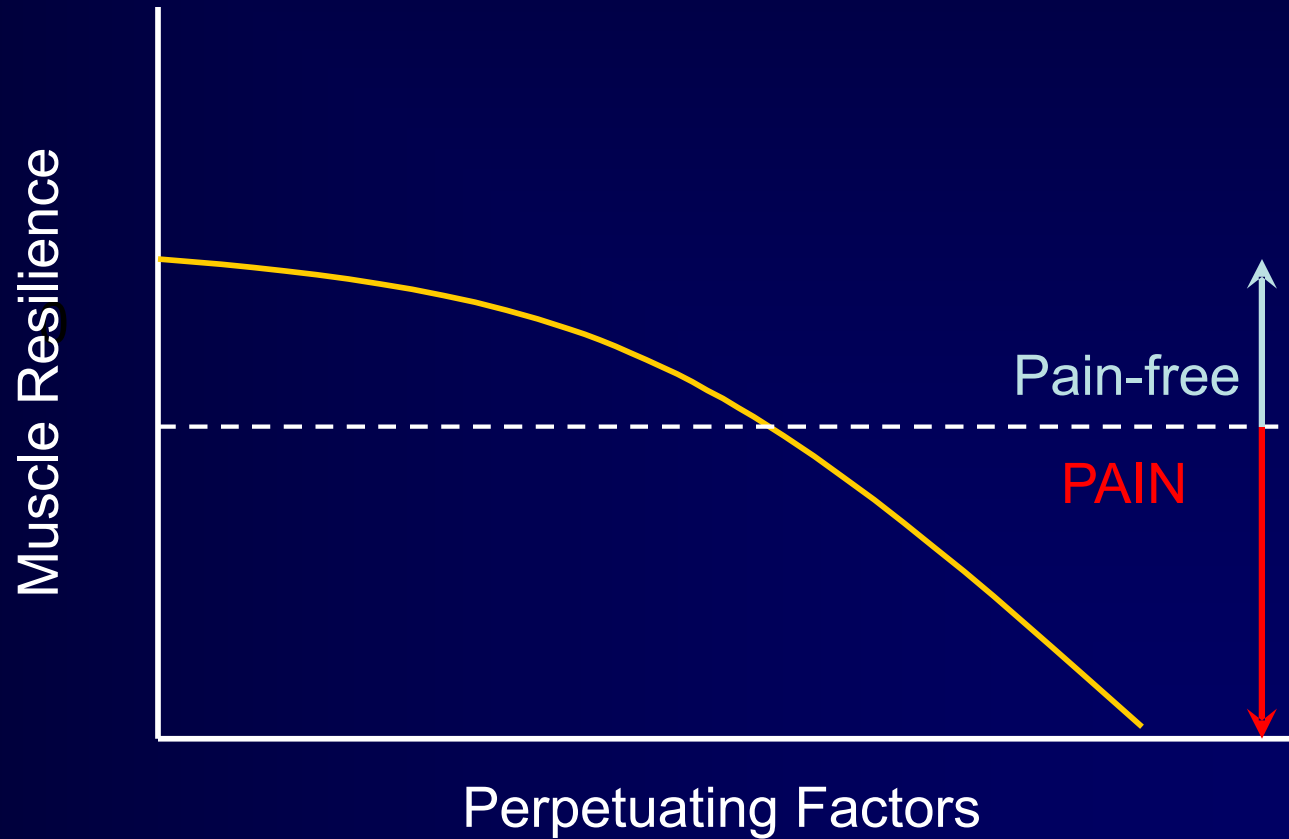
- Trapezius in many, if not most people, in those with and without pain
- Muscle groups in regions of pain



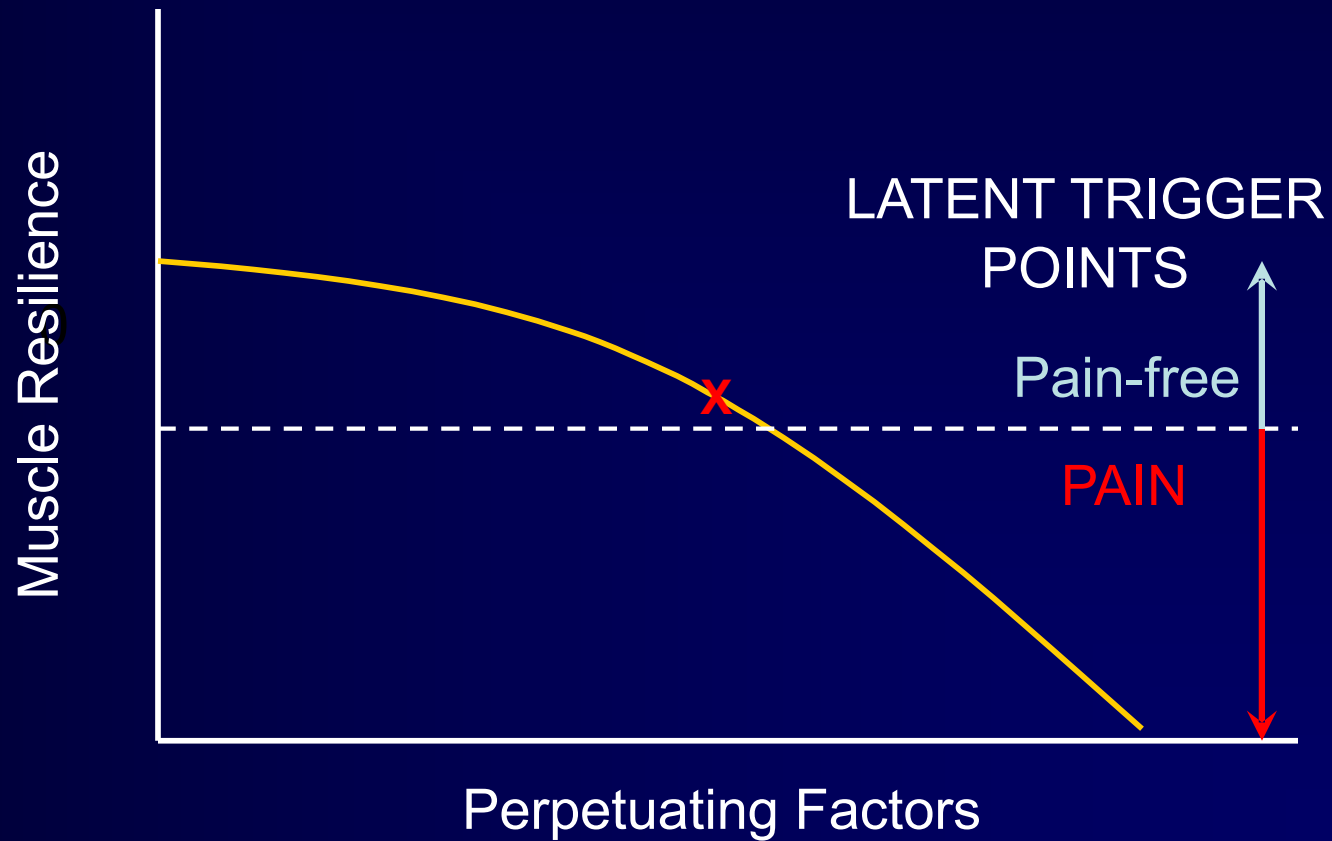
# AN EXCELLENT RESOURCE



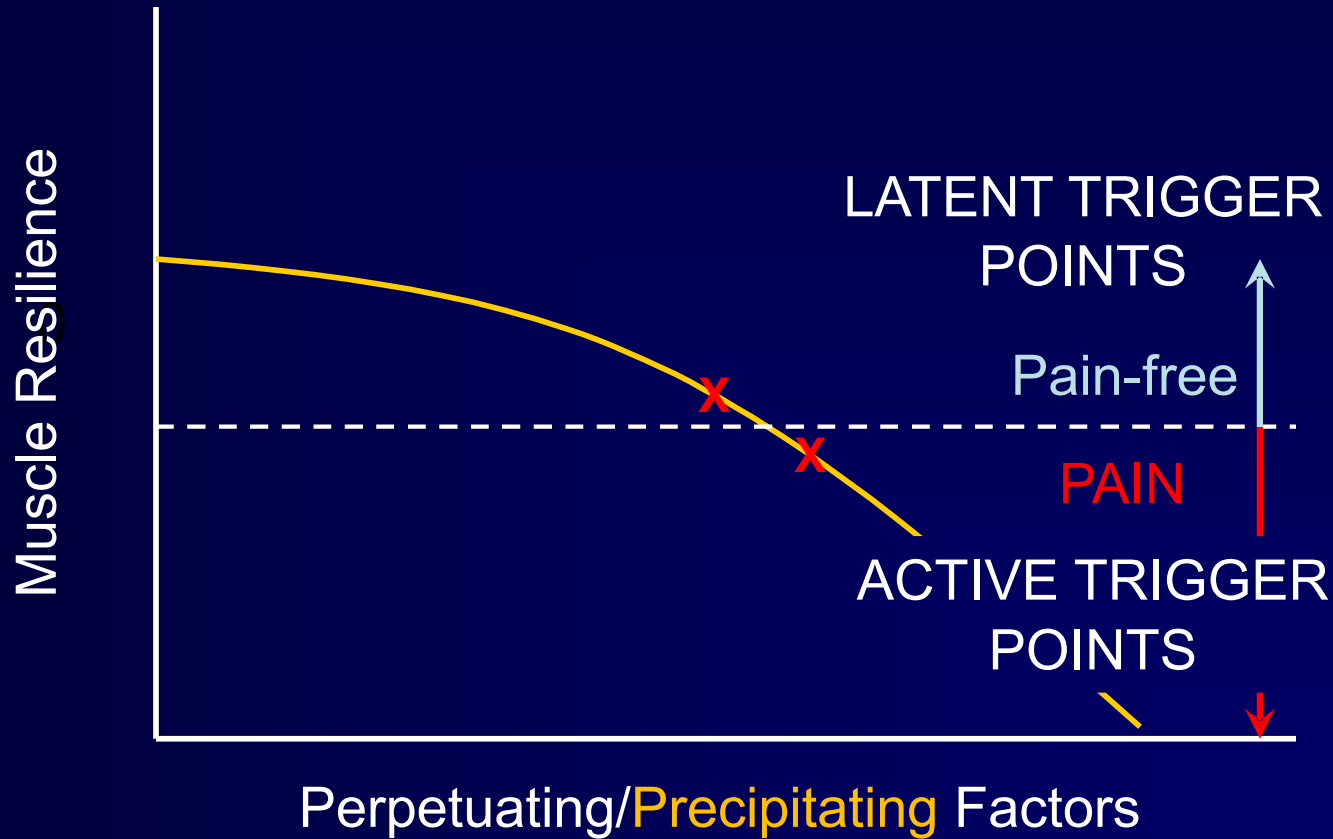
# MYOFASCIAL DYSFUNCTION: A CONCEPTUAL MODEL



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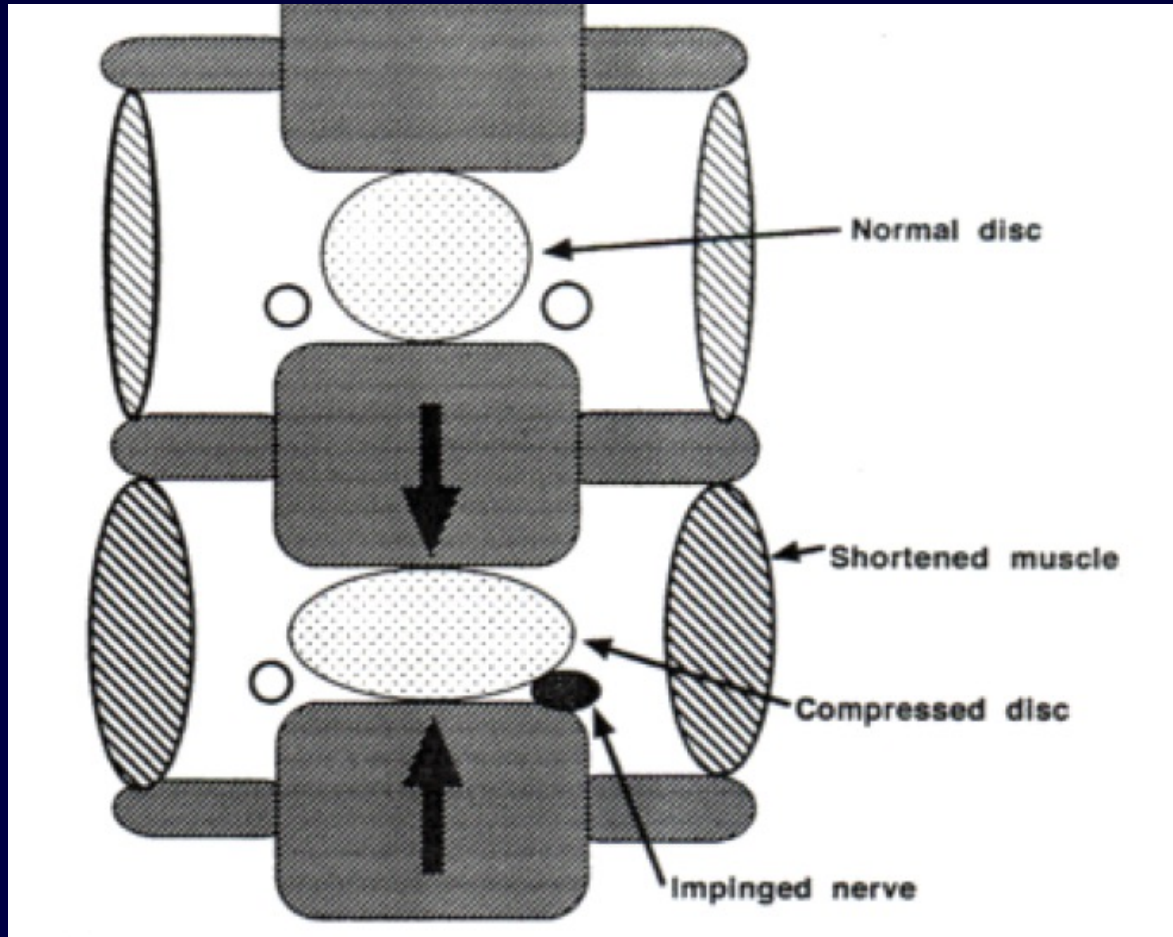


# MP PERPETUATING FACTORS: PHYSICAL

- Muscle stiffness (aging associated, Parkinson's, statins)
  - Sarcopenia
  - Axial spondylosis
  - Spinal malalignment
  - Gait disturbance
    - LE arthritis, foot pain, etc., etc., etc.
    - Iatrogenic LLD (post arthroplasty)
- Spinal Biomechanics

# AXIAL SPONDYLOSIS: ONE MP PERPETUATING FACTOR

- Ubiquitous in older adults
- “Neuropathic myofascial pain”



*This image was published in The Gunn approach to the treatment of chronic pain, Gunn CC, Shortened paraspinal muscles, p. 31, Copyright Churchill Livingstone [an imprint of Elsevier] (1996).*

# MP PERPETUATING FACTORS: PSYCHOSOCIAL

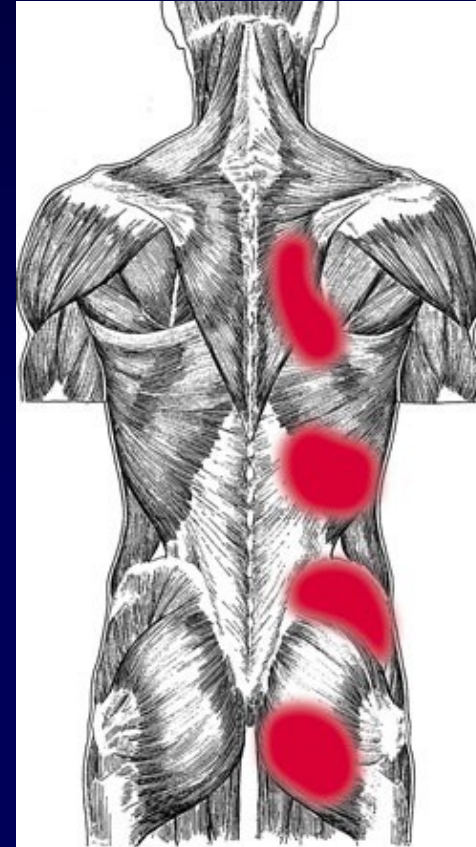
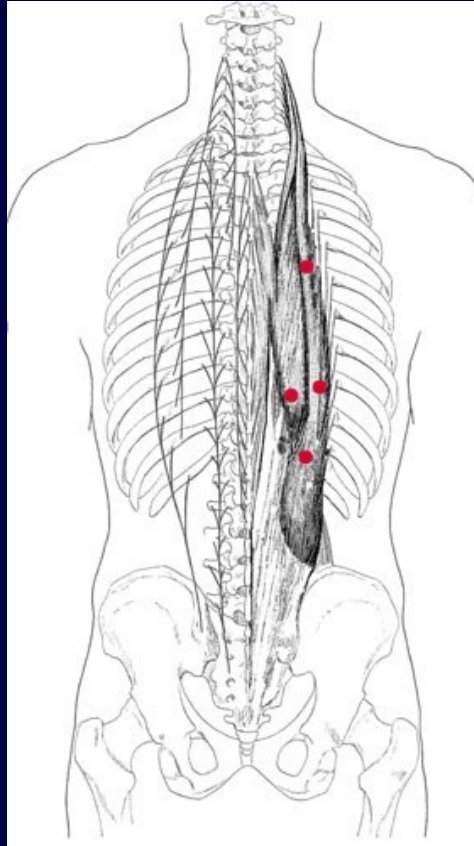
- Fear avoidance beliefs
  - Fear of falling
  - Fear of pain
- Depression, anxiety
- Social isolation
- Dementia



In patients with CLBP, the most common sites of MP are...

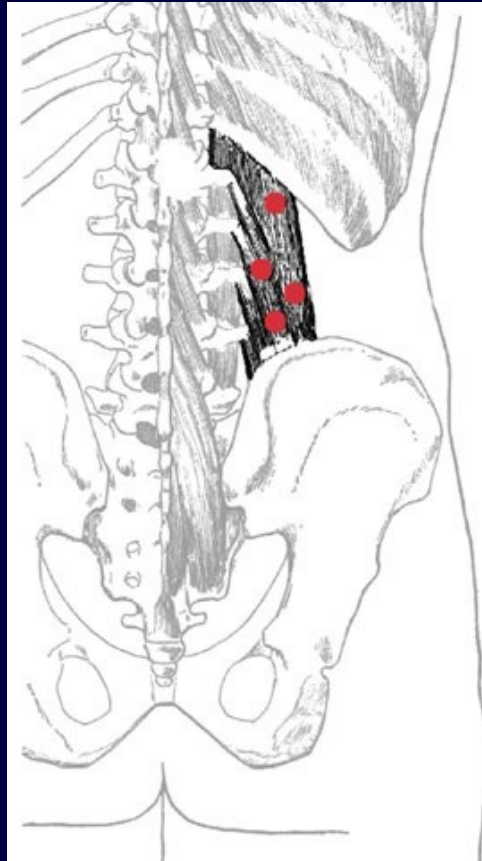
- Erector spinae
- Quadratus lumborum
- Gluteus medius

# ERECTOR SPINAE (ILIOCOSTALIS LUMBORUM)



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# QUADRATUS LUMBORUM



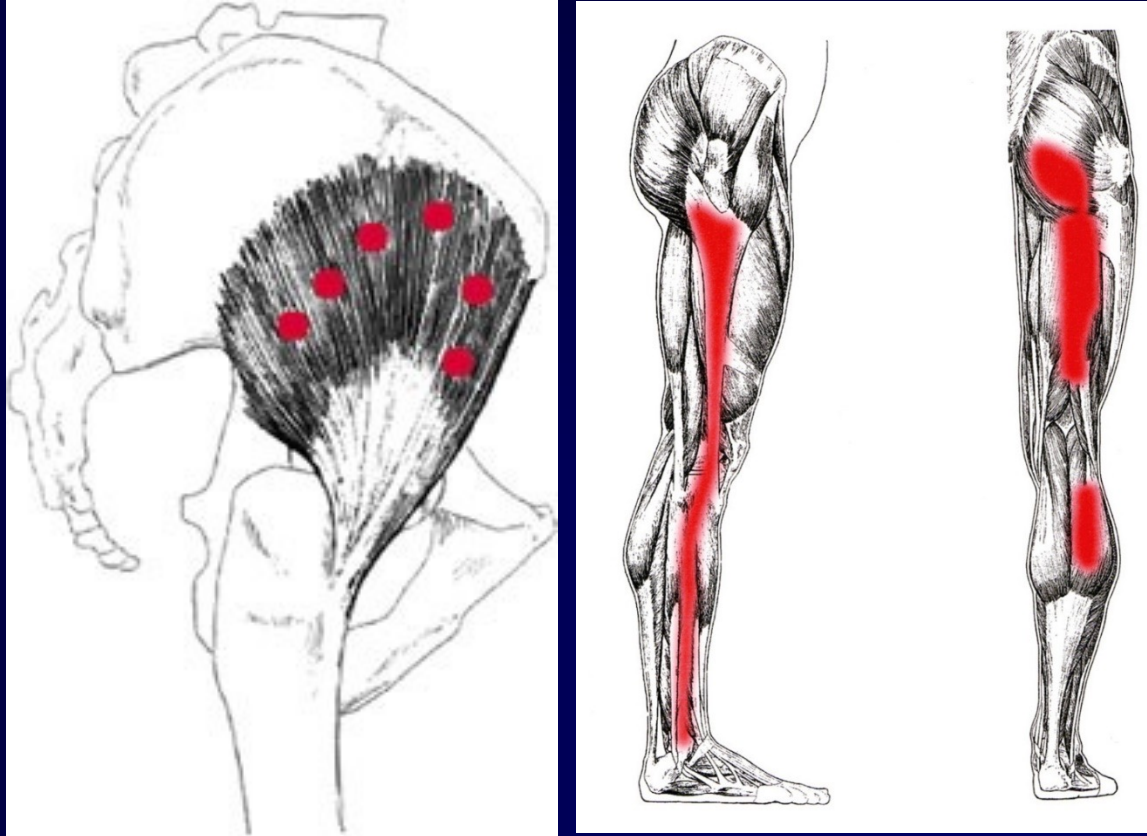
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# GLUTEUS MEDIUS



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# GLUTEUS MINIMUS MP CAN MIMIC LUMBAR RADICULOPATHY

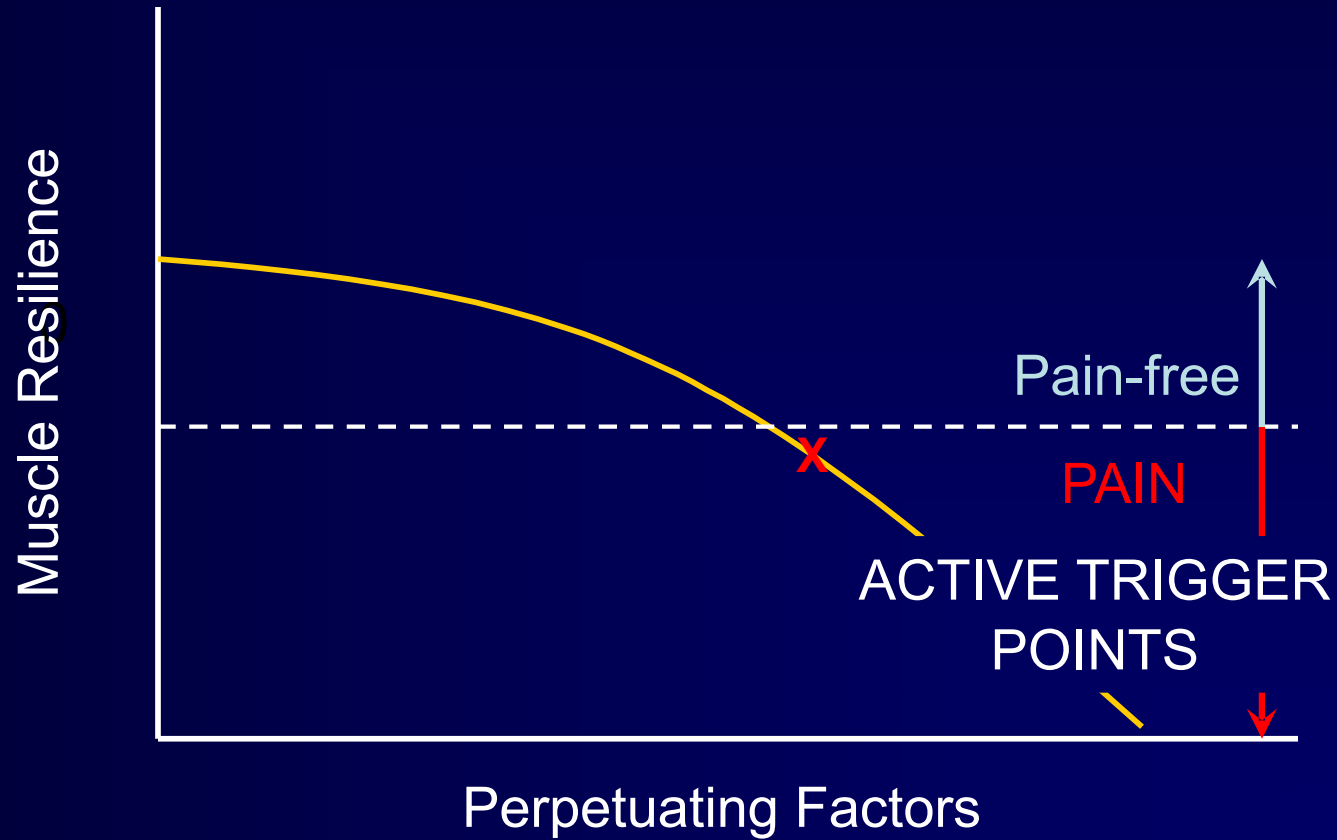


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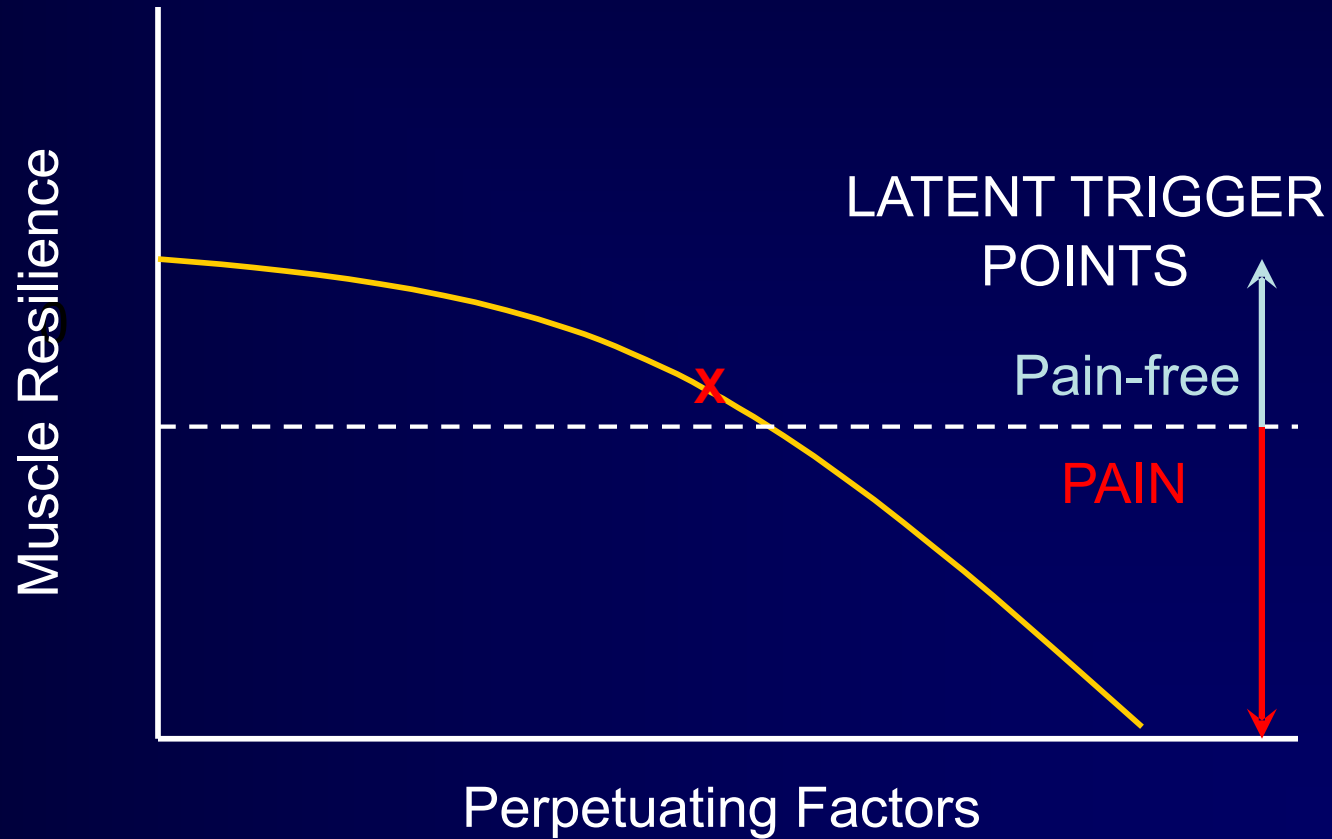
# TREATING MP: A 3-PRONGED APPROACH

## 1. Address perpetuating factors

# MYOFASCIAL DYSFUNCTION: A CONCEPTUAL MODEL



# MYOFASCIAL DYSFUNCTION: A CONCEPTUAL MODEL





# TREATING PHYSICAL PERPETUATING FACTORS – SOME EXAMPLES

- Kyphoscoliosis, balance impairment: Walker to unload spine and/or stabilize gait
- Unilateral leg pain: Cane to unload leg, treat OA
- Leg length inequality ( $\geq \frac{1}{2}$  inch): PT referral, +/- orthotic if no PT response
- Obesity: Weight loss
- Cervical spondylosis: Low dose gabapentin (100-300 mg qhs – bid)?
- Shoulder restriction: OT referral

# TREATING PSYCHOSOCIAL PERPETUATING FACTORS – SOME EXAMPLES

## Examples:

- Depression/anxiety: Non-pharmacological & pharmacological treatment
- Fear avoidance beliefs: PT referral, CBT
- Social isolation: Facilitate support
- Dementia: Caregiver education and support to diminish fear

# TREATING MP: A 3-PRONGED APPROACH

1. Address perpetuating factors

2. Deactivate trigger points

- Manual
- Injection (wet needling)
- Dry needling
- IM electrical stimulation (with acupuncture needles)

# SEVERAL PROFESSIONALS MAY HAVE TRIGGER POINT TRAINING AND EXPERTISE.

- Physical therapist
- Massage therapist
- Chiropractor
- Acupuncturist
- Pain medicine provider

# TREATING MP: A 3-PRONGED APPROACH

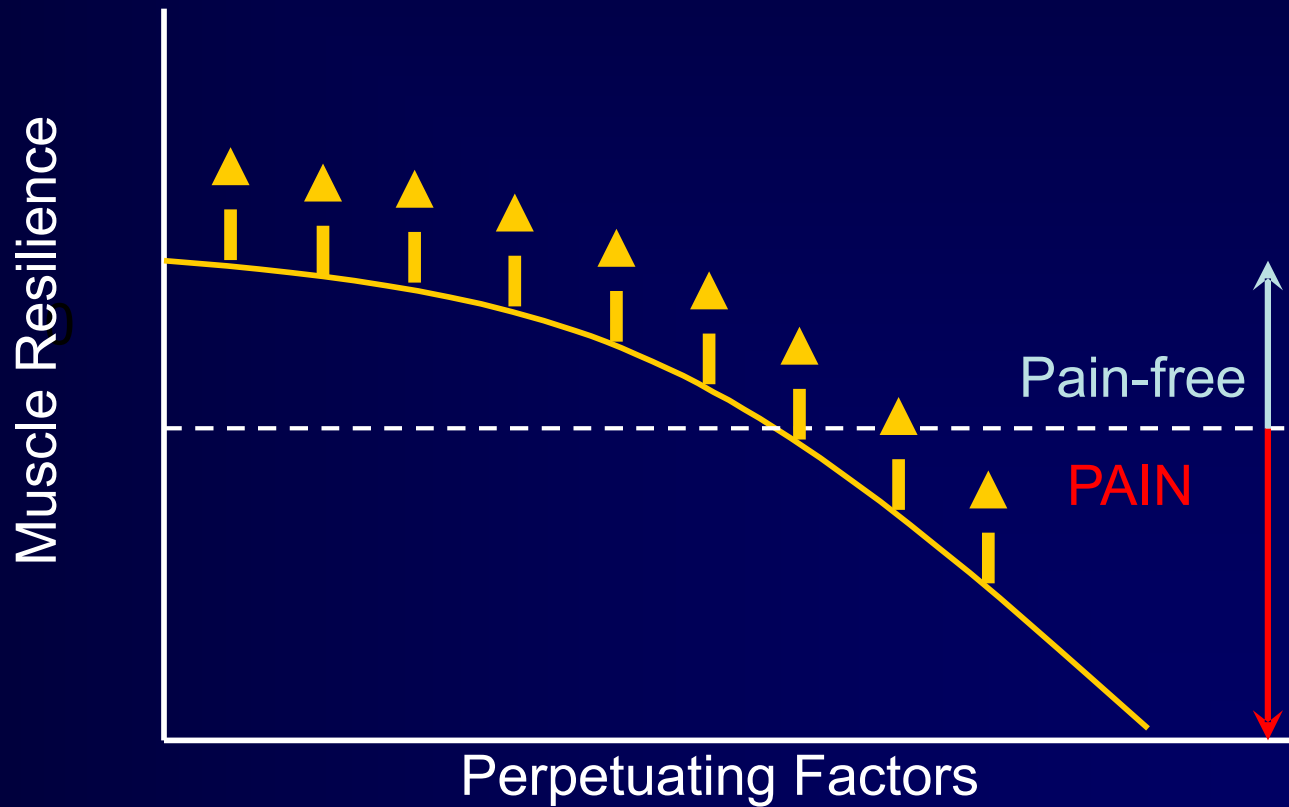
1. Address perpetuating factors

2. Deactivate trigger points

- Manual
- Injection (wet needling)
- Dry needling
- IM electrical stimulation (with acupuncture needles)

3. Self-management to build and sustain resilience

# MYOFASCIAL DYSFUNCTION: A CONCEPTUAL MODEL





MUSCLE  
RELAXANTS



MUSCLE  
RELAXANTS



# CASE PRESENTATION

The Importance of Addressing  
Perpetuating Factors

# ID/CC & HPI

- 82 y.o. white female with low back pain for many years
- Steadily worsening functional limitation
- Average 7-8/10 pain, worse with walking/standing
- Poor sleep

# PRIOR TREATMENTS

- Numerous prior treatments: acupuncture, chiropractic, traction, physical therapy, aqua therapy, numerous injections, inpatient pain rehabilitation
- Back surgery was recommended and scheduled but patient cancelled
- Pain medications: naproxen prn

# PHYSICAL EXAMINATION

- Musculoskeletal: mild kyphoscoliosis, bilateral SI tenderness, bilateral piriformis and gluteus medius taut bands and trigger points
- Neurological: Reflexes symmetrical, strength 5/5 throughout, gait with short step length
- Psychiatric: Anxious affect

# INITIAL RECOMMENDATIONS

- SI joint injections – for SIJ syndrome
- Physical Therapy
  - Treatment of myofascial pain
  - Strengthening
- Cognitive behavioral therapy – for anxiety

RESPONSE: None

# ADDITIONAL HISTORY

Over the past ~ 1 year:

Voice has gotten softer

Handwriting has gotten smaller

Posture has worsened

# ADDITIONAL PHYSICAL EXAM

## Findings:

Little facial expression (new)

Mild cogwheeling of right arm

# NEUROLOGY CONSULTATION

## Parkinsonian symptoms:

- Masked facies
- Diminished blink
- Myerson's sign
- Minimal asymmetrical cogwheeling
- Tendency to retropulse
  
- NO tremor or shuffling gait



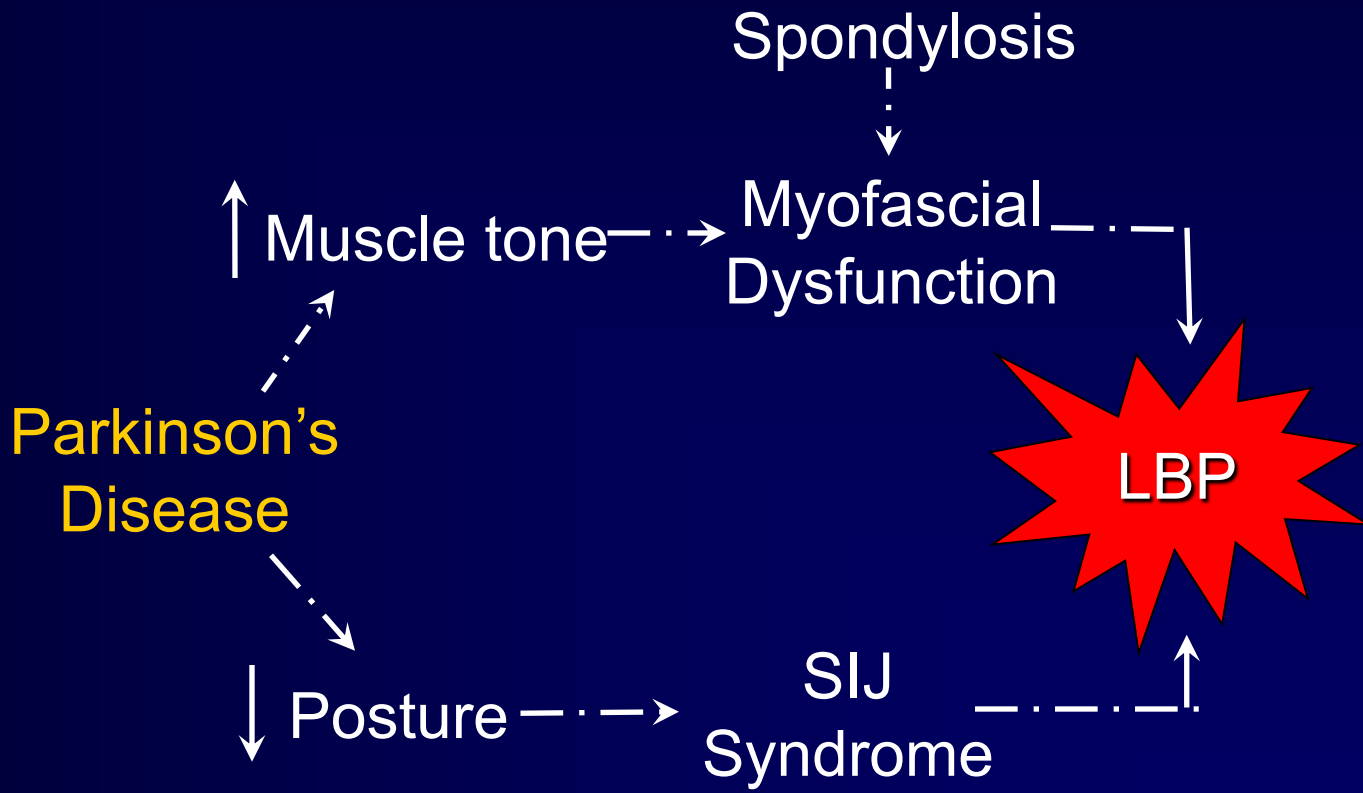
# TREATMENT

- Carbidopa/levodopa 25 mg/100 mg po bid
- Continue PT

# FOLLOW-UP

~ 1 month later:

- Average pain 4/10
- Able to walk 2 blocks without having to stop
- Lumbar flexion increased from 3.5 cm to 4.6 cm
- Posture and balance markedly improved



# Learning Objectives

1. Identify key psychosocial treatment targets in the older adult with chronic noncancer pain.
2. List the pathognomonic features of myofascial pain.
3. Describe modifications to treatment that practitioners may wish to consider for the older adult with pain and dementia.

# Dementia may impact...

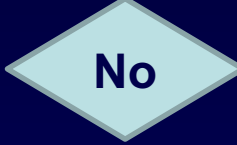
- Pain reporting
  - Reliable for current pain intensity, ? validity
  - Historical inaccuracy
- Treatment compliance
- Pain coping
  - Fear avoidance
- Treatment expectancy
- Treatment response?

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Is patient able to verbally report pain?

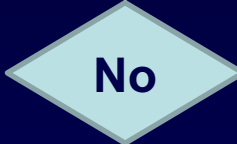
Is patient able to verbally report pain?



Behavioral  
Assessment



Is patient able to verbally report pain?



**PAINAD**

# PAINAD

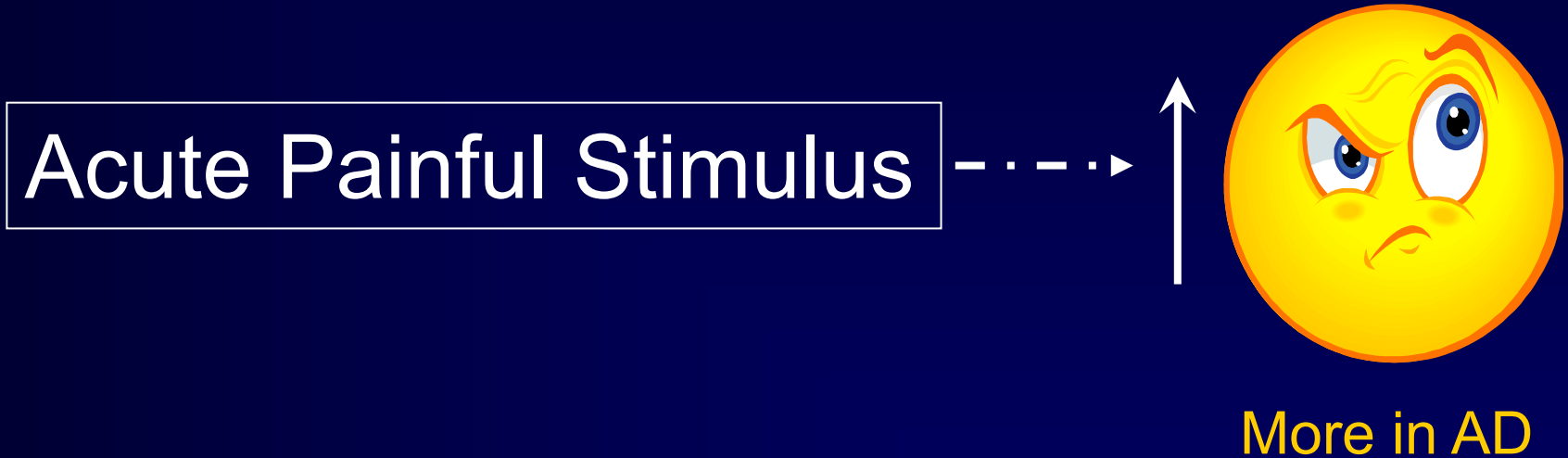
## (Pain Assessment in Advanced Dementia)

0-10 scale

Summary score based on 5 items, 0-2 each

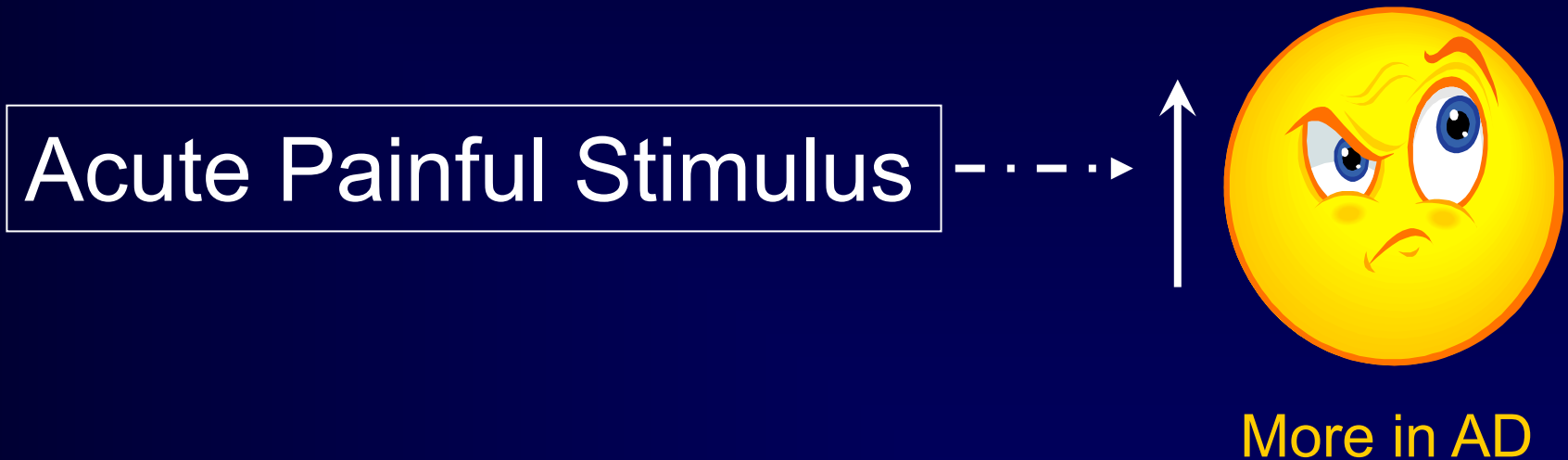
1. Breathing independent of vocalization
2. Negative vocalization
3. Facial expression
4. Body language
5. Consolability

# Pain self-report and facial pain indicators: AD vs. cognitively intact



*Porter et al 1996; Pain 68, 413. Kunz et al, Pain 2007; 133: 221-228*

# Pain self-report and facial pain indicators: AD vs. cognitively intact



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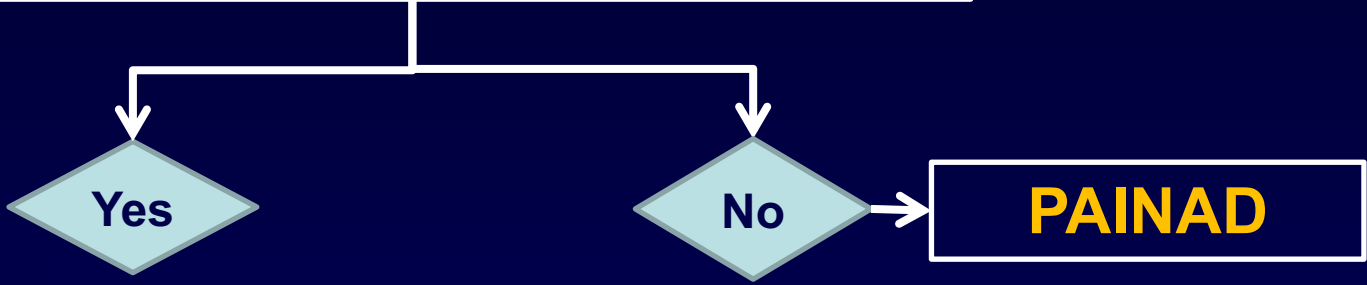
Self-reported pain intensity equivalent in AD and cognitively intact.

*Kunz et al, Pain 2007; 133: 221-228*

# IMPLICATIONS: Pain & Dementia

- Pain behaviors may be a more accurate indicator of suffering than pain reporting.

Is patient able to verbally report pain?



Is patient able to verbally report pain?

Yes

No

**PAINAD**

Are signs of suffering observed (e.g., PAINAD, other behavioral indicators?)

Is patient able to verbally **report** pain?

Yes

No

**PAINAD**

Are signs of suffering **observed** (e.g., PAINAD, other behavioral indicators?)

No

1. Distraction
2. Stop asking about pain (i.e., prevent perseveration)



Is patient able to verbally **report** pain?

Yes

No

**PAINAD**

Are signs of suffering **observed** (e.g., PAINAD, other behavioral indicators?)

No

Yes

1. Distraction
2. Stop asking about pain (i.e., prevent perseveration)

- Explore cause(s) of suffering:
1. Is there fear?
  2. Is there another unmet need?
  3. Is pain causing suffering?

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# Case Presentation

**ID/CC:** 80 yr., LBP/R leg pain X 2 yrs., lumbar spinal stenosis on MRI

**HPI:** Forced to retire 2 years ago. Pain is worse with standing, walking, OK at night, better with heat, no constitutional symptoms. Increasing trouble with heavy housework, afraid to go on bus by self. Reports passive suicidal ideations. Frequent near falls at home. Failed PT trials.

**PE:** Poor balance, impaired clock-drawing test, kyphoscoliosis, SI/ paraspinal/ TFL pain, leg strength impaired from pain.

## Medications:

gabapentin

oxycodone CR

celecoxib

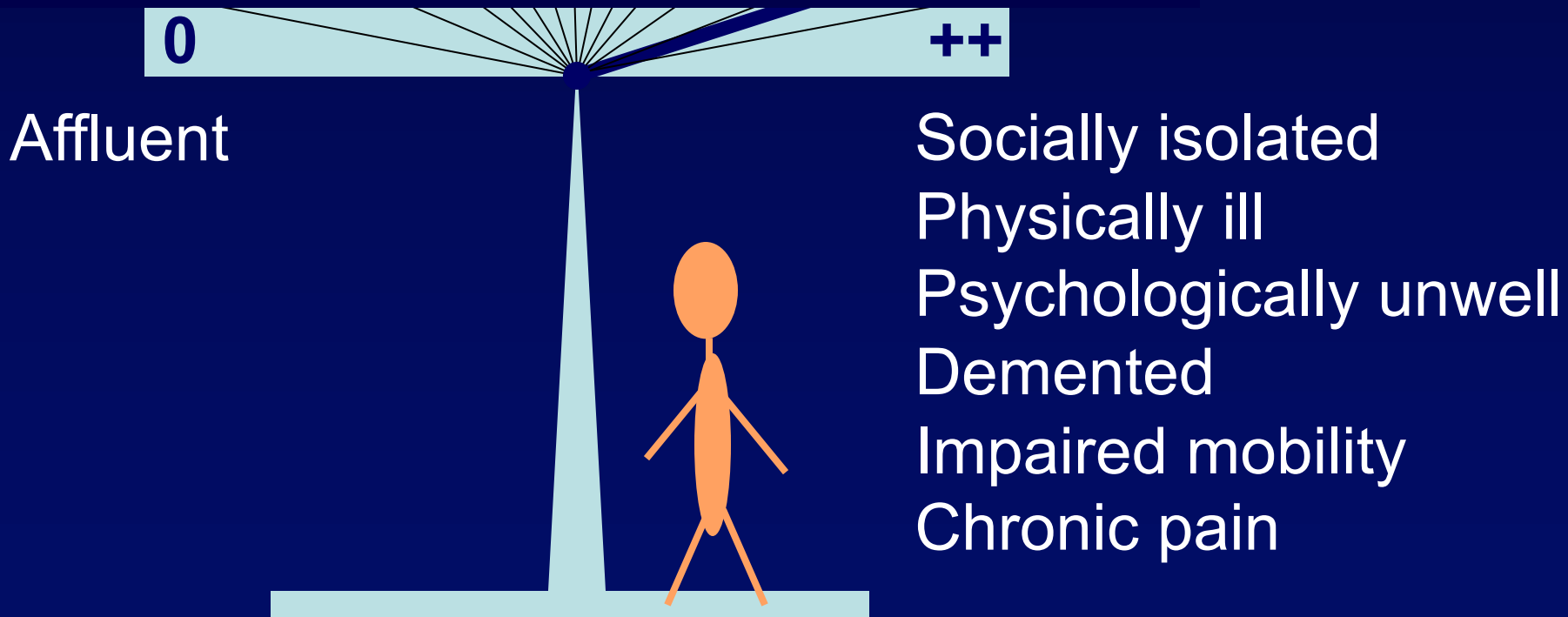
tramadol/Acetaminophen

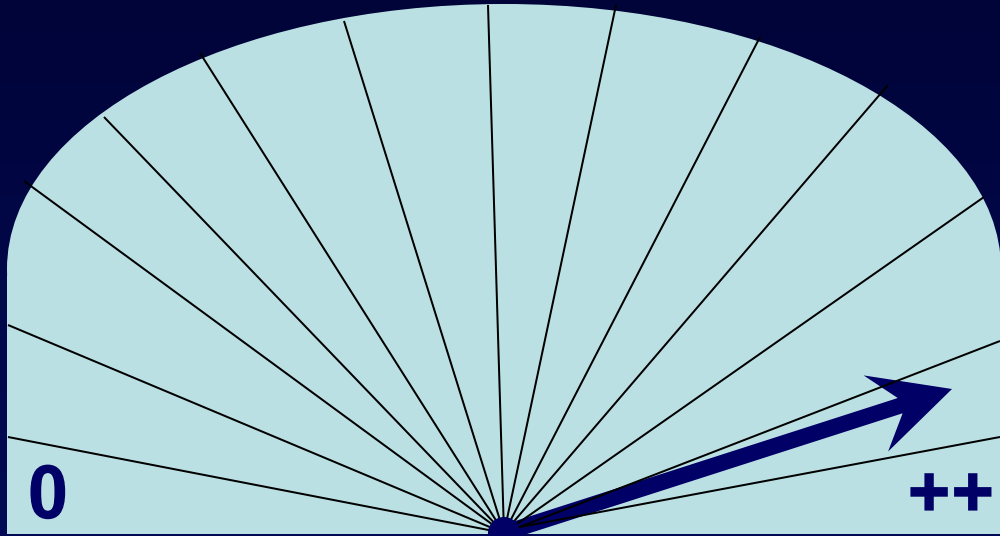
olanzapine

escitalopram

lorazepam

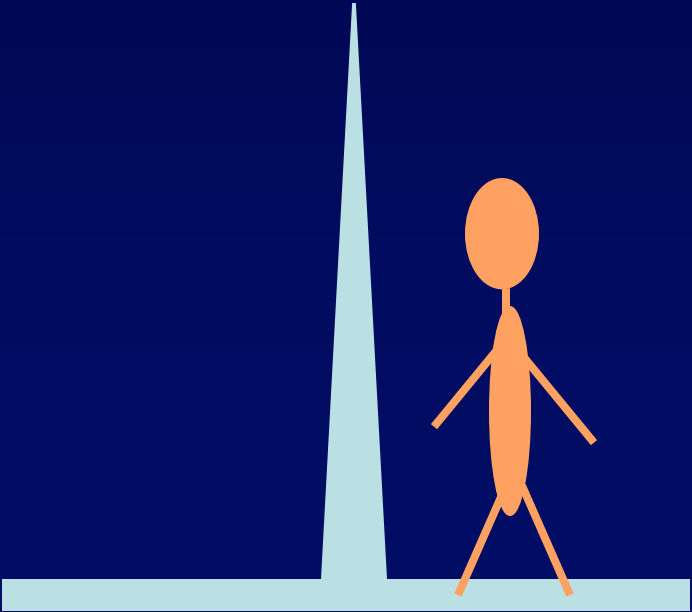
# WEIGHING THE RISK OF DISABILITY





Affluent

Socially isolated  
Physically ill  
Psychologically unwell  
Demented  
Impaired mobility  
Chronic pain



**Rx:** Short nursing home stay for detox. and balance/gait retraining. D/C'd on tramadol + acetaminophen. Did very well while in NH.

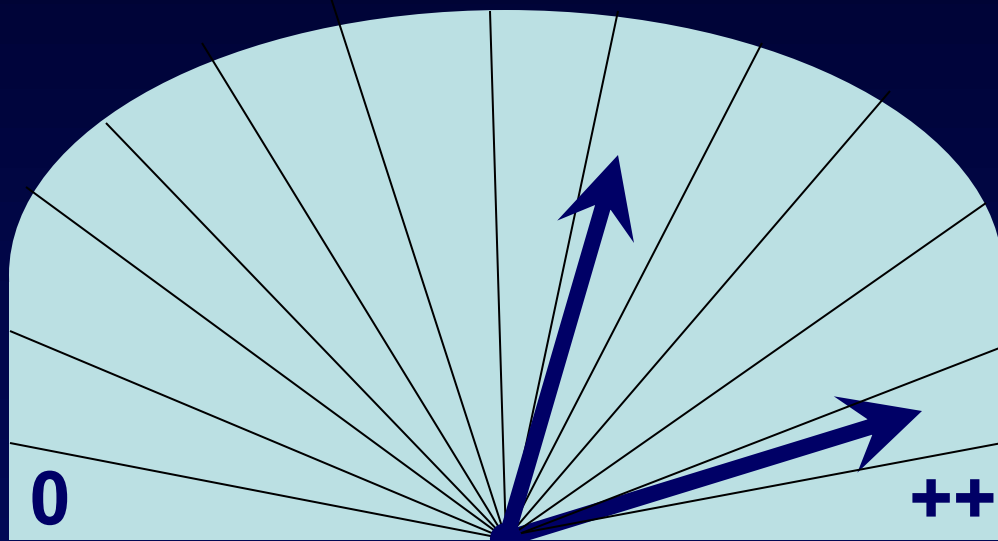
**Recommendation:** Assisted Living

**Family's Decision:** Patient to return home.



**Course:** Immediate deterioration at home with frequent calls, escalation of need for analgesics.

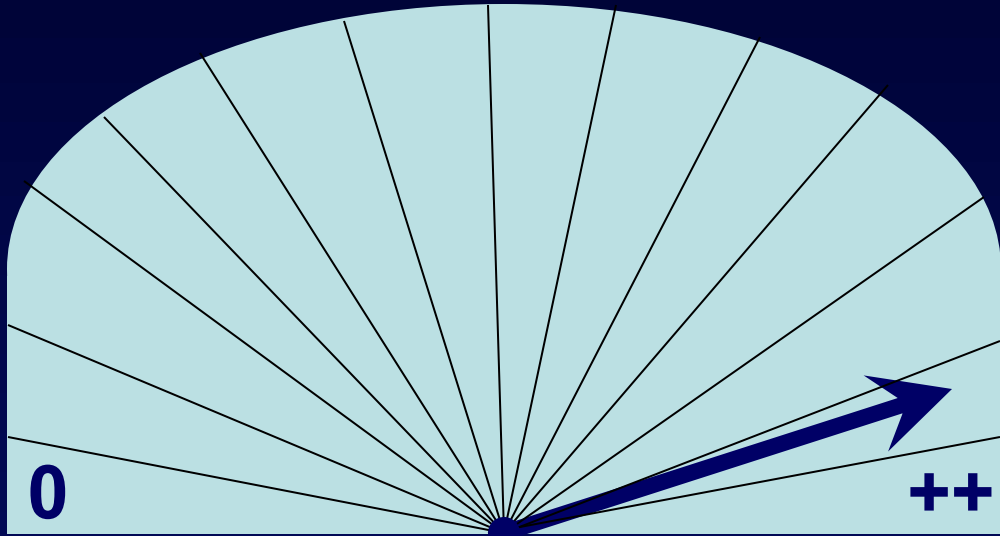
Her condition continued to deteriorate (eventual morphine pump trial), until she was admitted to an assisted living facility, where she did well.



Affluence  
Social Support

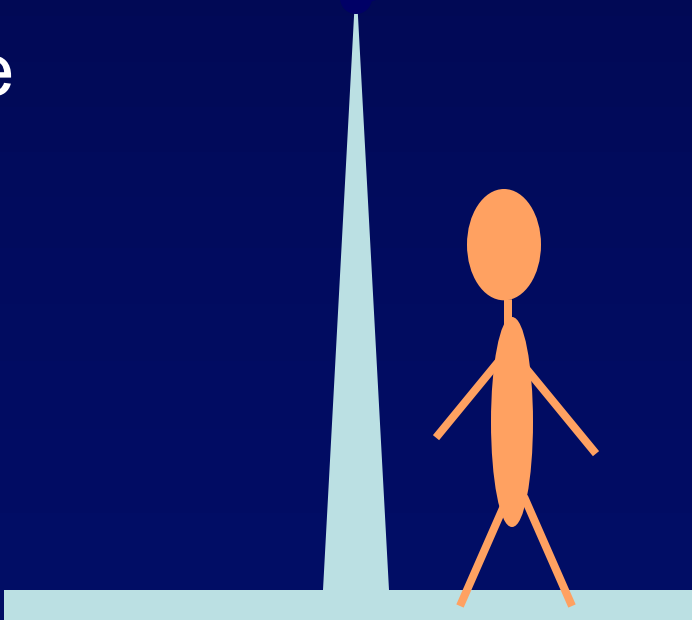
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Affluence

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**Fear = Rx Target**

Fear & Pain  
Perseveration

Undermine  
dementia

**Dementia &  
Social Isolation**

Falsely escalate  
pain severity &  
impact

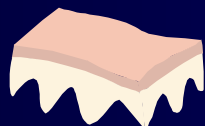
# Basic Understanding of Pain Channels

descending  
modulatory  
influences

+/- NE, 5-HT, glut,  
NMDA, GABA

Depression/Anxiety  
Insomnia  
Maladaptive Coping (**fear avoidance beliefs**, catastrophizing)  
Low Self-Efficacy  
Fibromyalgia  
**Dementia**

skin



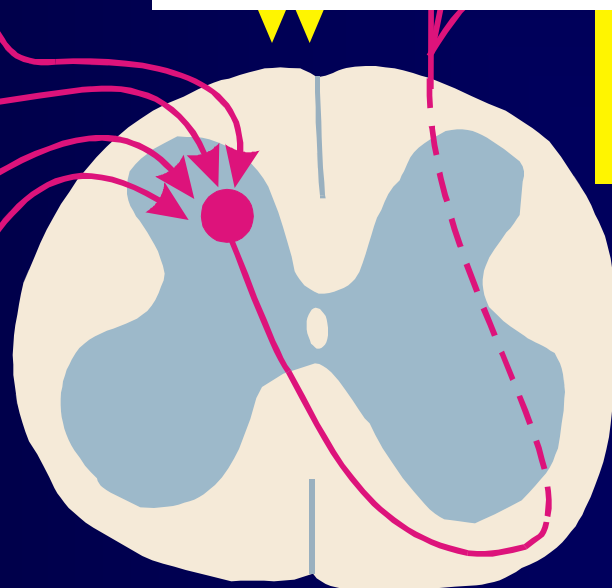
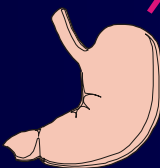
muscle



joints



viscera



sensory-discriminative  
(nociceptive channel)

spinal cord



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- **Treatment expectancy**
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What is the effect of treatment expectancy?

Analgesic  $\longrightarrow$   $\downarrow$  Pain

+

# What is the effect of treatment expectancy?

Analgesic → Pharmacodynamic effect

+



# What is the effect of treatment expectancy?

Analgesic → Pharmacodynamic effect

Treatment Expectancy → Hope → ↓ Pain

+

# What is the effect of treatment expectancy?

Analgesic → Pharmacodynamic effect

Treatment Expectancy → Hope - Placebo effect

+

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Analgesic  $\longrightarrow$  Pharmacodynamic effect

Treatment Expectancy  $\longrightarrow$  Hope - Placebo effect

Pharmacodynamic effect + Placebo effect

# What is the effect of treatment expectancy?

Analgesic → Pharmacodynamic effect

Treatment Expectancy → Hope - Placebo effect



Loss of expectation-related mechanisms  
in Alzheimer's disease makes analgesic  
therapies less effective

Benedetti F, et al.

Pain 121 (2006) 133–144

# Impact of Dementia on Rx Response?

- Because of reduced treatment expectancy, patients with advanced dementia may respond less robustly to treatment interventions.

# Modification of Rx Approach

- Involve caregiver in treatment sessions
- Teach more slowly
- Alter your expectations of rate of progress
- Reinforce, reinforce, reinforce
- Start low, go slow...and keep going

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# TAKE HOME POINT

1. Treating psychosocial dysfunction (e.g., depression, anxiety, fear-avoidance beliefs, low self-efficacy) holds an important key to minimizing PAIN INTERFERENCE, the key treatment outcome in those with chronic pain.

# TAKE HOME POINT

2. Myofascial pain (characterized by taut bands and trigger points), a mimicker of neuropathic pain, is most effectively treated with a 3-pronged approach:
  - Treat perpetuating/precipitating factors
  - Treat trigger points
  - Engage patient in self-management

# TAKE HOME POINT

3. Patients with dementia may express pain and respond to pain treatments differently than those who are cognitively intact. Cornerstones of effective management include:
- Observing behaviors
  - Addressing fear
  - Involving caregivers

