



NATIONAL WORKERS
COMPENSATION
AND DISABILITY
CONFERENCE

OCTOBER 21, 2020

Going for the Gold: From Injured Worker to Star Performer

Claims/Return-to-Work

Presented by:

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Introductions



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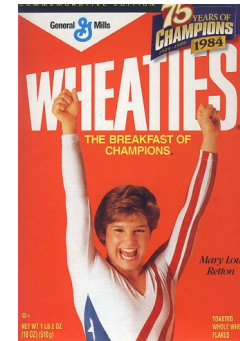
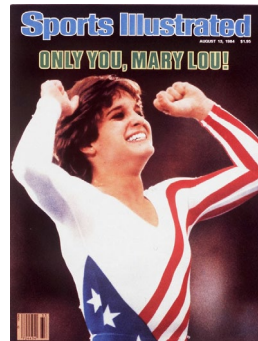
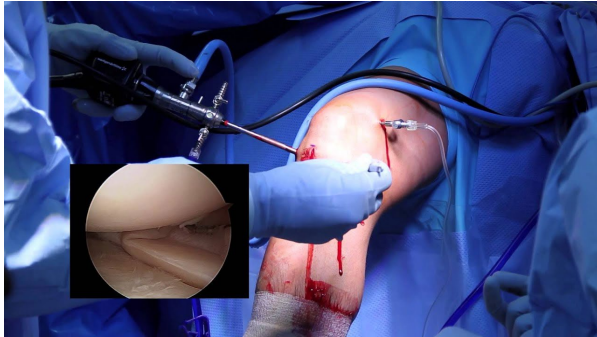
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Objectives

- Identify alternatives to addictive prescription drugs to treat pain
- Learn the value of immediate intervention with body mechanics to speed recovery
- Examine the emotional and mental factors that can impede recovery and learn strategies to overcome them.

Mary Lou vs Average Human



Pharmacological Interventions and Impact on Injuries

Commonly Used Drugs For Acute MSK Pain

COMMON DRUGS

- Acetaminophen
- NSAIDs – OTC and Rx, oral and topical
- Opioids and combination products

OPIOIDS

- Frequently used
- 25% of acute ankle sprains with median MED 100 mg / day

Delgado MK, et al. National variation in opioid prescribing and risk of prolonged use for opioid-naïve patients treated in the emergency department for ankle sprains. *Ann Emerg Med.* 2018;72:389-400.e1

Acute Extremity Pain in the ED

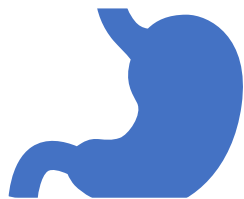
- Ibuprofen (400 mg) plus acetaminophen (1000 mg)
- Same pain relief at 2 hours as
 - Acetaminophen plus oxycodone 5 mg
 - Acetaminophen plus hydrocodone 5 mg
 - Acetaminophen plus codeine 30 mg

Chang AK, et al. Effect of a Single dose of oral opioid and nonopioid analgesics on acute extremity pain in the emergency department: A randomized clinical trial. *JAMA*. 2017;318(17):1661-1667.

Meta-analysis of Non-LBP MSK Pain

- NSAIDs (topical and oral)
- Acetaminophen
- Fentanyl, tramadol and opioid plus acetaminophen caused greater harm relative to placebo than other agents

Busse JW et al. Management of acute pain from non-low back musculoskeletal injuries: A systematic review and network meta-analysis of randomized trials. *Ann Int Med.* 2020.



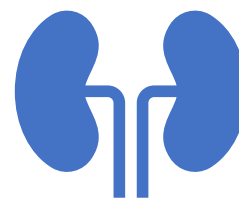
GI



Skin



CV



Organ



Neurological



Addiction



Overdose

Opioids and Chronic Pain?

- Compared opioids and other drugs in CLBP and OA
- No change in function at 12 months
- Slight increase in pain if on opioids

Society of General Internal Medicine, 2017

Non-Pharmacological Options for Pain Treatment

Opioid Alternatives

CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016: “Several nonpharmacologic and nonopioid pharmacologic treatments have been shown to be effective in managing chronic pain in studies ranging in duration from 2 weeks to 6 months.”



Source: CDC Guidelines for Prescribing Opioids for Chronic Pain. Retrieved from www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm

Non-Drug Approaches

- **Physical Therapy**
- **Acupuncture**
- **Chiropractic Care**
- **Massage Therapy**
- **Behavioral Approaches**
- **Education**



When to Choose PT



Risks of opioid use outweighs the reward

- Side effects: depression, overdose, addiction, withdrawal
- Opioids should not be first line or routine therapy for chronic pain (CDC)



Patients want to do more than mask the pain

- Opioids reduce sensation of pain
- PTs treat pain through movement



Pain or functional problems related to LBP, hip or knee OA, or fibromyalgia

- High quality evidence supporting exercise as part of treatment (CDC)



Opioids are prescribed for pain

- Should receive “lowest effective dosage” (CDC)
- “Should be combined” with non-opioid therapies such as PT (CDC)

Pain lasts 90 days

- Pain is then chronic and risks for continued opioid use increase
- 116 millions Americans have chronic pain each year
- Non-opioid therapies are preferred
- Opioids only considered if benefits for both pain & function will outweigh risks to the patient (CDC)

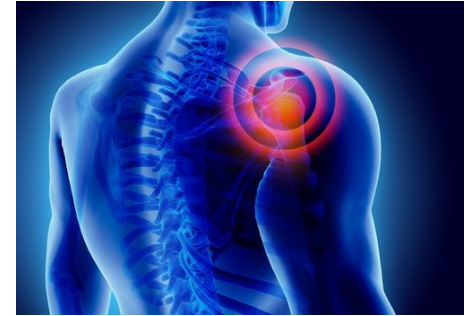


Source: <https://www.moveforwardpt.com/Opioids>

Acute vs Chronic Pain

Acute	Chronic
Tissue injury or damage	Linked to chronic inflammation, changes in nerve sensitivity, emotions, prior traumatic injury, and changes that occur in the brain
<3 months	>3 months
Localized swelling, warmth, redness	Widespread pain
Specific event	Not result of tissue damage or injury
Increases with provocation	Persistent
Decreases when pain causing factor is removed	May be accompanied by depression, fear, anxiety

Source: <https://www.moveforwardpt.com/symptomsconditionsdetail.aspx?cid=e6dabed7-c6d5-4362-8260-9ce807427619>



Physical Therapy vs Opioids

Physical Therapy (PT): Therapists treat pain through movement, helping patients improve strength, flexibility and range of motion.

PT

Treats pain through movement

Side effects: decreased pain, increased mobility, independence, wellness

Effective for numerous MSDs –pain in the low back, hip & knee osteoarthritis

Opioids

Masks sensation of pain

Side effects: depression, overdose, addiction & withdrawal symptoms

Inconclusive efficacy for long-term pain management

Source: www.moveforwardpt.com/DidYouKnow/Detail.aspx?cid=cd52bad5-f4a3-4f1f-a387-9cd4a3bc1842

Physical Therapy Options

Traditional PT

- Manual therapy
- Movement and exercise
- Modalities
- Graded exposure
- Psychologically informed PT
- Home program

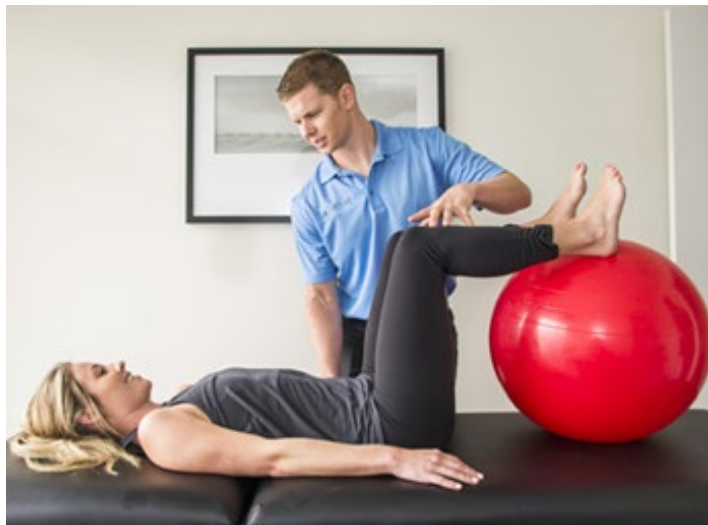
“Before Physical Therapy I
was a pain in the neck”
~Pinched Nerve

Extended PT Options

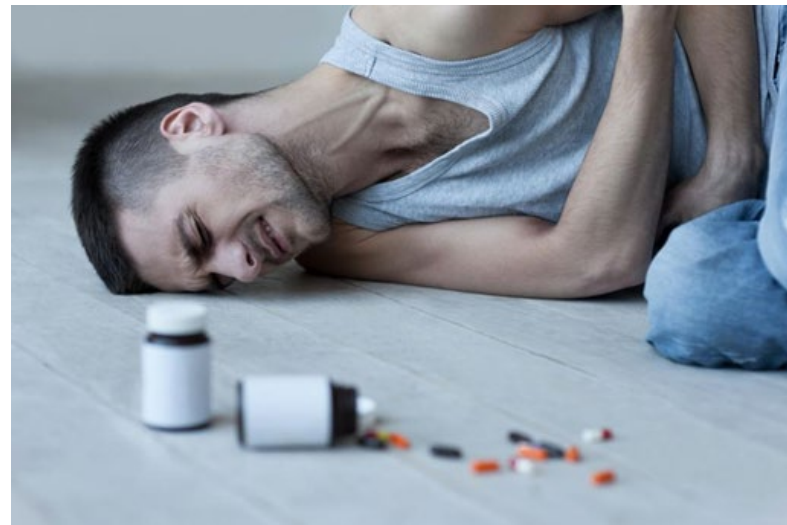
- Ergonomic assessments
- Work conditioning
- Preventative strategies
- Wellness – regular exercise
- Relaxation

Source: <https://www.moveforwardpt.com/symptomsconditionsdetail.aspx?cid=e6dabed7-c6d5-4362-8260-9ce807427619>

Low Back Pain Treatment Options



OR



Case Study: Chronic Low Back Pain

- **52 y/o male:**
 - 4 back surgeries between 1986-1998
 - Physical therapy followed each surgery (each with successful outcome)
 - Rest, opioids, anti-inflammatories, muscle relaxers in between episodes
- **3 re-injuries accompanied by significant limitations:**
 - Fear & anxiety
 - Work changes to additionally accommodate each injury
- **Physical therapy for 1st 3 episodes centered around healing the injury and tissues in his low back**
- **Physical therapy following 4th surgery was approached from a biopsychosocial perspective (McKenzie)**
 - Heavily involved in understanding the triggers of low back pain
 - What movements were problematic
 - What functional activities were avoided due to fear of pain or re-injury
 - Addressed all musculoskeletal imbalances
- **Education included: anatomy, aging process of the spine, what to expect if a flare up occurs that might cause severe or minimal pain, understanding that he was in control.**
 - Reset Expectations: Symptoms would resolve and the episode would be temporary in nature
- **Today (22 years later): fully able to manage; regularly participates in water sports, cycling, and running**



Additional Alternatives

Massage Therapy

- 3/2018 American Massage Therapy Association (AMTA) and National Institutes of Health (NIH) met
- Discussed the effectiveness of LMT to treat pain and increasing the amount of research



Acupuncture

- Treatment for pain
- Help reduce cravings associated with addiction
- Points are stimulated which increases blood flow
- Triggers body's natural painkillers
- Promotes natural self-healing process



Chiropractic Care

- Spinal manipulation (SMT) most well-known aspect
- Typically perform adjustments and may combine with massage, heat, ice, e-stim, and/or exercise



Cognitive Behavioral Therapy

Ex: PGAP®

Progressive Goal Attainment Program

- Targeted treatment of psychosocial risk factors
- Structured, graded-activity involvement
- Goal setting
- Problem solving
- Motivational enhancement
- May be coupled with physical therapy
- Max 10-week program



Functional Restoration Program

Overseen by a physician vs. physical therapist

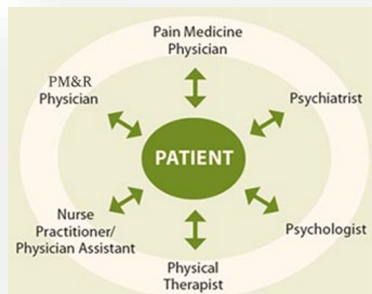
Program Length: 4-6 weeks typically

Includes:

- Medication management
- Physical therapy
- Counseling:
 - Vocational
 - Psych, behavioral
 - Individual
 - Group
 - Family
- Yoga/Pilates
- Nutrition

Goals:

- Improve quality of life
- Reduce pain
- Manage medications
- Increase self-reliance
- Decrease healthcare-reliance
- RETURN TO WORK

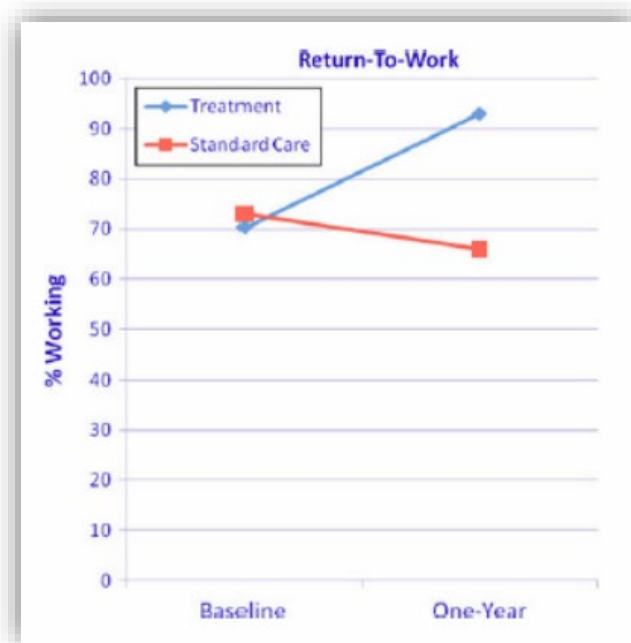


Participants	Non-completers 303 Patients	Completers 1137 Patients
Co-morbidities	Increased	Decreased
Surgery Forecast	7 times more likely to have surgery	
Healthcare visits	31 additional healthcare visits	
Return-to-work	48.70%	90.40%
Able to work after a year	41%	84%
Returned to same job	16%	34%

Ref: The Iowa Orthopedic Journal: Low back pain program

RTW Outcomes – Functional Restoration

- 142 participants with LBP <6 weeks
- 90.7% accuracy in factors predicting development of chronic LBP
- Functional restoration vs. standard care only
- Measured at 3-month intervals through 1 year
- Addition of functional restoration significantly improved RTW outcomes



Source: Early Intervention Options for Acute Low Back Pain Patients: A Randomized Clinical Trial with One-Year Follow-Up Outcomes. Whitfill, Haggard, Bierner, Pransky, Hassett, Gatchel. Journal of Occupational Rehabilitation. 2010

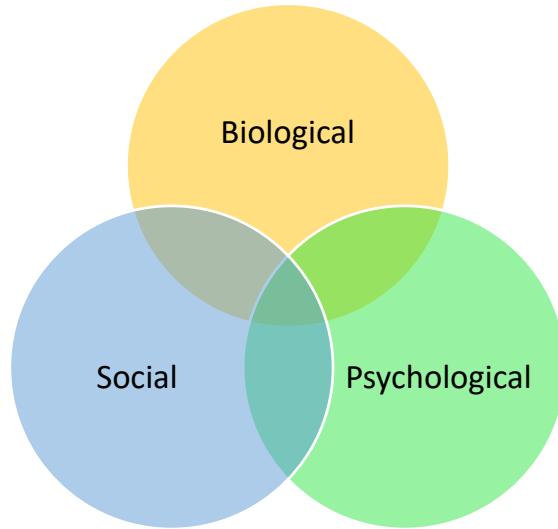
Additional Approaches to Consider

- Empowering Self Awareness and Control: DOC Program (Define your Own Care)
- Trestle Tree Behavioral Health Coaching
- Pre-hab



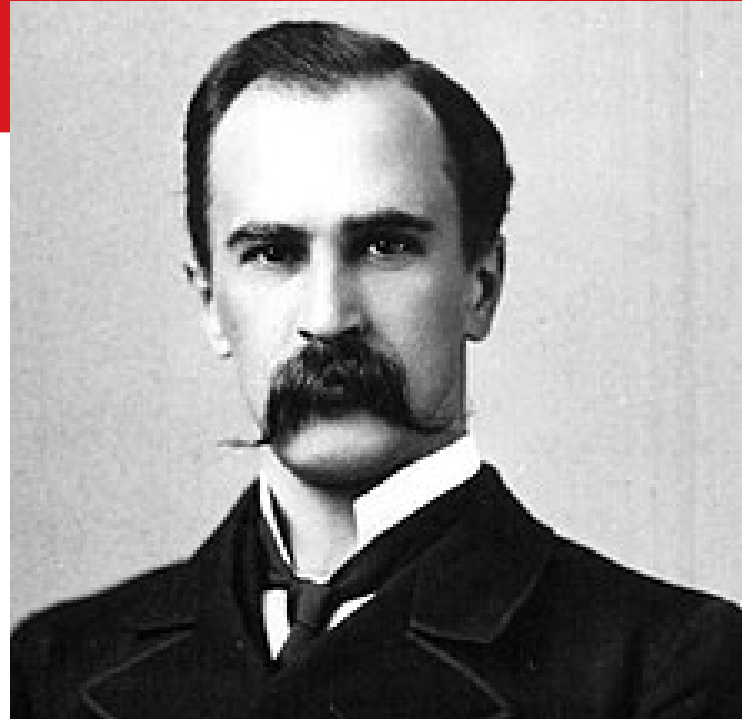
Early Engagement of Physical Therapy

Biopsychosocial Treatment Approach



The good physician
treats the disease; the
great physician treats
the patient who has the
disease.

~Sir William Osler



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Psychosocial Risk Factors for Delayed Recovery

- Expectation of disability
- Catastrophic thinking
- Perceived injustice
- Maladaptive coping
- Absence of positive coping skills



Conversational Approach

- When do you think you'll return to work?
- How much do you worry that your pain will never get better?
- Why do you think this happened to you?
- How are you coping with this?
- What do you like about your work?



Early Start of Physical Therapy

- Interrupt pain signals
- Movement benefits
- Exercise induced euphoria



Benefits of Movement

- Mobilize joints
- Restore muscle function
- Build strength
- Heal tissue
- Decrease swelling
- Improve balance
- Improve endurance
- Slow age-related changes
- Reduce dependence on pain medication
- Manage blood sugar
- Increase circulation
- Eliminate pain

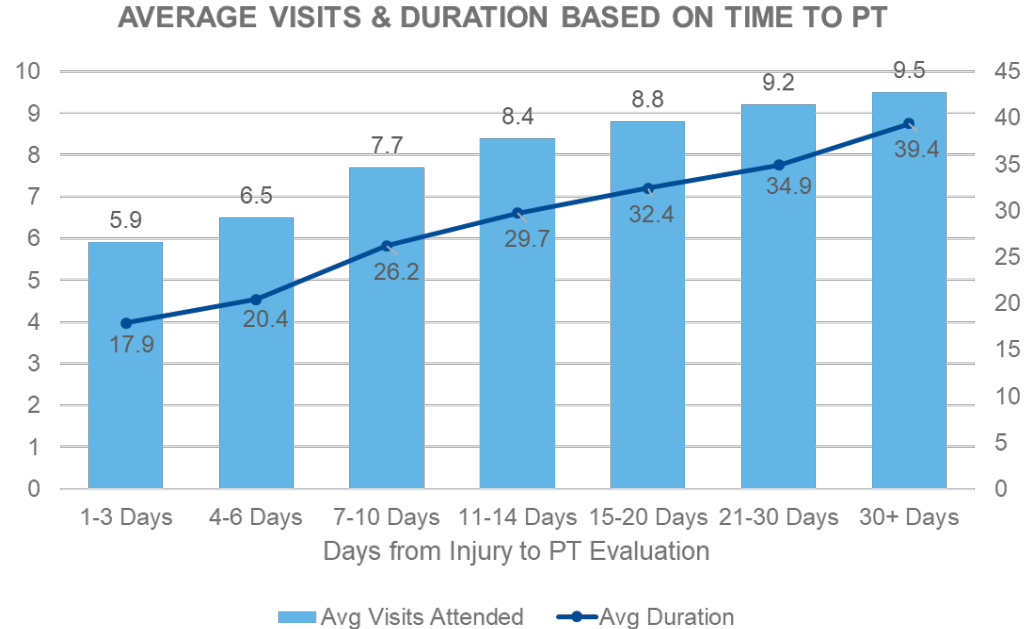


Physical Therapy First For Pain

PT First Results In:

- 87% less opioid prescriptions
- 28% less diagnostic imaging
- 15% less ER visits
- Lower utilization of high-cost medical services & lower opioid use

(Health Services Research)



Early Engagement of PT

Start within 3 days of injury

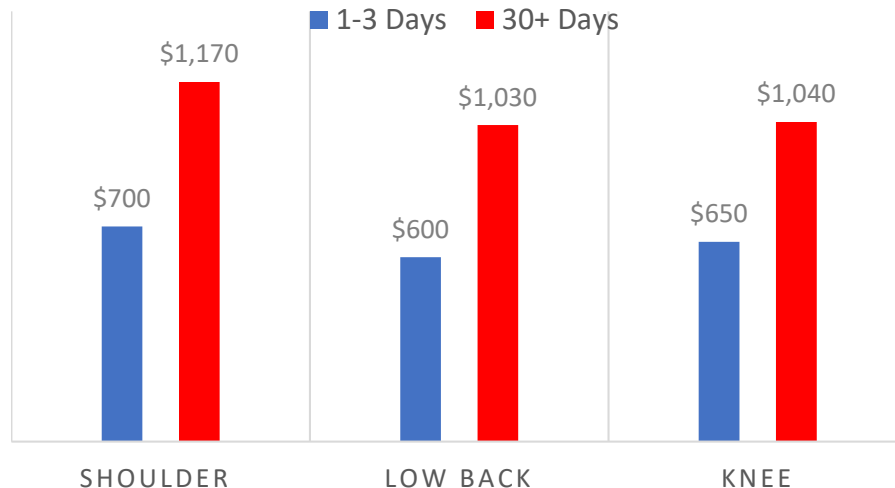
- 38% fewer PT visits to achieve successful outcomes

Employers save:

- Indemnity costs
- Expense of replacing a worker when someone is absent

Insurers pass on cost savings to their clients with a model that expedites care to injured workers.

PT COSTS BASED ON TIME TO TREATMENT



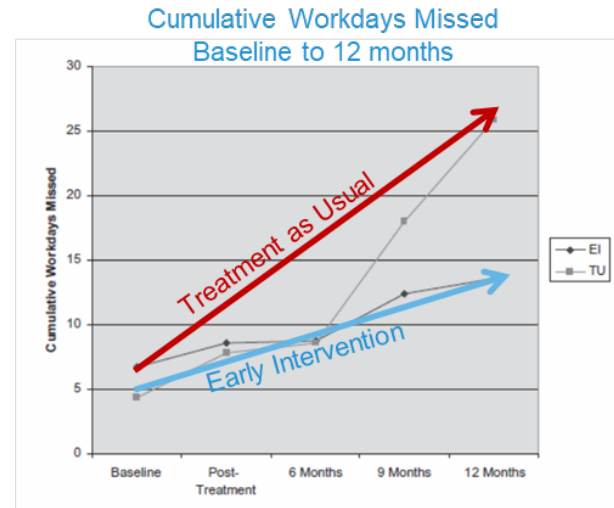
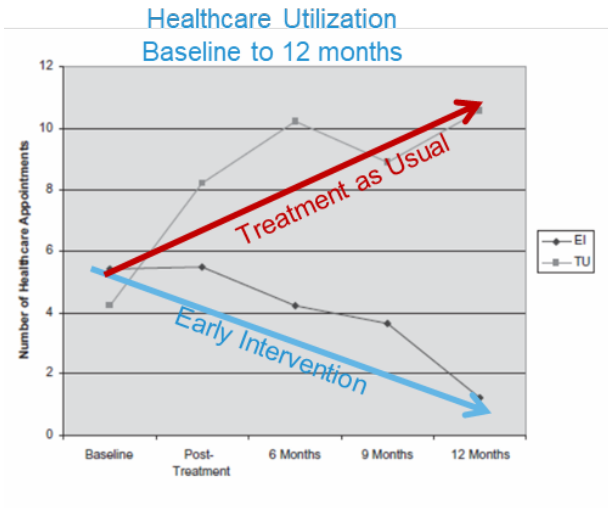
WCRI Study: Timing of PT for LBP

- **PT > 14 days post injury:**
 - Increased utilization of medical services & costs
 - Longer total disability duration
- **PT > 30 days post injury (vs. starting within 3-7 days):**
 - 47% more likely to receive MRI
 - 46% more likely to receive opioids
 - Average medical costs per claim 24-28% higher

Ref: Wang, Mueller, Lea. "The Timing of Physical Therapy For Low Back Pain: Does It Matter in Workers' Compensation?". September 2020

Interdisciplinary Early Intervention vs Usual Treatment for High Risk LBP

- 994 patients with acute low back pain, no prior history of previous low back pain or chronic pain condition, designated as high risk, were screened. 121 entered the study. 31 followed up at all intervals (initial, 3, 6, & 12 months)
- Early Intervention added physical therapy and cognitive behavioral therapy to the standard medical treatment (treatment as usual)



Source: A Cost Utility Analysis of Interdisciplinary Early Intervention Versus Treatment as Usual for High-Risk Acute Low Back Pain Patients. Rogerson, Gatchel, Beirner. World Institute of Pain 2009

Cost Utility: Early Intervention vs Treatment as Usual

Treatment as usual:

- 33% higher cost

Early intervention (at 12 months):

- Significantly improved health states
- Decreased health care utilization
- Decreased missed work days
- Better outcomes

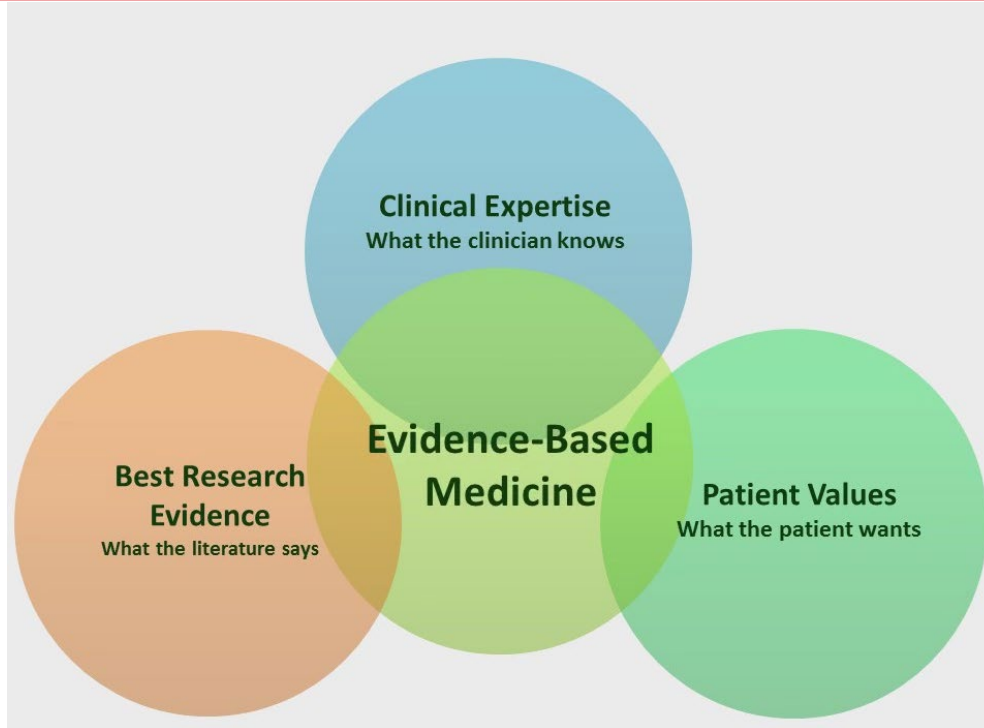
	REGULAR MEDICAL	EI TREATMENT CBT & PT	EMPLOYMENT COSTS	TOTAL
Treatment as Usual	\$5,501	\$0	\$4,044	\$9,546
Early Intervention	\$1,413	\$4,025	\$1,731	\$7,168



Source: A Cost Utility Analysis of Interdisciplinary Early Intervention Versus Treatment as Usual for High-Risk Acute Low Back Pain Patients. Rogerson, Gatchel, Beirner. World Institute of Pain 2009

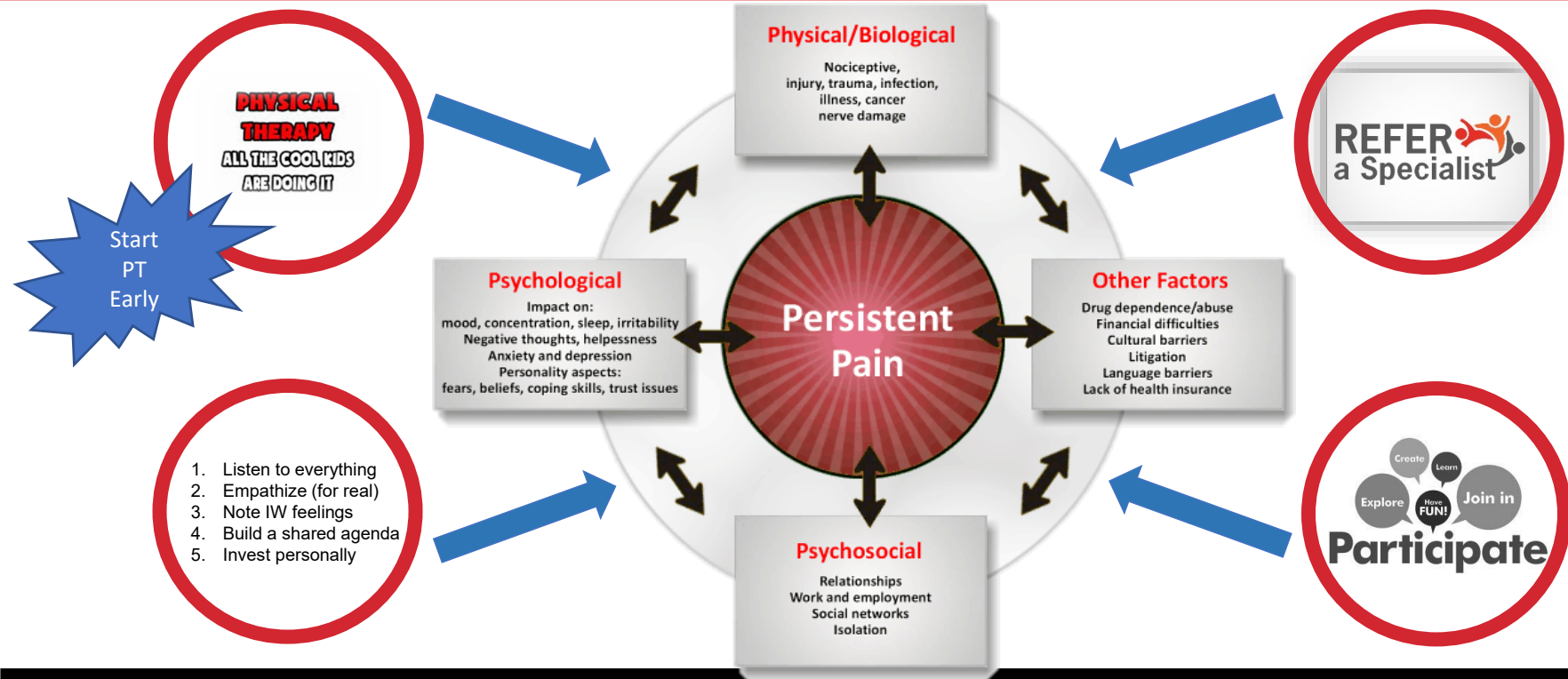
Strategies to Drive Better RTW Outcomes

Evidence Based Medicine



Example:
When should diagnostic
testing be ordered for low back
pain?

Promoting Better Outcomes: Take Action



Promoting Better Outcomes: Questions to Ask the Treating Physician



Thank you!

Questions?



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