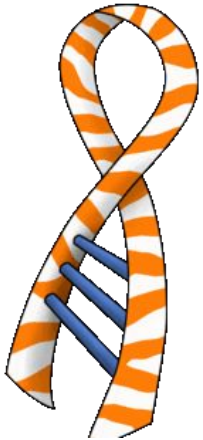
FD/MAS Community Conference 2023

Practical Pain Assessment and Management



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September 9, 2023

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What is pain?

Definition:

- "An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage"
- Always a personal experience
  - Influenced by biological, psychological and social factors
- Pain is not only nociception
  - Nociceptive, inflammatory, neuropathic, noninflammatory/nonneuropathic
- Individuals learn through life experiences
- Everyone's pain scale is personal
- Pain may be adaptive but can have adverse effects
- Pain can be expressed through several behaviors, not just verbally

NARRATIVE REVIEW

The revised International Association for the Study of Pain definition of pain: concepts, challenges, and compromises

Raja, Srinivasa N.[a,*]; Carr, Daniel B.[b]; Cohen, Milton[c]; Finnerup, Nanna B.[d,e]; Flor, Herta[f]; Gibson, Stephen[g]; Keefe, Francis J.[h]; Mogil, Jeffrey S.[i]; Ringkamp, Matthias[j]; Sluka, Kathleen A.[k]; Song, Xue-Jun[l]; Stevens, Bonnie[m]; Sullivan, Mark D.[n]; Tutelman, Perri R.[o]; Ushida, Takahiro[p]; Vader, Kyle[q]

Author Information

PAIN 161(9):p 1976-1982, September 2020. | *DOI:* 10.1097/j.pain.0000000000001939

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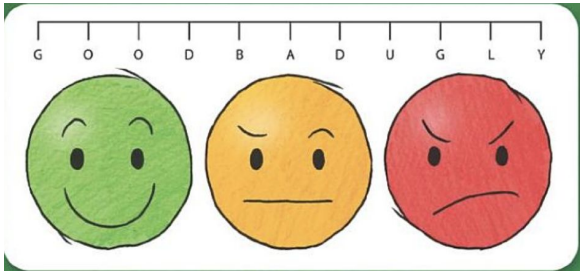
The Good, The Bad and The Ugly

- **Good:** protective role
  - Body tells the brain when a stimulus is a threat
- **Bad**: pain becomes chronic
  - Pain = disease
- **Ugly**: how do we know what type of pain?
  - Changes the treatment



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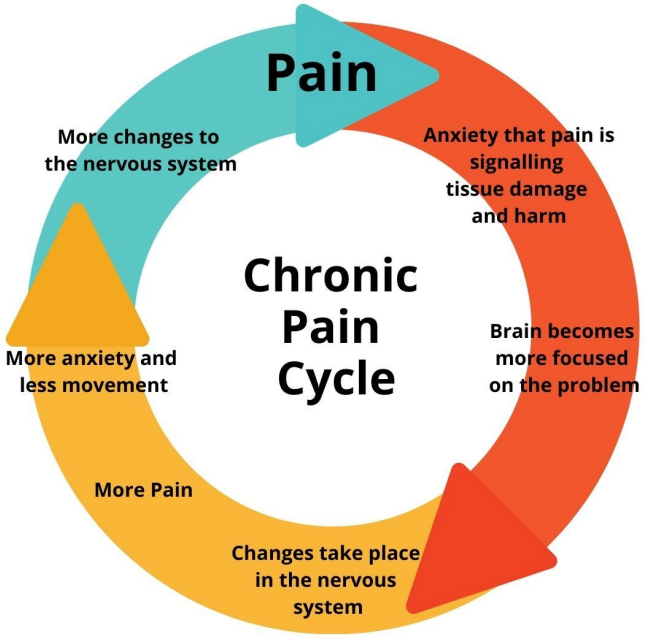
Immediate Effects of Pain

- Increased heart rate
- Increased respiratory rate
- Increased muscle tension
- Pupil dilation
- Diaphoresis (sweating)
- Decreased GI motility
- Elevated glucose levels

Chronic Effects of Pain

- Anxiety
- Depression
- Fatigue
- Sleep difficulties
- Mood swings
- Reduced strength
- Decreased stamina



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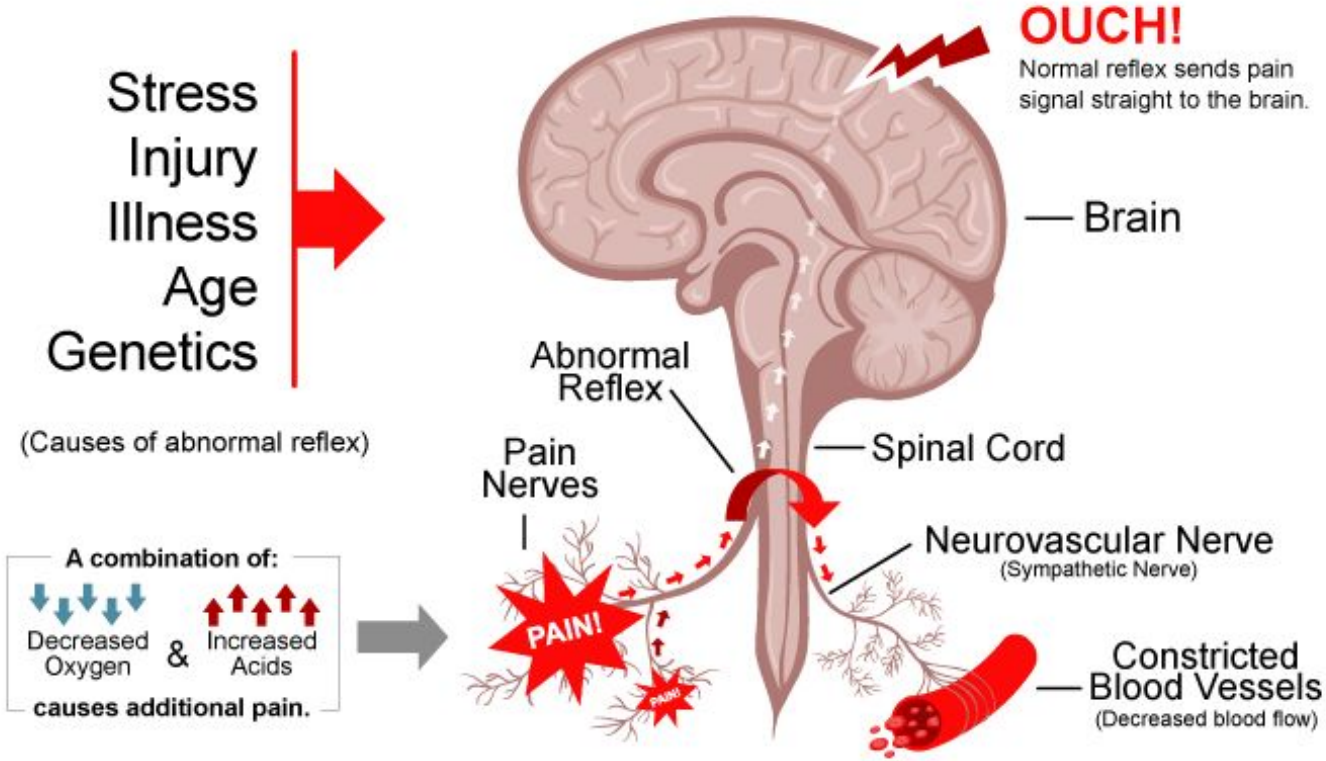

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Pain and FD/MAS

- **Age: Improves or worsens with age?**
  - Lesions may undergo age-related changes with less prevalence and less severity of pain (Robinson et al 2016)
  - Secondary arthritic changes in adjacent joints increases pain (Kelly et al 2008)
- **~50% of patients with FD report pain at FD sites (Majoor et al 2019)**
- **Lower extremity and rib lesions may cause more pain than UE/craniofacial lesions (Majoor et al 2019)**
- **Pain is NOT associated with extent of FD (Robinson et al 2016)**
  - Mild FD may have debilitating pain, extensive disease may be pain-free

Differentiating Pain

Intrinsic FD pain vs underlying metabolic, functional, or orthopedic complication

Is there hypophosphatemia? leg-length discrepancy? acute or impending fracture?

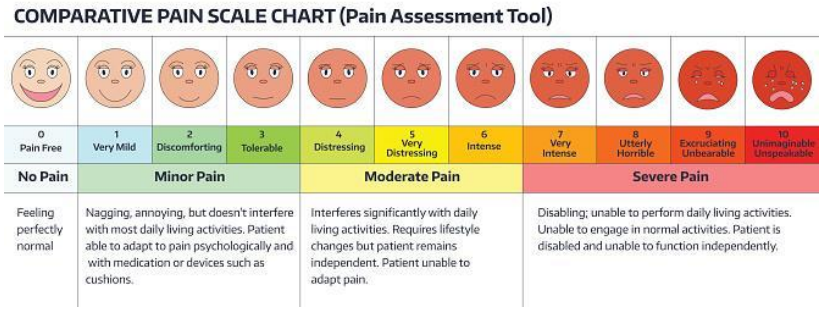
Post-operative complication (ie hardware)

How to we evaluate?

Treatment plan may change

Pain Assessment

- **FD/MAS Pain**
  - Dull ache that worsens with activity and lessens with rest
  - If FD fractures: sharp pain
- **PQRST**
  - **P**rovocation/**P**alliation, **Q**uality/**Q**uantity, **R**egion/**R**adiation, **S**everity scale, **T**iming
- **Imaging studies**
  - Xray, MRI, CT



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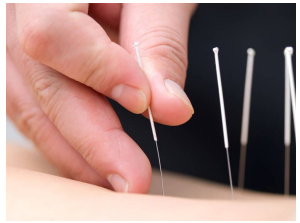
Pain Management Options



Pharmacologic

- Bisphosphonates
- NSAIDs
- Injections
- Radiofrequency ablation
- Anti-depressants (SNRI, TCAs)
- Anti-convulsants (gabapentin)
- Topical (lidocaine, voltaren, capsaicin)

Non-pharmacologic

- Acupuncture
- Cognitive behavioral therapy
  - Explanation, preparation, breathing te chniques, distraction, play, laughter
- Sensory/physical
  - Massage, ice/heat, deep breathing
- TENS unit
- Exercise- 30+ minutes daily
- Lifestyle changes: diet, sleep, minimize stressors

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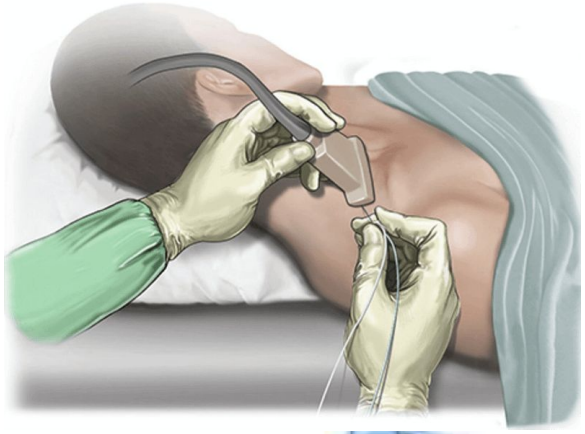
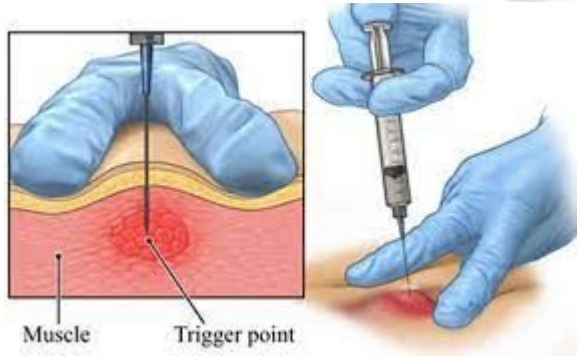
Pain Management Interventions

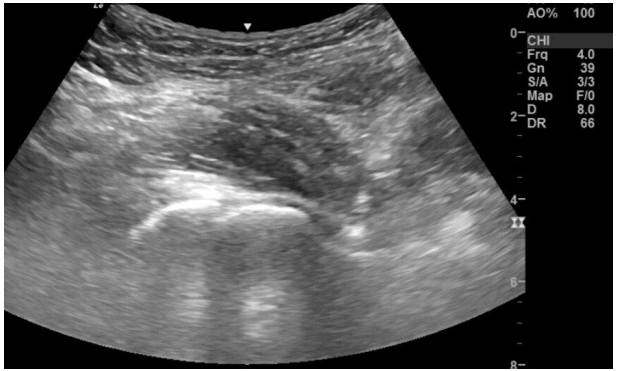
- Joint injections
- Peripheral nerve blocks
- Trigger point injections
- Epidural joint injections
- Radiofrequency ablation (RFA)





Ultrasound Guided Injections

- **Both therapeutic and diagnostic**
- **Therapeutic**
  - "Window of opportunity" in conjunction with PT
  - Those unable to take oral NSAIDs
  - Can do without corticosteroid (anesthetic only)
- **Diagnostic**
  - Pre and post injection physical examination
  - Does the anesthetic help immediately?
- **Surgical guidance**
  - May help guide intervention



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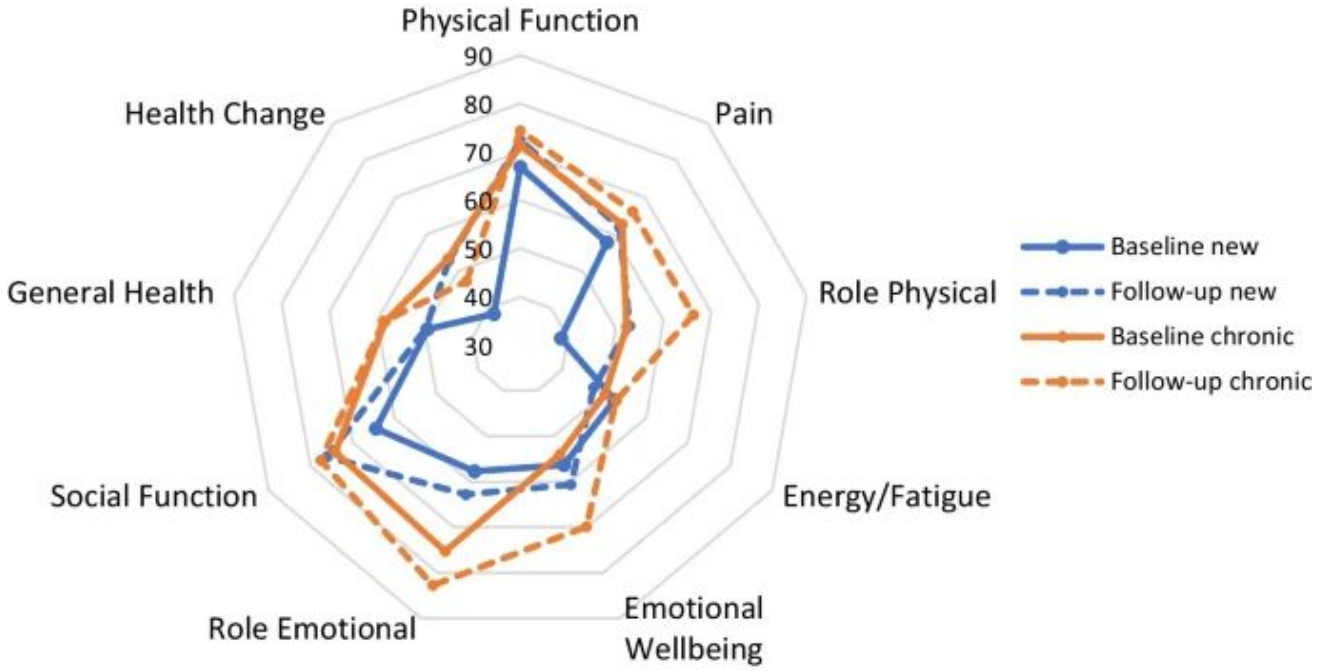
Multidisciplinary Approach

- Multidisciplinary clinic helps
- Pain is personal: What works for one may not work for another
- Are there other factors at play?
- Differentiating bony pain vs post op pain vs sports related pain vs chronic pain
- Advocate for yourself! Speak up if the pain feels different



Research | Open Access | Published: 17 December 2022

A multidisciplinary care pathway improves quality of life and reduces pain in patients with fibrous dysplasia/McCune-Albright syndrome: a multicenter prospective observational study

Maartje E. Meier ✉, Marlous Hagelstein-Rotman, Annenienke C. van de Ven, Ingrid C. M. Van der Geest, Olav Donker, Sarina E. C. Pichardo, Petra C. E. Hissink Muller, Stijn W. van der Meeren, Desirée M. J. Dorleijn, Elizabeth M. Winter, Michiel A. J. van de Sande & Natasha M. Appelman-Dijkstra

Orphanet Journal of Rare Diseases **17**, Article number: 439 (2022) | Cite this article

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Summary

- Pain in general is good, but can become maladaptive
- Differentiating types of pain is challenging
- Find strategies that work for you
- Multidisciplinary approach to pain can work the best
- Try to not let your life be controlled by pain- make it background noise

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Thank you!

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