Chronic Pain Physical Assessment

A Practical Approach for the Clinician

Pain ECHO Education Event (E3)

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Faculty/Presenter Disclosure

- **Faculty:** Anne Ayling Campos
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- **Relationships with commercial interests:**
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  - Consulting Fees: none
  - Other: Employee of The Hospital for Sick Children

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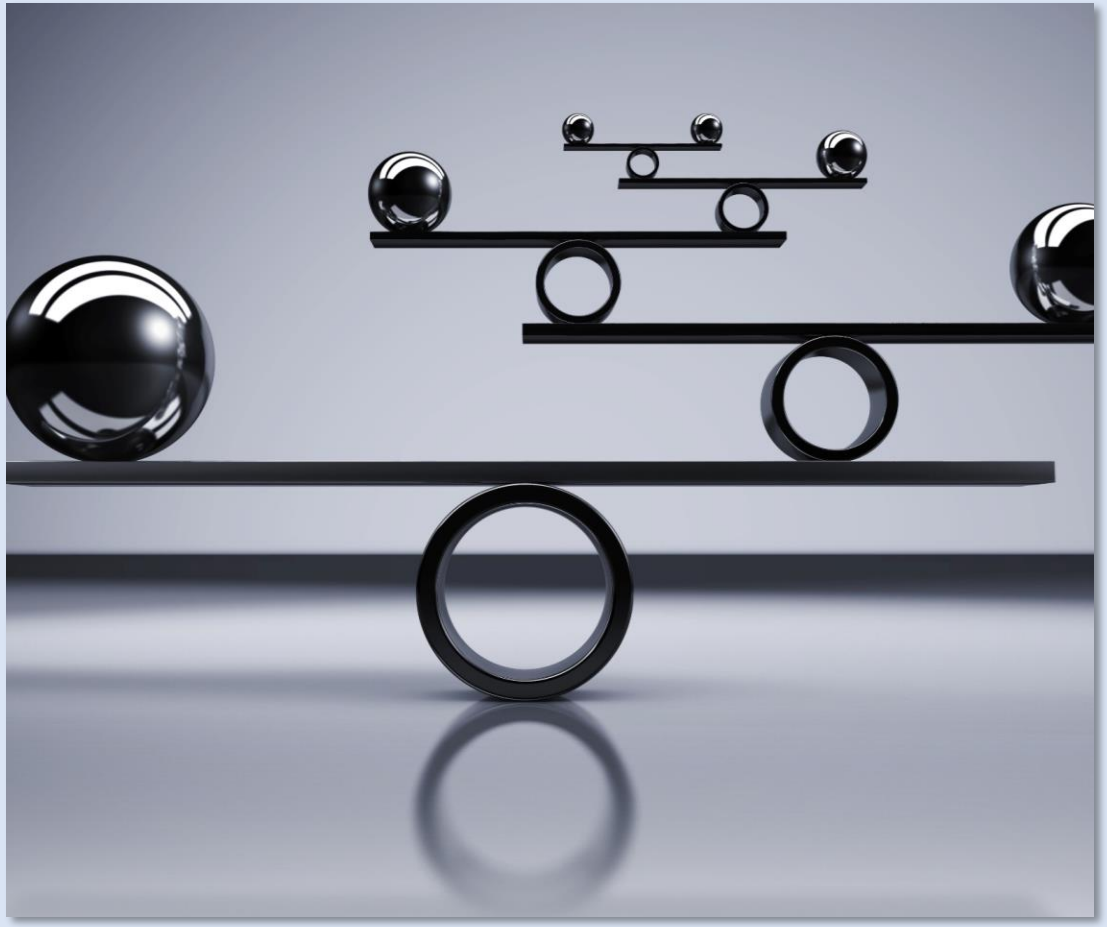
Learning Objectives

By the end of this session, participants will be able to:

- **Explain** a systematic approach to support and guide a physical assessment of a child in persistent pain
- **Identify** key features in a neuromuscular assessment in the context of a child presenting with persistent pain
- Build confidence in **recognizing** how to be creative with assessment skills in varying circumstances when assessing a child in pain either in-person or virtually

Goals of Conducting a Physical Assessment

- **Build** patient's **trust**
- **Identify** dominant pain mechanism/or pain diagnosis
- **Rule out** red flags or sinister pathology
- **Evaluate** the impact of pain on physical function



Pain Mechanisms

Chronic Pain

Nociceptive

Pain from damaged non-nerve tissue

Neuropathic

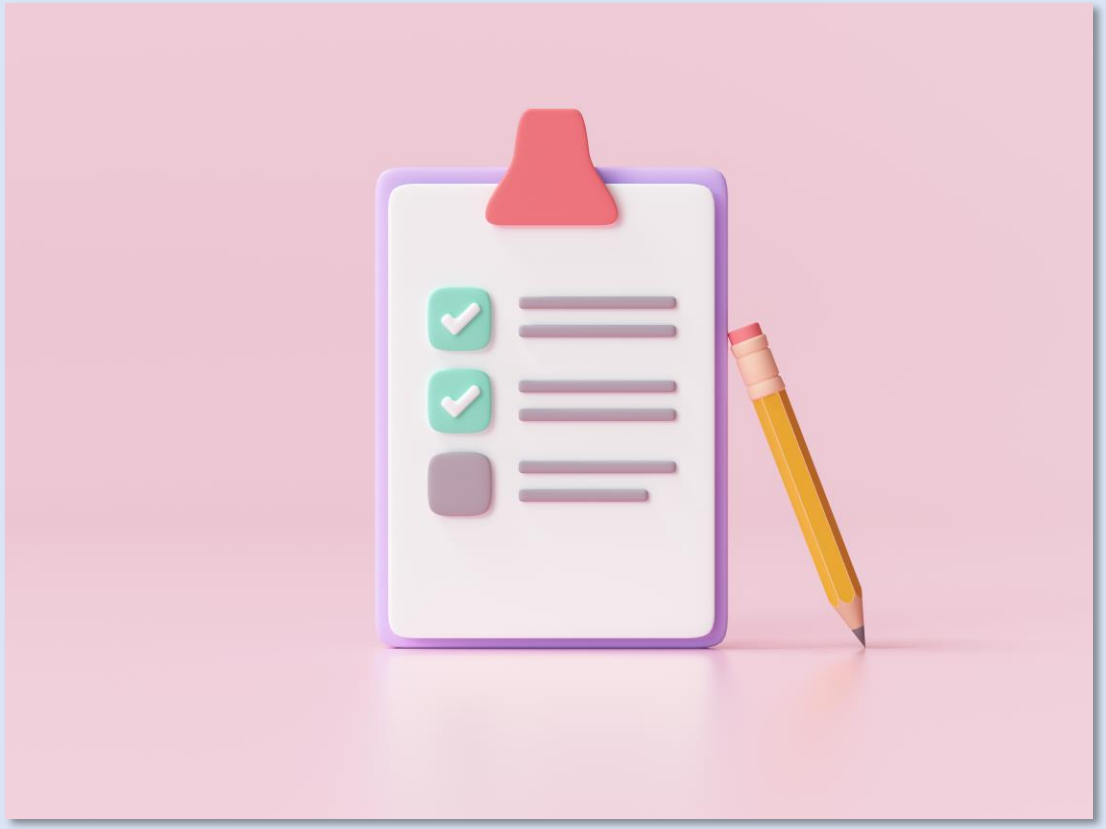
Pain from damaged or diseased nerves

Nociplastic

Pain from dysfunctional nerves

*Patients can have Mixed Pain, so we want to identify the most **DOMINANT** pain mechanism through examination

Audience Poll:



In your current practice how often do you provide your patients and families with pain mechanism diagnoses or such terminology in the context of your visit?

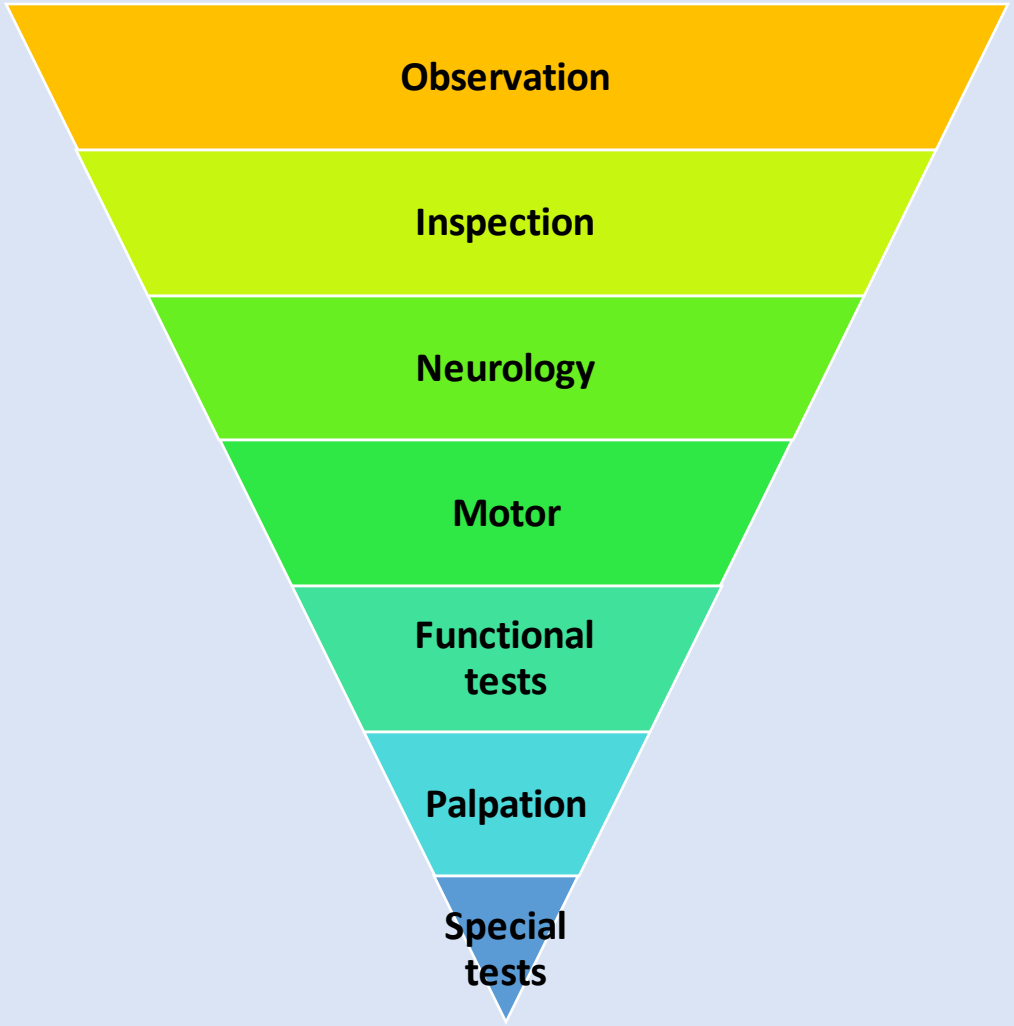
A) Not at all – pain mechanisms are not discussed

B) Sometimes

C) Often

D) All the time

Nuts & Bolts of Pain Focused Physical Assessment



Nuts & Bolts of Pain Focused Physical Assessment

Comprehensive neuromusculoskeletal evaluation		
Observation	Begins as soon as the child and parent begin the visit (in person or on screen)	• Overall presentation • Demeanour • Willingness to engage
MSK	**Inspection** **Palpation** **Range of Motion (AROM)**	• Symmetry, posturing • Tenderness, trigger points • Range, limits, ease of movement
Neurologic	**Strength, Functional strength** **Sensation** **Reflexes**	• MMT, functional strength • Sensory functioning • Grade 0-4
Target special tests	The patient's complaints should establish a direction for targeted tests	• Hypermobility • CRPS symptoms

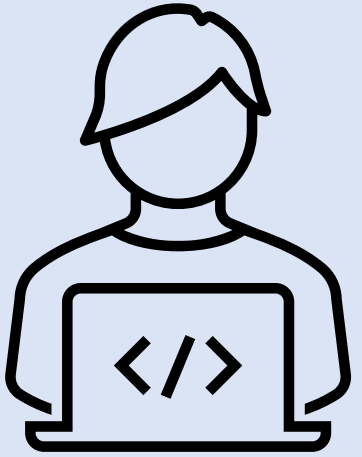
Clinical Assessment Profile Poll

What best describes your clinical environment with respect to in person and virtual assessment appointments:

A) Most are in person

B) Both – hybrid model

C) Most are completed through virtual visits



Optimizing the Exam Atmosphere

Engage the child, maintain rapport developed during interview portion of the visit

Tell her that you know her pain is **real**

Explain each test before starting

Ask for **permission** to touch

Observe **non-verbal** cues for pain

Remain **calm**, be **flexible** and **improvise** the exam depending on child's level of co-operation

Avoid…

- medical jargon
- drawing attention to any abnormal findings
- 2 examiners touching at the same time

Considerations for Optimizing the Physical Exam

	In-Person examination	Virtual examination
Examiner quality	- take time to engage the child, have good **eye contact**	- look directly into the **camera lens**
Appointment scheduling	- **allow time** for the child to answer questions, they may need more time to digest and reflect, do not rush	-there may be an **audio lag**, give the child 2 seconds or so after they stop speaking before talking
Clarification	**One finger** rule to point to the area of pain and delineate any radiating pain	
Room quality	✓ **Adequate room** for movement components of exam ✓ Good **lighting**	
Child	✓ **Dressed** in shorts and T-shirt to support exam observation and participation	

Physical Examination: Be Watchful

Observation

Start of visit note behavior and level of engagement, compare at ease to on command actions/movement

Nervous, hesitant, hypervigilant to sensations

Pain behaviors, audible noises, restlessness, neglect of a limb

Inspection

Skin - rashes, colour, texture, scars, infection, bruising, self-harm indicators

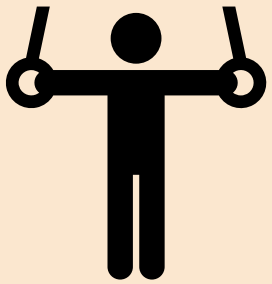
Joints – swelling, symmetry, atrophy

Protective pain postures, posture abnormalities

Physical Exam: Neurologic Assessment

Strength

- Manual muscle testing (MMT) grade 0-5 – if virtual get a parent involved, compare sides
- Functional strength tests with a reference for myotomes

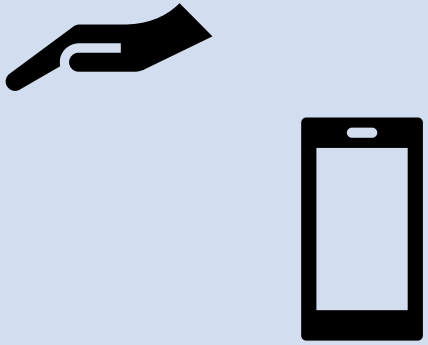


Sensation

- Sensory functioning using 2 modalities
- Presence of hyperesthesia – allodynia and/or hyperalgesia
- Accomplished through sensation testing using items at hand – breath, tissue or cotton ball, end of pen cap or toothpick
- Pattern – anatomical consistency with tests

Reflexes

- Assists with overall neurologic assessment
- Items for home testing can be a rubber spatula, side of hand or the side of a smart phone



Physical Examination: Reproduction of Tenderness/Pain

Palpation

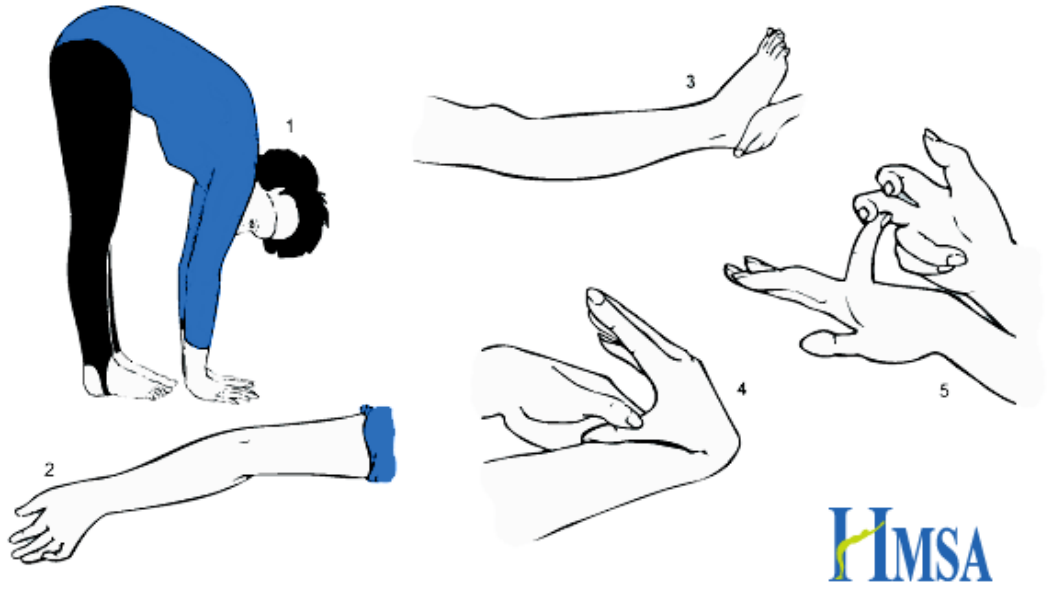
- Examiner, Self or parent palpation: above, below and over the area of pain
- Soft tissue, bone, joint line or other
- Note if area being touched is warm or cold in temperature

Motor

- Range of movement (AROM) gross to specific or through a functional task
- Movement quality, hesitation or fear
- Describe in terms of degrees or through descriptors of mild, moderate or severe

Special Tests to Consider:

Joint Hypermobility – Beighton Score



Chronic Regional Pain Syndrome – type 1 (Pediatric CRPS-1)

Optimizing the Physical Exam to Enhance Diagnoses

Identify dominant pain mechanism

Rule out red flags or sinister pathology

Evaluate the impact of pain on physical function

An **approach** for the **physical** examination skills recommended to support a robust neuromuscular assessment

Completion of a comprehensive pain assessment for the child/teen and family living with persistent pain

Patient and family centered **interventions** in the treatment of persistent pain in children and youth in Ontario

Q & A

THANK YOU FOR YOUR ATTENTION and INTEREST!