Chronic Pain Physical Assessment

A Practical Approach for the Clinician

Pain ECHO Education Event (E3)

Anne Ayling Campos, PT

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Project ECHO®

Changing the world by connecting healthcare providers.

Faculty/Presenter Disclosure

- **Faculty:** Anne Ayling Campos
  - Special thanks to Giulia Mesaroli & Sara Klein

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

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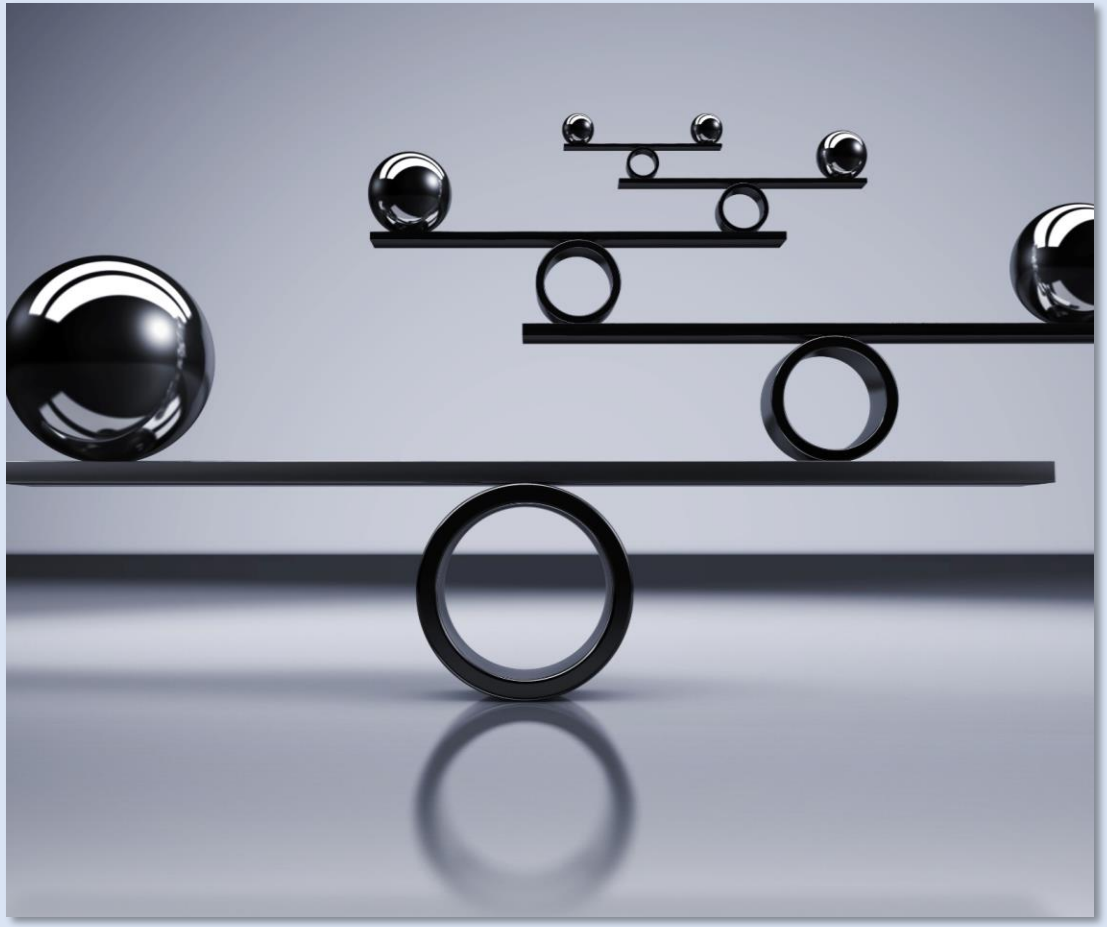
Learning Objectives

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

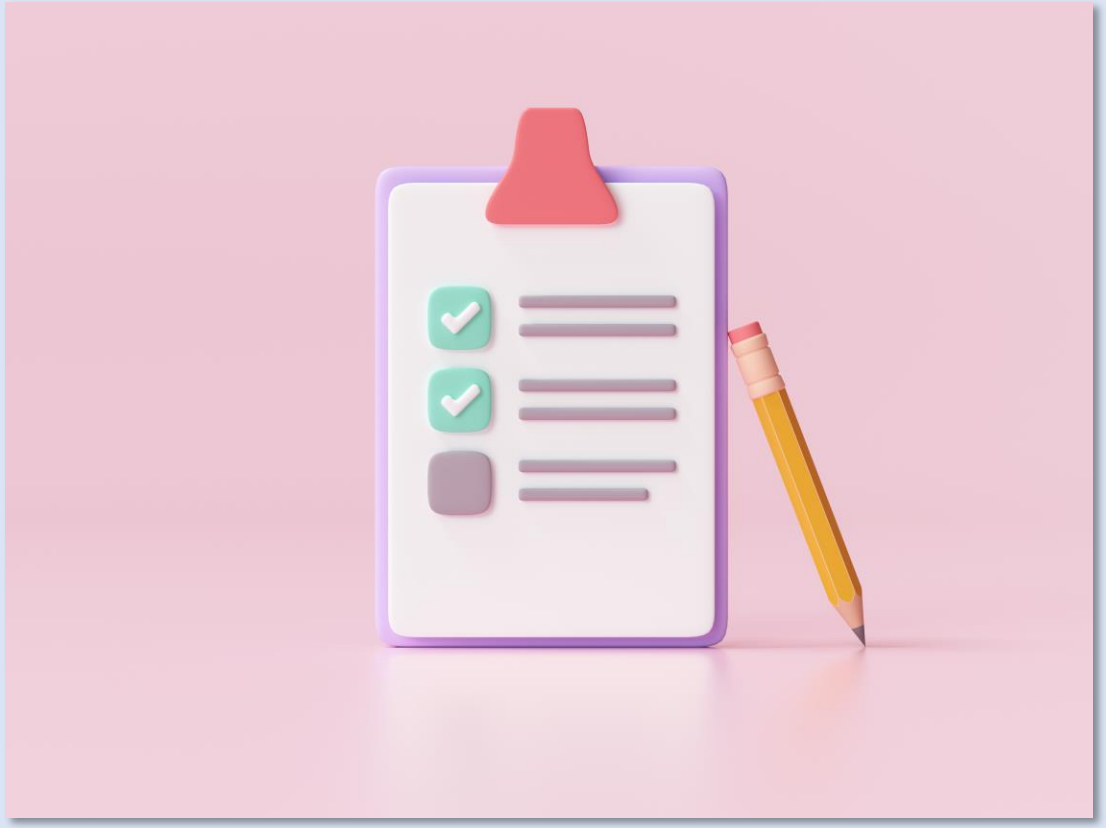
Pain from damaged or diseased nerves

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

Join Poll Everywhere

Join by Web:

PollEv.com/eecho196

Join by Text:

Send **eecho196** to **37607**

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

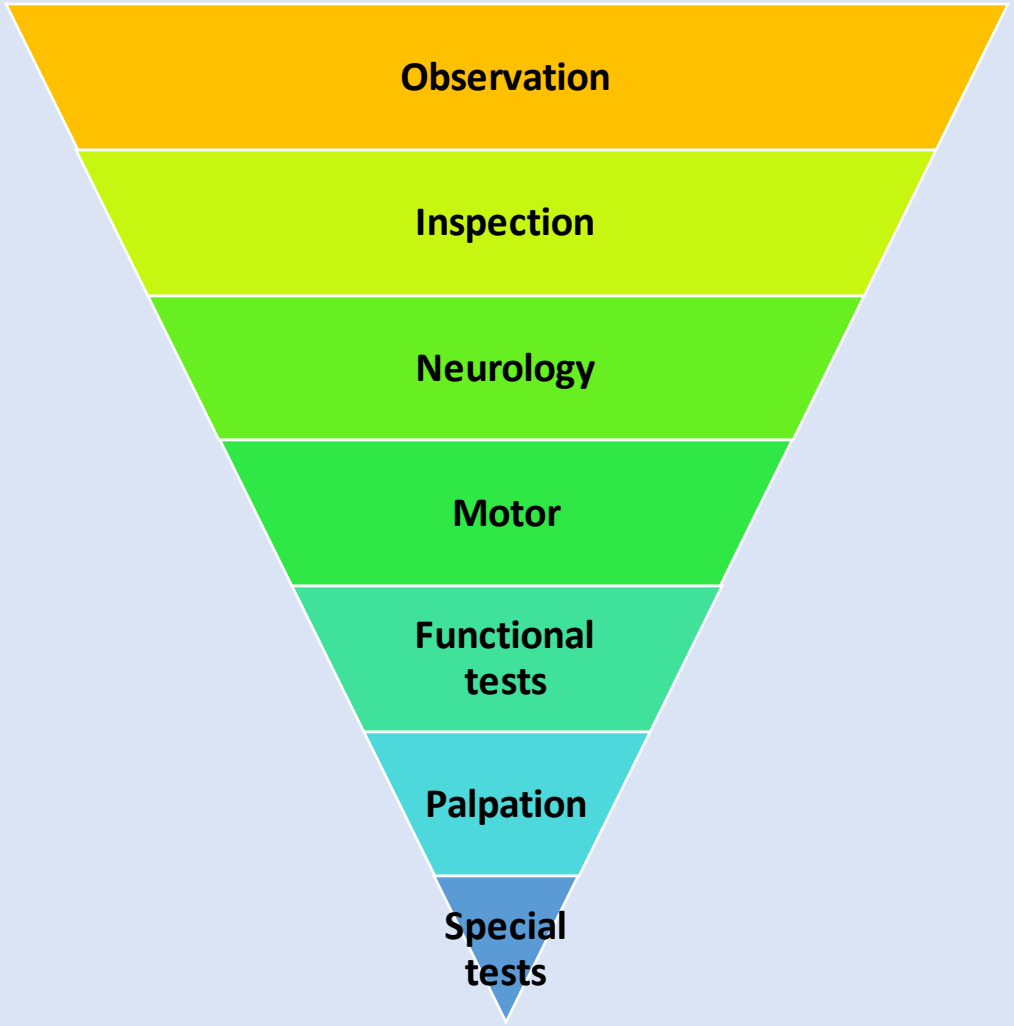
(A) Not at all – pain mechanisms are not discussed

(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

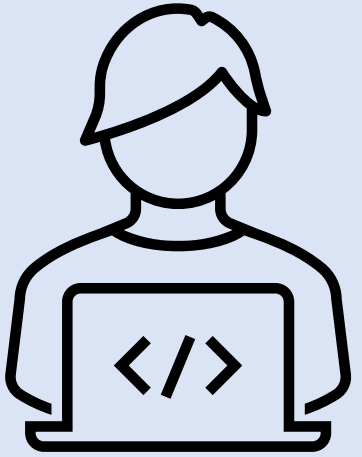
Clinical Assessment Profile Poll

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



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

0

Most are in person

0%

Both – hybrid model

0%

Most are completed through virtual visits

0%

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

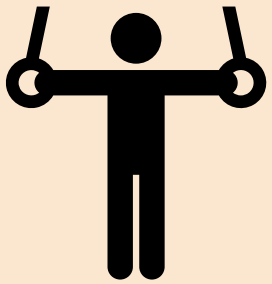
Joints – swelling, symmetry, atrophy

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

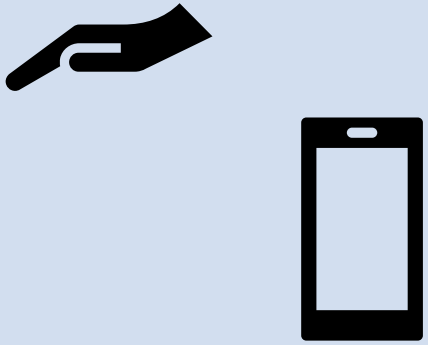


Sensation

- 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

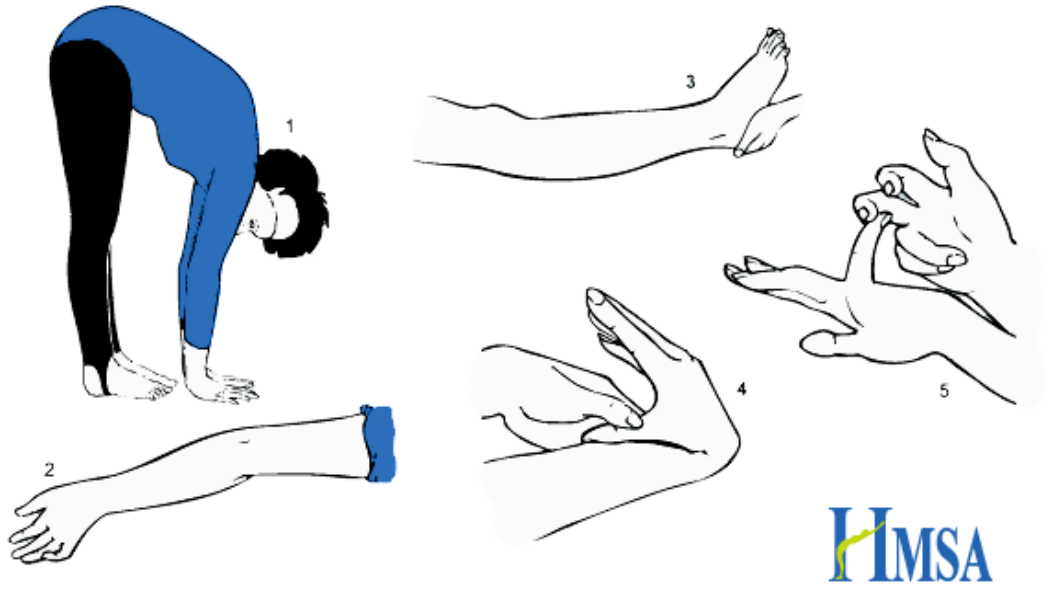
- Examiner, Self or parent palpation: above, below and over the area of pain
- Soft tissue, bone, joint line or other
- Note if area being touched is warm or cold in temperature

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!