UNDERSTANDING POLYARTICULAR JUVENILE IDIOPATHIC ARTHRITIS (PJIA) FOR PRIMARY CARE PHYSICIANS

PAIN SYNDROMES
NOMENCLATURE
• Chronic Widespread Pain (CWP)
• Chronic Pain Amplification
• Juvenile Fibromyalgia (JFM)
• Complex Regional Pain Syndrome (CRPS)/Reflex Sympathetic Dystrophy (RSD)
• Pain, NOS

CLINICAL PRESENTATION
• Chronic widespread musculoskeletal pain for >3 months
• ‘Pan positive’ review of systems (ROS)
• Fatigue often prominent feature associated with poor sleep hygiene
• “Do you feel rested on awakening”
• Unrefreshing sleep, daytime napping
• Often with some degree of anxiety/depression
• Exam unremarkable other than allodynia/hyperalgesia, tender points, possible joint hypermobility

MANAGEMENT OF CHRONIC PAIN
• Effective sleep hygiene is critical
• PT/OT particularly if hypermobile
• Manage expectations
• Medications are often not effective and there is no magic pill
• NSAIDs, TCA, GABA analogues, SSRI/SNRIs, integrative medicine
• May flare from time to time
• Routine movement/activity
• Psychology/CBT support
• Acknowledge pain diagnosis
• No FDA approved treatments for JFM
• Takes time to improve

NON-INFLAMMATORY JOINT PAIN
DISTINGUISHING INFLAMMATORY AND NON-INFLAMMATORY CAUSES OF JOINT PAIN

<table>
<thead>
<tr>
<th>INFLAMMATORY JOINT SYMPTOMS</th>
<th>MECHANICAL JOINT SYMPTOMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morning Stiffness Yes</td>
<td>No</td>
</tr>
<tr>
<td>Joint Pain No, exception – hip; neck; subtalar</td>
<td>Yes</td>
</tr>
<tr>
<td>Pain with Activity No</td>
<td>Yes</td>
</tr>
<tr>
<td>Symptoms Worse in a.m. Yes</td>
<td>No</td>
</tr>
<tr>
<td>Awake from Sleep in Pain No</td>
<td>Yes</td>
</tr>
<tr>
<td>Intermittent Swelling No</td>
<td>Yes</td>
</tr>
<tr>
<td>Fever Only with SJIA</td>
<td>No</td>
</tr>
<tr>
<td>Rash With SJIA or Psoriasis</td>
<td>No</td>
</tr>
</tbody>
</table>

SJIA = Systemic onset Juvenile Idiopathic Arthritis

For more information, please visit: https://ohioaap.org/education-cme-moc-ii/polyarticular-juvenile-idiopathic-arthritis-pjia/
GENERALIZED HYPERMOBILITY

A. Varying nomenclature and definitions
   a. Generalized Joint Hypermobility (GJH)
      i. A Beighton Score of > 4/9
   b. Hypermobility Joint Syndrome
      i. Musculoskeletal pain + GJH
   c. Benign Hypermobility Joint Syndrome (BHJS)
      i. MSK pain + GJH w/o associated congenital syndrome or abnormality of connective tissue
   d. Ehlers Danlos Syndrome – Hypermobility Type III

B. Diagnosing joint hypermobility – The ability to **painless**ly perform the following five maneuvers…

The Beighton Diagnostic/Scoring Criteria

<table>
<thead>
<tr>
<th>Specific Joint Laxity</th>
<th>Right</th>
<th>Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive apposition of thumb to forearm</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Passive hyperextension of fingers</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Active hyperextension of elbow &gt;10 degrees</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Active hyperextension of knee &gt;10 degrees</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ability to flex spine and place palms to floor without bending knees</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

1 + 4 + 4 = 9


C. Management of Hypermobile Ehlers-Danlos Syndrome

Community Practice Support Tool – [https://www.cincinnatichildrens.org/professional/resources/community-practice-support-tools](https://www.cincinnatichildrens.org/professional/resources/community-practice-support-tools)

RESOURCES

FOR COPING WITH CHRONIC PAIN

“The Chronic Pain and Illness Workbook for Teens: CBT and Mindfulness-Based Practices to Turn the Volume Down on Pain” by Rachel Zoffness, Available on Amazon.

WebMAP Mobile: free for Android and iPhone, is designed to teach pain self-management strategies to youth with persistent pain. Developed at Seattle Children’s Hospital and tested in multiple clinical trials, the app offers a brief cognitive behavioral program (5-6 weeks) where teens (10-18 years) can learn about chronic pain, set goals for increasing physical activities, learn relaxation and imagery strategies, and receive interventions for problems with sleep and low mood.

YOGA

**Cosmic Kids Yoga:** they have a number of different yoga videos with various themes (e.g., Halloween) and for various activities (e.g., conquering your fears)
- 5 Calming Yoga Poses for Kids: [https://www.youtube.com/watch?v=QeVh3NVfa0k](https://www.youtube.com/watch?v=QeVh3NVfa0k)

**Smile and Learn Yoga:** they also have a number of yoga videos
- Yoga Children: Aquatic Animals Yoga Poses: [https://www.youtube.com/watch?v=z2UQ5-cVHJs](https://www.youtube.com/watch?v=z2UQ5-cVHJs)

RELAXATION EXERCISES

**Calm:** Free; different meditations for reducing stress, improving sleep, enhancing concentration, etc.

**Stop, Breathe and Think Kids:** App helps kids assess their mood then choose from a variety of “missions” to enhance or improve how they feel. Great for school age children.

**GoNoodle** – Relaxation Activities (some videos are also in Spanish). Search for “stress.”
- Melting Away: [https://www.gonoodle.com/videos/r2rMeX/melting](https://www.gonoodle.com/videos/r2rMeX/melting)
- Light as a Feather (Mindfulness exercise): [https://www.gonoodle.com/videos/r2rMeX/melting](https://www.gonoodle.com/videos/r2rMeX/melting)
- Rainbow Breathing: [https://www.youtube.com/watch?v=O29e4rRMrV4](https://www.youtube.com/watch?v=O29e4rRMrV4)

For more information, please visit: