

## AAP BRS Podcast: Complex Pain Pathologies

	Myofascial Pain	Fibromyalgia	CRPS
Symptoms	Pain in specific muscles usually localized to <b>one anatomic region</b>	Widespread pain and various symptoms: Fatigue, sleep disturbance, GI upset (IBS), headaches, etc.	Severe pain out-of-proportion to injury (may sound neuropathic), accompanied by vasomotor (temperature or skin color), sudomotor/edema (sweating or swelling), and/or motor/trophic (restricted motion, weakness, tremor, dystonia, hair/skin/nail) signs and symptoms
Diagnostic Criteria and PE Findings	<ul style="list-style-type: none"> <li>• <b>Clinical diagnosis</b></li> <li>• <b>Jump sign:</b> Sudden involuntary jerk or wince in response to pressing on a trigger point.</li> <li>• Taut muscle band in area of pain on exam</li> </ul>	<b>Diagnosis of exclusion</b> 3 main criteria: <ol style="list-style-type: none"> <li>1. Widespread pain (Widespread Pain Index and Symptom Severity Score)</li> <li>2. Symptoms present &gt;3 months</li> <li>3. No other medical disorder can explain the pain</li> </ol>	<b>Budapest Criteria:</b> <ol style="list-style-type: none"> <li>1. Persistent pain disproportionate to the original injury</li> <li>2. At least <b>1 symptom in 3 out of 4 categories:</b> <ol style="list-style-type: none"> <li>a. <b>Sensory:</b> reported increased sensitivity to painful (hyperalgesia) and non-painful stimuli (allodynia)</li> <li>b. <b>Vasomotor:</b> reported changes in color or temperature of the skin</li> <li>c. <b>Sudomotor/edema:</b> reported edema, sweating changes</li> <li>d. <b>Motor/trophic changes:</b> reported decreased ROM, weakness, tremor dystonia, changes in nail/hair/skin</li> </ol> </li> <li>3. At least <b>1 physical exam sign in 2</b> of the following four categories               <ol style="list-style-type: none"> <li>a. <b>Sensory:</b> hyperalgesia or allodynia on exam</li> <li>b. <b>Vasomotor:</b> temperature asymmetry, skin color changes, asymmetry</li> <li>c. <b>Sudomotor/edema:</b> edema, sweating changes, sweating asymmetry</li> <li>d. <b>Motor/trophic changes:</b> decreased ROM, weakness, tremor dystonia, changes in nail/hair/skin</li> </ol> </li> <li>4. Exclusion of other possible etiologies</li> </ol>
DDx	Muscle strain, tendinitis, bursitis, fasciitis, fibromyalgia	Myofascial pain syndrome, polymyalgia rheumatica, hypothyroid myopathy, rheumatoid arthritis, lupus, CRPS	DVT, compartment syndrome, peripheral vascular disease, neuropathy, Raynaud's phenomenon, infection
Tx	PT, stretching, low impact physical activity, massage, ice packs, anti-inflammatories as needed.	<ul style="list-style-type: none"> <li>• <b>Patient education/empowerment</b> to address mental health and lifestyle changes</li> <li>• <b>Regular low intensity aerobic exercise</b></li> <li>• 3 FDA approved medications:               <ul style="list-style-type: none"> <li>- Duloxetine, milnacipran, pregabalin</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• PT/OT</li> <li>• <b>Upper extremity -&gt; Stellate ganglion block</b></li> <li>• <b>Lower extremity -&gt; Lumbar sympathetic block</b></li> <li>• Initial treatments: Steroids, bisphosphonates, nasal calcitonin</li> <li>• <b>Neuromodulation (SCS, DRG)</b></li> </ul>
Fast Facts	Thought to be due to mechanical disruption of muscle fibers.  Occurs secondary to injury or repetitive motion.	Occurs most commonly in <b>women 30-50 years old.</b>  Multifactorial pathophysiology, believed to be due to increased sensitization of the CNS.	<b>2 Types CRPS:</b>  <b>Type 1: Reflex Sympathetic Dystrophy (RSD)</b> =No evidence of peripheral nerve injury. 90% of CRPS cases <b>Type 2: Causalgia</b> = Peripheral nerve injury is present. 10% of cases  <b>Stages of CRPS: (each lasts up to 5 months)</b> <b>Stage 1: Acute phase</b> -> Edema, vasomotor dysregulation, and allodynia <b>Stage 2: Dystrophic stage</b> -> Skin and muscle atrophy, mottled skin, intense pain, and hair/nail changes <b>Stage 3: Atrophic stage</b> -> Skin becomes pale, smooth, shiny, and cyanotic. Decreased pain, no more vasomotor changes.  <b>Most common etiologies:</b> 1. Fractures 2. Blunt trauma 3. Surgery

### CRPS Acronyms:

CRPS 123 Budapest	STAMP
<b>Color/Celsius-</b> changes/asymmetry <b>Reduced motor function or keratin health</b> <b>Pain-</b> out of proportion <b>Swelling</b> <b>1 Pain + 2 signs + 3 symptoms</b>	<b>Sensory-</b> hyperalgesia or allodynia <b>Trophic-</b> skin, hair, nails changes <b>Autonomic-</b> swelling, edema, sweating <b>Motor-</b> reduced ROM, weakness, tremor <b>Pain</b>