

**Amplified Musculoskeletal Pain
Syndromes in
Children and Adolescents
When It Hurts Too Much**

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Disclosure

Relevant Financial Relationships
None

Off Label Usage
None

Industry Acknowledgement
None

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Learning Objectives

- Discuss and evaluate the different clinical patterns of pain in amplified musculoskeletal pain syndrome
- Describe the principles behind and outcomes of a therapeutic exercise program
- Describe a team approach to treatment, resources and treatment programs offered for amplified musculoskeletal pain syndrome

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Pain – Definitions Are Important

- An unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage
- Pain is always subjective
- Every child's pain experience is unique

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In Addition To Pain There Can Be...

- Loss of independence and function
- Loss of participation in activities and relationships
- Isolation from peers and others
- Disbelief from other including medical and health professionals – you're faking it!

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Pain Amplification Syndromes

- Reflex Neurovascular Dystrophy
 - Intermittent
 - Constant
 - Localized
 - Diffuse
 - Complex regional pain syndrome (CRPS)
 - Total body with multiple painful points

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Causes

- Injury
- Illness
- Possibly genetic
- Possibly hormonal
- Gender
- Psychological Stress

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Evaluation

- General History/ROS
 - HPI
 - PMH including labs, imaging studies, treatments, procedures
 - Medication History
- School History
- Life Changes
- Family Mental Health History
- Psychosocial Evaluation
- Physical Exam

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Historical Clues

- Increasing pain over time
- Minor trauma common
- Allodynia
- Pain worsens with rest, cast, splint
- Failed all prior therapies
- Color and temperature changes
- Incongruent – la belle indifference

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Social History Clues

- Major life event or change
- Role model for chronic pain
- “Typical” personality – Family
 - Spokes-Mother
 - Enmeshment (subjective)
 - Enforcing the sick role
- “Typical personality” – Child/Adolescent
 - Mature for age
 - High achiever
 - Pleaser
 - Perfectionist

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Physical Exam

- Allodynia
 - Pain due to stimulus that does not normally provide pain
- Autonomic Changes
- Conversion
 - Presence of one or more neurological symptom affecting voluntary or sensory function
 - No organic cause
 - Brain converts feelings and emotions into physical symptoms

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Allodynia

- Pain to light touch
- Extreme sensitivity
- Variable border – check repeatedly

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Autonomic Signs

- Cold
- Cyanotic
- Clammy
- Swollen
- Decreased pulse
- Dystrophic skin
- Examine after exercise

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Conversion

- Stiffness
- Paralysis
- Shaking
- Pseudo-seizures
- Conversion gait
- Blindness
- Deafness
- Memory loss

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Treatment

- Discontinue medical investigations
- Identify stresses – initiate talk therapy
- Discontinue medications
 - Exceptions: chronic illness or medical condition
- More physical and occupational therapy than you can imagine
- Desensitization

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Treatment Goals

- Phase I: Intense physical and occupational therapy program -- most children regain their function and will start to have a decrease in pain
- Phase II: Going home, maintaining normal function, doing a home exercise program and, for most, attending counseling – for most children pain goes away
- Phase III: Normal activities without pain – no longer need a home exercise program

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Mission Statement

We provide a comprehensive holistic interdisciplinary team approach to the individualized treatment and care of children with Amplified Musculoskeletal Pain.

We uphold this mission by empowering children and their families through instilling confidence and providing hope to restore overall healthy life function.

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The Team

- Physician
- Pediatric Nurse Practitioner
- Pediatric Psychologist
- Program Coordinator
- Physical and Occupational Therapists
- Social Worker
- Art Therapist
- Music Therapist
- Day Hospital and Inpatient Nursing Staff

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Programs and Therapy

- PT/OT evaluation and home exercise program which may include out-patient PT/OT services
- Day Hospital
- Inpatient Rehab
- On admission evaluation and individualized plan of care and length of stay
- Average length of stay is 3-4 weeks

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Treatment Principles

- Full return to normal functional activities
- Patients take an active role in their own wellness and rehabilitation
- Measure patient performance
- Education and support of patients and families
- Team support and communication
 - Avoidance of team splitting
 - Team huddles daily and review plan of care
 - Carryover of functional activities

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Exercise Therapy

- 5-6 hours intense PT/OT daily
 - Pre and post evaluations
 - Timed activities
- Desensitization
 - Allodynia
- Aerobics
 - Endurance: working to increase speed and distance
- Functional activities
 - Instrument, hobby, sports, leisure activities, school simulation days, field trips

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Psychology Support

- To address the mind-body connection
- Learn and develop coping and stress management skills
- Co-treatment during exercise therapy
- Art therapy
- Music therapy
- Group therapy
- Fun Friday

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Therapy Meltdown Days

- Can affect motivated and non-motivated kids
- Program modifications
- Co-treatment and coping skills
- Support both physically and emotionally
- Often happens right before dramatic improvement

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Parents and Families

- Not allowed in therapy gym
- Behavior plans and limiting visitation
- Ignore pain
- Reinforce independence
- Weekly meetings
- Maintain normal schedule and routine
- Parent support group
- Team meetings
- Very challenging families

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Outcomes

- Within 1-2 weeks 80% are fully functional
- Within the first month 95% are fully functional
- Within the first month 75% are pain free
- ~10% fail and will need psychotherapy before they can allow themselves to get better

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Discharge

- Reached their critical mass
 - Functional goals met
 - Compliant and independent with home program
 - Can handle pain flares
 - Follow-up in clinic in one month
 - Outpatient counseling

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What Do You Do When You See A Child and Suspect RND?

- Recognize it
- No further medical investigations unless absolutely indicated
- Sympathize and acknowledge pain
- Resist urge to treat with medications
- Refer to a local PT/OT facility
- Discuss stress and refer to counseling
- Follow-up in one month
- Call us for advice or www.childhoodrnd.org

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Final Analysis

- GREAT kids who are in real need
- We have a significant impact on both their symptoms and their emotional wellness
- VERY time consuming for the entire team
- VERY rewarding

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