



Growing Pains:

Pain Management in Children and Adolescents

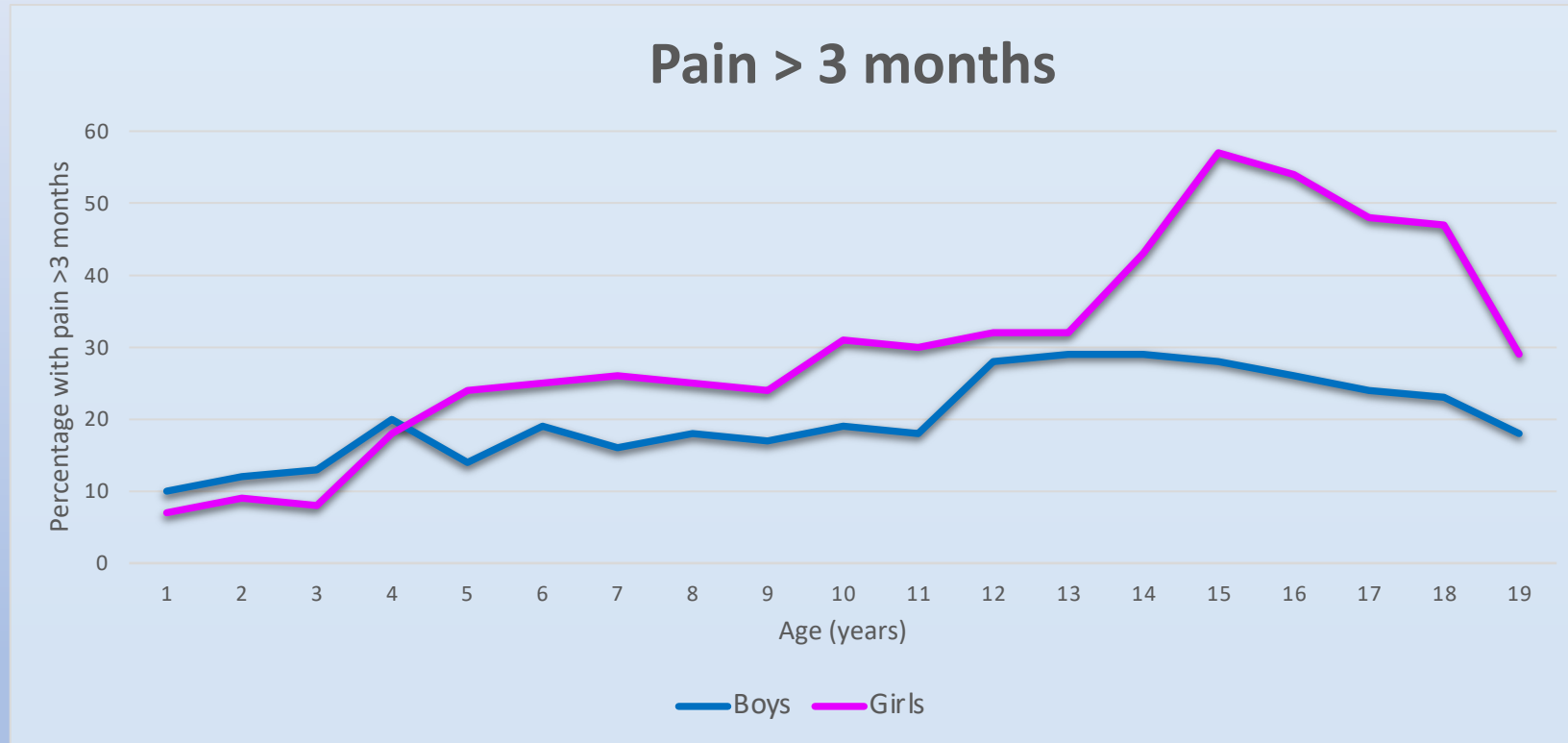
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Miss JB 10yo

- Foot pain after minor injury
- “Stinging” pain in foot, pins and needles, formication, sensation of hot and cold water
- Sweaty, discoloured, sensitive to touch, temp change
- Past history:
 - ASD/ADHD, hEDS, ovarian cysts, eczema, raised IgE, eosinophilia, precocious puberty and hirsutism
- Family/social history:
 - Mum, stepdad, 3 siblings, 2 stepsiblings, dog, 7 cats, rabbit; home schooled
 - Sees dad alternate weekends
 - Mum-hEDS, migraine, Reynauds, POTS
 - Brother (19) – POTS, migraine, CFS, Anxiety/depression
 - Brother (16) – IBS
 - Sister (14) – hEDS, POTS
 - Maternal aunt/gmo – migraine, IBS, CFS, hEDS, Reynauds

“Children don’t get chronic pain, do they?”

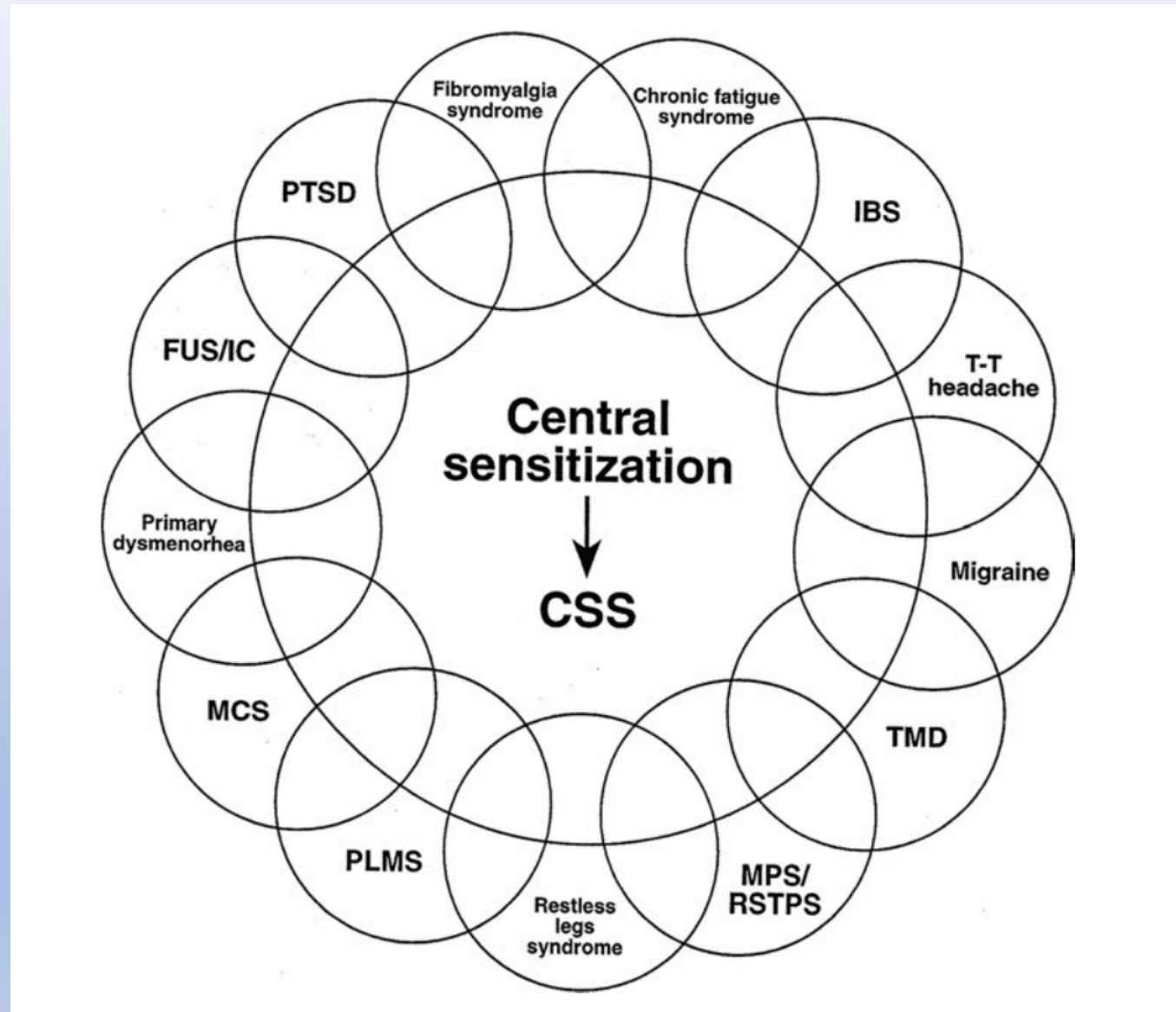
- 8 yo recurrent abdominal pain
- 10yo MSK pain, obesity, autism
- 15yo girl chronic headaches
- 11 year old Juvenile Inflammatory Arthritis



Adapted from: Perquin C, Hazebroek-Kampschreur A, Hunfeld J, Bohnen A, van Suijlekom-Smit L, Passchier J et al.(2000), Pain in children and adolescents: a common experience. Pain, 87(1):51-58.

Vulnerability to Complex Pain

- Genetics/epigenetics
- Neuroirritability (colicky infant)
- Adverse developmental history
- Environmental
 - Conflict, DV, MH, SUD, bullying
- Psychological
- Chronic disease
- Obesity
- Other pain condition



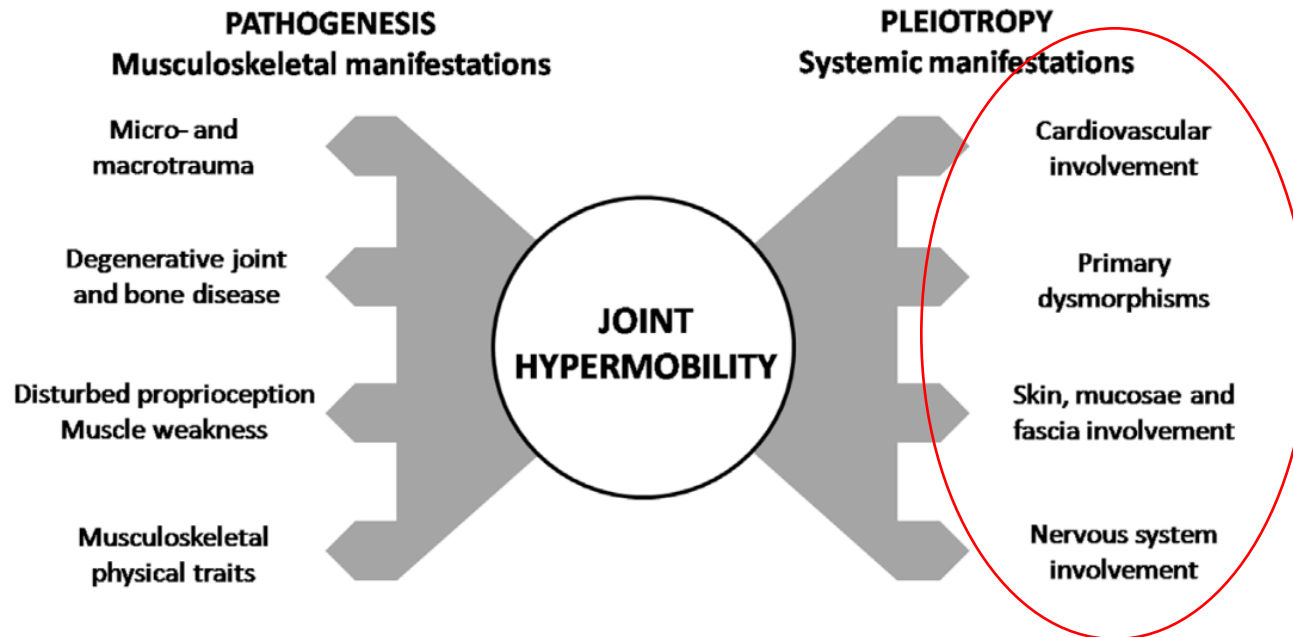
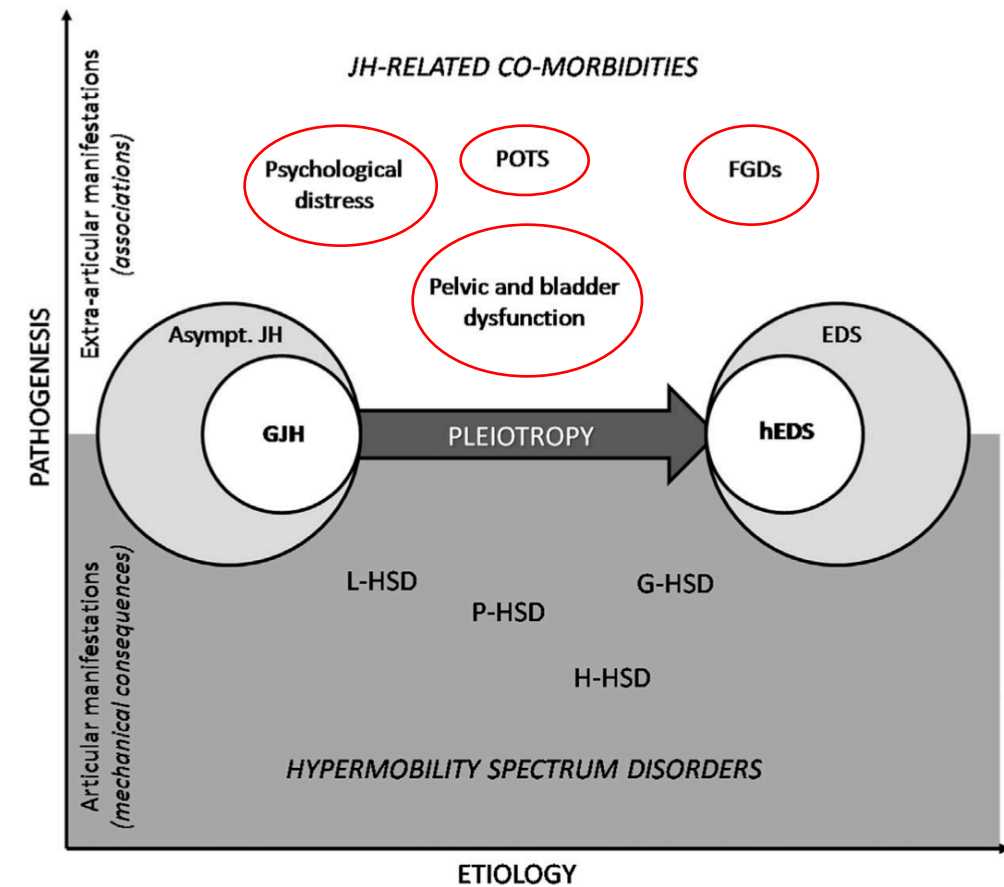
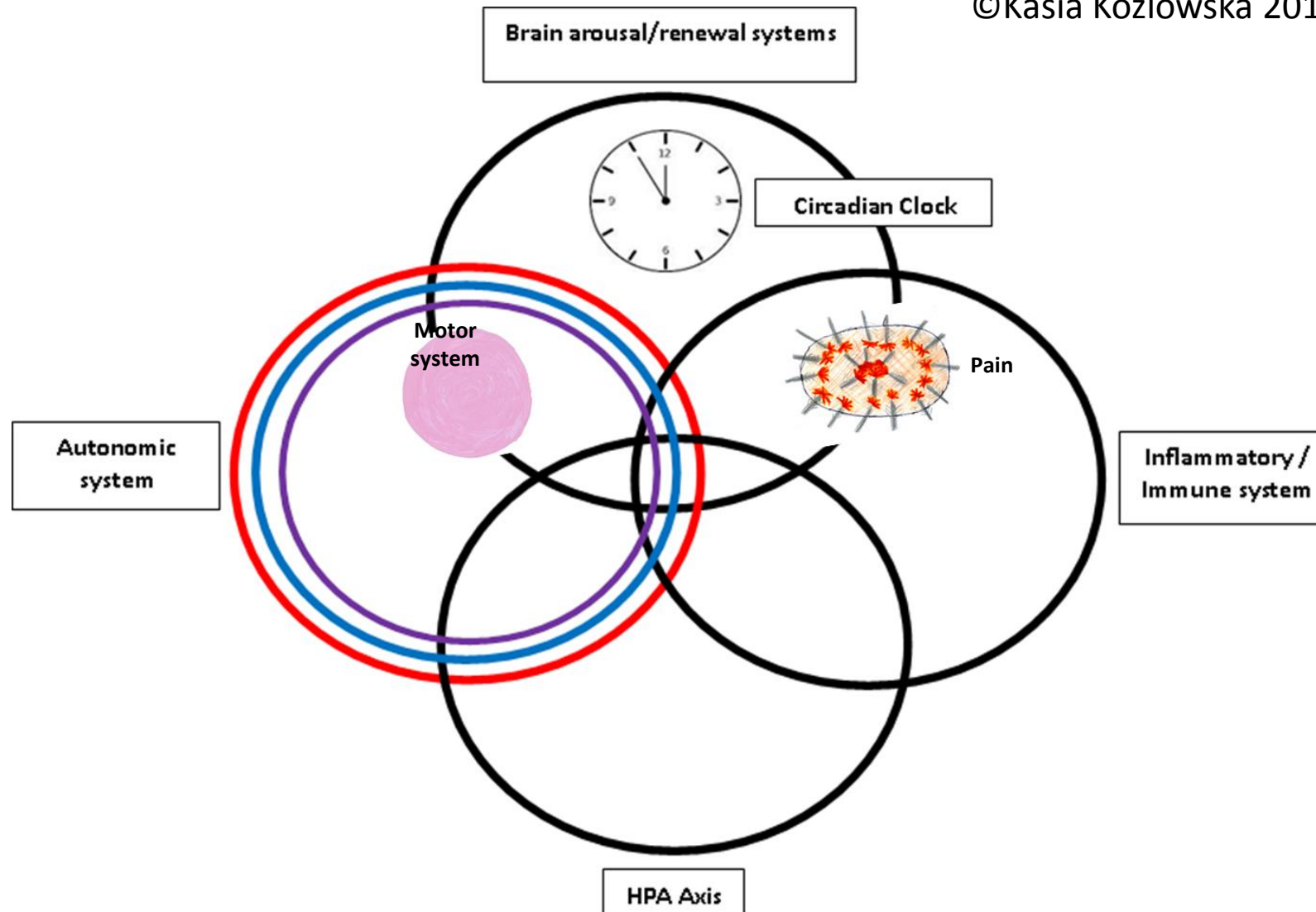


Figure 1. Phenotypic ramifications of joint hypermobility. On the left, secondary musculoskeletal manifestations as summarized in four major categories. On the right, the pleiotropic features of hereditary connective tissue disorders featuring joint hypermobility are grouped under four major domains.



Stress-system Model of Functional Somatic Symptoms

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Kozłowska, K. (2017). "A stress-system model for functional neurological symptoms." *J Neurol Sci* **383**: 151-152.

Fundamentals of Management:


4 S's and 3 M's of Complex Pain

1. Stop investigating
2. Validation and education
3. Goals: 4 S's
 - Sleep, socialization, sport, school
4. 3M's
 1. MIND (and sleep)
 2. MOVEMENT (and diet)
 3. medication
5. Resources/referral

Mind

- CBT techniques
- Down-regulate arousal, enhance restorative parasymp NS
- Apps – Smiling Mind, Headspace, Calm
- Professional assistance
- Psychiatry
- Family therapy

Sleep

- Poor sleep  pain
- Important restorative function
- Sleep hygiene
- SCREENS!
- Meds:
 - Melatonin, clonidine, quetiapine

Movement

- Anything is good; daily
- In conjunction with CBT techniques
- Hydrotherapy
- Avoid aids
- Graded increase, pacing
- School attendance!
- Diet
 - Weight control, anti-inflammatory

medications

- Avoid opiates
- Functional goals
- Simple analgesia
- AED
 - Gabapentin/pregabalin
- clonidine
- ADM
 - TCA/SSRI/SNRI
 - Specialist guidance

- Opiates:
 - generally avoid
 - ?community risk
 - ?tramadol/tapentadol
- Exceptions (?)
 - Sickle cell, IBD, JIA, EB
- Interventions

Resources

- PainBytes
 - www.aci.health.nsw.gov.au/chronic-pain/painbytes
- Understanding Pain and what's to be done about it in 10 minutes (Youtube)
- Apps:
 - Smiling Mind, Headspace, Calm, Bliss
- Websites:
 - Yoga for youth, teen sleep, sleep for kids

PainBytes

Pain Management Network

Home For Everyone For Health Professionals Specialized Injury Pain Health Professionals

PainBytes

This section contains valuable information to enable you to develop skills and knowledge in self-management of your pain, in partnership with your healthcare providers. You will develop skills and strategies to manage your pain and develop what is called a Pain Management Strategy. It would be most beneficial if you were able to work through the Episodes 1-7 in sequence for the best outcome.

It is important that you understand about chronic pain before proceeding through the rest of the episodes.

WELCOME TO PAINBYTES

View video transcript

CLICK HERE FOR HELP

These episodes are designed to provide information about pain. Only the reader has access to the information you add into these episodes on the website. If the reader has any concerns about the information, becomes upset or is unclear of the intention of the information, they are advised to seek help from their doctor. Click here to link to telephone and online help resources.

We would encourage that you take a break after completion of each episode, spend some time, maybe a week in between, working on the skills you have learnt, before going onto the next episode in the series.

This series is divided into 7 episodes. To get started, click here!

<http://www.aci.health.nsw.gov.au/chronic-pain/painbytes>