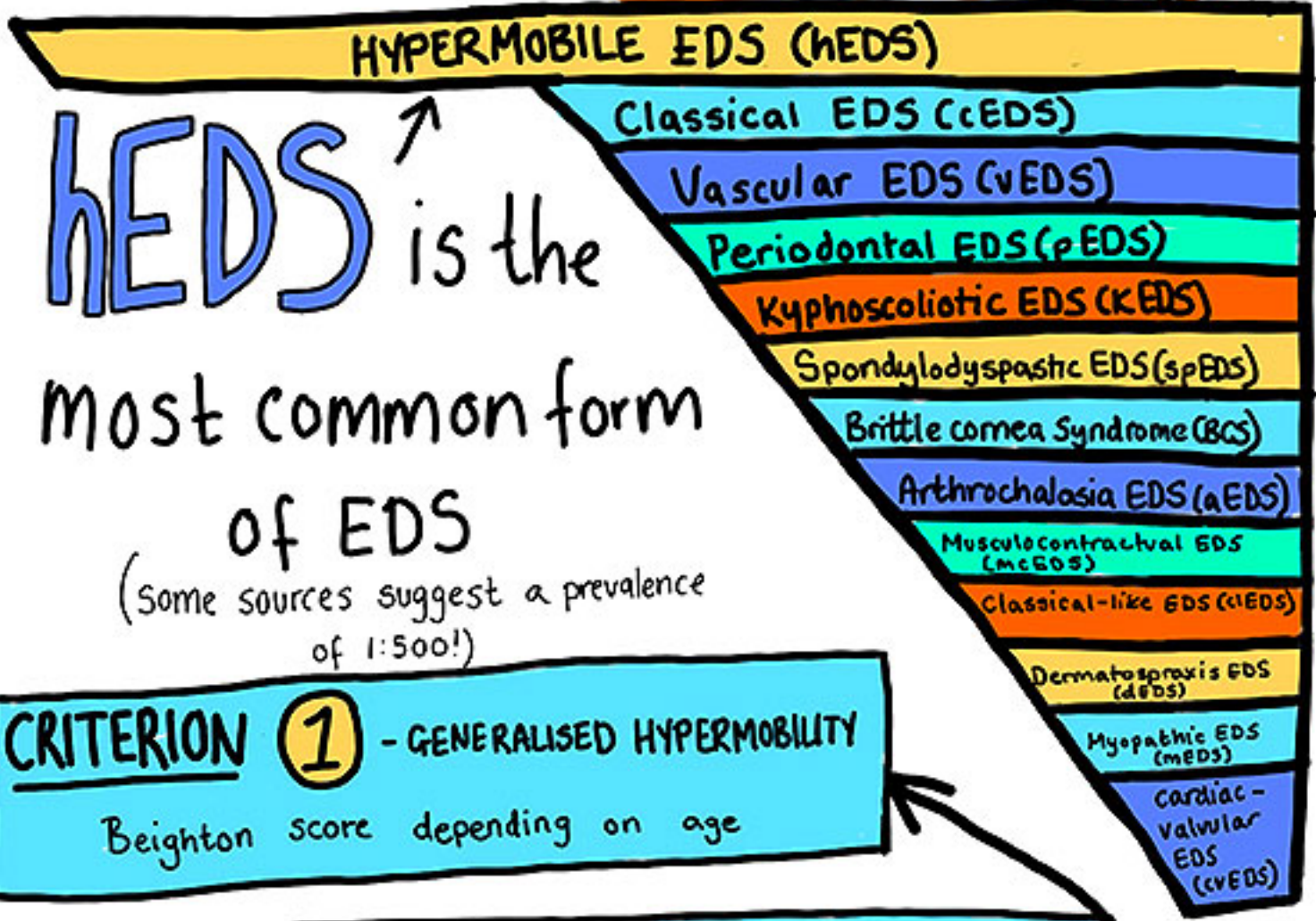


# WHAT IS hEDS/HSD?

**EDS** stands for **Ehlers Danlos Syndromes**  
 → a group of 13 connective tissue disorders

## TYPES OF EDS



**hEDS** is the most common form of EDS  
 (Some sources suggest a prevalence of 1:500!)

- CRITERION 1** - GENERALISED HYPERMOBILITY  
Beighton score depending on age
- CRITERION 2** - 2 OR MORE OF FEATURES A, B + C < 1:100000

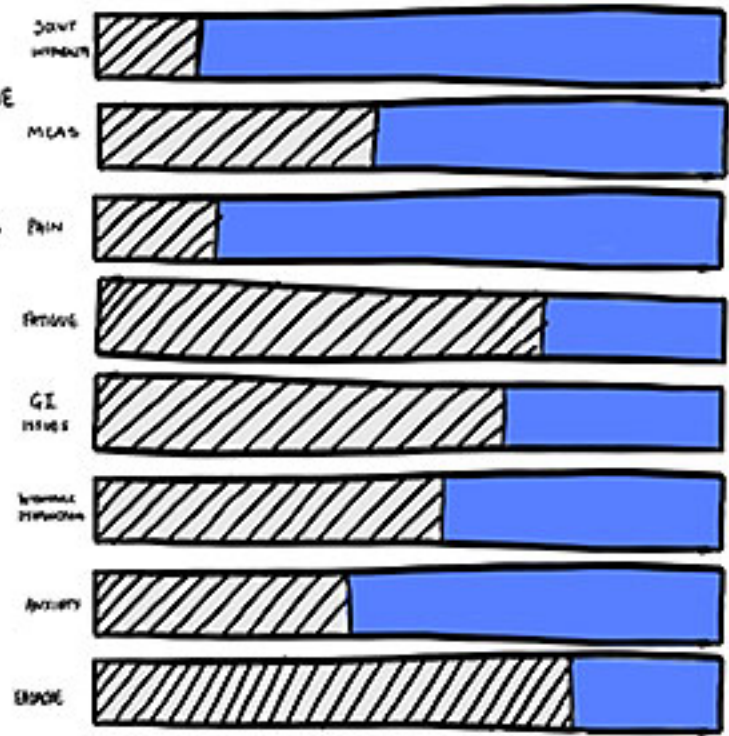
- Feature A**
- unusually soft, velvety skin
  - mild skin hyperextensibility
  - unexplained striae distensae or rubae without a hx of weight gain/loss
  - bilateral piezogenic papules of the heel
  - Recurrent or multiple abdominal hernias
  - Atrophic scarring in at least 2 sites
  - Pelvic floor, rectal and/or uterine prolapse without other predisposition
  - Dental crowding + high narrow palate
  - Arachnodactyly
  - Arm span to height ratio  $\geq 1.05$
  - Mitral valve prolapse
  - Aortic root dilatation

- Feature B**
- Positive family history
- Feature C**
- Musculoskeletal pain in  $\geq 2$  limbs recurring daily for at least 3 months
  - Chronic, widespread pain for  $\geq 3$  months
  - Recurrent joint dislocations or frank joint instability in the absence of trauma

## hEDS SPECIFIC DIAGNOSTIC CRITERIA

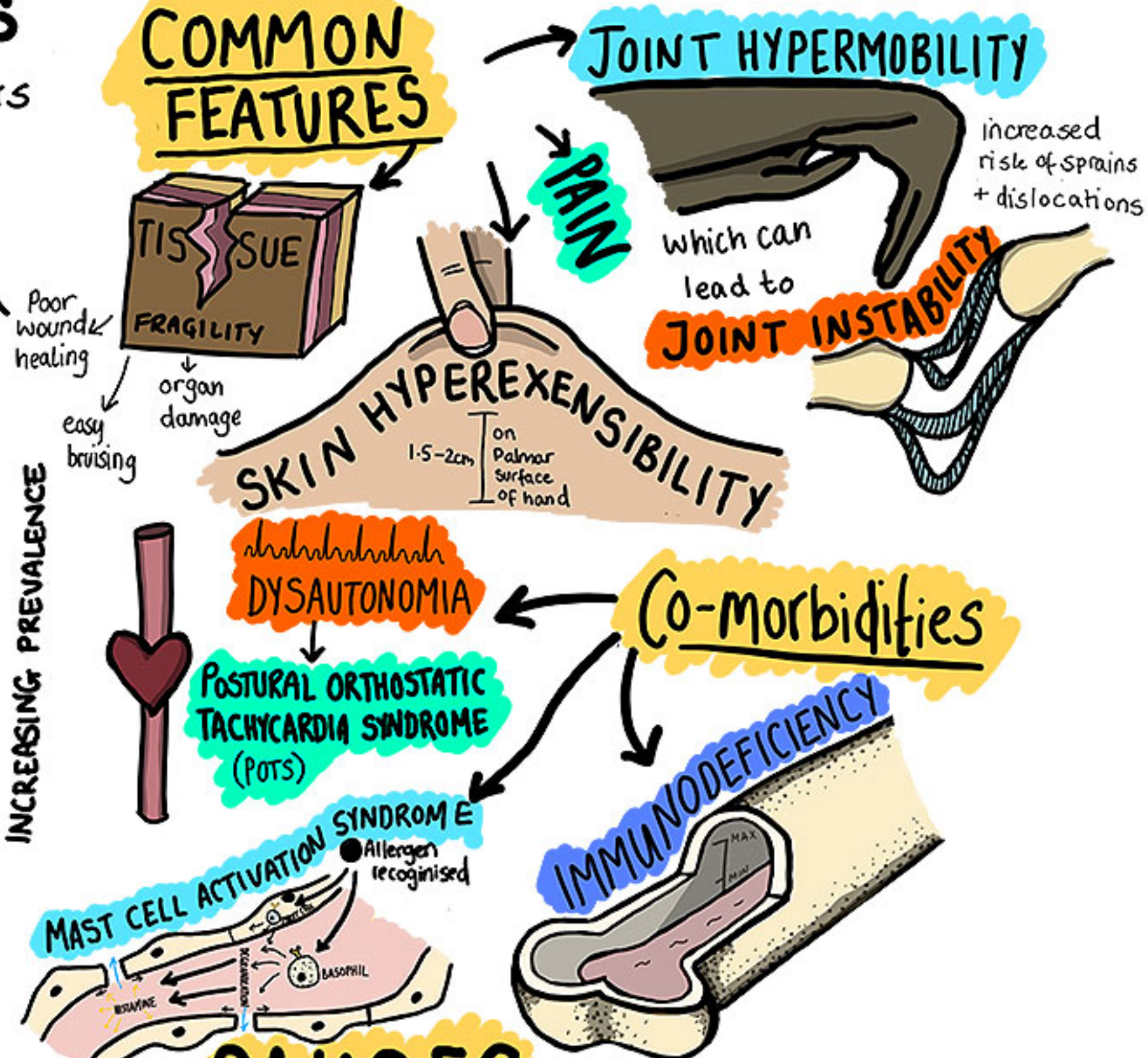
**CRITERION 3**  
 Exclude other diagnoses

Rather than a linear scale, each person with HSD can experience different symptoms.



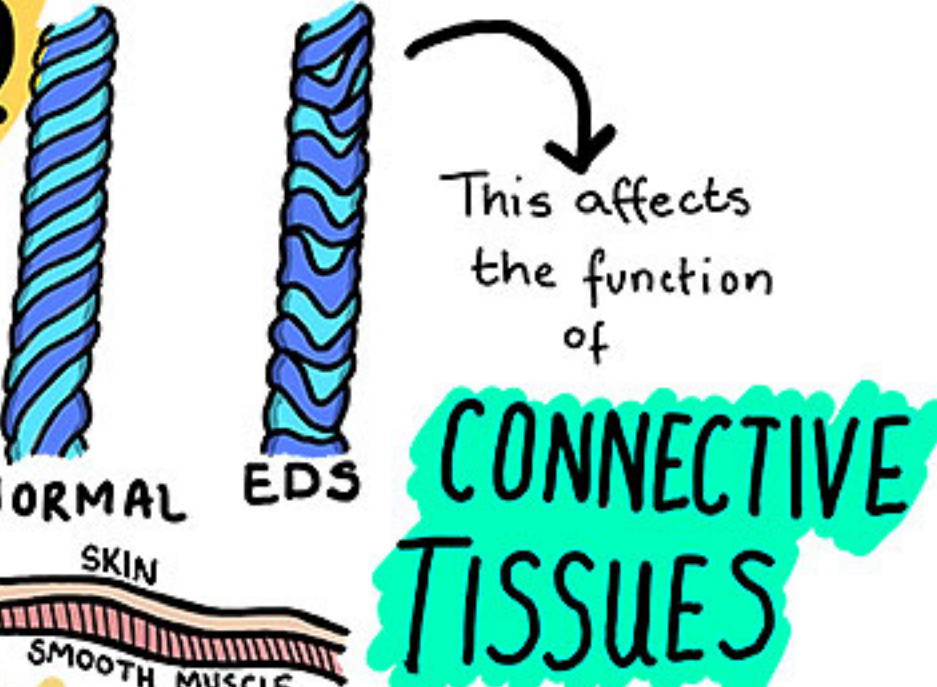
What if hypermobile but does not fit into any other criteria?  
**HYPERMOBILITY SPECTRUM (HSD) DISORDERS**

## COMMON FEATURES



## CAUSES

Several gene variants that affect collagen structure  
 (the specific genetic cause have not been identified)



## TREATMENT

- PAIN** - acute - chronic - complex - neuropathic - fibromyalgia - myofascial
- GI ISSUES** - dyspepsia - nausea - IBS - diarrhoea - constipation
- NUTRITION** - Bespoke diets - reduced nutrient absorption
- CARDIOVASCULAR** - Positional tachycardia - orthostatic hypotension
- MAST CELL ACTIVATION** - poorly understood - H1 + H2 antagonist use
- MUSCULOSKELETAL** - joint protection
- HEAD+NECK** - migraines - TMD dysfunction - cervical disc degeneration

**\*PAEDIATRICS\***  
 - Autism Spectrum Disorder  
 - Abdominal + bladder issues  
 - "growing pains"

**\*WOMENS HEALTH\***  
 Hormonal + gynaecological issues are common + pregnancy can lead to complications