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Hypermobility in Young Adults

Clinical and Management Considerations

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Outline

- What is hypermobility?
- What other features need to identify?
- Management consideration with sport and exercise
- Case study
- Useful resources

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What is hypermobility?

- Syndrome of soft tissue abnormality
  - collagen fibre laxity
  - 28 types of collagen
  - Predominantly type 1
- May be associated with joint instability
- Varied presentations
  - Traumatic /overuse
    - Tendon and joint failure
    - Poorer surgical outcomes

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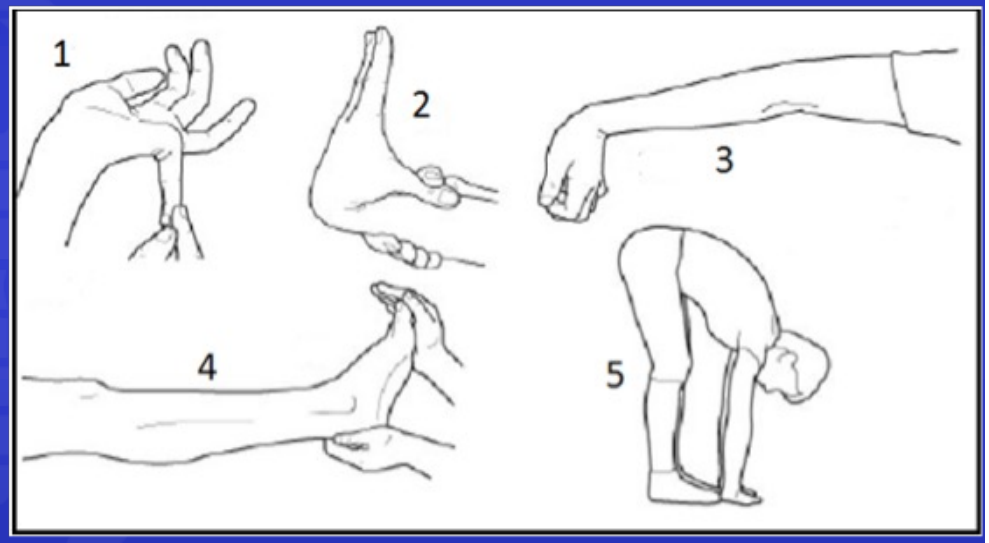
Hypermobility / hyperlaxity
Beighton Score – 9 points maximum

- Prevalence of generalised hyperlaxity is 5 to 15%.
- More prevalent in females, certain ethnic groups and more frequent in certain sports (swimming, gymnastics, dance).
- A positive Beighton score is
  - any score greater than or equal to 5/9 points in adults
  - 6/9 points in children (before puberty), and
  - 4/9 points in adults over age 50.



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What other features are important to identify?

- Hypermobility with or without instability may be part of a more complex syndrome
- Most body systems may be affected
  - Cardiac – aortic root or valve
    - Athletic screening
  - Eye – lens dysplasia
  - Autonomic nervous
    - POTS; GIT; heat intolerance
- Taking a deeper history is important

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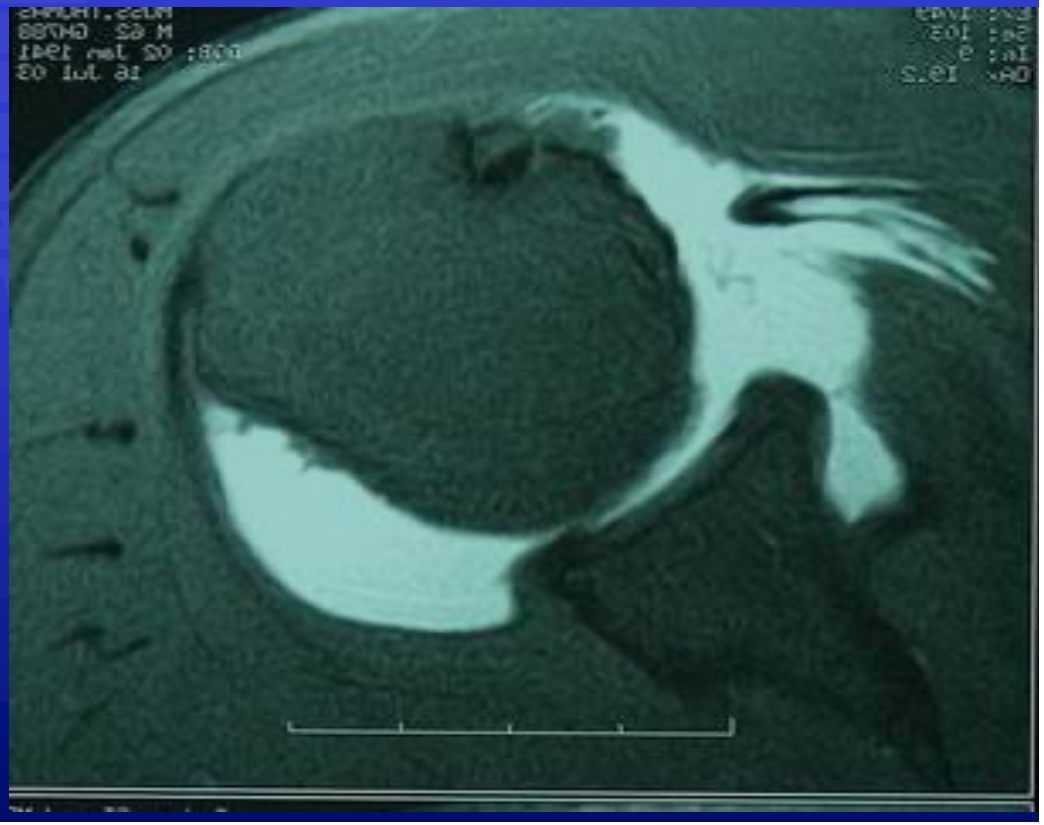
Taking a deeper history

- Family members
  - Dislocations
    - Shoulder, patella, ankle
  - ‘double-jointed’
- Prevalence of conditions such as Marfan’s or Ehlers-Danlos syndrome (EDS; 13 types)



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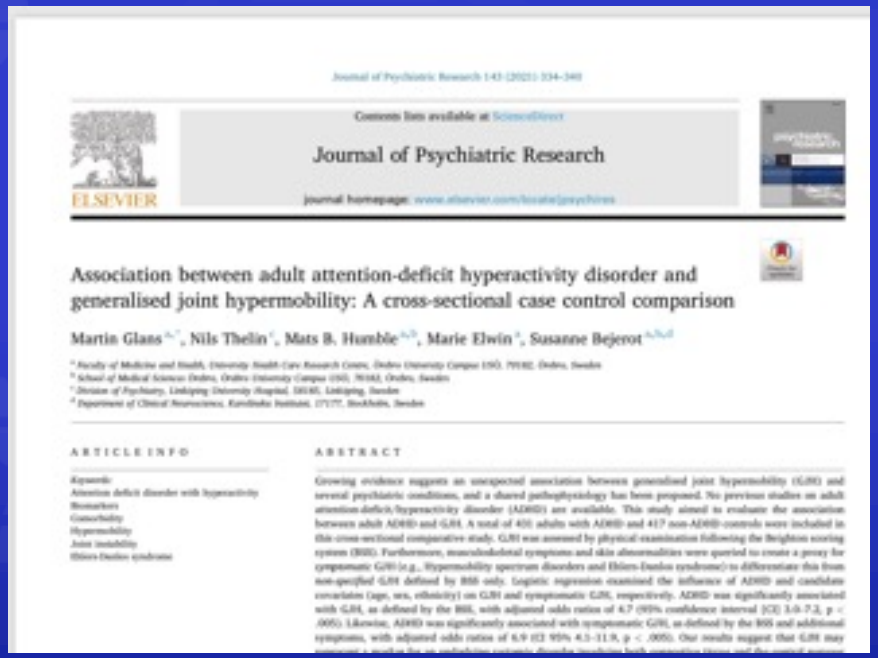
Hypermobility and Neurodivergence

- Recent studies – ADHD and ASD
  - Glans et al, 2021
  - Beaza-Velasco et al, 2018
  - > 50% hypermobile
- Genetic profiles
- Mental illness
  - Depression
  - Anxiety
  - Bipolar disorder
- Brain differences
  - Amygdala and cortical areas



Journal of Psychiatric Research

Association between adult attention-deficit hyperactivity disorder and generalised joint hypermobility: A cross-sectional case control comparison

Martin Glans, Nils Thelin, Mats B. Humble, Marie Elwin, Susanne Bejerot

ARTICLE INFO

ABSTRACT

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General Management Considerations with Sport and Exercise

- Encouragement – education and opportunity!!
- Sports
  - Collison and ballistic sports high risk
- Physical activity
  - Structured / supervised
    - ↓proprioception
  - Isometric focus early
  - Slow upgrade

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Specific Management Considerations with Sport and Exercise

- Whole body program
- Aerobic – zone 1-2 HR
- Heat intolerance
- Upper body considerations
  - Avoid ABER loading and isolating joints
- Lower body
  - Avoid WB squat / lunge >90·
- Pilates and TRX are good target options
- Creative activities with dance and music helpful

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24yo Joel Wants to get fit and healthy. Motivation is difficult. Referred for management of Anterior Knee Pain

- Rugby League at school. Not enjoyable. Bullied

- Hospitalised age 20 with major depressive episode. Duloxetine 120mg
- Diagnosed with ADHD and prescribed Methylphenidate for most of high school
- History of 'comfort eating' and social drug use

- Talented musician and works as a designer
- Very intelligent and has studied the effects of diet and exercise on depression

- Physical examination – PF maltracking with typical imbalances
  - Joint hyperlaxity – 6/9 (upper body)
  - Poor grip strength; weak trunk
- Quiet demeanour – looked very sad

- Not confident an exercise program would work

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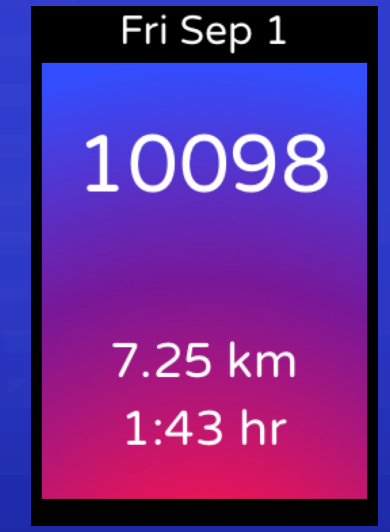
28yo Joel – what happened?

- Main issues identified
- Agreed that having a buddy and accountability is good
- Sleep hygiene and increased protein intake

- Initial aerobic programme
  - 30 minutes walking most days with dog – sunlight exposure
- Added core strength with floor (mat) pilates, then at 6 weeks commenced TRX training – isometric bias
- Added gym based training (with PT) then circuit classes
  - No weight-bearing in shoulder ABER
  - High intensity dance classes
- Used pedometer through phone app



- Exhausted at 3 weeks
- Feeling more energised at 6 weeks
- Enjoying the plan 3 months
- Now at 3 years and not medicated for depression

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Thank you

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