

HYPERMOBILITY, EHLERS DANLOS SYNDROME, AND FLUTE PLAYING

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with

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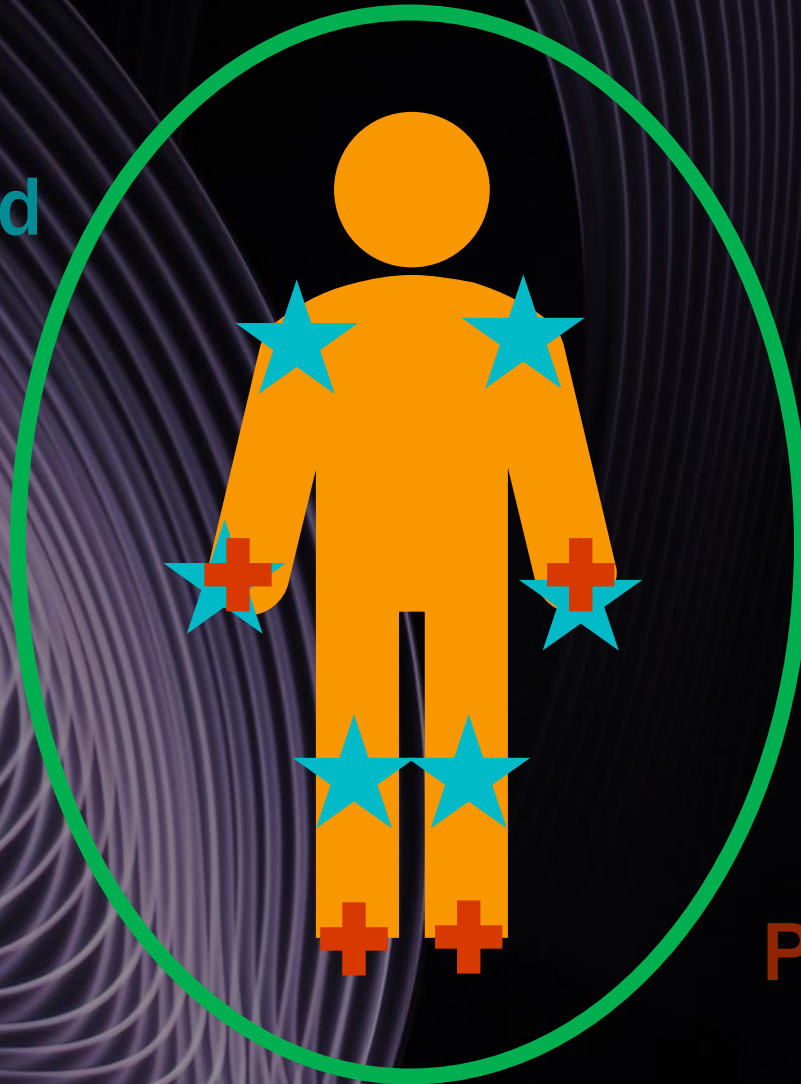
WHAT IS HYPERMOBILITY?

Ability to move joints beyond the normal range of movement



WHAT IS HYPERMOBILITY?

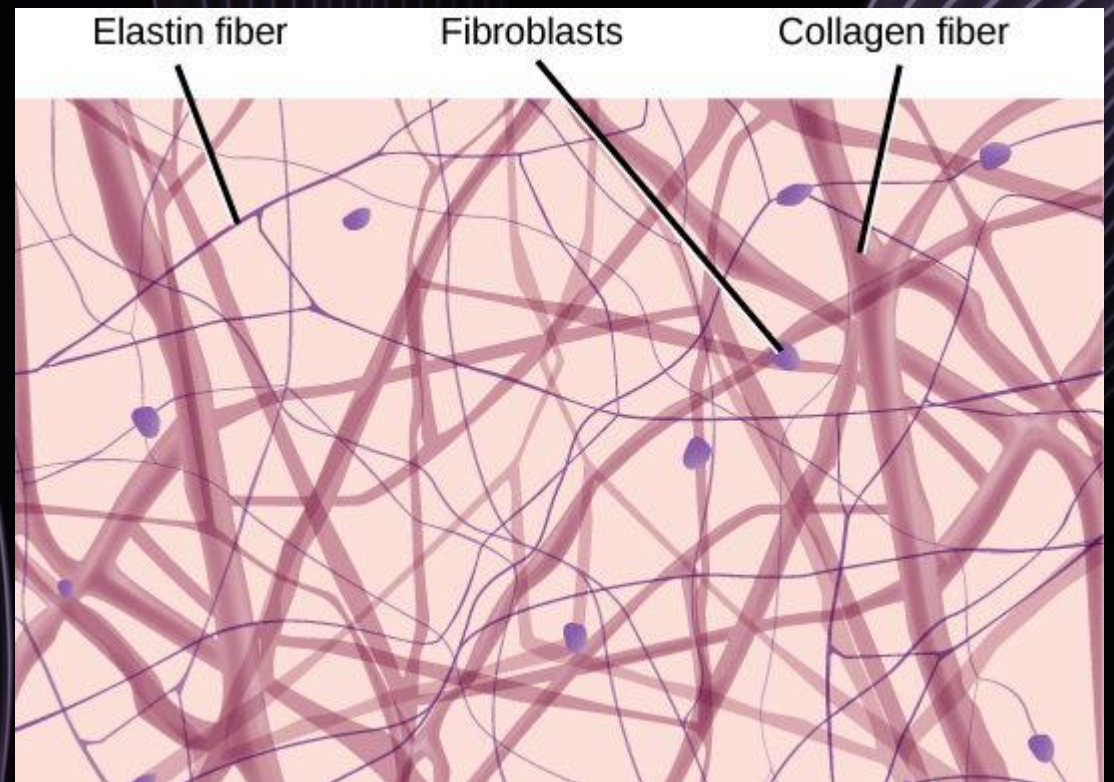
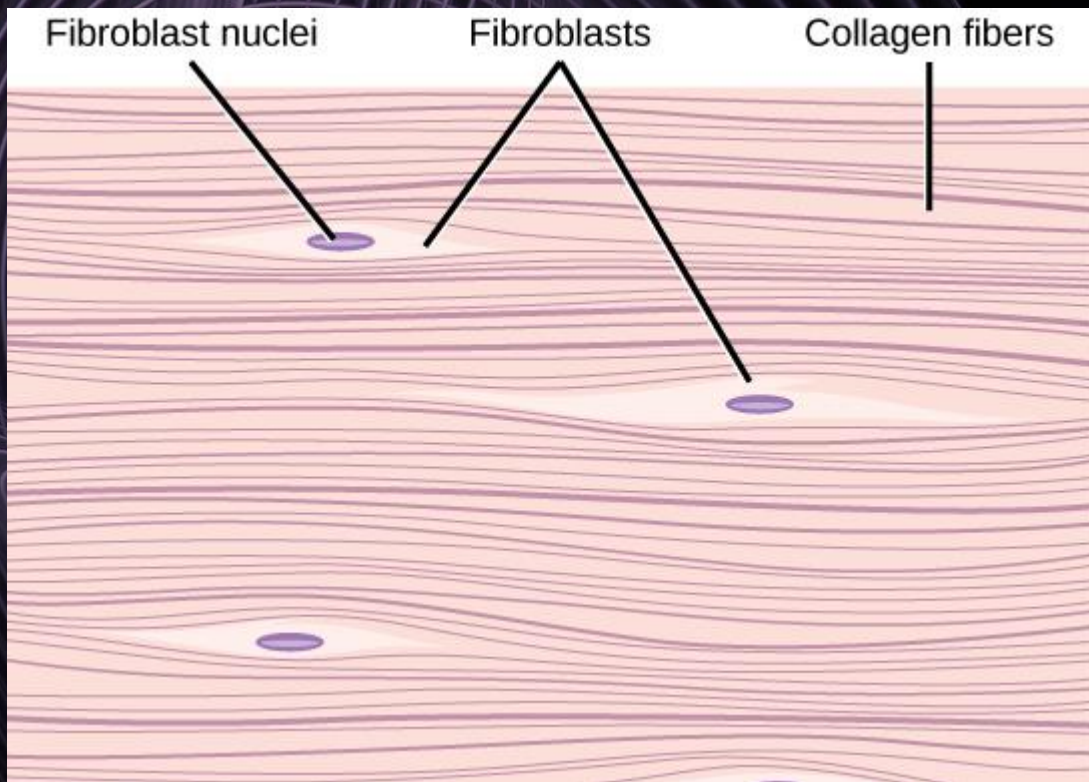
Localised



Generalized

Peripheral

WHAT IS HYPERMOBILITY?



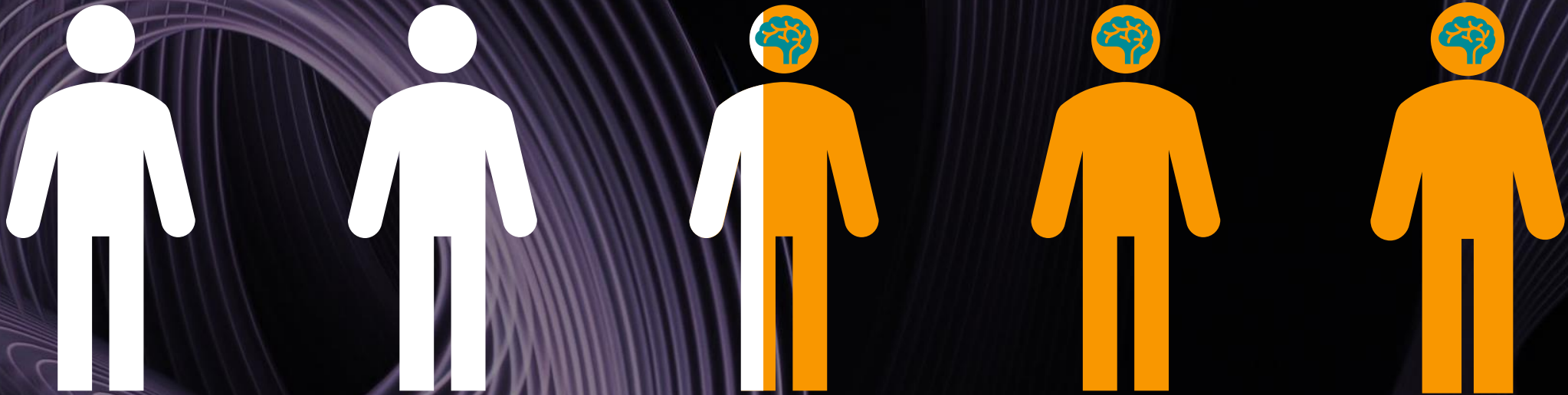
Examples of some connective tissue types

WHAT IS HYPERMOBILITY?



General population = ~20% hypermobile

WHAT IS HYPERMOBILITY?



Neurodivergent population = >50% hypermobile

WHAT IS HYPERMOBILITY?

Symptomless

Symptomatic (syndrome/disorder)

Can exist with other symptoms / larger diagnosis

A pair of hands is shown with red string tied around the fingers, creating a complex, web-like structure. The string is looped and crossed, forming a series of interconnected triangles and quadrilaterals. The hands are positioned in the center of the frame, with the fingers spread out. The background is a soft, out-of-focus grey. The text "EHLERS DANLOS SYNDROME" is overlaid in the center of the image in a bold, white, sans-serif font.

EHLERS DANLOS SYNDROME



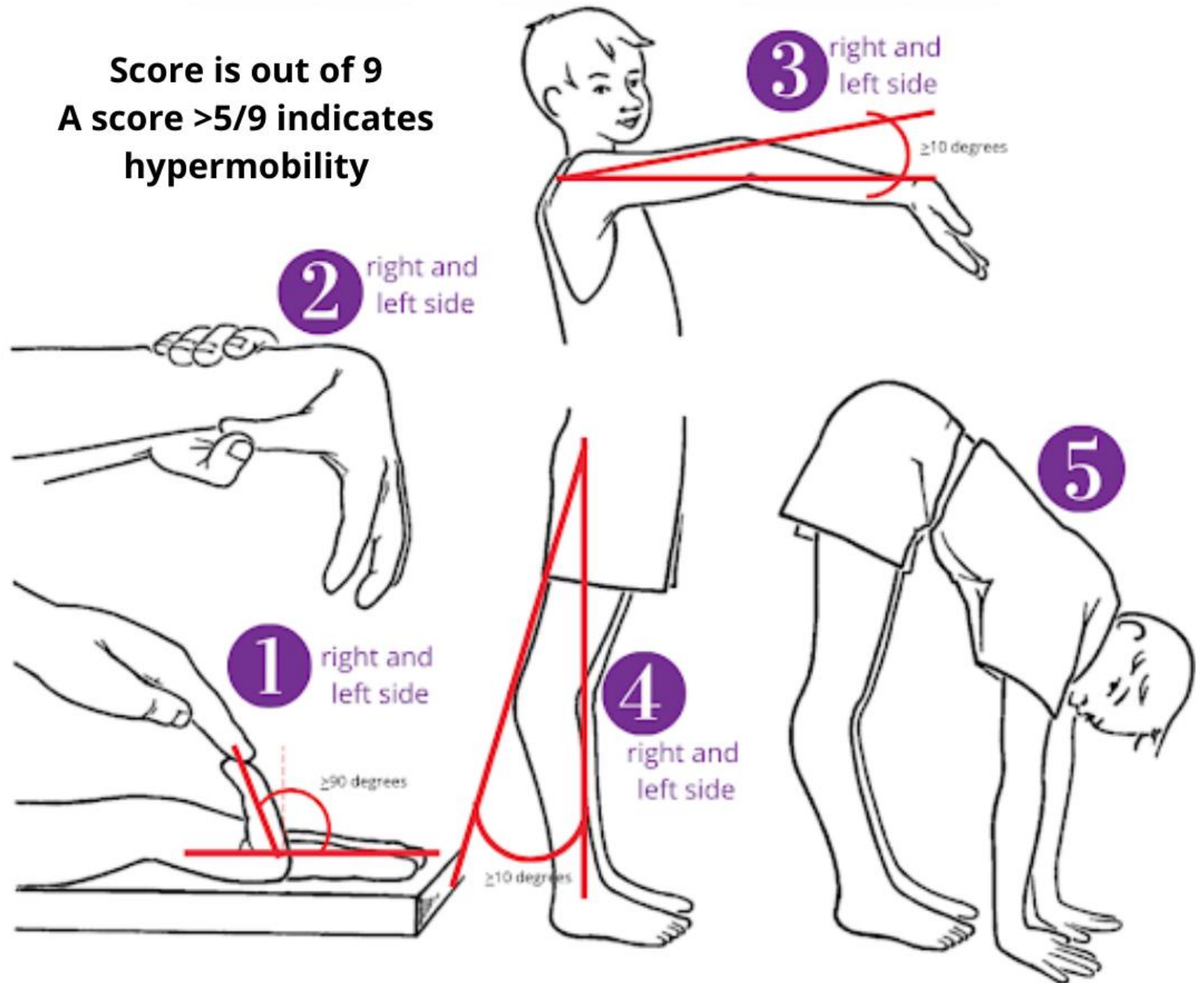
EDS

HYPERMOBILITY

- Joint hypermobility
- Ligamentous laxity
- Recurring joint dislocations
- Chronic joint pain
- Pes planus (flat feet)
- Scoliosis

BEIGHTON'S HYPERMOBILITY SCORE

Score is out of 9
A score $>5/9$ indicates
hypermobility





FURTHER POSSIBLE SYMPTOMS

**Increased
workload and
fatigue**



Increased
injury
risk



Playing flute with hypermobility



SUPPORT FOR JOINT STABILITY AND MUSCLE RELAXATION



Joint braces

Compression supports

Orthotics

Stabilization tape

Myofascial release

Stretching

Acupuncture

Muscle relaxants

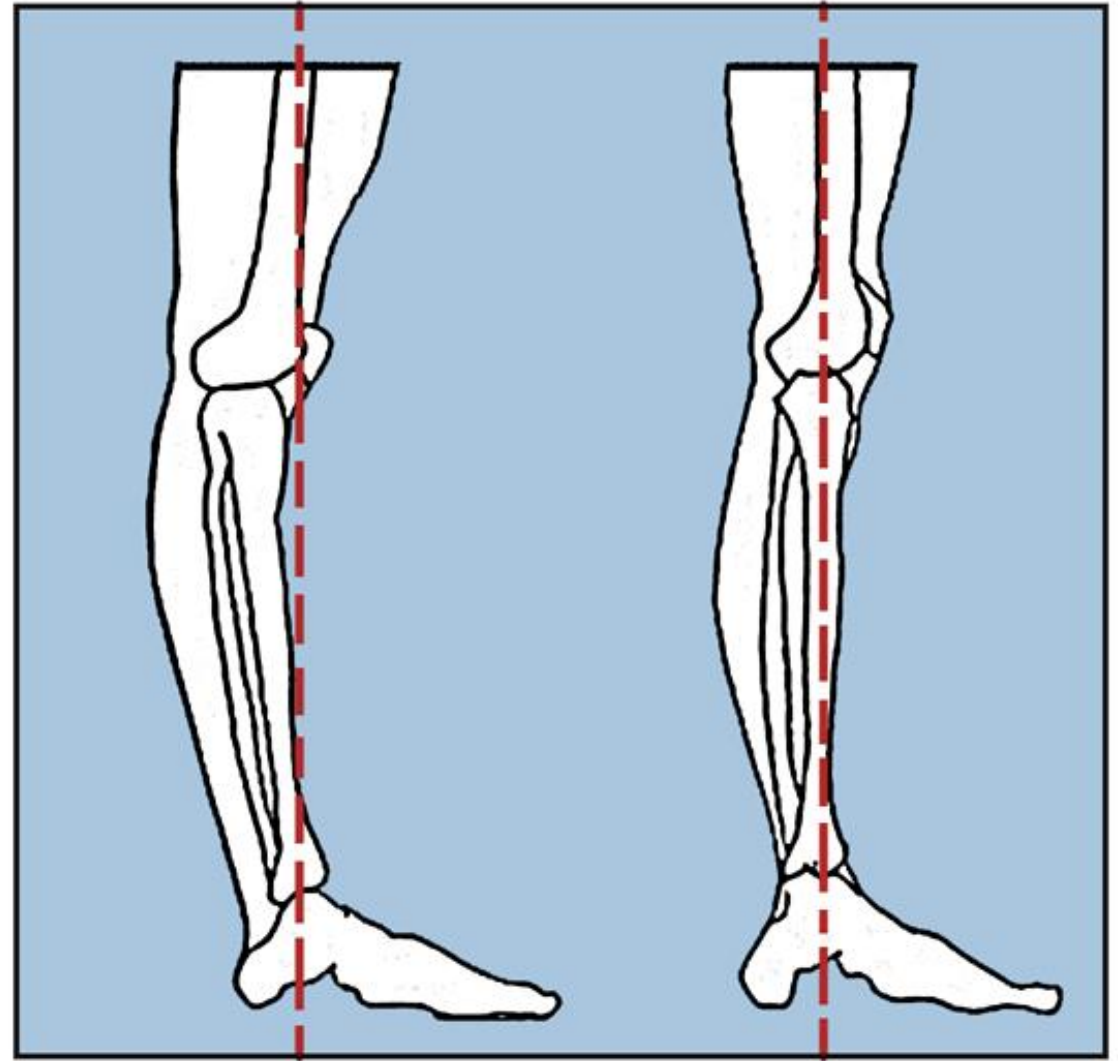
Lower muscle strength

A close-up, low-angle shot of several dumbbells in a gym. The dumbbells are arranged in a row, with the handle of the foreground dumbbell in sharp focus. The background is blurred, showing more dumbbells and gym equipment. The lighting is dramatic, with strong highlights and deep shadows, creating a moody atmosphere. The text "Lower muscle strength" is overlaid in a white serif font in the upper left quadrant.

Reduced body awareness
(proprioception)

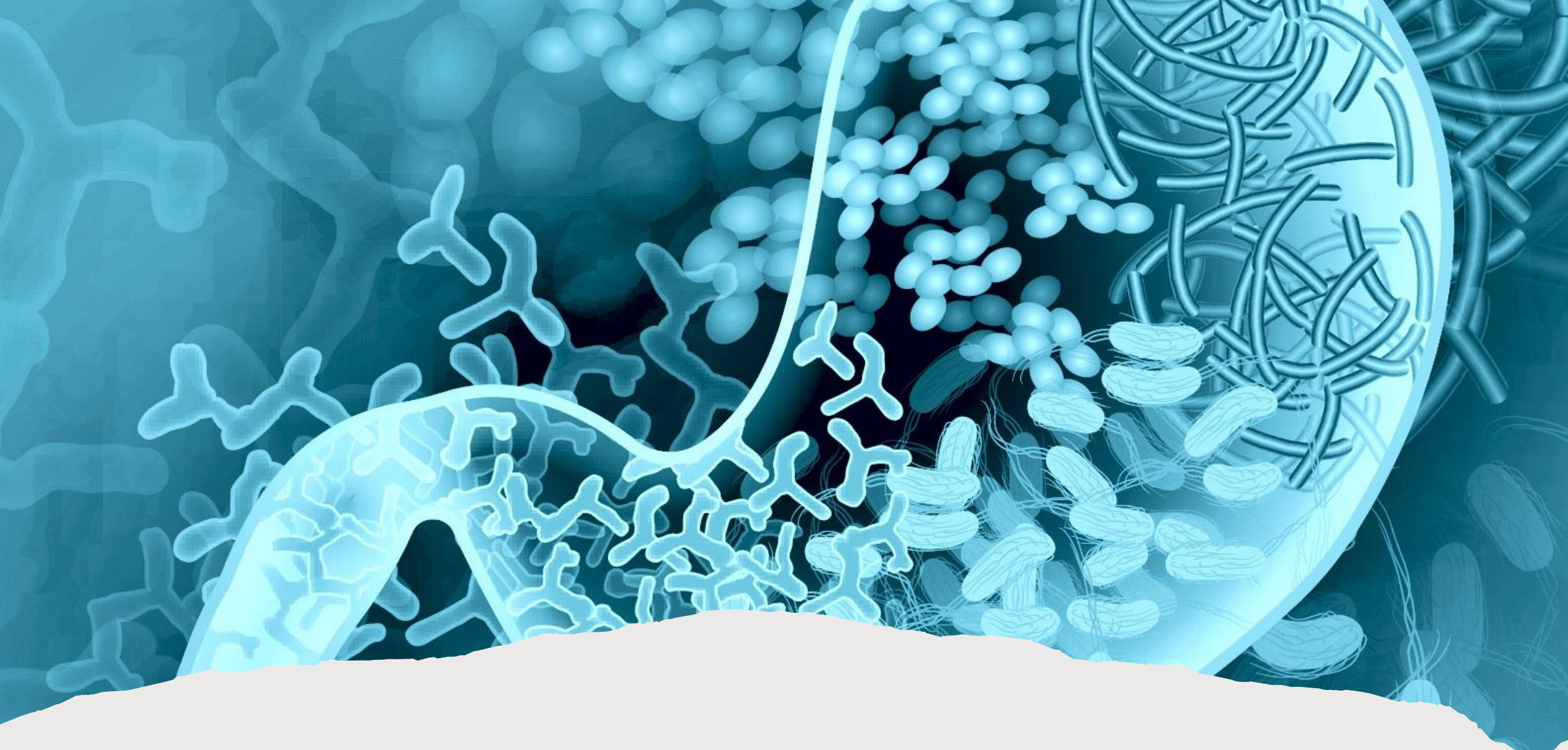


Hyperextended
knee joint

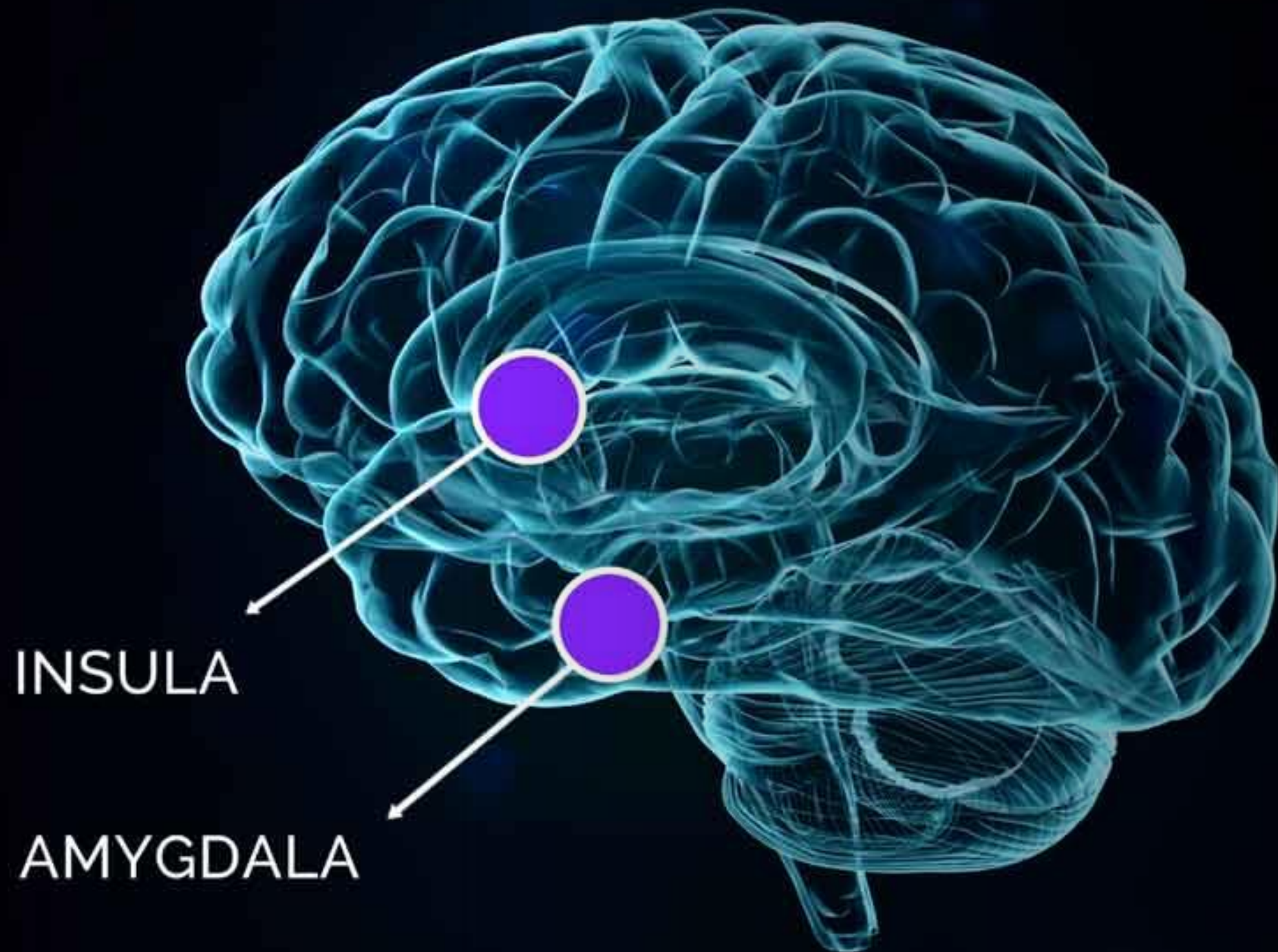


Physical Activity Recommendations

- Regular movement and exercise **is** important!
- Minimize or avoid high-impact activity and resistance exercise
- Increase muscle *tone* (not to be confused with strength)
- Do low resistance exercises, gradually increasing duration and repetitions
 - E.g., walking, cycling, swimming, water exercise, elliptical training, yoga, Pilates, core toning/stability
- Recognize – and do not exceed – physical limitations to minimise resistance and avoid excess repetitions
- Physical therapy referral (or similar) often appropriate



Digestive issues



INSULA

AMYGDALA

A fluffy, light-brown teddy bear is the central focus, sitting on a dark wooden surface. The bear has a soft, shaggy texture and is looking slightly to the right. To the right of the bear, the word "Anxiety" is written in a simple, white, sans-serif font. The background is a light, neutral color, possibly a wall or a backdrop, which makes the bear and the text stand out. The lighting is soft and even, highlighting the texture of the bear's fur.

Anxiety

Twitter: @bendybrain

Instagram: @drbendybrain

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Areas of expertise: Brain-Body Interactions, Joint hypermobility,
Liaison Psychiatry, Neurodevelopmental Conditions,
Immunopsychiatry

Research areas: Neuroscience, Psychiatric and
neurodevelopmental features of connective tissue disorders,
Mechanisms of chronic pain and fatigue

Other websites: Orcid, LinkedIn

Linktree: linktr.ee/bendybrain



DR JESSICA ECCLES

MAIN POINTS FOR TEACHERS

- Be aware of physical differences and their impact on cognition/emotion/pain processing:
 - Slight brain structural difference in processing emotion/fear (amygdala) → can lead to increased anxiety
 - Joints moving beyond the normal range → pain, injury, incorrect alignment, more muscular/cognitive effort required
- Be patient (sensorimotor experience is different → might learn slower)
- Educate the student on correct alignment (it may not feel “normal”, “natural”, or “easy” for them)
- Enforce correct alignment (use supportive tools)
- Take extra care and time when recovering from injuries or returning after a break/holiday
- Consider duration and effort of lesson, rehearsal, performance, exam, etc.
- Plan for rest and recuperation
- Encourage medical/physiotherapy help

FOR CHILDREN

- Might need to fidget or shift postures
- Notice their exertion/recuperation patterns
- Provide various sitting/standing options
- Might have speech/mouth/jaw/tongue issues
- Writing/typing/speech-to-text options
- Have a “pain plan”



Pain Plan

- Chairs
- Cushions
- Splints/braces
- Heat pack
- Rest/break
- Change task/position

RESOURCE LIST

- British Association for the Performing Arts Medicine (BAPAM) hypermobility infographic (Lucie Rayner): <https://www.bapam.org.uk/hypermobility-in-instrumental-musicians/>
- Dr Jessica Eccles: Twitter [@bendybrain](https://twitter.com/bendybrain)
- Links/articles related to hypermobility, anxiety, and neurodivergence:
 - <https://www.bsms.ac.uk/about/news/2022/02-02-neurodivergent-people-more-likely-to-experience-pain-due-to-hypermobility.aspx>
 - <https://www.bsms.ac.uk/about/news/2022/12-01-having-hypermobile-joints-can-increase-the-risk-for-depression-and-anxiety-in-adolescents.aspx>
 - [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(16\)00427-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)00427-X/fulltext)
 - <https://www.cambridge.org/core/journals/european-psychiatry/article/joint-hypermobility-syndrome-and-anxiety-disorder-structural-brain-correlates/CBB3059B441A470795B5867FED5B7A80>
 - <https://pubmed.ncbi.nlm.nih.gov/35211037/>
- Bendy Bodies podcast: <https://www.hypermobilitymd.com/bendybodiespodcast>
- Certified Movement Analyst and Registered Somatic Movement Educator/Therapist: www.simonemaurermusic.com
- Musician-specific personal training: <https://musicstrong.com/>

Connect with me!

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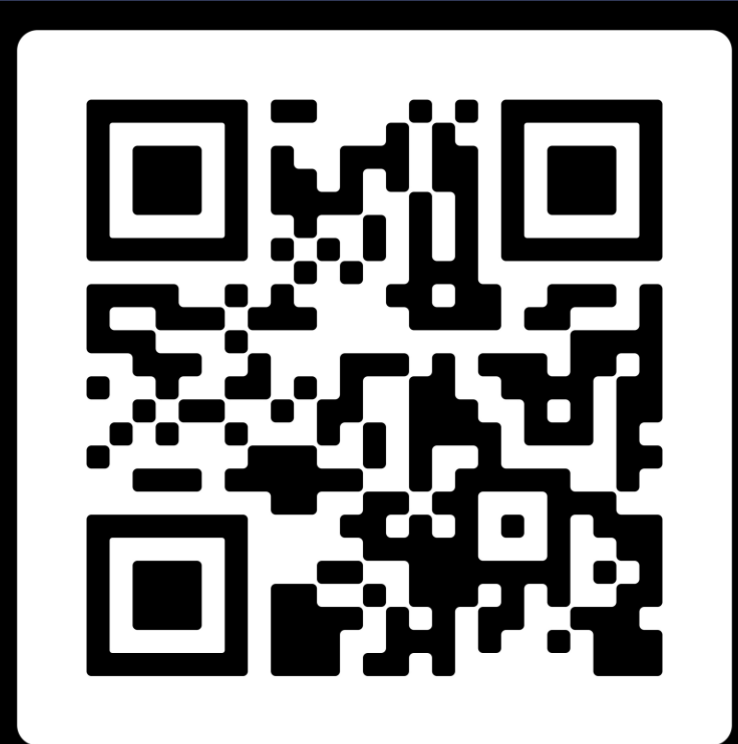


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