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ClinicalPearls

TREATING ADOLESCENT ELBOW HYPERMOBILITY

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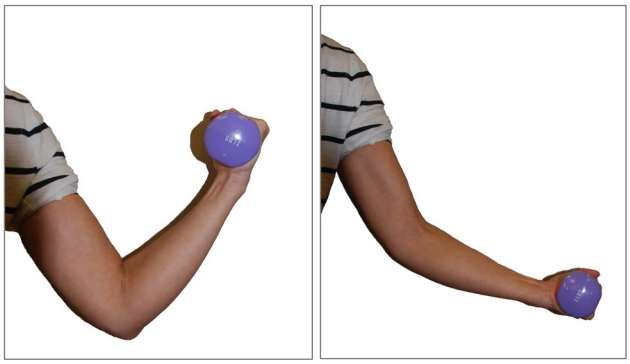
Elbow hypermobility in the adolescent can cause pain and motor imbalance, and can progress to joint instability. This hypermobility may be the symptom of a health condition such as Ehler's Danlos Syndrome or may result from injury. In our clinic, hypermobility is often seen in the painful elbows of children and adolescents as their connective tissue is still developing. Treatment of adolescent elbow hypermobility includes increasing body awareness, strengthening within a short arc of motion, and orthotic intervention / support which also provides proprioceptive input.



An example of elbow hypermobility

For the growing adolescent, rapid body changes impact body image and self-awareness. Poor self-awareness contributes to hypermobility injuries, as many adolescents are not aware of joint positions during daily activities. Videos or mirrors are effective tools to increase joint position awareness during activity simulation. Once patients are aware of joint hypermobility, they can better control normal range of motion through visual and verbal cueing. (1)

Appropriate strengthening also improves elbow hypermobility. Biceps and triceps strengthening within mid-range (avoiding end range flexion and extension) provides proprioceptive input for proper elbow joint positioning. Eccentric strengthening encourages the biceps to act as a brake during extension, allowing the patient to actively prevent elbow hyperextension. (2) An example exercise would be having the patient slowly lower a weight after completing a bicep curl.



Slow and controlled eccentric muscle contractions in mid-range assist with controlling elbow hypermobility

Optimal orthotic intervention provides both support and proprioceptive input to protect the hypermobile elbow during recreational and athletic activities. Bulky and poorly fitting braces will not be effective or worn. I have found the Push *med* Elbow Brace

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particularly effective when training throwing athletes and gymnasts. The elastic sleeve and adjustable strap provide proprioceptive input while limiting end range extension. Not only is this brace lightweight and streamlined, it is one of the few braces that will block extension while allowing full flexion and functional movement.

1. *Revivo G, Amstutz DK, Gagnon CM, McCormick ZL. Interdisciplinary pain management improves pain and function in pediatric patients with chronic pain associated with joint hypermobility syndrome. PM R. 2018 Jul 30. pii: S1934-1482(18)30376-9.*
2. *Kaux J, Delvaux F, Forthomme B, et al. Eccentric training for elbow hypermobility. Br J Sports Med 2014;48:617.*

Push med *Elbow Brace*





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