

Evidence Table

	Jensen et al., 2021	Kotler et al., 2014	Brittain et al., 2023	Hsieh et al., 2019	Snowdon, 2023
Population	Female adults, 19–65, diagnosed with JHS, hEDS, or cEDS.	One 22-year-old female with hEDS.	28 articles involving 630 participants; mostly female, mean age 26.2.	52 children with symptomatic flexible flatfoot; exclusions included foot injury/surgery, foot abnormalities, and developmental delay.	Six experts in fabric orthoses and HSD.
Study Design	Prospective superiority trial; repeated-measures comparison of functional testing with and without finger orthoses.	Prospective case report.	Scoping review of studies identified through a systematic search of PubMed, CINAHL, and Embase (January 2000–April 2023).	Prospective randomized controlled clinical trial.	Qualitative thematic analysis using semi-structured expert interviews; themes were member-checked by three original participants.
Intervention	Custom finger orthoses at the MTP and 1st metacarpal joints.	Multidisciplinary inpatient rehabilitation including PT, OT, psychology, orthotics, and a left shoulder orthosis designed to limit humeral separation from the glenoid.	Studies of PT interventions including therapeutic exercise and motor-function training; the review also identified evidence for adaptive equipment, instruction, manual therapy, and functional training.	Customized arch-support insoles worn for 12 weeks.	Dynamic Elastomeric Fabric Orthoses (DEFOs).
Comparison	Same participants tested with and without finger orthoses.	No separate control; case received a multidisciplinary program throughout.	Intervention categories were compared/synthesized across the included literature; no single orthotic comparator.	No insoles.	No separate comparison group.
Methodology	Time to complete Box and Blocks, writing, and coin pickup tasks; prefrontal cortex activity also measured with fNIRS.	Shoulder orthosis used to limit humeral separation; outcomes included pain, function, bed mobility, transfers, dislocations, and complications/psychosocial implications.	Systematic search, appraisal, and classification of included studies by PT intervention type.	Treatment group wore customized insoles for 12 weeks; control group did not. Outcomes were collected at baseline and 12 weeks.	Semi-structured interviews were analyzed for recurring themes regarding DEFO use in people with hypermobility.

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Outcomes	Box and Blocks, writing, and coin-pickup performance; prefrontal cortical activity.	Pain, function, bed mobility, transfers, dislocations, and psychosocial/immobility-related outcomes.	Reported outcomes varied across included studies; the review synthesized evidence for function and quality of life.	10-m distance, normal/fast walking, stair ascent/descent, chair rising, and Pediatric Quality of Life Inventory.	Expert-reported themes including immediate relief, proprioception, and joint stability.
Key Findings	Finger orthoses significantly reduced time for functional hand tests. Reduced prefrontal cortical activity was observed only for dominant-hand coin pickup.	Bed mobility and transfers required less time and were less painful, with fewer dislocations; patient transitioned to outpatient therapy after 2 weeks.	Therapeutic exercise and motor-function training were supported for GH/hEDS. Evidence for adaptive equipment, instruction, manual therapy, and functional training was weaker.	After 12 weeks, customized insoles significantly improved pain/comfort, physical health, stair-ascent time, upper-extremity/physical function, and transfer ability.	DEFOs were associated in expert reports with customized support/alignment, improved proprioception, and enhanced joint stability while allowing more mobility than traditional orthoses.
Study Limitations	Small and heterogeneous sample; attentional demands may have influenced pain; one-day testing may have contributed to fatigue and later pain.	Single-patient case report, no long-term follow-up, and no independent control group because multidisciplinary care was provided throughout.	Small/variable evidence base and heterogeneous studies; included evidence does not establish a standardized orthotic treatment plan.	Small sample and no long-term follow-up.	Perspectives were expert/second-hand experiences rather than direct patient outcome data.