Evaluation of Lower Extremity Kinematics During Gait in Children with Hypermobility Ehlers-Danlos Syndrome

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INTRODUCTION

• Ehlers-Danlos syndrome is a disorder that affects connective tissues [1]
  • Hypermobile Ehlers-Danlos Syndrome is one of thirteen subtypes that primarily affects skin, joints and blood vessel walls [2]
  • 1 in 5000 individuals have hEDS [3]
  • Symptoms include overly flexible joints that can dislocate
  • Creating joint instability leading to early-onset osteoarthritis [4]
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Goal: To evaluate the gait kinematics in children with hEDS

RESULTS

• Children with hEDS have similar range of motion to typically developing children
• Inspection of individual subjects shows variance from typically developing children
• Investigation in a larger population is ongoing to characterize the phenotype in children with hEDS

DISCUSSION

• When compared to healthy gait the group averages of children with hEDS fell within typical ranges [7,8]
• Inspection of individual subjects shows variance from typically developing children
• Investigation in a larger population is ongoing to characterize the phenotype in children with hEDS

METHODS

• Seven (7) children ages 9-17 with hEDS
• Mean age of 14 (2.9) years old
• Three males and four females
• Mean height 152 (17.3) cm
• Mean weight 54 (15.6) kg

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