**INTRODUCTION**

- Developmental dysplasia of the hip (DDH) is an abnormal condition in infants and commonly treated by the use of the Pavlik harness.
- 1 out of every 20 babies has some hip instability.
- The effectiveness of the Harness depends on physician expertise, experience and trial-and-error procedures.
- For a better understanding which procedure with the Pavlik harness is most effective a multi-physics computational approach has been done.
- To prove the results of the computational approach a mechanical model is needed which will provide physicians a better understanding of the mechanics of DDH when using the Pavlik Harness.

**METHOD**

- Trial and error experiments will calibrate the pneumatic to adjust for the right pressure that will replicate the individual curve.
- The data of the path of reduction of the femoral head will be acquired by IMUs, and will be processed using MATLAB.

**RESULTS**

- A scale of 4x for the model was calculated to be practical for teaching purposes.

**REFERENCES**


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