

## **Abstract**

The diploma thesis focuses on the influence of the developmental dysplasia of the hip (DDH) and applied orthopaedic brace on the motor development of a child. The theoretical part provides a summary of general information about the developmental dysplasia of the hip, mainly from the point of view of available recent studies, the influence of DDH or the abduction brace on the child's motor development and it briefly informs about the possibilities of the objective evaluation of child's motor development (furthermore we are concerned about information on motor scale PDMS-II). The main purpose of this thesis was to prove the significant influence of the diagnosis DDH and inseparable orthopaedic brace on the child's motor development. The secondary purpose of the thesis was to evaluate some of the specific and common features of the tested group, outline the possible use of the PDMS-II scale in clinical practice and point out the effect of physiotherapy aimed at supporting motor development and its quality.

**Methodology:** As part of the main goal, we tested 12 probands (average age 2,9 months,  $SD \pm 1,2$ ) using the scale Peabody Developmental Motor Scales – Second Edition. We entered some specifics and common features of the measured set into graphs for better clarity. To fulfil the secondary purpose of the thesis we chose to include a case report of one child with the diagnosis of DDH and we evaluated his motor development with the PDMS-II scale before and after the hip distraction (with simultaneously intensive physiotherapy using Vojta's reflex locomotion).

**Results:** We did not confirm a statistically significant effect of developmental dysplasia of the hip and orthopaedic brace on the child's motor development. The tested probands achieved significantly better results in the subtests of reflexes compared to their age, on the contrary, we observed a trend in the delay in the subtests of stability and locomotion, which we did not statistically significantly prove.

**Conclusion:** Although we did not statistically significantly confirm the effect of DDH and orthopaedic brace on the child's motor development, we found a significant finding of asymmetry within their attitude and postural activity in the above-average majority of probands. For this reason, we find the inclusion of physiotherapy in the comprehensive treatment of a child with DDH necessary.