

## CUSTOMIZED HIP ABDUCTION BRACE MOLDED FROM USED PATIENT'S HIP SPICA

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### ABSTRACT

Following closed reduction in treating developmental hip dysplasia (DDH), the child is kept in the hip spica for three months, with one spica change under general anaesthesia in between. The understanding is that a concentric hip joint will encourage the acetabulum to remodel. There is no uniform guideline as to what happens after the spica is taken off. It is unpredictable as to whether the acetabulum will remain recalcitrant, and the femur head will remain enlocated. Some selected cases may benefit from wearing the fixed abduction brace for an extended period of time. Certain countries like Australia, UK, and USA practice weaning into an abduction brace following hip spica until satisfactory acetabular index improvement on follow-up radiographs. Unfortunately, the cost of these braces is steep in Malaysia, ranging from MYR 550 to 750 (USD 132 to 180). The Malaysian median household monthly income is MYR 5873 (USD 1412). We came up with the effort to produce an affordable option where we utilized the patient's original spica as the template and designed a removable brace using medical fiberglass cast, cloth straps and metal rivets, commonly available in hardware stores. We used three rolls of fiberglass, 1.5 meters strap, rivets and foam tape; with the total cost of MYR 150 (USD 36).

**Keywords:** Hip dysplasia brace, closed reduction

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