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QUESTION

## *I HAVE A PATIENT WITH A CROWE TYPE III HIP DYSPLASIA. WHERE DO I PLACE THE ACETABULAR COMPONENT?*

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Total hip arthroplasty in the setting of developmental dysplasia of the hip can be technically demanding with the need for complex reconstruction of the acetabular deficiency. A thorough understanding of the bony deficiency is required to assist in preoperative planning and to minimize complications.

Crowe et al classified developmental dysplasia of the hip based on the degree of femoral head migration in relationship to the true acetabulum. Type I hips have less than 50% subluxation, Type II have between 50% and 75% subluxation, Type III have between 75% and 100% subluxation, and Type IV have complete dislocation. The Crowe Type III dysplastic hip presents a specific challenge due to severe bony deficiency in the superolateral acetabulum. Controversy exists over the optimal placement of the acetabular component.

One option is to place a small porous cup in a superior position (“high hip center”) where it may be possible to obtain better lateral bone coverage and minimize excessive soft tissue tension. However, unacceptably high loosening rates have been noted; therefore, if at all possible, we prefer to restore the hip center to its anatomic position (“true acetabulum”). This medial and inferior location diminishes joint reaction forces, facilitates limb lengthening, and in most cases utilizes the best available bone stock.

From a technical standpoint, once the hip is dislocated you may have difficulty visualizing the true acetabulum. A ledge of bone often separates the true acetabulum from the false one and can help guide further inferior dissection. The lower edge of the teardrop and the transverse acetabular ligament must be located by inserting a blunt inferior retractor. This can help ensure that dissection is inferior enough to place the component in the true acetabulum. The depth of the acetabulum can also be difficult to appreciate. It is important to remove the pulvinar to expose the cotyloid fossa in order to assess the