

# Radiographic cup position following posterior and lateral approach to total hip arthroplasty. An explorative randomized controlled trial. The protocol

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## Abstract

**Background:** The two most common surgical approaches to total hip arthroplasty are the posterior approach and lateral approach. The surgical approach may influence cup positioning and restoration of the offset, which may affect the biomechanical properties of the hip joint. The primary aim was to compare cup position between posterior approach and lateral approach. Secondary aims were to compare femoral offset, abductor moment arm and leg length discrepancy between the two approaches.

**Methods:** Eighty patients with primary hip osteoarthritis were included in a randomized controlled trial and assigned to total hip arthroplasty using posterior approach or lateral approach. Postoperative radiographs from 38 patients in each group were included in this study for measurement of cup anteversion and inclination. Femoral offset, cup offset, total offset, abductor moment arm and leg length discrepancy were measured on preoperative and postoperative radiographs in 28 patients in each group.

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## Protocol