

# Total Hip Replacement Conducted with the Direct Anterior Approach Using a Standard Operating Table

Direct Anterior Approach (DAA) is a minimally invasive technique used for total hip replacement (THR), which is intended to limit damage to the surrounding tissue. DAA can be performed with or without an orthopedic table and/or intra-operative x-ray according to surgeons' needs and preferences.

## Methodology and Approach

The review was performed following standard methodology according to the PRISMA guidelines. Embase, MEDLINE and the Cochrane Library were searched on the 11th April 2014, without applying a date limit. In addition the reference lists of included studies, clinical trial registries, recent (2011 – 2014) topical conference proceeding, and topical orthopedic registries were searched manually. The initial search identified 1,552 publications. The full text of 170 publications was screened, resulting in 92 included publications (53 full publications and 39 abstracts), reporting clinical effectiveness, safety and patient reported outcomes of using the DAA for THR, including publications comparing DAA with other approaches to THR. In total 28 publications reported the use of an orthopedic table, these 28 publications have been excluded in this evidence review to focus on DAA without the use of an orthopedic table.

A more recent published systematic review<sup>1</sup> identified two further publications of interest, which were also included.

DAA CAN BE PERFORMED SUCCESSFULLY WITHOUT AN ORTHOPEDIC TABLE OR INTRA-OPERATIVE X-RAY ACCORDING TO SURGEONS' NEEDS AND PREFERENCES



DAA may result in reduced length of hospital stay<sup>2-10</sup> and earlier mobilization,<sup>5,9-14</sup> indicating faster post-operative recovery compared with other THR approaches.

DAA may also result in improved patient-reported outcomes<sup>4,11,15-22</sup> and reduced post-operative pain,<sup>2,4,6,20,22</sup> indicating improved patient satisfaction compared with other THR approaches.

Length of stay and duration of surgery decrease with surgeon experience of DAA<sup>6</sup>

## Support for Surgeons Through the Transition to DAA:



DePuy Synthes Companies support surgeons in education and training to optimize outcomes of THR using DAA, the CORAIL® PINNACLE® implant, and an orthopedic table.

DePuy Synthes' educational program takes into account individual needs and preferences.

## KEY FINDINGS

DAA may result in improved patient recovery compared with other THR approaches, particularly in terms of the length of hospital stay and post-operative mobilization.

### PATIENT AND LONG-TERM VALUE



#### MOBILIZATION

Patients generally show better post-operative walking ability with DAA vs other THR approaches,<sup>5,9-14</sup> and may discard assistive walking devices sooner with DAA vs the posterior approach.<sup>12</sup>



#### PATIENT-REPORTED OUTCOMES

Patients report greater post-operative improvement in HHS and WOMAC scores with DAA vs other THR approaches.<sup>4,11,15-22</sup>



#### PAIN

Compared with other THR approaches, DAA may reduce post-operative pain.<sup>2,4,6,20,22</sup>



#### REVISION RATES

Revision rates associated with DAA are low<sup>27-30</sup> and comparable with other THR approaches.<sup>19</sup>

### IN-PATIENT VALUE



#### LENGTH OF STAY

In European healthcare systems, length of stay is reduced with DAA vs the lateral approach.<sup>2,3</sup>

Length of stay is similar or reduced with DAA vs the posterior approach<sup>4-10</sup> and decreases with surgeon experience of DAA.<sup>6</sup>



#### DURATION OF SURGERY

Theatre time is generally similar for DAA and lateral, anterolateral, and posterior approaches.<sup>5-9,11,15-17,23-26</sup> Duration of surgery decreases with surgeon experience of DAA.<sup>6</sup>

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