



# VELYS™ Hip Navigation Reduces Operating Time and Radiation Dose While Maintaining Accuracy for Direct Anterior Total Hip Arthroplasty.<sup>1</sup>

Goodell et al<sup>1</sup> have conducted a retrospective study of primary total hip arthroplasty (THA) performed through a direct anterior approach (DAA). All cases were operated by a fellowship trained surgeon who has performed over 1000 DAA THA. VELYS™ Hip Navigation was used in 58 cases, while 51 were performed using fluoroscopy and traditional overlay technique. All the procedures were performed using an identical exposure technique. The CORAIL® Hip Stem or ACTIS™ Hip Stem were used with the PINNACLE® Acetabular Cup System in all cases.

- Operating Room (OR) time was **reduced by an average of 40 minutes** in the VELYS Hip Navigation group (mean 80.1min vs 120.4min) (p<0.001). O.R. time is defined as the total time the patient is present in the operating room.
- **37.8% reduction in radiation dosage** for the VELYS Hip Navigation group compared to overlay cases (p<0.001).\*
- **Precise Leg Length restoration** - no difference in mean leg length discrepancy (1.9mm vs 1.8mm, p=0.458)

Surgical care accounts for nearly one-third of all US health care spending, and the OR is the second most expensive part of surgical care.<sup>2</sup> Shippert et al found the mean OR cost to be ^\$62 per minute<sup>3</sup> This study found that the use of VELYS Hip Navigation led to an average OR time savings of 40 minutes per case. The senior author performs around 150 THAs per year, while recent research suggests that US surgeons perform on average 29 THA per year.<sup>4</sup>

Mean per case time savings	OR cost per minute	Estimated Annual Savings (based on 150 cases pa)	Estimated Annual Savings (based on 29 cases pa)
<b>40 Minutes<sup>1</sup></b>	<b>^\$62<sup>3</sup></b>	<b>^\$372,000</b>	<b>^\$71,920</b>

**“The increased efficiency from adding VELYS Hip Navigation to my practice allows for an extra surgery per OR day”**  
 Dr. Robert Kollmorgen, Orthopedic Surgeon and Senior Author

^Cost saving calculations may not be in local currencies. The economic analysis was performed according to hospital data set in countries outside of Australia and New Zealand.

1. Goodell PB, Kokubun B, Kollmorgen R. Presented at AAHKS, Dallas Nov 7-10th 2019.

2. Childers CP, Maggard-Gibbons M. Understanding Costs of Care in the Operating Room. JAMA Surg. 2018 Apr 18;153(4):e176233.

3. Shippert R. A Study of Time-Dependent Operating Room Fees and How to save \$100 000 by Using Time-Saving Products. J Cosmetic Surg 2005;22[1]:25-34.

4. AAOS AJRR Annual Report 2020

\*Average radiation dosage 8.2 mGy in VELYS Hip Navigation group compared to 13.2mGy in overlay group.

Please refer to the instructions for use for a complete list of indications, contraindications, warnings and precautions.

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