



## AB136. 35. Two-hole versus four-hole plate dynamic hip screw: a systematic review of current evidence

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**Background:** The dynamic hip screw (DHS) is a common method used in the fixation of hip fractures. Traditionally, this involves the use of a four-hole side plate. Reducing the length of the side plate would theoretically reduce the amount of surgical exposure required, decrease the time of surgery, and hence perioperative morbidity and mortality. Our study aims to review the current evidence regarding the use of two-hole side plates; their use and potential complications.

**Methods:** The preferred reporting items for systematic reviews and meta-analyses (PRISMA) guidelines were utilised for this review. An internet search was performed to collate the available literature from medical databases PubMed, EMBASE, Web of Science and the Cochrane library. We used a broad search term of relevant keywords and MeSH terms to ensure a wide capture of articles. No

limitations in terms search strategy were implemented. The reference lists of articles included for full text review were searched for any additional primary or review publications

**Results:** Four online libraries were searched, with a combined total of 5,344 titles reviewed. Following title, abstract and full text review, seven articles were considered suitable for inclusion in qualitative analysis. Titles included were either clinical or biomechanical studies. From our analysis of there was a trend towards equal efficiency between two- and four-hole plates when used in stable fractures, AO, A1 & A2.1.

**Conclusions:** The results of this study show that constructs with two- or four-hole side plates have comparable outcomes when used in patients with stable fracture patterns. Most of the clinical data regarding the use of two-hole plates come from retrospective case series; further randomised trials would be of significant benefit.

**Keywords:** Hip fracture; dynamic hip screw (DHS); extracapsular; intertrochanteric

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