

## **Incidence of floating toe with Weil osteotomy: A systematic review**

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**Purpose:** This systematic review and meta-analysis aimed to reevaluate the current incidence of the floating toe complication following Weil osteotomy and possible reasons for a change.

**Introduction:** Floating toe subsequent to a Weil osteotomy is a well-known complication<sup>11</sup>. Current Weil osteotomy floating toe incidence is unknown as is the associated complication rate variability with adjunctive procedures. The purpose of this study aims to reevaluate the current incidence of floating toe complications following a Weil osteotomy, compared to the previously reported rate of 36% by Highlander et al in 2011.

**Methodology:** Following PRISMA guidelines, a systematic review was conducted from 2012 on using PubMed, SCOPUS, and Cochrane Library utilizing specific keywords. Inclusion criteria encompassed individuals aged 18 or older, excluding certain conditions and prior surgeries. This yielded 2258 articles, refined to 782 unique ones for meticulous analysis. Thirteen pertinent articles were selected for in-depth examination, with nine preceding to full analysis including Weil osteotomy floating toe incidence, adjunctive procedures, weight-bearing status.

**Results:** Demographics, complication frequencies, and Weil osteotomy data were analyzed from 1018 cases. Most studies were clinical evidence level 3 (n=4), followed by level 2 (n=3), and our lowest being level 4 (n=2). A total of 741 osteotomies were included with predominantly female participants and an average age of 58.8. Floating toe incidence post-osteotomy was 20%.

**Conclusion:** A significant decrease in floating toe incidence post-Weil osteotomies was observed compared to the benchmark study in 2011.