For hip surgery alone (data provided in five studies), the risk of developing a wound infection was four times greater after staple closure than suture closure (p=0.02).

One study showed no difference in patient satisfaction between groups, but two other identified studies reported that staples were more painful to remove than sutures.

**CONCLUSION**

After orthopaedic surgery, the studies in aggregate showed a significantly higher risk of developing a wound infection when the wound is closed with staples vs. sutures. This risk is heightened for hip surgery.

The outcome of differing cosmetic results based on staples vs. sutures remains unclear as the studies included did not analyze the results based on different co-morbidities, age, or skin type.

Metal staples have been regarded as a more expensive option vs. sutures, though costs could be reduced by lessened OR time and ease of clip removal vs. suturing wounds. However, for a contrasting view, the consequences of a deep infection for the patient are substantial as they are associated with increased cost of medical care and hospital admission. Additionally, the number of dressing changes associated with stapling are greater than for sutures, and a specific staple remover is required, adding to the cost for this closure method.

Use of staples for closing wounds in hip or knee surgery cannot be recommended, although the evidence comes from studies with notable methodological limitations.

Authors advise orthopaedic surgeons to reconsider their use of staples for wound closure.

Given the methodological limitations identified, definitive randomized trials are needed to re-appraise this research question.

**This concludes the clinical synopsis of this publication**