

Single-Use Acetabular Reamers

Reducing Surgical Costs



Reamer Reprocessing Cost Savings

The cost of reprocessing instrument trays at hospitals, which includes commonly used items like acetabular reamers, is influenced by a variety of factors such as the efficiency of the hospital's operations, staff wages, and procedural guidelines. ¹⁻⁴ Reprocessing expenses for each tray may exceed **\$100**.



Operating Room Time Savings

The operating room (OR) in a hospital is often where the balance of profit and expenses is most critical. ⁶⁻⁹ Due to its importance, numerous studies have been performed to determine the cost per minute of OR time. ^{7,10-11} By implementing a single-use (SU) acetabular reamer, up to **11 minutes** can be saved for each hip replacement case. ⁵

In the United States, the **cost per minute** for operating room usage ranges from **\$15 to \$62**. ^{6,8,10-13} Based on the results of various studies, the use of a SU Acetabular Reamer presents significant financial advantages by diminishing both the time spent in the OR and the associated reprocessing costs.

Savings from Single-Use Acetabular Reamers

OR Cost per Min.*	Savings from OR Time	Reprocessing Savings	Total Savings per THA Case**
\$15	\$165	\$100	\$265
\$36	\$396	\$100	\$496

*: Lower published costs/minute were used in this analysis.

** : The price of a SU acetabular reamer is not included in this total.

References

1. Welker DM, Hofbauer MH. The Clinical and Economic Case for Sterile, Disposable Instruments and Implants. Infection Control Today, August 2019 publication.
2. www.cdph.ca.gov/Programs. Healthcare-Associated Infections Program: Cleaning, Disinfection and Reprocessing Reusable Equipment. 2019
3. Ly, JA, et al. Comparative Cost Analysis of Single-use Sterile versus Reprocessed Distal Radius Volar Plate Sets. Arch Bone Jt Surg., 2022 May; 10 (5): 420-425
4. Lonner JH, et al. Minimizing Surgical Instrument Burden Increases Operating Room Efficiency and Reduces Perioperative Costs in Total Joint Arthroplasty. The Journal of Arthroplasty, June 2021, Vol. 36, Issue 6: 1857-1863.
5. OsteoFit internal time study. June 2023.
6. Macario A, What does one minute of operating room time cost? Journal Clinical Anesthesia, June 2010; Vol.4; 233-236.
7. Smith TS, et al. Cost of Operating Room Time is \$46.04 Dollars per Minute. Journal of Orthopedic Business, October 1, 2022, Vol 2, No.4.
8. <https://blog.casectrl.com/5-of-the-most-important-operating-room-performance-metrics>. 5 of the Most Important Operating Room Performance Metrics; Case CTRL; June 2021.
9. Aljaffary A. et al. Assessing the Precision of Surgery Duration Estimation: A Retrospective Study. J Multidiscip Health, 2023; 16: 1565-1576.
10. Childers, PC, Maggard-Gibbons M, Understanding Costs of Care in the Operating Room. JAMA Surg. 2018; 153 (4)
11. Lemmons M, What is the Cost of an OR Minute? OR Today; Sep. 20, 2021.
12. Alastair M, et al. True Cost of Operating Room Time: Implications for an Orthopaedic Trauma Service. Journal of Orthopaedic Trauma, 34 (5):p271-275, May 2020.
13. Moehl R, Why Your Operating Room Costs So Much. AORN Syntegrity, January 31, 2023.