

# Acta Orthopaedica

Nordic Approach – Global Impact



December 2025

## **Dear NOF members, and readers of Acta Orthopaedica**

2025 has been an exceptional year for our journal. We received a high number of manuscripts and achieved our highest annual publication number for several years.

This growth is partly the result of our productive collaboration with ISAR (*The International Society of Arthroplasty Registries*), as well as the new partnership with IRSA (*The International Radiostereometry Society*). All published articles are available on our website under the *Register* and *RSA* categories.

## **Thank you very much to the authors, reviewers, the editorial team, the office, the production manager, and the publisher Medical Journals Sweden**

We extend our sincere gratitude to all authors for submitting their manuscripts to Acta, and to the reviewers for their important role in getting the manuscripts published. The reviewer's work is deeply appreciated by both the authors and the editorial team. The reviews play a crucial role in maintaining the high scientific standards of our journal. We recognize that a thorough review requires significant time and effort.

The work by the editorial team, the editorial office, the production manager, and our publisher, Medical Journals Sweden (MJS), is also highly appreciated. Thank you for your continued dedication and high-quality work

As our first Social Media Editor, Aleksi Reito has set new standards for the journal's online presence. This year, we introduced a "Reviewer of the Month" spotlight on both new, younger reviewers and the

very experienced ones who have served our journal for many years. We have significantly expanded our social media activities, initiatives made possible in close collaboration with our publisher MJS.

We hope that you find these efforts valuable and look forward to continuing to serve our community.

### **Congratulations to the Young Research Award 2025**

We congratulate **Maria Tirta** from Aalborg University Hospital on being the Editorial team's choice as the recipient of the Young Research Award 2025. *The study was entitled "Staples, tension-band plates, and percutaneous epiphysiodesis screws used for leg-length discrepancy treatment: a systematic review and proportional meta-analysis", and authored by Maria Tirta, Mette Holm Hjorth, Jette Frost Jepsen, Søren Kold & Ole Rahbek.* The study showed that epiphysiodesis with percutaneous epiphysiodesis screws was the most successful technique for the treatment of leg-length discrepancy in the pediatric population.

**To the article**

**To the LinkedIn post**



Please find below highlights from recently published articles and a book review kindly done by Antti P. Launonen, associate professor, MD. Finland.

**Next year**, we will connect with Research Gate, which will expose the published articles even more.

**Wishing you a Merry Christmas and a Happy New Year.**





**On behalf of the Editorial team,**

Søren Overgaard

***Editor-in-chief***

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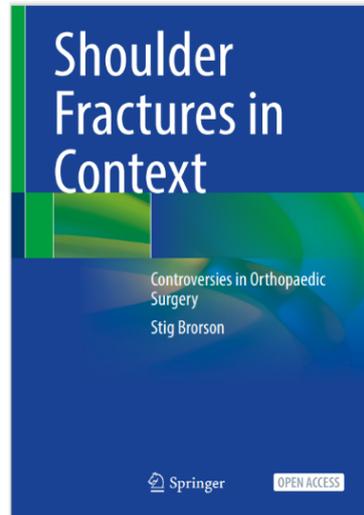
## Book review

### **Book review: *Shoulder Fractures in Context* by Professor Stig Brorson**

Springer 2025, open access

Professor Stig Brorson is widely recognized for his meticulous writings and research, having twice served as an author on the Cochrane reviews of proximal humerus fractures (PHFs). The first review was published in 2015 followed by an extensive update in

review was published in 2015, reviewed by an extensive update in 2022. When the 2015 Cochrane review was written, only a handful of randomized controlled trials (RCTs) compared operative and non-operative treatment of PHFs. By the time of the 2022 update, several new trials had been completed, providing a far more robust evidence base.



For this reason, Brorson's book on PHFs arrives at precisely the right moment; there is finally enough high-quality research to support an evidence-based approach in clinical practice (1). In addition, Professor Brorson himself has been at the forefront of this research field for years, closely following and continuously contributing to its development.

At first glance, a clinical textbook with lengthy sections on introduction, history, and classification may seem unusual. Many would assume that the final sections - management, benefits and harms, and conclusions - would be sufficient to cover what clinicians need to know about shoulder fractures. Only after reading the book does the title fully reveal its meaning: understanding PHFs "*in context*" requires all earlier, comprehensive chapters as essential building materials.

The historical section takes the reader back to the practices of early bonesetters and traces how their craft evolved across centuries. We are reminded that medical writers and bonesetters followed largely separate paths for a long time, with the latter often lacking formal medical training and instead working as practical craftsmen or barber-surgeons well into the 18th century. Many early beliefs and treatment principles still echo in modern thinking, subtly shaping our perceptions today. This long-view perspective adds unexpected depth and gives the reader a mirror for reflecting on current surgical practice.

The section on classification offers a clear and insightful explanation of why it has been so difficult to develop a single, standardized, reliable, and clinically meaningful classification system, one that is easy to use, reproducible, and able to guide treatment choices. Brorson also explains how and why we continue to speak "two dialects" in PHF classification, switching between Neer and AO systems, which remain partially untranslatable. The section concludes with a perceptive discussion of reproducibility research and practical suggestions for how classification studies and clinical focus should evolve in the future.

The Management and Benefits and Harms sections follow a compelling narrative arc centered on implants, particularly the rise and fall of locking plates. Their introduction represented a revolution: fractures previously considered operatively untreatable suddenly became operable, and restoring

anatomy through angular-stable fixation felt game-changing. Operating with locking plates was, for many surgeons - me included - truly enjoyable. Yet as time passed, complications, reoperations, and disappointing long-term outcomes tempered the early optimism. As evidence from trials accumulated and underlying risks became clearer, operative rates began to fall, at least in some regions. Brorson captures this rise-and-fall development with nuance and fairness.

The book presents RCT and meta-analysis evidence in a clear and accessible way. The message is consistent: most PHFs can be treated non-operatively with good patient-reported outcomes. Brorson walks readers through the evidence step by step, examining why behavioral change in clinical practice is so difficult. Despite increasingly strong evidence over the past decade, the gap between research findings and everyday surgical practice remains wide. The book's thoughtful discussion of this tension is one of its strongest contributions. The parallels to the current enthusiasm surrounding reverse shoulder arthroplasty are striking once again. A new implant is gaining momentum before being rigorously tested in large, well-designed RCTs. Brorson's critique is well grounded and reflects concerns raised in recent editorials, including in *Acta Orthopaedica* (2, 3).

One of the book's most appealing features is how it effectively operates on two levels at once. On the surface, it functions as a comprehensive medical textbook, summarizing historical knowledge, research findings, and modern evidence. Beneath that, however, lies a deeper narrative: a reflection on how our profession has evolved to its current mindset, and why certain beliefs remain so persistent. It is a book that not only gathers and presents evidence but also provides a framework for understanding our clinical traditions and decision-making. For that reason, it is valuable for colleagues at all stages: those just learning their craft, those mentoring others, and experts refining their practice. And although the subject matter is PHFs, the book's insights extend far beyond shoulder surgery; the entire orthopedic community can benefit from it.

The book also resembles a broader shift currently taking place in orthopedics: the gradual move away from expert opinion as the primary authority, toward evidence-based medicine as the guiding principle. Brorson demonstrates how this paradigm shift is already underway, and how his own book forms part of that transformation. Change is rarely fast, often requiring a generational transition to take root fully, but as history shows, it is ultimately inevitable and necessary.

After reading the book cover to cover, it becomes clear that every section is essential for understanding proximal humerus fractures *in context*. Together, they answer a fundamental question: why have we, as a profession, held so firmly to the idea that anatomical realignment is the only correct treatment? Why does the ancient bonesetter's mindset remain so deeply embedded in modern surgical practice, even though the evidence is piling against what we have learned? Brorson guides us toward a new perspective, what he calls the "academic bonesetter's" approach. This contemporary mindset embraces patient-centred, evidence-based medicine. As Professor Brorson aptly concludes, "We can improve by reevaluating our current surgical practice by including the best evidence and the patient's preferences in clinical decision-making."

Antti P. Launonen, associate professor  
Orthopaedic and trauma surgeon, Specialized in upper limb surgery  
Tampere University Hospital, Finland

1. Brorson S. *Shoulder Fractures in Context: Controversies in Orthopaedic Surgery*. Springer Nature. 2025;1st edition.
2. Reito A, Overgaard S. Editorial: Why the randomized controlled trial is still at the apex and the gold

2. Reito A, Overgaard S, Eriksson M. Why the randomized controlled trial is still at the apex and the gold standard for evaluating new medical and surgical interventions. *Acta Orthop*. 2025;96:873-4.
3. Brorson S. We need less (but better) research. *Acta Orthop*. 2022;93:609.

## Selected Highlights

### **Nationwide incidence of lateral malleolar fracture surgery across 6 European countries: has recent evidence changed**

Ville Ponkilainen, Thomas Ibounig, Tim Jones, Alekski Reito, Tom J Crijns, Michael Whitehouse, Li Felländer-Tsai, Cyrill Suter, Lasse Rämö, Teppo L N Järvinen

*Acta Orthopaedica* 2025; 96: 763–770

By aggregating data from six European countries, the study gives a comprehensive overview of how often lateral malleolar fractures lead to surgical intervention; this opens for interesting discussions on both temporal trends and differences between countries. The authors have assessed whether recent shifts in clinical evidence have translated into changes in surgical incidence, and also what lies ahead, given the ongoing update of treatment of this very common fracture.

The rate of surgical treatment (versus non-operative) varies across countries. Over the past decade, there has been a substantial decline in the incidence of surgical treatment in Sweden, Finland, England, and Switzerland. In contrast, there was no decline in Germany and Austria, countries that also had a high baseline rate. The shift correlates with the growing adoption of weight-bearing radiographs to assess ankle mortise stability: data increasingly suggest that many lateral malleolar fractures with a congruent mortise at initial radiographs remain stable under weight-bearing, and thus are safe for non-operative management

The study shows a six-fold difference between countries in how often isolated lateral malleolar fractures are treated surgically. The cross-country variation identifies a palpable heterogeneity in practice. This is an illustration of how 'evidence-based medicine' still will be affected by national factors such as health system organization, reimbursement practice, surgeon preference, resource availability, as well as the patient's expectations and requests.

Nevertheless, the observed variation and trend data highlight a gap between research evidence and clinical practice. The question is whether European orthopedic communities are ready for harmonized treatment protocols across Europe, to ensure equitable and truly evidence-based care?

Both older and more recent studies support that non-operative treatment of stable isolated lateral malleolar fractures does not lead to higher rates of non-union or reoperation compared to routine surgical fixation, and may reduce unnecessary surgeries and associated risks. Recently, several interesting articles on ankle fractures have been published in *Acta Orthopaedica*, stressing this ongoing shift in assessment and treatment (1-4)

2. Gundtoft et al (2025) <https://doi.org/10.2340/17453674.2025.43006>
3. Happonen et al (2022) <https://doi.org/10.2340/17453674.2022.2071>
4. Stigevall et al (2024) <https://doi.org/10.2340/17453674.2024.40607>.

Cecilia Rogmark,  
Co-editor

### **Cost-effectiveness analysis of locking nail compared with locking plate for displaced 3- and 4-part proximal humerus fractures: a secondary analysis of a randomized trial comparing the Multiloc nail and PHILOS plate**

Annette Konstane Bordewich Wikerøy, Per-Henrik Randsborg, Eline Aas, Hendrik Frølich Stange Fuglesang, Rune Bruhn Jakobsen

Acta Orthopaedica 2025; 96: 806–813

Proximal humeral fractures impose substantial burdens on both patients and healthcare systems, contributing to pain, impaired function, and loss of independence. Function and patient-reported outcome of non-operative and operative treatment have been compared in numerous randomized clinical trials, but there is a notable lack of economic evaluation

This study by Wikerøy et al. evaluates the cost-effectiveness of locking nails and locking plates for displaced 3- and 4-part proximal humerus fractures using data from a previously conducted randomized controlled trial. The randomized controlled trial found no difference in functional outcomes between the two implants after two years, but a higher complication and reoperation rate in the nail group.

The current study provides a comprehensive cost-utility analysis, including detailed resource tracking of hospital stay, operative time, outpatient care, reoperations, and complications, with outcomes measured in quality-adjusted life years. The key finding is that locking plates are more cost-effective than locking nails. The difference is driven primarily by increased complications and reoperations in the nail group.

This study is the first to directly compare cost-effectiveness between locking plates and locking nails in proximal humeral fractures using randomized data. The analysis provides details on where and how costs accumulate. Given the lack of existing economic evidence and the ongoing debate around optimal management of proximal humeral fractures, this study offers new knowledge for surgeons and healthcare providers.

The results challenge the justification for the routine use of nails in 3- and 4-part PHFs.

Jeppe Vejlgård Rasmussen  
Co-editor

### **Chronic Pain After Primary Total and Medial Unicompartmental Knee Arthroplasty for Osteoarthritis: A Danish Nationwide Cross-Sectional Survey**

Jens Laigaard, Saber M Aljuboori, Lone Nikolajsen, Ole Mathiesen, Troels H Lunn, Martin Lindberg-

Larsen, Søren Overgaard

**Acta Orthopaedica, 96, 2025, 814-821**

This nationwide survey, conducted in Denmark, investigates the incidence of chronic pain following primary Total Knee Arthroplasty (TKA) and Unicompartmental Knee Arthroplasty (UKA) for osteoarthritis. The study also examines pain characteristics, analgesic use, patient satisfaction, and the willingness of patients to undergo the same surgery again, one year after surgery. This large-scale survey provides valuable insights into postoperative pain outcomes, which have been underexplored in recent studies, particularly with regard to UKA.

The study found that 25% of TKA patients and 23% of UKA patients reported moderate to severe chronic pain at 1 year, which is notably higher than many prior estimates. While the authors rightly mention that previous studies have shown more conservative figures, the higher incidence in this study raises questions. Potential factors such as variations in perioperative care protocols across different hospitals, or the specific pain thresholds of patients, might have contributed to this discrepancy. A more detailed exploration of potential contributing factors, such as comorbidities or preoperative pain levels, could have provided more context.

Overall, this paper provides essential new data on chronic pain following TKA and UKA, a topic that has been underexplored in recent years. The large sample size, high response rate, and use of validated pain measures are key strengths of the study.

However, the high incidence of chronic pain, potential overreporting of neuropathic pain, and the cross-sectional nature of the study are important limitations that should be addressed in future research.

The study adds valuable insight into the clinical outcomes of knee arthroplasty and highlights areas for improvement in managing chronic postsurgical pain, ultimately contributing to better patient care and shared decision-making in the future.

Taco Gosens

Co-editor

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