

# Olecranon Bursitis

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title: "Olecranon Bursitis" slug: olecranon-bursitis region: elbow audience: patient mesh\_terms: ["Olecranon Process", "Bursitis", "Elbow Joint", "Bursa, Synovial", "Elbow Injuries", "Drainage", "Debridement", "Combined Modality Therapy"] article\_count: 76 model\_used: Qwen3.6-35B-A3B-Q8\_0.gguf generated\_at: '2026-06-16T19:29:43+00:00' key\_articles: - title: "Results of non-operative treatment of olecranon fracture in over 75-year-olds" ref\_num: 1 evidence\_tier: paper evidence\_level: 4 doi: 10.1016/j.otsr.2017.10.015 year: 2018 - title: "Treatment of olecranon bursitis: a systematic review" ref\_num: 2 evidence\_tier: paper evidence\_level: 4 doi: 10.1007/s00402-014-2088-3 year: 2014 - title: "Nontuberculous mycobacterial olecranon bursitis: Case reports and literature review" ref\_num: 3 evidence\_tier: paper evidence\_level: 4 doi: 10.1016/j.jse.2008.07.009 year: 2009 - title: "Intrabursal Doxycycline Sclerotherapy for Recurrent Olecranon Bursitis of the Elbow: A Case Control Study" ref\_num: 4 evidence\_tier: paper evidence\_level: 4 doi: 10.1016/j.jhsg.2024.03.006 year: 2024 - title: "No Wound Healing Complications or Recurrences Were Seen and a High Level of Satisfaction Was Reported in Patients Who Underwent Endoscopic Olecranon Bursectomy for Recalcitrant Olecranon Bursitis" ref\_num: 5 evidence\_tier: paper evidence\_level: 4 doi: 10.1016/j.asmr.2023.100832 year: 2024 - title: "Empirical Treatment of Uncomplicated Septic Olecranon Bursitis Without Aspiration" ref\_num: 6 evidence\_tier: paper evidence\_level: 4 doi: 10.1016/j.jhsa.2019.06.012 year: 2020 - title: "Clinical Management of Olecranon Bursitis: A Review" ref\_num: 7 evidence\_tier: paper evidence\_level: 5 doi: 10.1016/j.jhsa.2021.02.006 year: 2021 - title: "Factors associated with revision surgery for olecranon bursitis after bursectomy" ref\_num: 8 evidence\_tier: paper evidence\_level: 3 doi: 10.1016/j.jse.2020.09.033 year: 2021 - title: "Protothecal olecranon bursitis. A case report and review of the literature." ref\_num: 9 evidence\_tier: case\_report evidence\_level: 4 doi: 10.2106/00004623-198062050-00024 year: 1980 - title: "Olecranon bursitis" ref\_num: 10 evidence\_tier: paper evidence\_level: 5 doi: 10.1016/j.jse.2015.08.032 year: 2016 - title: "Hydrothermal ablation in recurrent or chronic olecranon bursitis: a prospective study" ref\_num: 11 evidence\_tier: paper evidence\_level: 4 doi: 10.1016/j.jse.2024.03.021 year: 2024 - title: "Posteromedial Elbow Impingement: Magnetic Resonance Imaging Findings in Overhead Throwing Athletes and Results of Arthroscopic Treatment" ref\_num: 12 evidence\_tier: paper evidence\_level: 4 doi: 10.1016/j.arthro.2011.06.012 year: 2011 - title: "The existence of cords in olecranon bursae" ref\_num: 13 evidence\_tier: paper evidence\_level: 4 doi: 10.1016/j.jse.2015.04.016 year: 2015 - title: "Clinical evaluation of double-plate osteosynthesis for olecranon fractures: A retrospective case-control study" ref\_num: 14 evidence\_tier: paper evidence\_level: 3 doi: 10.1016/j.otsr.2019.08.019 year: 2019 - title: "Diagnosis and management of olecranon bursitis" ref\_num: 15 evidence\_tier: paper evidence\_level: 4 doi: 10.1016/j.surge.2012.02.002 year: 2012 - title: "Clinical efficacy of endoscopic debridement combined with

compression suture in the treatment of recalcitrant aseptic olecranon bursitis” ref\_num: 16 evidence\_tier: paper evidence\_level: 4 doi: 10.1186/s13018-024-05090-3 year: 2024 - title: “Case report: misdiagnosed olecranon bursitis: pyoderma gangrenosum” ref\_num: 17 evidence\_tier: case\_report evidence\_level: 5 doi: 10.1016/j.jse.2014.06.032 year: 2014 - title: “Outcomes after plating of olecranon fractures: A multicenter evaluation” ref\_num: 19 evidence\_tier: paper evidence\_level: 3 doi: 10.1016/j.injury.2016.04.015 year: 2016 - title: “Arthroscopic debridement for osteochondral injury of the elbow trochlea: a case report with a long-term follow-up” ref\_num: 21 evidence\_tier: case\_report evidence\_level: 4 doi: 10.1016/j.jse.2010.09.015 year: 2011 - title: “Prepatellar and olecranon bursitis: literature review and development of a treatment algorithm” ref\_num: 22 evidence\_tier: paper evidence\_level: 1 doi: 10.1007/s00402-013-1882-7 year: 2013 - title: “Pediatric Sports Elbow Injuries” ref\_num: 25 evidence\_tier: paper evidence\_level: 5 doi: 10.1016/j.csm.2010.06.010 year: 2010 - title: “Septic olecranon bursitis, contact dermatitis, and pneumonitis in a gas turbine engine mechanic” ref\_num: 31 evidence\_tier: paper evidence\_level: 4 doi: 10.1016/j.jse.2011.10.013 year: 2012 - title: “Boxer’s elbow: internal impingement of the coronoid and olecranon process. A report of seven cases” ref\_num: 33 evidence\_tier: paper evidence\_level: 4 doi: 10.1016/j.jse.2016.09.035 year: 2017 - title: “Septic arthritis presenting as olecranon bursitis in patients with rheumatoid arthritis. A report of three cases.” ref\_num: 34 evidence\_tier: paper evidence\_level: 4 doi: 10.2106/00004623-198062060-00022 year: 1980 synthesis\_version: “v2” verifier\_status: skipped

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## Overview

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- Non-operative treatment of olecranon fracture in patients aged  $\geq 75$  years provided excellent functional results at 6 months, without associated complications [1].
- Nonsurgical management of olecranon bursitis is significantly more effective and safer than surgical management [2].
- Nontuberculous mycobacterial olecranon bursitis should be considered in any patient with a swollen bursa and protracted course, regardless of immune status [3].
- Intrabursal doxycycline sclerotherapy may be an effective alternative to surgical bursectomy for patients with recurrent olecranon bursitis refractory to conservative management [4].
- Patients who underwent endoscopic olecranon bursectomy experienced no recurrences or wound-healing complications necessitating return to the operating room [5].
- Empirical management of uncomplicated septic olecranon bursitis was found to be effective with no patients requiring bursectomy, whereas 8 of 11 patients in the traditional aspiration group required bursectomy [6].
- More recent literature demonstrates adverse effects of intrabursal injections and surgery compared with noninvasive management for initial treatment of nonseptic olecranon bursitis [7].
- The revision rate after bursectomy for olecranon bursitis was 11.5% [8].
- Hydrothermal ablation at temperatures between 50C and 52C is a safe treatment option for recurrent or chronic olecranon bursitis with fewer complications than open bursectomy and a comparable efficacy [11].

- Patients with olecranon cords were less satisfied after surgical excision compared to those without cords [13].
- Low-profile double-plate osteosynthesis is a safe and effective alternative treatment of olecranon fractures with excellent subjective and objective clinical outcome measures [14].
- Endoscopic debridement combined with compression suture for the treatment of aseptic olecranon bursitis has several advantages: simple operation, minimal invasiveness, minimal postoperative pain, rapid recovery, a low recurrence rate, and satisfactory overall efficacy [16].

## Anatomy & Pathophysiology

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- Posteromedial elbow impingement is a source of disability in overhead throwing athletes [12].
- Boxers are prone to the development of anterior and posterior elbow impingement lesions involving the coronoid and olecranon process [33].
- In boxer's elbow, the lead arm is more vulnerable to impingement lesions than the non-lead arm [33].
- Evaluation and management of elbow injuries in young athletes requires knowledge of immature developing anatomy [25].

## Classification

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- Non-operative treatment of olecranon fracture in patients aged  $\geq 75$  years provided excellent functional results at 6 months, without associated complications [1].
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- Nontuberculous mycobacterial olecranon bursitis should be considered in any patient with a swollen bursa and protracted course, regardless of immune status [3].
- Intrabursal doxycycline sclerotherapy may be an effective alternative to surgical bursectomy for patients with recurrent olecranon bursitis refractory to conservative management [4].
- Patients who underwent endoscopic olecranon bursectomy for recalcitrant olecranon bursitis experienced no recurrences or wound-healing complications necessitating return to the operating room [5].
- Empirical management of uncomplicated septic olecranon bursitis was found to be effective with no patients requiring bursectomy, whereas 8 of 11 patients in the traditional aspiration group required bursectomy [6].
- More recent literature demonstrates adverse effects of intrabursal injections and surgery compared with noninvasive management for initial treatment of nonseptic olecranon bursitis [7].
- The revision rate after bursectomy for olecranon bursitis was 11.5% [8].
- Excision has been curative for all lesions of the olecranon bursa, whereas multiple medications have been tried for cutaneous and systemic infections without clear-cut success [9].

- Distinguishing between septic and aseptic olecranon bursitis can be difficult because the physical and laboratory data overlap [10].
- Posteromedial elbow impingement is a source of disability in the overhead throwing athlete [12].
- The first treatment line for olecranon bursitis is conservative, including ice, rest, anti-inflammatory and analgesic drugs and, occasionally, bursal fluid aspiration [15].
- Pyoderma gangrenosum must be considered in the differential diagnosis whenever a patient presents with ulcerative cutaneous lesions that resemble an infectious process such as olecranon bursitis [17].
- The available evidence did not support the central European concept of immediate bursectomy in cases of septic bursitis [22].

## Clinical Presentation

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- Non-operative treatment of olecranon fracture in patients aged  $\geq 75$  years provided excellent functional results at 6 months, without associated complications [1].
- Nonsurgical management of olecranon bursitis is significantly more effective and safer than surgical management [2].
- Nontuberculous mycobacterial olecranon bursitis should be considered in any patient with a swollen bursa and protracted course, regardless of immune status [3].
- Empirical management of uncomplicated septic olecranon bursitis was found to be effective with no patients requiring bursectomy, whereas 8 of 11 patients in the traditional aspiration group required bursectomy [6].
- Older studies showed resolution with injections and surgery, but more recent literature demonstrates adverse effects of intrabursal injections and surgery compared with noninvasive management for initial treatment of nonseptic olecranon bursitis [7].
- The revision rate after bursectomy for olecranon bursitis was 11.5% [8].
- Excision has been curative for all lesions of the olecranon bursa, whereas multiple medications have been tried for cutaneous and systemic infections without clear-cut success [9].
- Distinguishing between septic and aseptic olecranon bursitis can be difficult because the physical and laboratory data overlap [10].
- The first treatment line for olecranon bursitis is conservative, including ice, rest, anti-inflammatory and analgesic drugs and, occasionally, bursal fluid aspiration [15].
- PG must be considered in the differential diagnosis whenever a patient presents with ulcerative cutaneous lesions that resemble an infectious process such as olecranon bursitis [17].
- Diagnosis and proper management of the infected bursa and dermatitis have prevented recurrence [31].
- In the rheumatoid patient, septic arthritis of the elbow joint can mimic septic olecranon bursitis, and the fact that the elbow joint may also be involved should be suspected in the rheumatoid patient who has what appears to be a septic olecranon bursitis [34].

# Investigations

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- Distinguishing between septic and aseptic olecranon bursitis can be difficult because physical and laboratory data overlap [10].
- Nontuberculous mycobacterial olecranon bursitis should be considered in any patient with a swollen bursa and protracted course, regardless of immune status [3].
- Pyoderma gangrenosum must be considered in the differential diagnosis whenever a patient presents with ulcerative cutaneous lesions that resemble an infectious process such as olecranon bursitis [17].
- Early use of MRI and cautious interpretation of posterior elbow palpation signs are crucial parts of the diagnosis of osteochondral injury of the elbow trochlea [21].

# Treatment

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## NON-OPERATIVE MANAGEMENT

- Nonsurgical management of olecranon bursitis is significantly more effective and safer than surgical management [2].
- Noninvasive management is preferred for the initial treatment of nonseptic olecranon bursitis due to adverse effects associated with intrabursal injections and surgery [7].
- The first treatment line for olecranon bursitis is conservative, including ice, rest, anti-inflammatory and analgesic drugs, and occasionally bursal fluid aspiration [15].
- Empirical management of uncomplicated septic olecranon bursitis without aspiration was effective, with no patients requiring bursectomy [6].
- In a comparison of empirical management versus traditional aspiration for uncomplicated septic olecranon bursitis, 8 of 11 patients in the traditional aspiration group required bursectomy [6].

## SURGICAL AND INTERVENTIONAL MANAGEMENT

- Intrabursal doxycycline sclerotherapy may be an effective alternative to surgical bursectomy for patients with recurrent olecranon bursitis refractory to conservative management [4].
- Hydrothermal ablation at temperatures between 50°C and 52°C is a safe treatment option for recurrent or chronic olecranon bursitis, offering fewer complications than open bursectomy and comparable efficacy [11].
- Endoscopic debridement combined with compression suture for recalcitrant aseptic olecranon bursitis offers minimal invasiveness, minimal postoperative pain, rapid recovery, a low recurrence rate, and satisfactory overall efficacy [16].
- Patients undergoing endoscopic olecranon bursectomy for recalcitrant olecranon bursitis experienced no recurrences or wound-healing complications necessitating return to the operating room [5].
- The revision rate after bursectomy for olecranon bursitis is 11.5% [8].

- Excision has been curative for lesions of the olecranon bursa, whereas multiple medications have been tried for cutaneous and systemic infections without clear-cut success [9].

### DIAGNOSTIC CONSIDERATIONS RELEVANT TO TREATMENT

- Distinguishing between septic and aseptic olecranon bursitis can be difficult because physical and laboratory data overlap [10].
- Nontuberculous mycobacterial olecranon bursitis should be considered in any patient with a swollen bursa and protracted course, regardless of immune status [3].

## Complications

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- Non-operative treatment of olecranon fracture in patients aged  $\geq 75$  years provided excellent functional results at 6 months without associated complications [1].
- Nonsurgical management of olecranon bursitis is significantly more effective and safer than surgical management [2].
- Intrabursal injections and surgery have adverse effects compared with noninvasive management for initial treatment of nonseptic olecranon bursitis [7].
- The revision rate after bursectomy for olecranon bursitis was 11.5% [8].
- Patients with olecranon cords were less satisfied after surgical excision compared to those without cords [13].
- Plating of the olecranon leads to predictable union, though the most common complication was lack of full extension in 39% of patients [19].

## Recovery

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### NON-OPERATIVE MANAGEMENT

- Non-surgical management of olecranon bursitis is significantly more effective and safer than surgical management [2].
- More recent literature demonstrates adverse effects of intrabursal injections and surgery compared with noninvasive management for initial treatment of nonseptic olecranon bursitis [7].
- Empirical management of uncomplicated septic olecranon bursitis without aspiration was found to be effective, with no patients requiring bursectomy [6].
- In a comparison group, 8 of 11 patients in the traditional aspiration group required bursectomy for uncomplicated septic olecranon bursitis [6].
- The available evidence did not support the central European concept of immediate bursectomy in cases of septic bursitis [22].

## INTERVENTIONAL AND OPERATIVE MANAGEMENT

- Intrabursal doxycycline sclerotherapy may be an effective alternative to surgical bursectomy for patients with recurrent olecranon bursitis refractory to conservative management [4].
- Hydrothermal ablation at temperatures between 50C and 52C is a safe treatment option for recurrent or chronic olecranon bursitis with fewer complications than open bursectomy and comparable efficacy [11].
- Patients who underwent endoscopic olecranon bursectomy for recalcitrant olecranon bursitis experienced no recurrences or wound-healing complications necessitating return to the operating room [5].
- The revision rate after bursectomy for olecranon bursitis was 11.5% [8].
- Patients with olecranon cords were less satisfied after surgical excision compared to those without cords [13].
- Excision has been curative for all lesions of the olecranon bursa in cases of protothecal olecranon bursitis [9].

## SPECIFIC ETIOLOGIES AND CONSIDERATIONS

- Nontuberculous mycobacterial olecranon bursitis should be considered in any patient with a swollen bursa and protracted course, regardless of immune status [3].

## Key Evidence

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- [L4] Non-operative treatment of olecranon fracture in patients aged  $\geq 75$  years provided excellent functional results at 6 months, without associated complications. ([10.1016/j.otsr.2017.10.015](#))
- [L4] Based primarily on level IV evidence, nonsurgical management of olecranon bursitis is significantly more effective and safer than surgical management. ([10.1007/s00402-014-2088-3](#))
- [L4] Nontuberculous mycobacterial olecranon bursitis should be considered in any patient with a swollen bursa and protracted course, regardless of immune status. ([10.1016/j.jse.2008.07.009](#))
- [L4] This may be an effective alternative to surgical bursectomy for patients with recurrent olecranon bursitis refractory to conservative management. ([10.1016/j.jhsg.2024.03.006](#))
- [L4] In this population, patients who underwent endoscopic olecranon bursectomy experienced no recurrences or wound-healing complications necessitating return to the operating room. ([10.1016/j.asmr.2023.100832](#))
- [L4] Empirical management of uncomplicated septic olecranon bursitis was found to be effective with no patients requiring bursectomy, whereas 8 of 11 patients in the traditional aspiration group required bursectomy. ([10.1016/j.jhsa.2019.06.012](#))
- [L5] Older studies showed resolution with injections and surgery, but more recent literature demonstrates adverse effects of intrabursal injections and surgery compared with noninvasive management for initial treatment of nonseptic olecranon bursitis. ([10.1016/j.jhsa.2021.02.006](#))
- [L3] The revision rate after bursectomy for olecranon bursitis was 11.5%. ([10.1016/j.jse.2020.09.033](#))

- [Case\_report] Excision has been curative for all lesions of the olecranon bursa, whereas multiple medications have been tried for cutaneous and systemic infections without clear-cut success. ([10.2106/00004623-198062050-00024](#))
- [L5] Distinguishing between septic and aseptic olecranon bursitis can be difficult because the physical and laboratory data overlap. ([10.1016/j.jse.2015.08.032](#))
- [L4] Hydrothermal ablation at temperatures between 50C and 52C is a safe treatment option for recurrent or chronic olecranon bursitis with fewer complications than open bursectomy and a comparable efficacy. ([10.1016/j.jse.2024.03.021](#))
- [L4] Posteromedial elbow impingement is a source of disability in the overhead throwing athlete. ([10.1016/j.arthro.2011.06.012](#))
- [L4] Patients with olecranon cords were less satisfied after surgical excision compared to those without cords. ([10.1016/j.jse.2015.04.016](#))
- [L3] Low-profile double-plate osteosynthesis is a safe and effective alternative treatment of olecranon fractures with excellent subjective and objective clinical outcome measures. ([10.1016/j.otsr.2019.08.019](#))
- [L4] The first treatment line for olecranon bursitis is conservative, including ice, rest, anti-inflammatory and analgesic drugs and, occasionally, bursal fluid aspiration. ([10.1016/j.surge.2012.02.002](#))
- [L4] Endoscopic debridement combined with compression suture for the treatment of aseptic olecranon bursitis has several advantages: simple operation, minimal invasiveness, minimal postoperative pain, rapid recovery, a low recurrence rate, and satisfactory overall efficacy. ([10.1186/s13018-024-05090-3](#))
- [Case\_report] PG must be considered in the differential diagnosis whenever a patient presents with ulcerative cutaneous lesions that resemble an infectious process such as olecranon bursitis. ([10.1016/j.jse.2014.06.032](#))
- [L3] Plating of the olecranon leads to predictable union, though the most common complication was lack of full extension in 39% of patients. ([10.1016/j.injury.2016.04.015](#))
- [Case\_report] It also emphasizes the early use of MRI and the cautious interpretation of posterior elbow palpation signs as a crucial part of the diagnosis of this lesion. ([10.1016/j.jse.2010.09.015](#))
- [L1] The available evidence did not support the central European concept of immediate bursectomy in cases of septic bursitis. ([10.1007/s00402-013-1882-7](#))
- [L5] Evaluation and management of elbow injuries in young athletes requires knowledge of the immature developing anatomy, injury pathophysiology, and established treatment algorithms for each diagnosis. ([10.1016/j.csm.2010.06.010](#))
- [L4] Diagnosis and proper management of the infected bursa and dermatitis have prevented recurrence. ([10.1016/j.jse.2011.10.013](#))
- [L4] Boxers are prone to development of anterior and posterior elbow impingement lesions, with the lead arm being more vulnerable. ([10.1016/j.jse.2016.09.035](#))
- [L4] In the rheumatoid patient, septic arthritis of the elbow joint can mimic septic olecranon bursitis, and the fact that the elbow joint may also be involved should be suspected in the rheumatoid patient who has what appears to be a septic olecranon bursitis. ([10.2106/00004623-198062060-00022](#))

## References

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