CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

EVIDENCE SUMMARY

Cannabis and CBD for Pain

Overview

- Cannabidiol (CBD) can be considered in a postoperative multimodal pain management regimen without detrimental effects on patient-reported outcomes versus placebo at 1-year follow-up after arthroscopic rotator cuff repair [1].
- Cannabidiol (CBD) can be considered in a postoperative multimodal pain management regimen without long-term functional deficits at 1-year follow-up after arthroscopic rotator cuff repair [2].
- Cannabis-based medicines are applicable for the treatment of peripheral neuropathy [3].
- Regular cannabis use may be associated with increased opioid usage in the context of total joint arthroplasty [4].
- No specific guidance in the use of cannabis in perioperative pain management can be suggested based on the association between regular cannabis use and increased opioid usage in total joint arthroplasty [4].
- Patients estimated medical cannabis could treat more than half of their spine pain [5].
- One in three patients with spine pain already uses medical cannabis [5].
- 79% of patients with spine pain believe cannabis could reduce opioid usage [5].
- Most survey respondents in the orthopaedic sports medicine community believed that CBD has a role in postoperative and chronic pain management [6].
- Large numbers of patients with osteoarthritis of the thumb basal joint would be interested in trialing either oral or topical formulations of medical cannabis for treatment of their thumb basal joint pain [7].
- Most patients presenting for hand and upper-extremity complaints would consider using medical cannabis (80.9%) [8].
- Patients presenting for hand and upper-extremity complaints perceive medical cannabis as a safe treatment option for common orthopedic conditions [8].
- Cost is identified as a major barrier to medical cannabis use in patients presenting for hand and upper-extremity complaints [8].
- A synthetic form of cannabinoid (THC) does not appear to limit opioid intake after primary total knee arthroplasty [9].

CQ HAND + UPPER LIMB
Dr Kieran Hirpara — Specialist Orthopaedic Surgeon
Suite 2, Level 1, Mater Private Hospital Rockhampton, 31 Ward Street, The Range, QLD 4700
Phone 07 4863 6556 · office@cqupperlimb.com.au · cqupperlimb.com.au

- Current evidence demonstrates efficacy and safety for chronic musculoskeletal and neuropathic pain regarding medical cannabis in hand surgery [17].
- Definitive conclusions regarding the efficacy of medical cannabis in hand and upper extremity conditions require continued investigation [17].

How It Works

- Cannabidiol (CBD) can be considered in a postoperative multimodal pain management regimen without detrimental effects on patient-reported outcomes at 1-year follow-up after arthroscopic rotator cuff repair [1].
- Cannabidiol (CBD) can be considered in a postoperative multimodal pain management regimen without long-term functional deficits at 1-year follow-up after arthroscopic rotator cuff repair [2].
- Buccally absorbed cannabidiol (CBD) demonstrates an acceptable safety profile and shows significant promise in reducing pain in the immediate peri-operative period following arthroscopic rotator cuff repair compared to control [14].
- Cannabis-based medicines are applicable for the treatment of peripheral neuropathy [3].
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- Patients presenting for hand and upper-extremity complaints perceive medical cannabis as a safe treatment option for common orthopedic conditions [8].
- Cost is identified as a major barrier to the use of medical cannabis among patients presenting for hand and upper-extremity complaints [8].
- A majority of sports medicine surgeons believe that cannabidiol (CBD) has a role in post-operative and chronic pain management [10].
- A synthetic form of cannabinoid (THC) does not appear to limit opioid intake after primary total knee arthroplasty [9].

- Further studies are warranted to determine the efficacy and safety of perioperative cannabis use after total hip arthroplasty to help guide orthopaedic surgeons in counseling patients [11].
- Cannabis-based medicine did not provide clinical improvement in pain compared with a placebo in patients with traumatic brachial plexus injuries [12].
- Patients with documented cannabis dependence demonstrated higher odds of developing wound complications following hand and wrist soft-tissue surgical procedures [15].

What the Evidence Shows

- Cannabidiol (CBD) use after arthroscopic rotator cuff repair demonstrates no deficits in patient-reported outcomes versus placebo at 1-year follow-up [1].
- Cannabidiol (CBD) use after arthroscopic rotator cuff repair demonstrates no functional deficits at 1-year follow-up [2].
- Cannabidiol (CBD) can be considered in a postoperative multimodal pain management regimen without detrimental effects on outcome [1].
- Cannabidiol (CBD) can be considered in a post-operative multimodal pain management regimen without long-term detrimental effects [2].
- Buccally absorbed cannabidiol (CBD) demonstrates an acceptable safety profile following arthroscopic rotator cuff repair [14].
- Buccally absorbed cannabidiol (CBD) shows significant promise in reduction of pain in the immediate peri-operative period following arthroscopic rotator cuff repair compared to control [14].
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- A majority of sports medicine surgeons believe that CBD has a role in post-operative and chronic pain management [10].
- A synthetic form of cannabinoid (THC) does not appear to limit opioid intake after primary total knee arthroplasty [9].
- Cannabis use does not affect outcomes after total hip arthroplasty [11].
- Further studies are warranted to determine the efficacy and safety of perioperative cannabis use after total hip arthroplasty to help guide orthopaedic surgeons in counseling patients [11].
- Cannabis-based medicine did not provide clinical improvement in pain compared with a placebo in patients with traumatic brachial plexus injuries [12].
- Cannabis-based medicine did not provide clinically important benefit as an adjuvant to standard multimodal drug therapy for neuropathic pain in traumatic brachial plexus injuries [16].
- Higher-level studies are needed to ascertain the impact of cannabis use for patients undergoing total joint arthroplasty [13].

Practical Considerations

- Cannabidiol (CBD) can be considered in a postoperative multimodal pain management regimen without detrimental effects on patient-reported outcomes versus placebo at 1-year follow-up after arthroscopic rotator cuff repair [1].
- Cannabidiol (CBD) can be considered in a postoperative multimodal pain management regimen without long-term detrimental effects after arthroscopic rotator cuff repair [2].
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- Regular cannabis use may be associated with increased opioid usage in the context of total joint arthroplasty [4].
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- A majority of sports medicine surgeons believe that CBD has a role in post-operative and chronic pain management [10].
- A synthetic form of cannabinoid (THC) does not appear to limit opioid intake after primary total knee arthroplasty [9].
- Cannabis use does not affect outcomes after total hip arthroplasty [11].
- Further studies are warranted to determine the efficacy and safety of perioperative cannabis use after total hip arthroplasty to help guide orthopaedic surgeons in counseling patients [11].
- Higher-level studies are needed to ascertain the impact of cannabis use for patients undergoing total joint arthroplasty [13].

Key Evidence

- [L2] These findings suggest that CBD can be considered in a postoperative multimodal pain management regimen without detrimental effects on outcome. [1] (10.1177/23259671231222265)
- [L2] These findings suggest that CBD can be considered in a post-operative multimodal pain management regimen without long-term detrimental effects. [2] (10.1177/2325967123s00172)
- [L2] These findings suggest the applicability of cannabis-based medicines for peripheral neuropathy. [3] (10.1016/j.jhsa.2024.09.015)
- [Paper] Regular cannabis use may be associated with increased opioid usage in the context of total joint arthroplasty, and no specific guidance in the use of cannabis in perioperative pain management can be suggested based on this discovery. [4] (10.1097/corr.0000000000003472)
- [L4] Patients estimated medical cannabis could treat more than half of their spine pain, with one in three patients already using medical cannabis, and 79% of patients believe cannabis could reduce opioid usage. [5] (10.1186/s13018-024-04558-6)
- [L4] Most survey respondents believed that CBD has a role in postoperative and chronic pain management. [6] (10.1177/23259671231191766)
- [L4] Large numbers of these patients would be interested in trialing either oral or topical formulations of medical cannabis for treatment of their thumb basal joint pain. [7] (10.1016/j.jhsa.2021.10.018)
- [L3] Most patients presenting for hand and upper-extremity complaints would consider using medical cannabis (80.9%) and perceive it as a safe treatment option for common orthopedic conditions, with cost identified as a major barrier to use. [8] (10.1016/j.jhsg.2022.02.009)
- [L1] Despite enthusiasm for cannabis after orthopaedic surgical procedures, this THC does not appear to limit opioid intake after primary TKA. [9] (10.1016/j.arth.2026.02.047)

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- [L4] A majority of sports medicine surgeons believe that CBD has a role in post-operative and chronic pain management. [10] (10.1177/2325967123s00336)
- [L3] Further studies are warranted to determine the efficacy and safety of perioperative cannabis use after THA to help guide orthopaedic surgeons in counseling patients. [11] (10.1016/j.arth.2023.03.040)
- [L1] Cannabis-based medicine did not provide clinical improvement in pain compared with a placebo in patients with traumatic brachial plexus injuries. [12] (10.1097/corr.0000000000003221)
- [L1] Higher-level studies are needed to ascertain the impact of cannabis use for patients undergoing TJA. [13] (10.1016/j.arth.2023.07.008)
- [L1] Buccally absorbed CBD demonstrates an acceptable safety profile and shows significant promise in reduction of pain in the immediate peri-operative period following ARCR compared to the control. [14] (10.1016/j.jse.2023.02.032)
- [L2] Patients with documented cannabis dependence demonstrated higher odds of developing wound complications following hand and wrist soft-tissue surgical procedures. [15] (10.1016/j.jhsg.2026.100948)
- [Paper] This is a commentary on a randomized controlled trial by Kittithamvongs et al., which found no clinically important benefit to cannabis-based treatment as an adjuvant to standard multimodal drug therapy for neuropathic pain in traumatic brachial plexus injuries. [16] (10.1097/corr.0000000000003265)
- [L4] Current evidence demonstrates efficacy and safety for chronic musculoskeletal and neuropathic pain, but definitive conclusions regarding efficacy in hand and upper extremity conditions require continued investigation. [17] (10.1016/j.jhsa.2022.11.008)

References

[1] Cannabidiol for Postoperative Pain Control After Arthroscopic Rotator Cuff Repair Demonstrates No Deficits in Patient-Reported Outcomes Versus Placebo: 1-Year Follow-up of a Randomized Controlled Trial. *Orthopaedic Journal of Sports Medicine*. 2024. DOI: 10.1177/23259671231222265 [2] Poster 186: Cannabidiol for Post-Operative Pain Control after Arthroscopic Rotator Cuff Repair Demonstrates No Functional Deficits at 1-Year. *Orthopaedic Journal of Sports Medicine*. 2023. DOI: 10.1177/2325967123s00172 [3] The Use of Cannabinoids in the Treatment of Peripheral Neuropathy and Neuropathic Pain: A Systematic Review. *The Journal of Hand Surgery*. 2025. DOI: 10.1016/j.jhsa.2024.09.015 [4] CORR Insights®: Do Medical and Recreational Marijuana State Laws Impact Trends in Postoperative Opioid Prescriptions Among Patients Who Have Undergone TJA?. *Clinical Orthopaedics & Related Research*. 2025. DOI: 10.1097/corr.0000000000003472 [5] Perceptions in orthopedic surgery on the use of cannabis in treating pain: a survey of patients with spine pain (POSIT Spine). *Journal of Orthopaedic Surgery and Research*. 2024. DOI: 10.1186/s13018-024-04558-6 [6] Perceptions and Opinions on Cannabidiol in the Orthopaedic Sports Medicine Community. *Orthopaedic Journal of Sports Medicine*. 2023. DOI: 10.1177/23259671231191766 [7] Assessment of Medical Cannabis in Patients With Osteoarthritis of the Thumb Basal Joint. *The Journal of Hand Surgery*. 2023. DOI: 10.1016/j.jhsa.2021.10.018 [8] Hand Surgery Patient Perspectives on Medical Cannabis: A Survey of Over 600 Patients. *Journal of Hand Surgery Global Online*. 2023. DOI: 10.1016/j.jhsg.2022.02.009 [9] A Synthetic Form of Cannabinoid Does Not Decrease Opioid Use After Total Knee Arthroplasty: A

Prospective, Randomized, Triple-Blind, Placebo-Controlled Study. *The Journal of Arthroplasty*. 2026. DOI: 10.1016/j.arth.2026.02.047 [10] Poster 373: Perceptions & Opinions on Cannabidiol Among Sports Medicine Orthopaedic Surgeons. *Orthopaedic Journal of Sports Medicine*. 2023. DOI: 10.1177/2325967123s00336 [11] Cannabis Use Does Not Affect Outcomes After Total Hip Arthroplasty. *The Journal of Arthroplasty*. 2023. DOI: 10.1016/j.arth.2023.03.040 [12] Does Cannabis-based Medicine Improve Pain and Sleep Quality in Patients With Traumatic Brachial Plexus Injuries? A Triple-blind, Crossover, Randomized Controlled Trial. *Clinical Orthopaedics & Related Research*. 2024. DOI: 10.1097/corr.0000000000003221 [13] Cannabis Use Following Total Joint Arthroplasty is Associated With Increased Risks? A Meta-Analysis. *The Journal of Arthroplasty*. 2024. DOI: 10.1016/j.arth.2023.07.008 [14] Effects Of Cannabidiol On Post-Operative Pain Following Arthroscopic Rotator Cuff Repair. *Journal of Shoulder and Elbow Surgery*. 2023. DOI: 10.1016/j.jse.2023.02.032 [15] Is Cannabis Dependence Associated with Postoperative Infections in Hand and Wrist Surgeries?. *Journal of Hand Surgery Global Online*. 2026. DOI: 10.1016/j.jhsg.2026.100948 [16] CORR Insights®: Does Cannabis-based Medicine Improve Pain and Sleep Quality in Patients With Traumatic Brachial Plexus Injuries? A Triple-blind, Crossover, Randomized Controlled Trial. *Clinical Orthopaedics & Related Research*. 2024. DOI: 10.1097/corr.0000000000003265 [17] Medical Cannabis in Hand Surgery: A Review of the Current Evidence. *The Journal of Hand Surgery*. 2023. DOI: 10.1016/j.jhsa.2022.11.008

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