

Studying in ROCK

In-depth studying in ROCK can be done per chapter page. Each chapter page contains a variety of multimedia elements to ensure comprehensive coverage of the topic.

At the top of each chapter page are the following elements: the subspecialty and section indication (1, 2) - relating to the table of contents - and the chapter title (3).

Next, there's the date the chapter was last updated (4)* and the author name(s) (5).

The screenshot shows the AAOS Resident Orthopaedic Core Knowledge (ROCK) website. The URL in the browser is rock.aaos.org/courseContent.aspx?id=6000004. The page features a navigation bar with links: AAOS, RESIDENT ORTHOPAEDIC CORE KNOWLEDGE, STUDY SCHEDULE, ADDITIONAL ASSIGNMENTS, RESSTUDY, STUDY MATERIAL, and ABOUT ROCK. The main content area displays the chapter title 'Arthritides of the Ankle' under the heading 'CHAPTERS / FOOT AND ANKLE | ANKLE'. Below the title, it indicates 'CORE', the date 'January 23, 2023', and the author 'Todd A. Irwin, MD, FAAOS'. There are two tabs: 'FULL VIEW' (selected) and 'OUTLINE VIEW'. The 'Pretest' section is titled 'Discover What You Know'. The 'Learning Objectives' section lists three bullet points: 'Assess the indications for various surgical treatment options in patients with ankle arthritis.', 'Determine surgical techniques associated with each treatment option.', and 'Outline common complications associated with the surgical management of ankle arthritis, and review current treatment strategies.'. The 'Surgical Management' section is titled 'Anterior Decompression/Cheilectomy'.

*Note: ROCK content is revised on a rolling basis, so this date will be different across content areas.

At the beginning of every chapter there's a pretest. This is intended to be taken before studying the page to discover what's already known on the topic.

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CHAPTERS / FOOT AND ANKLE | ANKLE

Arthritides of the Ankle

• CORE January 23, 2023 Todd A. Irwin, MD, FAAOS

FULL VIEW OUTLINE VIEW

Pretest

[Discover What You Know](#)

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Pretest: Arthritides of the Ankle

OPTIONS ▾

Question 1 of 17 #515633

Clinical Situation
Figures 1 and 2 are the lateral and AP radiographs of a 34-year-old woman who has ankle pain with a significant history of prior syndesmotic injury requiring syndesmotic fusion. Examination is consistent with tenderness to palpation along the anterior aspect of the ankle without any pain along the subtalar or talonavicular joints. Range of motion is noted as 0° of dorsiflexion and 9° of plantarflexion with pain, 5° of inversion, and 10° of eversion. The patient has undergone a lidocaine and corticosteroid injection with temporary relief of pain. No other intervention has taken place.
What is the best next step?

☐ A) Physical therapy

☐ B) Platelet-rich plasma injection

☐ C) Gauntlet ankle brace

☐ D) Hinged ankle-foot orthosis (AFO)

⚙️ NEXT QUESTION →

Next, a set of learning objectives to clarify what's covered in the chapter.

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STUDY SCHEDULE

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CHAPTERS / FOOT AND ANKLE | ANKLE

Arthritides of the Ankle

• CORE
January 23, 2023
Todd A. Irwin, MD, FAAOS

FULL VIEW
OUTLINE VIEW

Pretest

Discover What You Know

Learning Objectives

- Assess the indications for various surgical treatment options in patients with ankle arthritis.
- Determine surgical techniques associated with each treatment option.
- Outline common complications associated with the surgical management of ankle arthritis, and review current treatment strategies.

Surgical Management

Anterior Decompression/Cheilectomy

- Involves ankle debridement with anterior tibial/dorsal talar excystectomy (Figure 1)

Bulleted text then provides brief descriptions and explanations, while expandable and collapsible text provides paragraphs of more in depth coverage.

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Supramalleolar Osteotomy

- Indicated in patients who have mild or moderate ankle arthritis with tibiotalar malalignment and eccentric articular wear
- Purpose is to offload arthritic areas and redistribute the joint load onto intact articular cartilage.
- Options include opening wedge, closing wedge, or dome osteotomies, with or without fibular osteotomy.

⌵ Supramalleolar Osteotomy

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⬆️ Supramalleolar Osteotomy

Supramalleolar osteotomy should be considered in patients with ankle arthritis that is mild or moderate (ie, not severe) if the surgeon believes that correction of a tibiotalar joint deformity or distal tibia deformity may prolong the need for definitive ankle joint-sacrificing procedures. Other indications include a deformity in the distal tibia that requires correction before a definitive ankle arthritis procedure (eg, TAA).

Typically, varus deformity is corrected via a medial opening wedge tibial osteotomy (a fibular osteotomy may be necessary for corrections >10°) (Figure 2). Typically, valgus deformity is managed via a medial closing wedge osteotomy and may require an oblique lengthening fibular osteotomy. Dome osteotomy of the distal tibia (with or without fibular osteotomy) also is an option and results in less secondary translation than opening or closing wedge osteotomies. These osteotomies typically require internal fixation; however, gradual correction with the use of a thin-wire external fixator is an option for larger or multiplanar deformities. Complications of supramalleolar osteotomy include nonunion (particularly with opening wedge osteotomies), malunion, under correction, overcorrection, and progression of arthritis. The position of the hindfoot and forefoot should be carefully analyzed preoperatively because malalignment may be present that will need to be managed via concomitant procedures to

Note: The entire page can either be viewed as bullets alone or with full paragraph content visible. These views are controlled here:

CHAPTERS / FOOT AND ANKLE | ANKLE

Arthritides of the Ankle

• CORE January 23, 2023 Todd A. Irwin, MD, FAAOS

FULL VIEW OUTLINE VIEW

Pretest

Discover What You Know

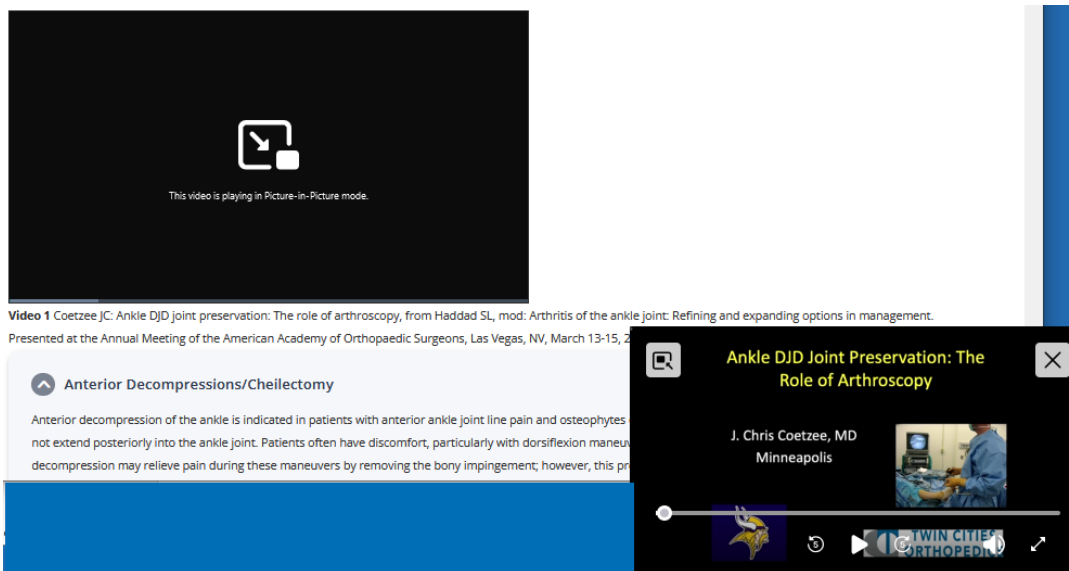
Learning Objectives

- Assess the indications for various surgical treatment options in patients with ankle arthritis.
- Determine surgical techniques associated with each treatment option.
- Outline common complications associated with the surgical management of ankle arthritis, and review current treatment strategies.

Watch in-line video demonstrations or pop-out the video to watch while continuing to study the text.



Video 1 Coetzee JC: Ankle DJD joint preservation: The role of arthroscopy, from Haddad SL, mod: Arthritis of the ankle joint: Refining and expanding options in management. Presented at the Annual Meeting of the American Academy of Orthopaedic Surgeons, Las Vegas, NV, March 13-15, 2019.



Video 1 Coetzee JC: Ankle DJD joint preservation: The role of arthroscopy, from Haddad SL, mod: Arthritis of the ankle joint: Refining and expanding options in management. Presented at the Annual Meeting of the American Academy of Orthopaedic Surgeons, Las Vegas, NV, March 13-15, 2014.

Anterior Decompressions/Cheilectomy

Anterior decompression of the ankle is indicated in patients with anterior ankle joint line pain and osteophytes not extend posteriorly into the ankle joint. Patients often have discomfort, particularly with dorsiflexion maneuvers. Anterior decompression may relieve pain during these maneuvers by removing the bony impingement; however, this procedure is not a definitive treatment for ankle arthritis.

Ankle DJD Joint Preservation: The Role of Arthroscopy

J. Chris Coetzee, MD
Minneapolis


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Select in-line Resource links to open full textbook chapters, articles, other sites, and more to aid in understanding.

Supramalleolar Osteotomy

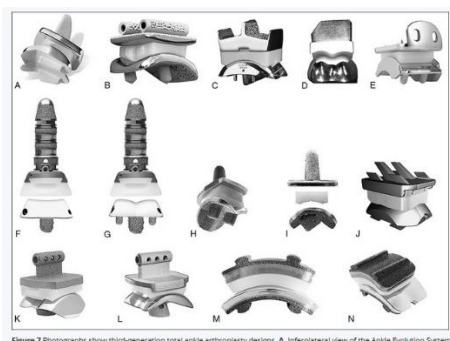
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View images, radiographs, illustrations, and more figures throughout the chapters and near the end of the chapters.



Near the end of some chapters there are Recommended Readings and Recommended Videos.

Recommended Readings

1. Archdeacon MT, Kazemi N, Guy P, Sagi HC: The modified Stoppa approach for acetabular fracture. *J Am Acad Orthop Surg* 2011;19(3):170-175. [Full Text](#)
2. Butler BA, Stover MD, Sims SH: The quadrilateral plate in acetabular fracture surgery: What is it and when should it be addressed? *J Am Acad Orthop Surg* 2021;29(3):e109-e115. [Full Text](#)
3. Cutrer NJ, Pinkas D, Toro JB: Surgical approaches to the acetabulum and modifications in technique. *J Am Acad Orthop Surg* 2015;23(10):592-603. [Full Text](#)
4. Firoozabadi R, Alton T, Sagi HC: Heterotopic ossification in acetabular fracture surgery. *J Am Acad Orthop Surg* 2017;25(2):117-124. [Full Text](#)
5. Mauffrey C, Stacey S, York PJ, Ziran BH, Archdeacon MT: Radiographic evaluation of acetabular fractures: Review and update on methodology. *J Am Acad Orthop Surg* 2018;26(3):83-93. [Full Text](#)
6. Moed BR, Dickson KF, Kregor PJ, Reilly MC, Vrahas MS: The surgical treatment of acetabular fractures, in Ricci WM, Tornetta P, eds: *Instructional Course Lectures: Trauma*, ed 2. Rosemont, IL, American Academy of Orthopaedic Surgeons, 2012 pp 129-149. [Full Text](#)
7. Perdue PW Jr, Tainter D, Toney C, Lee C: Evaluation and management of posterior wall acetabulum fractures. *J Am Acad Orthop Surg* 2021;29(21):e1057-e1067. [Full Text](#)
8. Tornetta P III: Displaced acetabular fractures: Indications for operative and nonoperative management. *J Am Acad Orthop Surg* 2001;9(1):18-28. [Full Text](#)
9. Webb LX: Open reduction and internal fixation of posterior wall acetabular fractures, in Colvin AC, Flatow E, eds: *Atlas of Essential Orthopaedic Procedures*, ed 2. Rosemont, IL, American Academy of Orthopaedic Surgeons, 2020, pp 571-578. [Full Text](#)

Recommended Video

Reilly MC: Osteoporotic acetabular fractures, from Reilly MC, mod: Acetabular fractures: A problem-oriented approach. Presented at the Annual Meeting of the American Academy of Orthopaedic Surgeons, Las Vegas, NV, March 12-16, 2019. [View](#)

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When ready, take the posttest to gauge how much has been learned.

00. Shaath MK, Lim PK, Andrews R, Chip Routt ML: Morbid obesity and short-term complications following acetabular fracture surgery: A comparative cohort study. *Injury* 2020;51(11):2622-2627. [PubMed](#)

01. Owen MT, Keener EM, Hyde ZB, et al: Intraoperative topical antibiotics for infection prophylaxis in pelvic and acetabular surgery. *J Orthop Trauma* 2017;31(11):589-594. [PubMed](#)

Posttest

[Show Off What You Learned](#)








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Posttest: Acetabular Fractures: Evaluation and Management

Question 1 of 18

Clinical Situation
Figure 1 is the radiograph of a 67-year-old woman who is involved in a motor vehicle collision and sustains an isolated injury to her left hip. She is a community ambulatory who does not use any assistive devices. She undergoes a closed reduction in the emergency department. Figures 2 through 5 are post-reduction CT images. What is the ideal surgical approach to address this fracture?

☐ A) Kocher-Langenbeck

☐ B) Ilioinguinal

☐ C) Extended iliofemoral

☐ D) Anterior intrapelvic

[NEXT QUESTION](#)

Review test results and study any additional recommended materials as needed.

When finished studying a chapter, select the “Mark as Complete” checkbox to ensure study progress is tracked in reports for resident and Program Director/Coordinator viewing.

- Most displaced acetabular fractures should be managed surgically, with the goals of anatomic reduction, tissue-sparing dissection, and stable fixation that allows for early motion.
- The role of percutaneous-only fixation and combined emergent ORIF/THA has not been fully determined.
- Complications are not uncommon in patients with an acetabular fracture and include wound disorders, VTE, heterotopic ossification, iatrogenic nerve injury, and post-traumatic arthritis.
- The quality of reduction is the most important predictor of hip survivorship.

☐ **Mark as Complete**

Recommended Readings

1. Archdeacon MT, Kazemi N, Guy P, Sagi HC: The modified Stoppa approach for acetabular fracture. *J Am Acad Orthop Surg* 2011;19(3):170-175. [Full Text](#)
2. Butler BA, Stover MD, Sims SH: The quadrilateral plate in acetabular fracture surgery: What is it and when should it be addressed? *J Am Acad Orthop Surg* 2021;29(3):e109-e115. [Full Text](#)
3. Gotsis M, Bishop D, Tann JG: Surgical approach to the acetabulum and modifications.

[SEND FEEDBACK](#)

Then move on to the next chapter or video to keep studying!