CLINICAL ORTHOPAEDIC SOCIETY

Learn by Seeing, Hearing, Fellowship and Criticism

COS NEWSLETTER

3RD EDITION
SUMMER
2026

114th Annual Meeting - Register Today - See p. 2

EXCELLENCE IN ACTION

Your COS Newsletter Workgroup


Jack M. Ayres, MD


Kezia Duah, MSII


Thelma Jimenez, MD


Nazanin Kermanshahi, DO


Kiah Mayo, MPH


Fuad Yazdani, MSIII

Welcome to the Third edition of our Clinical Orthopaedic Society Newsletter!

This publication is your go-to source for all things COS — from important updates and upcoming events to member highlights and the latest in orthopaedic research. Stay connected with the COS community and discover how we are shaping the future of orthopaedic care and education.

Join the Movement - Become a Member

Watch our COS Legacy video

Have an idea for the newsletter? Email us!
info@cosociety.org

INSIDE

EXCELLENCE IN ACTION
The 114th COS Annual Meeting

August 26-29, 2026 | Omni Louisville

Register Here
(Scan or click the QR code)

What's in store for residents and medical students?

- Hands-on workshops
- Expanded medical student & resident programming
- Subspecialty deep dives & mentorship panels
- Networking opportunities with top orthopedic surgeons
- $250 MS3 & MS4 Scholarships for attendance & participation

Join Us
(Scan or click the QR code)

This is your society. Whether you are a seasoned orthopaedic leader, an early-career surgeon, a resident, or a medical student, we have a place for you in our growing community.

Join COS

LEADERSHIP CORNER

"If your actions inspire others to dream more, learn more, do more and become more, you are a leader."

- John Quincy Adams, 6th USA President

COS annual meetings invest in your growth through education, networking, and mentoring with medical students, residents, fellows, and practicing orthopaedic surgeons.

This year our topics intersect with all specialties to support and promote excellence in your practice.

The Scientific Program provides relevant topics in translational research, clinical updates, and solutions to complex clinical scenarios, with attendee interaction.

Let us know what you think about our investment in you at info@cosociety.org

See you in Louisville, KY, at our upcoming annual meeting!

PRESIDENT'S MESSAGE

Marlene DeMaio, MD, EdD
President, Clinical Orthopaedic Society
Captain, Medical Corps, U.S. Navy (ret.)

Welcome to Our Third Edition!

As your President, I am excited to present the third newsletter for the Clinical Orthopaedics Society (COS). Begun by Immediate Past President Afshin Razi, MD, last year, we continue with COS updates and "news you can use." This issue highlights our highly anticipated August meeting and key accomplishments of the society. Updates, event reminders, and opportunities for professional development are up for a landmark gathering in Louisville. This unique and historic city will host our **114th meeting from August 26-29, 2026**. Look for interesting information about Louisville throughout the newsletter. Your attendance will make our motto, **"Learn by seeing, hearing, fellowship, and criticism,"** a reality.

Make Travel Plans for Excellence in Action!

Expert orthopaedic surgeons and providers will come from across the country, sharing their knowledge, insights, and clinical decision making to further our practice of musculoskeletal care. Our agenda focuses on critical, clinical topics to promote cross-pollination of ideas between specialties and across generations.

Own the Bone Session
Our first session to offer CEUs along with our CMEs along with a special osteoporosis section. The program features the unique and extraordinary contributions of orthopaedic surgery in Louisville.

Paul Celestre, MD - Scientific Program Chair
He is a busy, board-certified orthopedic spine surgeon at Norton Leatherman Spine Center who extends spine surgery internationally. You'll see how spine surgery and other specialties translate to your practice and education.

Alfonso Mejia, MD - Vice President
From the Department of Orthopaedic Surgery, University of Illinois, is a former fellow at the world-renowned and groundbreaking Kleinert-Kurtz Hand Clinic. Dr. Mejia crafted two symposia dedicated to their impact on hand surgery. Since Louisville is home to Churchill Downs, the head veterinarian, sports medicine physicians, and a jockey will share their experiences and insights. Other symposia focus on translational research, innovation, surgeon wellness, mass-casualty response, and gaps in clinical practice guidelines.

And, to our colleagues in training, we continue with special breakout sessions crafted to your needs and requests. Board of Directors member **Brandi Hartley, MD**, trauma surgeon extraordinaire, from the Department of Orthopaedics, University of Michigan, Ann Arbor and Dr. Mejia again lead this highly praised event. Posters and Rapid-Fire sessions continue as a national platform to present early career research.

Mary Lloyd Ireland, Dr. and Mrs. Elmer Nix Ethics Award Winner
A pioneer in clinical orthopaedic sports medicine, educator, philanthropist, outstanding clinician, and athlete. Dr. Ireland is a Kentucky native who practices in Lexington's Department of Orthopaedic Surgery, University of Kentucky.

O. Alton Barron, MD, George Brindley, MD, Lectureship Speaker
A remarkable upper extremity surgeon, Clinical Professor, Department of Orthopaedic Surgery, NYU Langone, Senior Attending Physician, Roosevelt Hand to Shoulder Center, and Medical Director of Pinnacle Surgery Center. He splits his extensive practice between Manhattan and Austin.

BREAKING NEWS

2026 Dr. & Mrs J. Elmer Nix Ethics Award Winner

Dr. Mary Lloyd Ireland

Earns AOSSM's 2026

Thomas A. Brady Community Service Award

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PRESIDENT'S MESSAGE Continued

Cathleen Lewis, PhD - Presidential Guest Speaker
Dr. Lewis is the curator of International Space Programs and Spacesuits at the National Air and Space Museum, Smithsonian Institute. Her talk will no doubt, be out of this world (couldn't resist).

Michelle D. Miller, PhD - Presidential Guest Speaker
Dr. Miller is an author, researcher, and a nationally recognized expert in cognition. She will help us understand adult learning and the intersection of psychology, pedagogy, and technology.

Meeting App
Our app will have additional resources for you to personalize your education during and after the meeting. There will be three webinars after the meeting, "Meet the Speaker" for you to have continued and more personal interactions with our experts.

Member News

Bylaws Email | Look out for an email about our extensive Bylaws changes. We are adding new membership categories for all providers who deliver musculoskeletal care, including nurses, physician assistants, physical therapists, and physicians.

Volunteer Opportunities | We have openings in committees and work groups, including the newsletter. Your voice will be louder when you are on a committee or in a work group. Your engagement strengthens our community and advances surgical excellence locally and nationally. Don't forget to post your photos and experiences at the meeting.

Donations | A donation link is on our website. You may direct your generous support to medical student and resident scholarships, the meeting, or the general fund. Most donations support the scholarships.

Questions, submissions, or more information
By phone: 888-695-0515
By email info@cosociety.org
Website: www.cosociety.org

Before the meeting, you might check out background information in the President's List in the sidebars on pp. 5 & 6. We look forward to seeing you in August!

Kindest regards,

marlene DeMaio

Meet the Vice President
Alfonso Mejia, MD, MPH
University of Illinois

Alfonso Mejia, MD, MPH, is Professor of Clinical Orthopaedic Surgery at the University of Illinois at Chicago, where he serves as Vice Head of the Department of Orthopaedic Surgery, Program Director of the Orthopaedic Surgery Residency, and Head of the Division of Hand Surgery. A hand and upper extremity surgeon, Dr. Mejia has devoted much of his academic career to resident education, mentorship, patient safety, and leadership development. His work at UIC has included oversight of graduate medical education, operating room safety initiatives, and systems-based efforts to improve communication, supervision, and patient care. He currently chairs UIC's Main OR Committee and serves as Vice Chair of the Committee on the OR, which oversees both the main operating rooms and the surgery center.

Dr. Mejia has been active in organized orthopaedics at the state and national levels. He is a past President of the Illinois Association of Orthopaedic Surgeons and the American Association of Latino Orthopaedic Surgeons, and he has served the AAOS in multiple leadership roles, including Chair of the Board of Councilors and member of the AAOS Board of Directors. He has presented Instructional Course Lectures annually at AAOS for the past six years and regularly at the Mid-America Orthopaedic Association. He is an ABOS examiner and has served as editor or coeditor for more than two dozen medical, EMS, and orthopaedic texts, including a recent book on hand biomechanics. Since 2000, he has served as a Tactical Emergency Medical Support physician and medical director for a multi-jurisdictional SWAT team. Dr. Mejia currently serves as Vice President of the Clinical Orthopaedic Society and will assume the presidency next year, bringing a career-long commitment to education, advocacy, communication, and service to the role.

KENTUCKY STATE INFORMATION

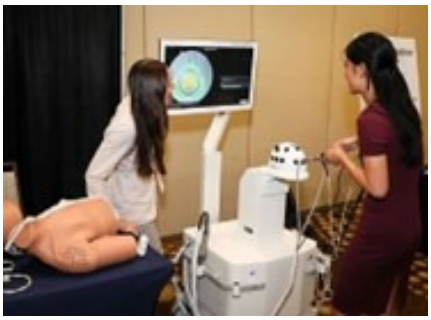
State flower – Goldenrod
State song – "My Old Kentucky Home," 1852 by Stephen Foster.

Scientific Program Chair's Message

Paul Celestre, MD
Norton Leatherman Spine and Norton Children's Leatherman Spine

We look forward to seeing you in Louisville! We have an outstanding scientific program scheduled for the 114th meeting of the Clinical Orthopaedic Society. From presentations by world renowned experts in a variety of sub-specialities to outstanding original research presentations there is something to educate and enlighten everyone in attendance. It would not be Kentucky without horse racing, and there are some special speakers to help understand how Orthopaedics relates to the Sport of Kings.

A particular highlight is the educational session on Osteoporosis that will be presented in combination with the American Orthopaedic Society. This session will feature presentations on the clinical challenges of treating patients with decreased bone density, contemporary medications, and how to establish a bone health clinic to provide the best possible care to your patients. Orthopaedic surgeons have been trying to "Own the Bone" for the past decade, and we hope to help you make strides towards this goal.



Amazing Orthopaedic Advances in Louisville, KY

First Successful Hand Transplant

January 25, 1999, at Jewish Hospital, a Kleinert Kurtz team performed the first hand transplant in the US to recipient Matthew Scott. Importantly, if was the world's first successful hand transplant.

The Kleinert Kutz Hand Center is the oldest and largest hand practice in the US. Pioneers Drs. Harold E. Kleinert and Dr. Joseph Kutz developed successful Zone II Tendon repair, digital artery repair, and toe-to-hand transfers. Their fellowship trained over 1160 hand fellows from 55 countries. In 2024, the center joined University of Louisville.

Pioneers in Microsurgery

Anatomist Dr. Robert Acland at the University of Louisville developed his revolutionary microsurgical technique course in 1975, which resulted in the training of thousands of surgeons.

Scoliosis Pioneer

Dr. Kenton Leatherman was the first to treat scoliosis with surgery and introduced Harrington rods to the US. His scoliosis and spine clinic evolved into the current Norton Leatherman Spine Institute which has the second oldest spine fellowship in the country and whose surgeons perform more than 4000 procedures annually.

National Spine Registry

Steven D. Glassman, MD serves as the Medical Director of the Norton Leatherman Spine Center, Executive Committee Co-Chair of the American Spine Registry, and Professor of Orthopaedic Surgery at the University of Louisville. Dr. Glassman is internationally renowned for patient-based outcomes, translational and innovative research with industry partners, and improving patient quality of life. The spine registry is a joint database with the American Association of Neurological Surgeons.

What's a Louisville Slugger anyway?

Louisville Slugger was the nickname of Pete Browning, a star baseball player for the Louisville Eclipse team. In 1884, 17-year-old woodworker Bud Hillerich created a custom bat which broke Browning's batting slump.

Hillerich and his father trademarked the name "Louisville Slugger" in 1894 and started Hillerich & Bradsby Company. Many professional baseball players endorse the bats. In 1905, Honus Wagner became the first to sign for his own signature bat. Babe Ruth, Ted Williams, and Derek Jeter followed.

PRESIDENT'S LIST FOR OUR 114th MEETING:
Suggestions to Enhance your Louisville Experience

MOVIES

- Muhammed Ali: Ali, 2001
- City of Ali, 2021
- When We Were Kings, 1996
- The Greatest, 1997
- Neat: The Story of Bourbon, 2018
- Secretariat, 2010
- Sheba, Baby, 1975
- The Insider, 1999

YOUTUBE

Bourbon & Kentucky: A History Distilled
https://youtu.be/WB9gL1EJeYI?si=bVdUMy5iG_Iqaeea

STREAMING

Netflix:
Race for the Crown, 2025
The First Saturday in May, 2008

PBS:
Inside the Kentucky Derby

BOOKS

Orthopaedics

Skill: 40 Principles That surgeons, athletes, and other elite performers used to achieve mastery, 2017.
Christopher S. Ahmad, MD

Yes, I Am the Surgeon: Lessons on Perseverance in a World That Tells You No, 2023. Lattisha Latoyah Bilbrew, MD. **COS MEMBER**

The Complete Bone and Joint Health Plan: Help Prevent and Treat Osteoarthritis and Arthritis, 2025.
Jocelyn Wittstein, MD & Sydney Mitzkowski, MD, RD, CSSD

Learning

It's Your Ship: Management Techniques from the Best Damn Ship in the Navy, 2012. Captain D. Michael Abrashoff

Remembering and Forgetting in the Age of Technology: Teaching, Learning, and the Science of Memory in a Wired World, 2022. Michelle D. Miller, PhD

Louisville's Historic Black Neighborhoods, 2012. Dr. Beatrice S. Brown

Secrets of Old Louisville, 2018. David Dominé

Continued on p. 7

PRESIDENT'S LIST Continued

Horses

The Perfect Horse: The Daring U.S. Mission to Rescue the Priceless Stallions Kidnapped by the Nazis, 2016. Elizabeth Letts (NY Times Best Seller, Amazon Best Book 2016)

Out of the Clouds: The Unlikely Horseman and the Unwanted Colt Who Conquered the Sport of Kings, 2018. Linda Carroll, David Rosner.

GUIDES

A History Lover's Guide to Louisville
Bryan S. Bush

Haunts of Old Louisville
David Dominé

Classic Restaurants of Louisville
Cincinnati/Louisville food writers

Moon Spotlight Louisville & the Bourbon Trail
Moon Travel Guide

ATTENTION APPs & NURSES

Sign up for the Own the Bone Session when you register for the Annual Meeting

You can receive:

- up to 8.0 hours of CME or CNE credit
- access to the 2026 Own the Bone Symposium recordings
- a Bone Health Training Certificate of completion

Amazing Orthopaedic Advances in Louisville, KY

Robotic Spine Surgery Pioneer
Dr. Jeffrey L. Gum, Norton Leatherman Spine Institute, was the first surgeon in the world to use the next-generation Medtronic Stealth AXiS robotic-assisted platform.

Orthopaedic Trauma Care
David Seligson, MD, an internationally recognized trauma specialist in fracture care and innovation is Professor and Director of the Orthopaedic Trauma Fellowship at the University of Louisville. He introduced reamed intramedullary internal fixation in the USA and authored definitive textbooks on management of pelvic and lower extremity trauma. He is the past president of the International Gerhard Kuntscher Society and a longstanding member of the American College of Surgeons.

Level 1 Trauma Center
The University of Louisville is the only Level 1 Trauma Center in the area.

The Power of Coaching Questions for COS Members

By Jeffrey M. Smith, MD, FACS, PCC, and Carla Smith, MD, PhD, ACC

We are trained to solve problems. We repair fractures, reconstruct ligaments, treat arthritis, and restore function to help patients regain their quality of life. We have much less training in managing our teams and our patients, yet leadership is a critical component of our success.

Outcomes are frequently influenced by factors outside our direct control, including communication, engagement, follow-through, and collaboration. In these situations, adopting a coaching mindset can be particularly valuable.

The International Coaching Federation (ICF) describes a coaching mindset as being "open, curious, flexible, and client-centered."[1] Rather than focusing on directing, correcting, or controlling, a coaching mindset emphasizes curiosity, partnership, and collaboration. This shift in perspective can strengthen relationships, improve communication, and enhance our effectiveness as leaders in the operating room, the clinic, and throughout our professional lives.

The Power of Coaching Questions

At its core, coaching is about asking thoughtful, open-ended questions that create awareness and insight. Rather than seeking a quick answer or moving past discomfort, coaching questions encourage reflection and ownership. They help shift conversations from compliance to commitment.

Consider a few examples for patients:

- What do you need to know about your condition, treatment, or injury that will help me best guide your care?
- What activity are you most looking forward to resuming after surgery?
- What barriers might limit your ability to fully embrace the treatment plan?

Understanding the point of view and realities of our patients' lives helps us better navigate the particulars of their treatment and recovery and gives us a critical advantage in predicting their clinical course.

Helping Others Think, Not Just Follow

Coaching questions are designed to help people think more deeply, clarify their goals, and identify meaningful next steps. For colleagues, trainees, or staff, it may mean exploring opportunities for growth, leadership, or professional fulfillment.

The goal is not to relinquish responsibility as a leader. Rather, it is to encourage ownership and engagement in others. Coaching shifts the conversation from telling people what to do toward helping them discover what they are willing and able to do.

Questions such as:

- What is most meaningful to you in your career?
- How does your activity support your values?
- What can you commit to?
- What resources do you already have available to you?
- Where else can you find support?

can help people move from passive participation to active ownership of their desired outcomes.

The Power of the Coaching Mindset

Adopting a coaching mindset does not diminish the importance of our expertise or decision-making. It enhances how we communicate, listen, and engage with those around us. By approaching conversations with greater curiosity and collaboration, we can help others identify solutions, take ownership, and achieve better outcomes without carrying the entire burden ourselves.

Coaching skills are not reserved for certified coaches. They are practical tools for any surgeon seeking to lead more effectively, build stronger teams, foster patient engagement, and navigate the complexities of modern medicine with greater confidence and compassion.

Want to learn more?

If you'll be attending the meeting in Louisville, stop by the **SurgeonMasters** Coaching Booth to continue the conversation. You can also explore coaching resources, articles, podcasts, and educational opportunities at SurgeonMasters.com

I hope you'll join us as we continue exploring how coaching skills can help physicians thrive in medicine and beyond

Source: 2025 ICF Core Competencies. Sept. 2025.

What Advocacy Can Do for You and What You Can Do for Advocacy

Jack M. Ayres, MD

Resident Advisor to the Clinical Orthopaedic Society Board of Directors; Third-year Resident, Prisma Health/University

One of the goals I had for this newsletter was to create more opportunities to discuss advocacy and the many ways orthopaedic surgeons can engage beyond the clinic and operating room. Too often, advocacy is viewed as something reserved for a select group of physicians (or worse, – only for those "involved in politics"), when in reality it is a responsibility that belongs to all of us.

Remember that advocacy is not just about passing bills. In fact, many laws are little more than a framework that federal and state agencies must later translate into practical policy. It is during that process—through rulemaking, implementation, and ongoing refinement—that many of the decisions affecting patient care and physician practice are ultimately made. As physicians, it is important that we remain engaged in those conversations as well.

To help illustrate what engagement can look like in practice, I invited several medical students to share their perspectives on issues they are passionate about. Their reflections demonstrate that this work does not require a title, a committee appointment, or years of experience. I encourage you to read the pieces below and consider how their experiences resonate with your own journey in residency.

Dear Residents,

Join the Clinical Orthopaedic Society:

Elevate Your Orthopaedic Training Career Advancement: Present your research, giving you visibility and the opportunity for critical feedback.

Leadership and Collaboration: Participate in workgroups and committees, helping to shape the future of orthopaedic education and clinical practice.

Hands-On Workshops: Engage in cutting-edge, hands-on workshops to refine your clinical skills, from arthroscopy to surgical procedures.

Benefits
Free Membership: As a resident, join at no cost and unlock a wealth of resources to support your professional growth.

Exclusive Mentorship: Connect with senior orthopaedic surgeons who can provide invaluable guidance during your training and career journey.

One of the most fundamental ways to be an advocate for your patients and profession is to VOTE! The upcoming midterm elections are just as important but often fail to generate as much interest as presidential election years. Check your voter registration, make a plan to vote, and go do it!

I also look forward to continuing these conversations with many of you at the Annual Meeting and in the years to come!

The Louisville Bats...not the flying mammal with wings of modified hands...

The local baseball team invokes the Louisville Slugger history. Importantly, they are a Triple AAA affiliate for the Cincinnati Reds and compete in the International League. Catch a home game at Louisville Slugger Field, Aug 25-30, 2026.

Advocacy: Our Time is Now

Kezia Duah, OMSI
Newsletter Work Group
Ohio University Heritage College of Osteopathic Medicine

Being involved in orthopaedic research has been very fulfilling, as I know I am contributing to innovation in orthopaedics. My current projects explore disparities in musculoskeletal care, including barriers to timely hip fracture surgery and differences in outcomes between urban and rural populations undergoing total knee arthroplasty. There is something incredibly meaningful about knowing that the work being done today may one day improve the lives of future patients. This feeling is why I was genuinely distraught when I considered the potential impacts of federal funding cuts, which directly harm orthopaedic research. Like many medical students, I had not previously appreciated how federal policy decisions shape the future of orthopaedic research until I spent time at the AAOS website. A recently enacted continuing resolution reduced funding for the Department of Defense's Congressionally Directed Medical Research Programs by 57%, leading to the elimination of the Peer-Reviewed Orthopaedic Research Program, which has supported research that improves care for injured service members and civilian patients alike.

AAOS PAC President, Wayne Johnson, MD will be at the meeting and is the moderator for Symposium 12: Your Office Matters.

As a medical student, it is easy for advocacy to feel distant and unimportant. Between a rigorous curriculum, frequent examinations, and an ever-growing list of required events and deadlines, advocacy can seem far less urgent than the demands of day-to-day training. I viewed it as something reserved for policymakers, legislators, or senior physicians, certainly not for someone still early in training. However, I realized that advocacy directly affects the future of the things I care most about: research, innovation, physician training, and ultimately patient care. These priorities depend on systems and policies that many students rarely think about. As someone hoping to enter this field, it is difficult not to think about what this means for the future, not only for me, but for patients as well. What I have learned is that advocacy does not require being a policy expert or political professional. At its core, advocacy is about protecting patients, supporting innovation, expanding access to care, and strengthening the future of medicine. Many of us entered orthopaedics because we wanted to improve our patients' quality of life. Advocacy is another way of fulfilling that commitment.

For students interested in becoming involved, the American Academy of Orthopaedic Surgeons' advocacy resources are an excellent place to start. The website outlines current healthcare issues, legislative priorities, and opportunities for involvement through educational initiatives, advocacy campaigns, and communication with legislators. Students can also learn from residents, attendings, and organizations such as the Clinical Orthopaedic Society and subspecialty societies across orthopaedics. At the end of the day, the most direct and immediate way to advocate is through your vote! Given that many medical students move districts or even states for medical school, take a moment to check your voter registration status and make sure you are prepared to participate in upcoming elections: Vote.org

It is easy, as a medical student, to believe these issues are still far away. However, physician shortages, limited training positions, increasing patient demand, and burnout are not abstract concerns. They shape the healthcare system patients experience every day and the environment future physicians will inherit. The future of orthopaedics will be shaped by those willing to become involved today.

Policy Gaps are Opportunities for Us to Enact Change

Zahra Vafaei Naeini, MSII
Newsletter Work Group
LSU Health Sciences Center, New Orleans

When Hurricane Katrina made landfall in 2005 in New Orleans, Louisiana, physicians faced a choice no training prepares you for — stay or leave. Many stayed. Sixteen years later, I experienced Ida in 2021 while working as a nursing aide in a nursing home facility in Baton Rouge, Louisiana. The storms and disasters keep coming. But the legal gap has never closed — the disconnect between the risk physicians take on when they volunteer in a crisis and the protection the law offers them. A physician who stops to help at a roadside accident or the one who volunteers in a disaster shelter carries the same malpractice exposure as one practicing in a fully staffed OR on a Tuesday morning. One misstep, one bad outcome, and they face the same lawsuit. H.R. 2819, the Good Samaritan Health Professionals Act, would address this by providing targeted federal liability protections specifically for licensed physicians who volunteer during federally declared disasters and public health emergencies — not in all settings, but in the moments when showing up costs the most.

The liability gap is one side of the challenge. The payment system is the other. After a 2.83% cut to the physician fee schedule in 2025, the fifth consecutive year of cuts, and no inflation adjustment in over two decades, keeping Medicare patients costs more than the system will pay. In 2026, the Center for Medicare and Medicaid Services (CMS) went further, cutting surgical work relative value units (RVUs[JA1]) on the premise that procedures get easier as technology improves. For orthopaedic surgeons, that means the more you refine your technique, the less Medicare pays you for it. Physicians are the only providers in the American healthcare system with no annual inflation adjustment.[JA2] Hospitals get one. Nursing homes get one. Physicians do not. Over the past two decades, Medicare reimbursement for orthopaedic surgery has fallen by nearly one third in real dollars.

The policies being debated today will determine who and how you are able to serve ten years from now. Medical school is the last moment you have real bandwidth to engage; residency narrows it fast. The lawmakers who shape these policies are elected by voters, which means the first step is making sure your voice is counted. Register to vote. Know your representatives. Write to them. Show up to advocacy days. H.R. 7520, the Efficiency Adjustment Delay Act, is in committee now and needs constituent pressure. The fight for Good Samaritan protections has been introduced in nearly every Congress since 2017 and has never passed. You are training to be the surgeon who answers the call. Make sure the system still makes that possible.

RESEARCH SPOTLIGHT

By Shahab Yazdanpanah, MS3
Northeast Ohio Medical University

Virtual Reality Improves Confidence and Short-Term Retention During Tibial Intramedullary Nail Insertion: A Randomized Trial
Orland et al. (2026) PMID: 41811262

A very interesting study by Orland and colleagues at the University of Illinois, recently published in-house in the Journal of Surgical Orthopaedic Advances (JSOA), added to the growing body of evidence supporting simulation-based orthopaedic education by evaluating virtual reality (VR) training for tibial nail insertion. In this RCT, 25 first- and second-year, procedurally-naïve medical students were assigned to VR training, a traditional technique guide, or a combination of both for learning the procedure. Students trained with VR reported significantly greater procedural confidence and demonstrated improved short-term information retention compared with those in the technique guide group. While limited by a relatively small sample size and reliance on self-reported outcome measures, the use of a novice learner population and randomized design helped to strengthen the validity of the study's simulation-related findings. More importantly, this research serves as a supplemental proof-of-concept for the role of VR in orthopaedic training. As the literature continues to expand, VR and other similar technologies appear increasingly well-positioned to enhance trainee preparedness and procedural learning. Future studies evaluating orthopaedic residents will help define the impact of VR throughout the orthopaedic training continuum, but one can envision such technology becoming a routine component of residency curricula and, ultimately, a potentially valuable adjunct even for continuing education and skill maintenance among practicing surgeons.

COS in the Kitchen

Tips and Tricks for Happy Hands in the Kitchen

Mary Allan, MOT, OTR/L, CHT

As a surgeon, your hands are your most valuable tools. Take every opportunity to protect them throughout your daily routine to maximize the life of your joints, and your surgery career. A few minor changes can make major differences.

The thumb CMC joint is one of the first joints in our body to wear out and it can become incredibly painful along the way. When you pinch with 10 pounds of force with a 3-point pinch, you transfer over 100 pounds of force to the thumb CMC joint.

The central disc in the ulnar side of our wrist, part of the triangular fibrocartilage complex (TFCC), is similar to the meniscus in the knee with no blood flow to the central portion, and it can wear out over time. Many of the tasks in meal preparation place our wrist in an ulnar deviated position and add rotation/ grind, further risking wearing out the cartilage.

Here are some tips to avoid unnecessarily loading the thumb CMC joint and/or the TFCC while preparing meals and cleaning up in the kitchen.

- Avoid manual can openers, they load and grind right on the thumb CMC joint. Get an electric can opener or battery-operated can opener.
- Avoid heavy pinching to open packaging, including bags like cereal and vegetables, use sharp kitchen scissors. Even better, get self-opening scissors to use throughout the kitchen.
- Add leverage by using a jar opener or use a battery-operated jar opener for tight lids/new jars.
- Avoid prolonged ulnar deviated wrist positions. Stir or whisk with a wrist neutral/pistol grip position. Consider using an L-shaped knife for cutting and chopping.
- Use large-handled kitchen utensils and ergonomic handled tools such as "OXO Good Grips" (as an example).
- Use 2 hands to lift heavy pots/pans to reduce force on either hand.
- Use labor saving devices like Air Fryers, Instant Pot, benders and mixers, or even better, Delivery!

The Hot Brown

In the 1920's, The Brown Hotel drew over 1,200 guests each evening for its dinner dance. By the wee hours of the morning, guests would grow weary of dancing and make their way to the restaurant for a bite to eat. Sensing their desire for something more glamorous than traditional ham and eggs, Chef Fred Schmidt set out to create something new to tempt his guests' palates. His unique dish? An open-faced turkey sandwich with bacon and a delicate Mornay sauce. The Hot Brown was born!

Get the Recipe: https://www.brownhotel.com/dining/hot-brown

CLINICAL PEARL #1

Scenario: Your best friend from residency describes being fatigued and tired, even though the hours are not as rigorous as the Chief Resident year. Passing it off as stress due to a new environment, even regular bedtime hours, improved hours of sleep, and limitation of computer use just before bedtime are not helping. You are concerned and ask several questions about fatigue and general health. You learn not much has changed over the four months since residency completion except your friend does not feel rested on awakening, needs three alarms in the morning, and is falling asleep during conferences.

What is your working diagnosis? How might you help your friend?

The working diagnosis is sleep apnea.

While fatigue has many causes, a key clue is unrefreshing sleep despite adequate duration, making sleep apnea most likely. Among surgeons, sleep apnea is under diagnosed. Our culture of sleep deprivation, long work hours, and challenging responsibilities may delay or cloud the diagnosis. Sleep deprivation is a cause of fatigue and is commonplace among surgical residents, fellows, and practicing surgeons. Shift work and changing work hours negatively impact circadian rhythm which impairs normal sleep architecture leading to sleep fragmentation even in people without sleep apnea. Sleep disorders are associated with physician burnout (Weaver, 2020).

Sleep-disordered breathing includes obstructive (OSA), central (CSA), and hypoventilation syndromes. OSA is most common, affecting ~14% of men and 5% of women globally. Risk factors include obesity (BMI >35), middle age, and male sex. Untreated sleep apnea increases risk of hypertension, cardiovascular disease, dementia, and metabolic disorders.

Abnormal breathing during sleep is termed sleep-disordered breathing (SDB) the most common of which are obstructive sleep apnea (OSA), central sleed apnea (CSA), and sleep-related hypoventilation (Kapur VK, et al). Prevalence varies due to definitions, testing, and study methodology (Kapur VK, et al). However, 14% of men and 5% of women are thought to have OSA, affecting almost one billion people worldwide (Kapur VK, et al: Shaik L, et al). Risk factors for sleep apnea include, obesity (BMI > 35), middle age, and male gender. Sleep apnea is associated with increased risk of hypertension, cardiovascular disease, dementia, and metabolic disease.

How to help: recommend formal sleep evaluation (e.g., sleep study) and ensure appropriate treatment (CPAP) if diagnosed.

REFERENCES

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TO LEARN MORE ABOUT THIS CONDITION AND OTHERS TO IMPROVE OR MAINTAIN YOUR PERSONAL WELLNESS, COME TO OUR ANNUAL MEETING FOR SYMPOSIUM 9!

Are you a 2027 Orthopaedic Residency Match applicant and a member of the Clinical Orthopaedic Society?

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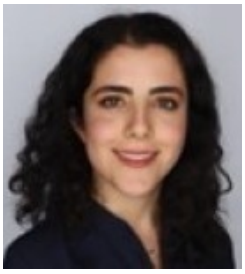
https://forms.gle/3xpLeT1LhFNX9Q688

I am not a 15-minute clinic visit or a 2-hour operation. I am a daughter, a sister, a friend, a hiker, a photographer, and a physician.

By Nazanin Kermanshahi, DO
Radiology Resident



For 23 years, I lived with a bone disease that shaped nearly every decision I made, yet no one ever sat down and explained what it meant for my life. At six years old, I was diagnosed with a bone lesion in my hip. After surgery, I was repeatedly told, "Be careful not to fall." That warning followed me through childhood and adulthood. What would happen if I fell? Would I lose my leg? Could I play sports? Could I hike? Could I run? No one answered those questions. I was afraid to ask.

Over the years, I saw countless orthopedic surgeons. Some recommended wheelchairs. Others suggested dietary changes. I spent a year on crutches and took medications I did not understand. Yet despite years of appointments, surgeries, imaging, and treatments, I never truly understood my condition. At nineteen, after two rounds of treatment, I finally learned I had fibrous dysplasia caused by a post-zygotic mutation. I left that visit with a diagnosis but still a few answers. "Try not to break your hip," I was told. "We can help with pain, but there is no cure."

As I grew older, I tried to build a life around uncertainty. I discovered hiking and fitness but struggled to understand my physical limitations. Was my pain normal? Was I causing damage? Was I safe? I often learned more through trial and error than through clinic visits. It took years, a medical degree, orthopedic rotations, and conversations with multiple specialists to understand that my limitations were anatomical—not a lack of effort, motivation, or flexibility. I learned that my pain resembled hip arthritis, that certain activities were safe while others carried risk, and that adapting my lifestyle did not mean giving up the things that made me feel alive.

What I remember most is not the surgeries or medications. It is the fear of the unknown. The burden of carrying questions for years without answers. Most orthopedic visits are brief snapshots in a patient's life, but patients live with their conditions every day. They leave the clinic wondering whether they can have children, pursue a career, play sports, travel, or simply live without fear. The internet cannot answer those questions in a meaningful, individualized way.

The greatest lesson my experience taught me is that patients need more than treatment plans. They need explanations, guidance, and resources. They need support groups, knowledgeable physical therapists, mental health professionals, and physicians who understand that the impact of a musculoskeletal condition extends far beyond imaging findings or operative outcomes.

For 23 years, I was followed as a patient. Yet it took becoming a physician myself to understand what my diagnosis meant for my life. It should not take that long. The unknown is often the heaviest burden our patients carry, and addressing it may be one of the most important things we do.

Facts and factoids to help you win at trivia or Jeopardy!

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The Kentucky Derby Race is known as the most exciting two minutes in sports.

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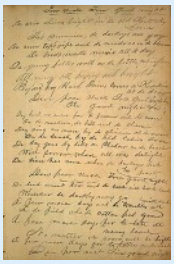
Kentucky Bourbon
95% of the world's bourbon is produced along the Kentucky Bourbon Trail whose gateway is Louisville. Start at the Angel Distillery!



State Song
"**My Old Kentucky Home**," was written in 1852 by Stephen Foster.

CLINICAL PEARL #2

By Melina Khorrami, OMSII

GLP-1 Agonists Before Surgery

Scenario: A healthy 58-year-old woman is scheduled for an elective total knee arthroplasty. Her only medications are a once-weekly semaglutide injection, which she started eight months ago for weight management and has tolerated well. She has no nausea, no early satiety, and no vomiting. At her pre-operative visit, a nurse asks whether the semaglutide should be stopped before surgery, and if so, for how long. Her surgery is in nine days.

What is the concern, and how should her GLP-1 agonist be managed before surgery?

The concern is delayed gastric emptying and the risk of pulmonary aspiration on induction of anesthesia. Glucagon-like peptide-1 receptor agonists (GLP-1 RAs), which include semaglutide, tirzepatide, liraglutide, dulaglutide, and exenatide, slow gastric motility as part of how they work. A stomach that is still full despite appropriate fasting raises the risk of regurgitation and aspiration when airway reflexes are blunted. With these drugs now common in orthopaedic patients for both diabetes and weight optimization before arthroplasty, this is a question the whole peri-operative team faces routinely.

The guidance has changed, and that is the real teaching point. In June 2023 the American Society of Anesthesiologists (ASA) issued consensus guidance recommending that GLP-1 RAs simply be held before surgery: on the **day** of the procedure for daily-dosed agents and a **full week** before for weekly-dosed agents like our patient's semaglutide. It was a simple, blanket rule.

In late 2024, a multisociety guidance (ASA together with the American Gastroenterological Association and other societies) **replaced the blanket "hold everyone" approach with a risk-based, shared-decision model**. The key shifts:

- **Most patients can continue their GLP-1 RA through surgery**. A patient on a stable, standard dose with no GI symptoms is considered low-risk and generally does not need to stop the medication.
- **Management is a shared decision** among the proceduralist, anesthesia, and prescribing teams, balancing the metabolic reason for the drug against the individual patient's aspiration risk. Holding the drug is not free; it can disrupt glycemic control, be costly or hard to restart, and delay care.
- **For higher-risk patients** (GI symptoms, recent dose escalation, higher doses), the team may still hold the drug and should mitigate risk: consider a **24-hour clear liquid diet** the day before surgery, **point-of-care gastric ultrasound** to assess residual stomach contents when there is concern, and a **rapid-sequence induction** if proceeding despite suspected retained contents.
- The guidance explicitly notes that **withholding these drugs only from patients who are overweight or obese could constitute bias** and should be avoided.

So for our patient: rather than reflexively cancelling her dose a week out, the current approach is to continue the medication. She is asymptomatic on a stable weekly dose, which places her at low risk. The reasonable plan is a shared-team decision to **continue the semaglutide**, while still treating her with standard preprocedure fasting and to be alert for any GI symptoms on the day of surgery, escalating to a clear-liquid pre-op day, gastric ultrasound, or full-stomach precautions only if concern arises.

The lesson for the orthopaedic surgeon: GLP-1 agonists are now everywhere in our pre-operative population, the field has moved away from a one-size-fits-all "stop the drug" reflex to a conversation with PCP/anesthesia rather than an automatic cancellation.

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Editor's Note: Be sure to catch our Presidential Speaker, Cathleen Lewis, PhD, the curator of International Space Programs and Spacesuits at the National Air and Space Museum, Smithsonian Institute, at our 114th Meeting!

Lunar Landing Day Update

By Robert R. Slater, Jr., MD

The endeavor to establish a new official federal holiday in honor of one of the greatest achievements in human history is gaining momentum. **Lunar Landing Day** will be celebrated every July 20th in honor of the Apollo 11 landing and the 410,000 people who worked tirelessly to ensure the success of that mission. At the state level, Arizona, Wisconsin, and Wyoming have officially recognized July 20th as Lunar Landing Day.

Coalition members think it is a travesty that more attention is not devoted to the astonishing accomplishments of the Apollo program and all that NASA achieved in putting humans on the moon and returning them safely to earth. It clearly demonstrated what we can do as a society when we all pull together. The sensational success of the recent **Artemis 2** mission which took 4 astronauts around the Moon and back has focused even more attention among the general public on lunar missions, past and future.

Human space exploration has important relevance for Orthopaedists and all members of the **Clinical Orthopaedic Society**. Lessons learned about human physiology in space have direct relevance to the patients Orthopaedists take care of. Since the first Apollo missions right on through the shuttle era and especially the era of long duration missions on the International Space Station, scientists and clinicians have gained valuable knowledge and insights about human pathology that impact the treatment for patients with a myriad of musculoskeletal disorders including osteoporosis, muscle mass maintenance, balance problems and more. Beyond that, many of the devices and technologies we all use and rely on today in everyday life are direct spinoffs of the scientific knowledge gained from the Apollo missions. A major facet of this endeavor is to promote **STEM education**. There is a clear need to do more to inspire the next generation of engineers, scientists, astronauts and visionaries – and Orthopaedists!

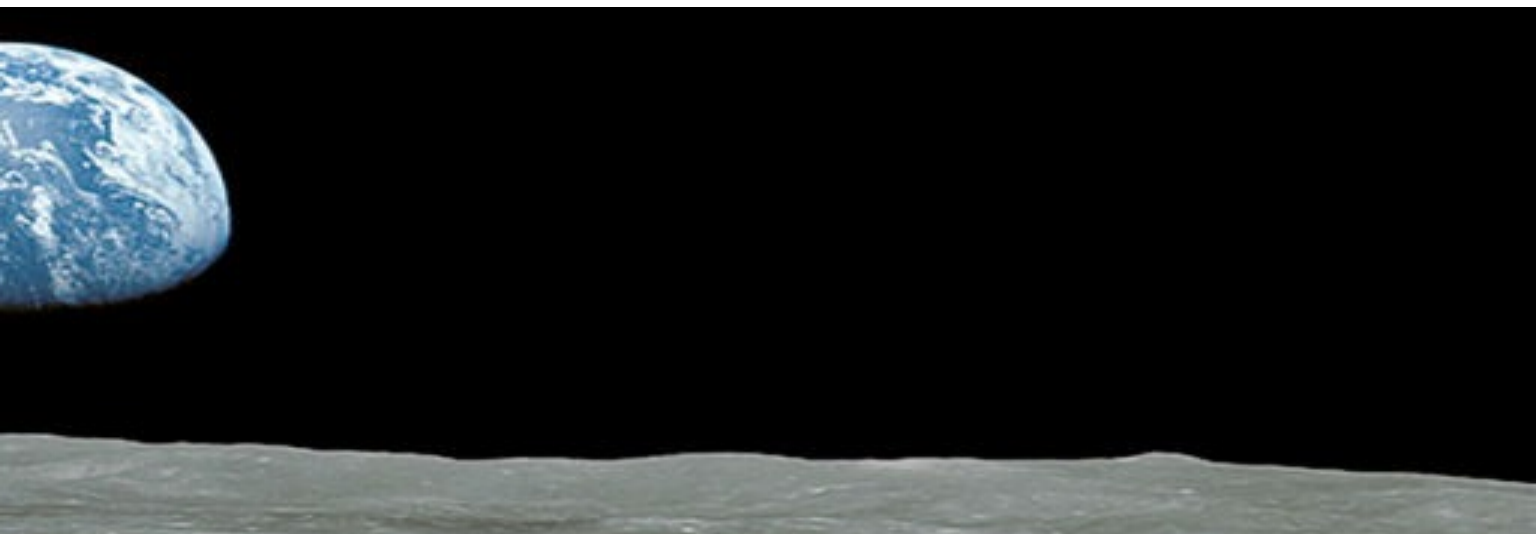
Since the last report to COS on this project, we have made tremendous and exciting progress towards the goal of turning this vision for a new day of observance into reality. There is now bipartisan support for a Bill that has been co-sponsored in the US Senate by Tim Sheehy (R-MT) and Mark Kelly (D-AZ), who is himself a retired NASA astronaut.

We have the support of the living Apollo era Astronauts and Mission Control Flight Directors. We have added the support of thousands of people from all walks of life, all across the nation. We also have the endorsement of several more space museums and science centers around the nation.

Powerful and important organizations have now joined us including: the National Space Society in Washington, DC; the Association of Science and Technology Centers in Washington, DC; the Grout Museum District in Iowa; the Center of Science and Industry in Ohio; the Planetary Science Institute in Arizona; the Association of Space Explorers – USA; the Aldrin Family Foundation (Buzz Aldrin's legacy foundation); Collins Aerospace, Inc. and the Collins Aerospace Museum in Iowa; the Lunar and Planetary Laboratory at the University of Arizona. Another new addition to the list of supporters is The Explorers Club, a world famous organization whose members include people who have accomplished what are considered the 5 greatest explorations in human history, including the Apollo 11 mission, of course.

All interested COS members are encouraged to join the list of supporters. There is no cost to do so.
More information is available on the website: www.lunarlandingday.net

Here is a link to a one-minute video clip that summarizes the project:
https://lunarlandingday.net/wp-content/uploads/2025/10/lunarlandingday_dotnet-720p-1.mp4



Shaping Up

By Kiah Mayo, MPH

As I drifted into the empty hall, I took the time to look at the historic artifacts in the glass cases. They contained images of balloons that came before me—balloons that had started as simple balloons and were molded into dragons, griffins, and sphinxes, magnificent forms — dreaming of becoming a great help to society.

Seeing those images, I sensed an obligation to continue the legacy they left behind. I felt a sense of pride welling within me, giving me shape. The sense of fullness that came over me did not keep me grounded; I was floating on air. All I could think about was how making it to *The Academy* was only the beginning of my wildest dreams.

Soon, my future classmates began to drift in. I noticed how brightly colored they were, shades of green, red, purple, yellow, and blue. All floating just as high as I was, in response to this momentous occasion.

As we settled in, our instructors began to appear. While not as intimidating as the mythical creatures I saw in the cases, they were all beautifully shaped themselves. They taught me about *The Academy* and what the expectations were during my time at *The Academy*. They never promised that I would be the exact shape I wanted to be. They promised that they would help me get there.

During the first days of molding, I found that I needed to take in each trial and find the flow. I believed the objective was to push me into the work of art I wanted to be. I learned more about myself in the early days than ever before. At least I thought I did. I never imagined myself as a person that could break.

At first, I felt that I handled the pressure well. Better than well, it seemed to be no problem. Then all the stretching...the squeezing...the twisting...it became excessive. Eventually, I would have a poor strain here, a missed fold there or a twist that would slip at the last second and come loose. This happened repeatedly. One after another, each one making a small hole in my shell.

Sometimes I didn't notice. When I did notice, I kept telling myself this wasn't enough to pop me. I just needed to push. I needed to do more. I made it a point not to allow the others to notice. Some days I held my shape better than others, but as the number of insults continued to rise, that faint hiss of air escaping became louder until I could even feel myself sinking; grasping at anything to stay afloat even if only for a moment. Now I am...

Flat.

Unable to keep up, I began to ask them questions, you know, the ones I perceived to be floating. It turned out they were also struggling just as much as I was, if not more. Some believed *The Academy* failed them, sewing false promises when the reality was much crueler. We all were hiding, forcing ourselves to look like we were where we were supposed to be, yet all the while feeling flattened. Changed, but not into what we dreamed of.

The more I asked questions and thought about my present state, the more I realized that I was so preoccupied with the result that I missed the simplicity and beauty of becoming. Taking a break, I began to patch my holes. I took a hard look as to why I wanted to become the next dragon, griffin or sphinx. I reevaluated what it means in this time.

I am no longer simply rushing towards the end. Instead of waiting for *The Academy* to define my shape, I will actively mold myself into the most beautiful shape I can imagine. I took a hard look at why I wanted to become the next dragon, griffin, or sphinx. What does that even mean? They had their journey, perhaps I was never meant to become those shapes. Perhaps my purpose was to become something entirely my own. I decided then that becoming a new balloon creature the world has yet to see. No matter the odds, I will steadily become the balloon creature I am meant to be.

What We're Looking Forward To at COS ✨

Meet the incredible students, residents, and research fellows excited to connect, learn, grow, and build the future of orthopaedics together.

Nazanin Kermanshahi, DO

Seeing my friends and mentors. especially toThelma , Dr. DeMaio and Dr. Razi. The medical student program was an absoulte susscess last year and looking forward to the new activities this year.

Thelma Jimenez Mosquea, MD

Building meaningful connections, hearing fresh perspectives in orthopaedic research and education, and spending time with an inspiring community

Kezia Duah, OMS-I

Attending my first orthopaedic conference, growing professionally, meeting new people, and learning from others in orthopaedics

Melanie Valencia, Research Fellow

The medical student section, hands-on skills sessions, reconnecting with familiar faces, and making new connections.

Fuad Yazdani, MS3

Meeting attendees, building new connections, and learning more about orthopaedic surgery

Zahra Vafai, MS3

The medical student program, translational research and spine surgery sessions, mentorship, wellness discussions, and connecting with fellow students.

Kiah Mayo, MS4

Meeting everyone I had connected with virtually through COS, discussing orthopaedic surgery, biologics, and translational research, and learning about new developments in the field.

Melina Khorrami, MS2

The conversations between sessions, reconnecting with mentors and friends, and being reminded why she loves this field

Adrián E. González-Bravo, MD

Attending my first COS Annual Meeting, meeting new people across the orthopaedic community, and learning from speakers and fellow attendees with different experiences and perspectives

Ashkan Ashkani, OMS1

Connecting with the team, learning from different perspectives, and exploring innovation and collaboration in orthopaedics.

114th Annual Meeting, August 26-29, 2026
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