ISAKOS

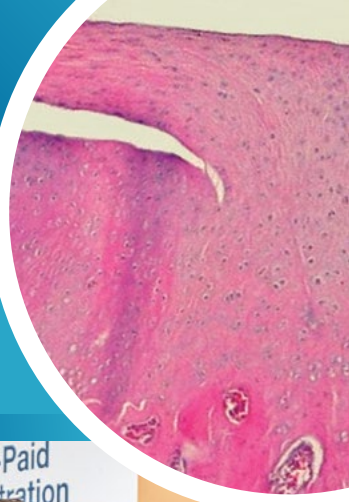
ISAKOS NEWSLETTER 2024 • VOLUME II

Current Perspectives on Arthroscopy, Knee Surgery & Orthopaedic Sports Medicine

CURRENT PERSPECTIVE

PARTIAL-THICKNESS SUPRASPINATUS TEARS: DO WE KNOW HOW TO TREAT THEM?

PG. 22



INTERNATIONAL SOCIETY OF ARTHROSCOPY, KNEE SURGERY & ORTHOPAEDIC SPORTS MEDICINE • 1995 •

REGISTRATION **NOW OPEN!**

ISAKOS CONGRESS 2025 | MUNICH GERMANY June 8–11

INSIDE

in this issue

International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine

isakos@isakos.com

The ISAKOS Newsletter is soon entering a new era!

ISAKOS eNewsletter

This current issue of the ISAKOS Newsletter finalizes 27 years of printed versions which were accompanied in the last 11 years with a digital flipbook. As indicated by the latest ISAKOS member surveys, the vast majority of our members supported transitioning the publication into a digital-only, online version. In accordance with this, we will be transforming the piece soon to become the official "ISAKOS eNewsletter." The ISAKOS Newsletter Editorial Board is currently working to develop new features to implement on the newsletter digital platform. Some examples include debate podcasts, brief video presentations, linkage to social media platforms—all showing the possibilities of this digital change. Moving to online-only will enable us to deliver and share a larger volume of knowledge in a simple, user-friendly manner. Moreover, authors published in the ISAKOS eNewsletter will benefit from world-wide exposure and online indexing of their Current Perspective articles. We encourage you all to stay tuned and accept with enthusiasm the digital ISAKOS eNewsletter that is on its way very soon.

As ISAKOS's mission is to enhance our members' knowledge and expertise, we would also like to remind you of the additional cutting-edge, digital platforms delivered by our society. Please use the following URL to view upcoming meetings, online courses, webinars, and to explore ISAKOS Approved Courses to find the perfect fit for your educational needs (www.isakos.com/Meetings)! As a new member benefit, please explore the newly launched ISAKOS Global Link Spotlight e-newsletter which arrives twice a month directly to the member's inbox (https://bit.ly/GLSpotlight). With this platform and the assistance of AI technology, each member can enjoy, over time, specialty-specific videos and manuscripts in their inbox.

Finally, as we are all looking forward to our next Biennial ISAKOS Congress in Munich in 2025, please note that registration is now open at isakos.com/2025congress. We invite you to register now and join us in Munich!

We hope you will find this final print issue of the ISAKOS Newsletter insightful and valuable.

Sincerely yours,

Iftach Hetsroni, MD, Assoc. Prof. ISRAEL
Editor in Chief

Claudia Arias, MD PERU
Deputy Editor

Nikolaos Paschos, MD, PhD UNITED STATES
Deputy Editor

This current issue of the ISAKOS Newsletter finalizes

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printed versions

which were accompanied in the last

11

years with
a digital flipbook.

PRESIDENT'S MESSAGE

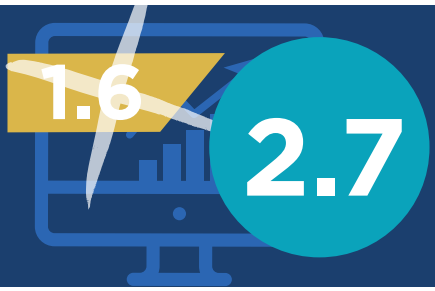
David A. Parker, MBBS, BMedSc, FRACS
ISAKOS President, 2023–2025
AUSTRALIA

Dear Friends,

A very warm greeting to all our members around the world. The first half of 2024 has been a very busy and exciting time for ISAKOS as we continue to grow our activities globally and work towards constantly improving our education programs. It is always a challenge to effectively reach all regions of the world and provide effective educational programs, but it is a challenge that everyone involved with ISAKOS, from our wonderful office staff to our hundreds of dedicated committee members, relishes, and one that provides immense satisfaction to all involved.

I would like to start by welcoming our new ISAKOS newsletter editorial team for this, their first edition of the newsletter. Iftach Hetsroni from Israel has served as deputy editor for the newsletter, and we are very excited to have him take over this role from Bob Marx who has led the newsletter admirably for many years. Thank you, Bob! Iftach is joined by his deputy editors, Claudia Arias from Peru and Nik Paschos from the USA, and each person brings their own special areas of expertise to this global team. Having spoken with them, I know that they have exciting and innovative ideas to take the newsletter to another level. I think this current edition clearly reflects this vision to take us forward and continue to provide clinically relevant information from world leaders, in a format that is easy to digest and immediately applicable to daily practice. Watch for more innovation to the newsletter format and content in 2025!

IMPACT FACTOR



JISAKOS ... announced impact factor of 2.7 (up from 1.6 last year) is an incredible achievement for such a young journal

On the topic of publications, this year has also seen great moves forward for our flagship journal *JISAKOS*, under the leadership of Femi Ayeni and Vikas Khanduja. Building on the platform established by our founding editor Niek van Dijk, Femi and Vikas have put together a fantastic team and taken the journal forward into the open access era. The interest in the journal as a preferred resource for publication of original research has increased exponentially, as reflected in a huge increase in the number of submissions. The recently announced impact factor of 2.7 (up from 1.6 last year) is an incredible achievement for such a young journal, and the trajectory is obviously very positive. The journal is also taking more steps to increase visibility across other media, to ensure that the valuable information from *JISAKOS* reaches the widest audience possible. I am especially proud of the efforts of our journal team to make research and publication more globally accessible, with programs like the *JISAKOS* Excellence in Authorship program and other support for surgeons from lesser developed countries, in line with our global mission.

We have been very active with educational activities and partner society meetings around the globe in the first half of 2024. A surgical skills workshop in arthroscopic shoulder surgery was held in Chennai, India, in January, specifically targeting female Indian orthopaedic surgeons, and the Miami knee and shoulder arthroscopy surgical skills lab was completed in partnership with AANA in April. Both courses were sold out, incredibly successful, and have reinforced interest to continue these initiatives in the future, in regions around the world. In February in San Francisco, we partnered with AANA to run a combined sports medicine specialty day, again bringing a very well received global perspective to clinical discussions. In March we contributed several symposia to the fantastic SLARD congress in Buenos Aires; in May we participated in a combined symposium with ESSKA at their very successful meeting in Milan; and in July we provided a global case-based discussion symposium for the AOSSM meeting; later in the year we will visit Hainan Island in China to join the APKASS meeting, after which ISAKOS will put on

a knee arthroplasty lab course in Singapore. We have a very strong relationship with friends and colleagues in our partner societies around the world, largely driven by our common passion for medical education. The value of these relationships cannot be overstated and will continue to be a fundamental part of ISAKOS' global activities in the future.

Of course, planning for the future is critical for any organisation, and in February the ISAKOS Executive Committee met for a 2-day strategic planning meeting to map out directions for the future of our organisation over the next 5 years. Led by a professional facilitator, we covered many areas, including research, education, infrastructure and membership, to critically analyse what we are doing currently, and how we might do things more effectively in the future. ISAKOS is a strong organisation, with good resources, but also with a mission to effectively reach as many regions of the world as possible and provide meaningful education, which obviously presents challenges but also opportunities. Many innovative ideas were proposed, as well as reinforcement of existing successful programs, and the resultant strategic plan is one which I feel confident will see our organisation continue to grow and more effectively achieve our global mission.

In the next 12 months we will have our 2 biggest educational events, which we are all very excited about. In October this year, in historic Kyoto, Japan, we will hold our second IKAF meeting, a truly global meeting dedicated to knee arthroplasty. Meeting directors Shuichi Matsuda and Sebastien Lustig have put together a fantastic program with a faculty of renowned experts from around the world. The program will cover all the "hot topics" of knee arthroplasty in an interactive, case-based format and will be translated into multiple languages (as with all of our educational offerings). Our Biennial ISAKOS Congress is our flagship meeting which will take place in Munich in June next year, and we are incredibly excited about this. Al Getgood and myself, along with our CEO, Sue Reimbold, and our office staff, visited Munich in May this year to visit the convention centre and refine the plans for the meeting. Al is the program chair and has put together an incredible program with over 400 invited faculty for a meeting that will feature all of the much loved features of ISAKOS congresses, plus many new exciting innovations. The venue is perfect, and the town of Munich a wonderful place to visit, so please join us and bring your families!

Having reached the halfway point of my presidency, with much travel completed and more to come, I remain very humbled to represent this amazing organisation, and it is a great honour to join with so many other colleagues to continue efforts to improve global education, and in doing so, improve our knowledge and management of the conditions we treat. I am one of hundreds within ISAKOS working towards this goal, and I want to acknowledge our incredible team in the ISAKOS office, the hundreds of committee members, and other ISAKOS members around the world, who share this passion. I look forward to seeing you at a meeting somewhere in the world very soon, and please register for Munich!

Congratulations

to the 2024-2025 *JISAKOS* Excellence in Authorship Program Recipients!

The *Journal of ISAKOS* launched a global initiative for Excellence in Authorship with a goal to build capacity with researchers in low- to upper-middle-income countries (LMICs) to promote diversity, inclusion, and global perspectives for papers submitted and published with the journal. This program will provide training and learning opportunities for researchers in LMICs in terms of writing high-level manuscripts, navigating the peer-review process, and publishing their work.

Ruben Dario Arias Perez
MD, BS
COLOMBIA

Jessica Fiolin
MD, SpOT
INDONESIA

Oladimeji Ranti Babalola
MBBS, MD, FMCS, FWACS
NIGERIA

Stefano Gaggiotti
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Samuel Okoth Owinga
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KENYA

Dhanasekaran Soundarrajan
MS, DNB
INDIA

Diego Alberto Sanchez
MD
COLOMBIA

JOURNAL OF ISAKOS
Joint Disorders & Orthopaedic Sports Medicine

isakos.com/JISAKOS/GlobalAuthorship

Olufemi R. Ayeni, MD, PhD, MSc, FRCSC
CANADA
Editor in Chief, *JISAKOS*
chiefeditor@jisakos.com

We are excited to share some exciting updates from the *Journal of ISAKOS*. First, we are thrilled to announce that the Journal Impact Factor for *JISAKOS* has climbed from 1.6 in 2023 to 2.7 in 2024! This achievement reflects the hard work and dedication of our authors, reviewers, and editorial team – thank you!

As part of our mission to expand the international reach of the journal, we recently launched the *JISAKOS* Excellence in Authorship Program and awarded ten excellent authors based upon their submissions. This program was developed with a goal to build capacity with researchers in low- to upper-middle-income countries to promote diversity, inclusion, and global perspectives for papers submitted and published with the journal. This program will provide training and learning opportunities for the researchers in terms of conducting high-quality research, writing high-level manuscripts, navigating the peer-review process, and ultimately, publishing their work.

Finally, we have spearheaded initiatives aimed at enhancing our online engagement and digital presence. To lead these efforts, we have established a dedicated social media task force and welcomed Katie Paquette as the journal's new Social Media Coordinator. Katie joins current task force members, Emmanouil Brilakis and Yoan Bourgeault-Gagnon, and we eagerly anticipate the arrival of new members, Kishan Ramsodit and Nick Sachinis. If you have a passion for social media and digital engagement and wish to contribute to our initiatives, please reach out to digital@jisakos.com.

> "This program was developed... to promote **diversity, inclusion, and global perspectives** for papers submitted and published with the journal."

Our social media presence is expanding significantly, supported by a revamped portfolio and templates designed to deliver top-quality content to our audience. We are thrilled to announce the launch of our new Instagram and TikTok accounts. Follow us on both platforms at @J_ISAKOS for the latest publications, updates, and insights.

Furthermore, we encourage all authors to enhance their published articles by providing their social media handles and a summary video for use in Instagram reels and TikToks. This initiative aims to broaden the understanding of our research across diverse audiences and empower authors to amplify the reach and impact of their work.

Your support is invaluable to us, and we look forward to engaging with you on our social media channels. Stay tuned for more exciting updates as we continue to expand our content and platforms!

ISAKOS CONGRESS 2025 | MUNICH GERMANY June 8–11

Please plan to

JOIN US!

Dear ISAKOS Members, Colleagues, and Friends,

It is less than one year until we will all meet for the 15th Biennial ISAKOS Congress, June 8-11, 2025, in Munich, Germany. As program chairs we are excited to share some aspects of what you will experience next year. The Congress promises to deliver world class education, all thanks to the continued support that we have from our many members and colleagues who will provide academic content over the duration of the program.

The four-day meeting at the ICM (International Congress Center Messe, München) will include a wide variety of educational opportunities from Sunday through Wednesday, including live surgical demonstrations, paper presentations, debates, global case-based discussions, “Meet the Expert” roundtable sessions, symposia, instructional course lectures, integrated sports rehabilitation content, and surgical technique spotlights. Lunchtime sessions, e-posters, technical exhibits, and many networking and social activities also will be offered to Congress attendees, providing a real festival atmosphere to the centralized exhibition space. Special emphasis will be placed on increased opportunities for a rich exchange of ideas through discussion between faculty and delegates in every session.

We’re especially excited to announce that for the first time ever in the history of the Congress, ISAKOS will offer hands-on surgical skills training on Saturday, June 7. Two separate, day-long workshops, presented through in-kind support of our industry partners, will focus on shoulder and knee sports procedures (Arthrex) and knee arthroplasty (Smith+Nephew). Space is limited in these courses and will be highly sought after – so please, if interested, apply early along with submission of your Congress registration.

With these thoughts in mind, we wanted to share just a few topical and programmatic highlights of the 2025 Congress. Please plan to join us!

You'll hear the latest in orthopaedic content with sessions on:

- Patellofemoral Instability in collaboration with the Patellofemoral Foundation and the International Patellofemoral Study Group
- Optimal Outcome Assessment Following ACL Reconstruction
- Treating the Stiff Painful Knee and Arthrogenic Muscle Inhibition
- Dealing with Hip Instability
- Options for Treating Failed Rotator Cuff Surgery
- Reducing Injury Prevalence in the Female Athlete
- Artificial Intelligence in 2025
- Ideal Alignment Strategies in Total Knee Arthroplasty

And enjoy unique programming through:

20 Live **Surgical Demonstrations**

12 **Highly interactive and engaging "Meet the Expert" sessions** with ISAKOS leaders on a variety of topics including hip instability, chronic lateral ankle injuries, multi-ligamentous knee, rotator cuff repair, complex primary TKA, shoulder instability, elbow and wrist issues, biologics, and more

15 **Knee Arthroplasty sessions with international faculty** offering a global perspective on the very latest in knee arthroplasty

32 **Instructional Course Lectures** open each morning of the Congress

Presentation of the **Freddie Fu** Lifetime Achievement Award

and the inaugural **Peter J. Fowler** Career Clinical Educator Award

ISAKOS Awards Ceremonies celebrating the winners and finalists of **8** **ISAKOS Scientific Awards**

Best of the Best Podium and e-Poster presentations

30 **Moderated Surgical Technique video presentations**

Plus, **more symposia, debates, and case-based discussions** with global faculty offering world-wide perspectives on the very latest research and techniques in orthopaedics!

We are committed to providing you with the highest-quality scientific program and networking events that an ISAKOS Congress can offer, delivered by a truly expert international faculty. Congress registration is now open, and the program website will continue to be updated with pertinent and new information as the year unfolds.

We appreciate your continued support of ISAKOS, and we look forward to welcoming you to the 2025 ISAKOS Congress in Munich, GERMANY, June 8-11.

Sincerely,

Al Getgood, MD, FRCS(Tr&Orth), DipSEM, QATAR
2024-2025 ISAKOS Program Committee Chair

Pietro Randelli, MD, Prof. ITALY
2024-2025 ISAKOS Program Committee Deputy Chair

ISAKOS CONGRESS 2025

MUNICH GERMANY

June 8–11

REGISTRATION IS OPEN

90+
Countries Represented

2
Hands-On Surgical Skills Workshops on Knee/Shoulder Sports Procedures and Knee Arthroplasty

39
Symposia

32
Instructional Course Lectures

15
Debates

20+
Live Surgical Demonstrations

14
Global Case-Based Discussion Sessions

12
Meet the Expert Sessions

11
Sports Rehabilitation Sessions

30
Surgical Technique Video Sessions

11
Award Presentations

1,100+
Abstract Podium & Poster Presentations

2025 ISAKOS CONGRESS PROGRAM

HANDS-ON SURGICAL SKILLS WORKSHOPS, SATURDAY, JUNE 7

ISAKOS will offer two day-long hands-on surgical skills workshops as pre-courses to the Congress. Presented through the in-kind support of Smith+Nephew and Arthrex, the training will focus on shoulder and knee sports procedures as well as knee arthroplasty. Space is limited – interested participants must apply to attend with submission of their Congress registration.

MEET THE EXPERT SESSIONS

Renowned leaders in the field share their unique perspectives and experiences on emerging issues in these highly interactive, limited-attendance sessions. Congress delegates will engage with ISAKOS experts in small group discussions on a wide range of topics.

- Stem Cells, Growth Factors, Adipose Tissue and BMAC: Instructions for Use
- Issues and Approaches in Elbow and Wrist
- Mastering the Art of Work/Life Integration in Orthopaedic Surgery
- Diagnosing and Managing Hip Instability
- Refine Your Algorithm for Knee Preservation: Alignment, Stability, Meniscus, Cartilage
- Chronic Lateral Ankle Ligament Injuries
- Decision Making in the Multi-ligamentous Knee
- Difficult Rotator Cuff Repair, Nightmare that Becomes a Dream
- Complex Primary TKA
- Getting It Right in the Patellofemoral Joint
- Revision TKA
- Shoulder Instability: Not All Cases are Created Equal

SURGICAL DEMONSTRATIONS

The true hallmark and unique feature of the ISAKOS Congress, more than **20** live cadaveric surgeries will be streamed into General and Concurrent sessions with analysis and moderated discussion.

DEBATES

This format aims at presenting different points of view on compelling or controversial topics. Experts square off with opposing approaches on a topic, followed by moderated discussion and audience Q&A and voting on the winning position.

- Just Cut the Biceps - Why Would You Do Anything Else?
- Does Robotic Surgery Improve Outcomes?
- Artificial Intelligence: MVP vs. the Performance Enhancing Drug of Academia!
- Ethics: Orthobiologics vs. Cortisone/HA
- Remplissage vs. Laterjet
- Patella Resurfacing in TKA (Yes, No or Sometimes)
- 23-year-old Sherman 2: Repair vs. Recon
- How Can You Not Close the Capsule?
- A Good MPFL Reconstruction is Enough
- Bone vs. Soft Tissue Meniscus Allograft Transplantation (MAT)
- Combined ACL/MCL Injury: Has Our Understanding Changed?
- Not Every ACL Injury Needs an Operation: Give it a Chance to Heal
- One Stage vs. Two Stage for Infected TKR
- Manage Hallux Valgus in Athletes: Go Big or Go Home

GLOBAL CASE-BASED DISCUSSION SESSIONS

Chairs present multiple cases to illustrate specific challenges in orthopaedic treatment as panels of international experts discuss various approaches to the cases and offer solutions for audience consideration and inquiry.

- Rotator Cuff Tear, from Partial to Massive
- Update on FAI and Dysplasia–A Global View on Management
- The Painful TKA
- Shoulder Instability
- ACL Cases: Primary and Revision
- Osteotomy
- Rotator Cuff
- Meniscus Repair in 2025: Can We Improve the Healing?
- How Do We Manage this Challenging Foot and Ankle Case?
- Knee Joint Preservation in 2025
- The Difficult Primary TKA: Severe Malalignment, Bone Defects, Extraarticular Deformity, Laxity, Subluxation

INSTRUCTIONAL COURSE LECTURES

ICLs are at the heart of the scientific program reflecting ISAKOS' core educational mission. ISAKOS leaders share knowledge and techniques in the field of orthopaedic sports medicine. ICLs offer immersion in an important topic and may offer a mix of didactic lecture, case presentations, and robust discussion and Q&A.

BIOLOGICS

- PRP: Past, Present, and Future

CARTILAGE

- Cartilage Surgery 101: Everything You Need to Know

ELBOW, WRIST AND HAND

- Arthroscopic and Open Approaches for Elbow Lesions

HIP, GROIN AND THIGH

- The Role of Hip Arthroscopy in the Management of Hip Injuries in the Female Athlete
- Hamstring Tendon Injuries: When Should We Repair, and How Should We Do It

KNEE–ARTHROPLASTY

- UKA - How to Achieve a Successful Outcome
- Infection in TKA - Diagnosis and Treatment Strategies
- Implant Choice in TKA (Level of Constraint, Cement/less, Stems, etc.)
- How to Manage Total Knee Replacement after Knee Osteotomy or Post-traumatic Deformity

KNEE

- Osteotomy for Ligamentous Instability
- Tips and Tricks on How to Manage a Revision ACL Reconstruction
- Optimizing the Outcomes of Meniscal Treatment
- The PCL in 2025
- The Valgus Knee: Surgical Approach, Implant Selection
- Tips and Tricks to Tackle PCL/PMC/PLC Repair and Reconstruction
- Planning and Executing the "Perfect" Osteotomy Around the Knee

KNEE–PATELLOFEMORAL

- Patellofemoral Instability Surgery Challenges
- Tricks and Pearls for the Management of Patellofemoral Instability in Children and Adolescents
- Understanding Trochlear Dysplasia in Patellofemoral Instability

LEG, ANKLE AND FOOT

- Osteochondral Lesions of the Ankle: Treatment Options and Their Efficacy Across Continents
- The Treatment of Acute Achilles Tendon Rupture

SOCIAL MEDIA AND ORTHOPAEDIC RESEARCH

- Promoting Your Scientific Research on Social Media: How to Improve Your Metrics

SHOULDER

- Tips and Pearls for Shoulder Instability Surgery: How to Make it Perfect
- Management of Bone Defects in Anterior Shoulder Instability
- New Technologies for Shoulder Surgery
- Tips and Pearls for Rotator Cuff Surgery: How to Make it Perfect
- Injuries of the Acromioclavicular Joint
- Shoulder Arthroplasty: From Basics to Advanced

SPORTS MEDICINE

- Sports Injuries and Return to Sport in Females
- Severe Muscle Injuries in Sport
- The Most Frequent Situations that Every Team Physician Will Face

SURGICAL SUCCESS

- When All the Gadgets Fail: My Biggest Failures and How I Overcame Them

SYMPOSIA

Symposia present new research or hot topics in the field and may feature controversies and diverse opinions.

ARTIFICIAL INTELLIGENCE IN ORTHOPAEDICS

- AI in Orthopaedics–What's Happening Now and What's Coming in the Next 5 Years
- Technology and Innovation in AI– Training, Prognostication, Execution

BIOLOGICS

- Orthobiologics for Knee O.A.

ELBOW, WRIST AND HAND

- Arthroscopic and Open Treatments for Sports Injury in the Elbow and Wrist

HIP, GROIN & THIGH

- Extra Articular Impingement Syndrome
- Microinstability of the Hip

KNEE

- Individualized Treatment of ACL Injury
- ACL Repair: Back to the Future
- Treatment Strategy for ACL Graft Failure
- Pediatric Knee Surgery: Do Not Treat Them Like Little Adults
- Advances in Osteotomy of the Knee
- Controversies in Knee Multi-ligament
- How Best to Assess the Outcome of ACLR: What's Important in 2025?
- How to Prevent, Handle, and Treat Infections in Knee Surgery

KNEE–ARTHROPLASTY

- Alignment Strategies in Personalized TKA
- Image-based vs. Imageless Robotic TKA
- Controversies in TKA – Partial vs. TKA, Cement vs. Cementless, All-poly vs. Metal-backed Tibia, Metal Allergies
- Revision TKA: From Planning to Execution
- Extensor Mechanism Problems in TKA
- UKA or HTO: Indications, Outcomes and Conversion to TKA

KNEE–PATELLOFEMORAL

- PFA – Key Steps to Successful Outcomes
- ISAKOS/IPSG/Patellofemoral Foundation Highlights: Current Concepts and Controversy

LEG, ANKLE AND FOOT

- Recent Evolution of Ankle Lateral Ligament Stabilization Surgery
- Subtalar Instability - New Concept?

ORTHOPAEDIC PUBLISHING

- *JISAKOS*: Tips for Successful Writing and Publishing
- The *JISAKOS* 'Excellence in Authorship' Global Cohort Program Awards

SHOULDER

- Advanced Treatments in Shoulder Instability
- The Throwing Athletic Shoulder
- Improving Healing Rates in Rotator Cuff Tear Repair
- Shoulder Instability: Focus on the Hill Sachs Lesions
- When Things Go Wrong: How to Approach Failed Shoulder Stabilization
- Massive Irreparable Rotator Cuff Tear: Which Treatment is the Winner?
- Revision Rotator Cuff Repair

SPORTS MEDICINE

- Return to Play after Syndesmotic Injury
- Return to Sport after ACL Surgery

SPECIAL SESSIONS

- Historical Aspects of Surgery: Lessons from the Past Shaping the Future
- Surgical Decision Making
- Bone Health and Female Athlete Triad: Why Orthopaedic Surgeons Should Care

AWARDS & SCHOLARSHIPS

AWARDS
isakos.com/awards

The ISAKOS Awards Program is committed to recognizing and honoring researchers whose work has contributed to better understanding and communication within the fields of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine. Eleven awards will be presented at the 2025 ISAKOS Congress.

AWARDS

Freddie Fu Lifetime Achievement Award

Sponsored by Smith+Nephew

In honor of renowned orthopaedic surgeon, ISAKOS Past President and inspirational leader, the Freddie Fu Lifetime Achievement Award is the highest pinnacle of honor bestowed by ISAKOS—established to recognize an ISAKOS Member for their distinguished service to the Society, plus their significant contributions to the field(s) of arthroscopy, knee surgery and orthopaedic sports medicine.

New for 2025!

Peter J. Fowler Career Clinical Educator Award

Created in honor of Dr. Peter Fowler, the first president of ISAKOS, and a pioneer in the development of sport medicine in Canada, the Peter J. Fowler Career Clinical Educator Award recognizes an ISAKOS member who has demonstrated an exceptional commitment to educational outcomes and medical education throughout their career. The inaugural award will be presented at the 2025 ISAKOS Congress in Munich.

New for 2025!

Young Professionals Abstract Awards

ISAKOS is pleased to announce a new award opportunity for Young Professionals! Up to three awards will be given to presenting authors of the **highest scoring abstracts submitted by Young Professionals** (45 years and under):

- Highest scoring abstract considered for a **podium presentation**
- Highest scoring abstract submitted for an **e-poster**
- Highest scoring abstract submitted for a **physical poster**

John J. Joyce Award

In 1981, Dr. John J. Joyce, III, offered a monetary prize for the best arthroscopy paper read by an orthopaedic surgery resident or fellow during the Scientific Program of the 4th Congress of the International Arthroscopy Association in Rio de Janeiro. With characteristic generosity, he endowed a prize to be awarded at every IAA Congress thereafter. John Joyce created the award with the intention to stimulate and reward younger members who contribute high-quality data and presentations.

Richard B. Caspari Award

Beginning at the 2003 ISAKOS Congress in Auckland, New Zealand, a monetary prize in honor of Richard B. Caspari was awarded to the best upper extremity paper read at the scientific program of the Congress. The Richard B. Caspari award was established with the intention of stimulating and rewarding upper extremity focused abstracts and presentations.

Jan I. Gillquist Scientific Research Award

Beginning at the 2007 ISAKOS Congress in Florence, Italy, a monetary prize was awarded to the best scientific paper presented during the scientific program of the Congress. ISAKOS will remember Jan Gillquist with a Research Award, created with the intention to stimulate and reward abstracts and presentations in the subject of Scientific Research.

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Gary G. Poehling Award

Former ISAKOS President, Gary G. Poehling, is an innovator, teacher and leader in the field of Arthroscopy, specializing in the elbow, wrist and hand. Beginning at the 2017 ISAKOS Congress in Shanghai, China, a monetary prize in honor of Dr. Poehling is to be awarded to the best Elbow, Wrist and Hand paper read during the scientific program of the ISAKOS Congress.

Albert Trillat Young Investigator's Award

Sponsored by Innovate Ortho

In 1989, The International Society of the Knee established a Young Investigator's Research Award in memory of Professor Albert Trillat. Past President and founder of the International Society of the Knee, Trillat was a pioneer in knee surgery and sports traumatology. This award provides recognition for a young researcher who has done outstanding clinical laboratory research contributing to the understanding, care or prevention of injuries to the knee.

Achilles Orthopaedic Sports Medicine Research Award

Sponsored by Enovis, Inc.

The Achilles Orthopaedic Sports Medicine Research Award was created in 1995 to recognize the researchers(s) who have performed the most outstanding clinical or laboratory research in the field of sports medicine, such as the care and prevention of injuries.

Paolo Aglietti Award

Sponsored by Nicolaas C. Budhiparama, Jr. & Inge Widjaja

Nicolaas Institute of Constructive Orthopedic Research & Education Foundation for Arthroplasty & Sports Medicine

ISAKOS is pleased to announce the Paolo Aglietti Award for Knee Arthroplasty. This award is in recognition of Professor Aglietti's numerous contributions to knee surgery as a prolific researcher, teacher and surgeon. Professor Aglietti served as Chairman of the ISAKOS Knee Committee and was ISAKOS President from 2007–2009.

Patellofemoral Research Excellence Award

Sponsored by The Patellofemoral Foundation, Inc.

The Patellofemoral Research Excellence Award was conceived in 2005 by the Patellofemoral Foundation and ISAKOS to encourage outstanding research leading to improved understanding, prevention and treatment of patellofemoral pain or instability.

2025 ISAKOS CONGRESS SCHOLARSHIPS

ISAKOS is pleased to announce two categories of registration scholarships are available for the 15th Biennial ISAKOS Congress! The deadline to submit applications for these scholarships is October 31, 2024. Apply today and see you in Munich!

Female Registration Scholarships

Eight scholarships are available for female orthopaedic surgeons from resource-limited countries to support their travel and attendance at the 15th Biennial ISAKOS Congress, June 8-11 in Munich, Germany.

Awardees will receive a stipend of up to USD $3,000 to support travel, registration, and accommodations at the 2025 Congress. Awardees will be invited to attend the Gender & Diversity Task Force scientific sessions, including a female-focused orthopaedic surgeon symposium with the opportunity to network with world-renowned female surgeons from around the globe, as well as engage in discussions of important relevant topics.

Learn more at isakos.com/Female-Scholarship/Munich-2025

Young Professionals Registration Scholarships

Up to 100 scholarships are available to young professionals or individuals from a country with limited resources. Recipients will receive a 50% discount on registration to the 2025 Congress.

Young Professionals are categorized as those 45 years of age or younger. To confirm eligibility, applicants will be asked to provide their date of birth. A *Country with Limited Resources* is defined based on World Bank Classifications for "developing/developed countries". Developing refers to the WBC low/lower/middle/upper middle incomes. To confirm eligibility, applicants will be asked to confirm their Country of residence.

Learn more at isakos.com/reg-Scholarship/Munich-2025

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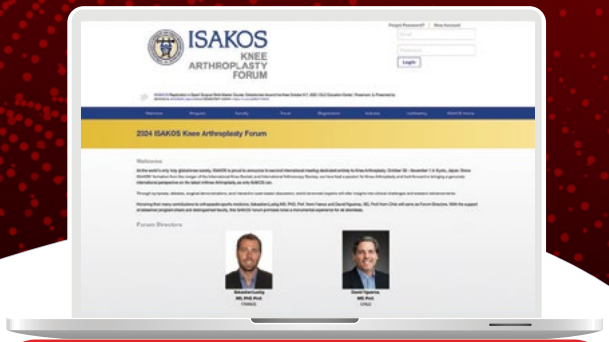

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Human Dental Pulp Stem Cells: Do They Hold Potential for Orthopaedics?

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Introduction

Stem cells are unspecialized cells that retain the ability to renew themselves through cell division and can further differentiate into various types of specialized cells, such as osteocytes, chondrocytes, adipocytes, muscle cells, and hepatocytes. These stem cells can be found in many adult tissues, including skin, adipose tissue, peripheral blood, bone marrow, salivary gland, and dental pulp.

Recently, stem cell therapies have become a promising and advanced scientific research field because of their usefulness in regenerative medicine, improving patients' quality of life and prolonging survival rates. Clinical studies have tested using mesenchymal stem cells (MSCs) of dental origin as candidates for cellular therapy of stomatognathic disorders, maxillofacial reconstruction, bone-related diseases, and orthopaedic procedures.

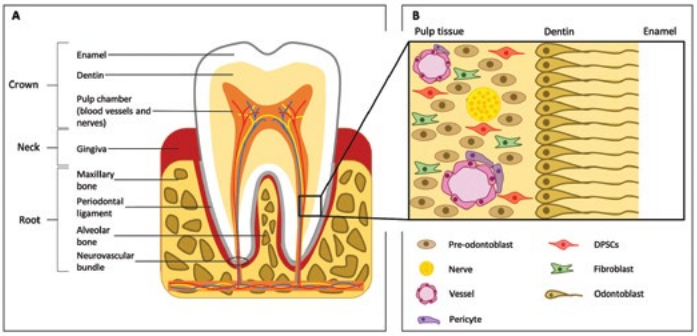
Dental Pulp Stem Cells: Characteristics

Although many studies have shown that bone marrow- and adipose-derived MSCs are the mainstay of regenerative cell therapies in orthopaedics, human dental stem cells have recently gained more popularity due to their potential. Human dental pulp stem cells (hDPSCs) show mesenchymal stem cell features, differentiating into dentin *in vitro* and dentin-pulp-like complex *in vivo* and presenting osteogenic and chondrogenic potential capacity.

To date, bone marrow-derived stem cells have shown the highest osteogenic differentiation potential by expressing high levels of CD90, making them more suitable for bone repair and regeneration. At the same time, adipose-derived MSCs are more prone to differentiate into adipocytes with relatively limited chondrogenic potential, like those of the umbilical cord. However, hDPSCs have demonstrated higher clonogenic and proliferative potential than bone marrow MSCs (higher population doubling and lower population doubling time) and show immunomodulation and anti-inflammatory properties in the local environment.

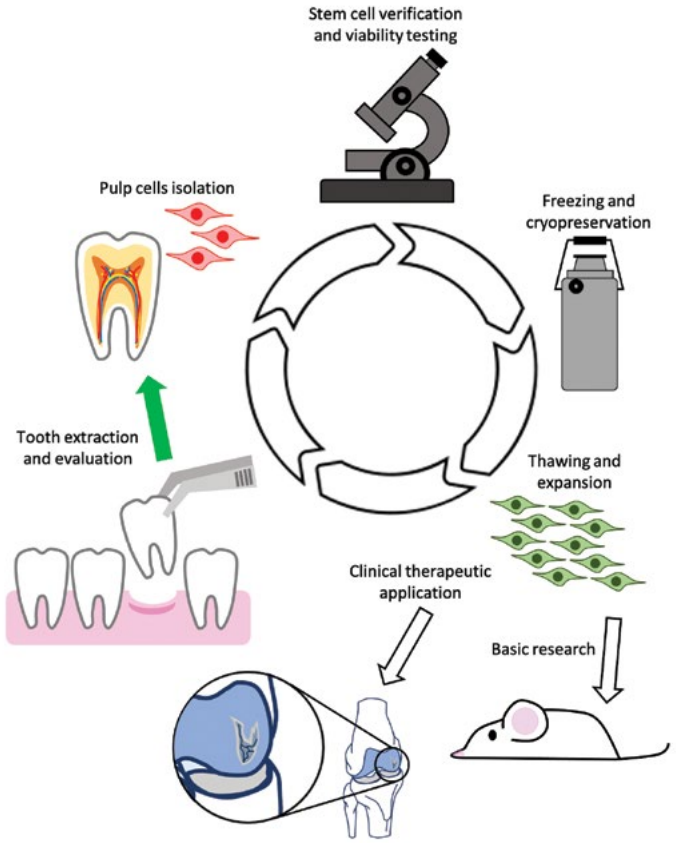
Moreover, compared with other sources, such as bone marrow and umbilical cord-derived MSCs, hDPSCs can be easily and safely isolated from teeth with low morbidity and no ethical concerns. Moreover, further types of dental MSC populations can be harvested from human exfoliated deciduous teeth (SHED, which stands for stem cells from human exfoliated deciduous teeth), from apical papilla (SCAP), and periodontal ligaments (PDLSCs).

Ideally, teeth for hDPSCs harvesting should still be vital, healthy, and have enough dental pulp. Deciduous teeth with at least two-thirds of their roots, third molars, fractured teeth, supernumerary teeth, and permanent teeth extracted for orthodontic indications are all candidates for stem cell recovery (Fig. 1).



01 **A:** The structure and the composition of a human tooth. The odontoblast borders the dental pulp beneath the dentin, with odontoblast processes projecting toward the enamel. **B:** Diverse cell populations are found in dental pulp, such as DPSCs, which can give rise to odontoblasts.

For this purpose, following informed consent, the dental surgeon examines the tooth, ruling out infections in the area. Under sterile conditions, prophylactic antibiotic therapy, and antiseptic mouthwash, the tooth is carefully extracted, avoiding breaking the crown and immediately transferring into the container. The collection of hDPSCs for long-term storage or banking for future therapeutic use is performed by specialized dentists and stem cell storage companies providing a comprehensive service to cryopreserve the stem cells for future clinical applications (Fig. 2).



02 Schematic representation of critical steps from tooth selection to DPSC cryopreservation and final application for therapeutic use (tissue engineering and regenerative medicine) and/or basic research (*in vitro* and *in vivo* studies).

hDPSCs can be differentiated into multiple cell types, such as osteoblasts and chondrocytes. Extracted third molar teeth (wisdom teeth) can serve as an ideal source of MSCs for tissue engineering. Consequently, harvested hDPSCs can later be used for potentially treating bone and cartilage injuries.

Studies have shown the potential of DPSCs implantation for chondral tissue surgical repair. Fernandes et al[1] described a novel treatment for cartilage defects using scaffolds loaded with DPSCs in a large-animal (Brazilian miniature pig) model. The animals tolerated the procedure well, without any clinical or histological rejection of the DPSCs.

Also, cartilage healing was observed on macroscopic evaluation six weeks after treatment. Similarly, microscopic findings have confirmed a thicker deep layer with increased fibroblastic tissue on the superficial layer of the cartilage defect. In a preliminary study involving a rabbit model of cartilage damage, Mata et al[2] analyzed the histological appearance of collagen fibers in animals that had been treated with the implantation of alginate only as compared with that in animals that had been treated with the implantation of alginate and chondrocytes or hDPSCs. The investigators observed poor regeneration with loss of cartilage tissue in the animals that had received alginate only than those that had also received autologous chondrocytes or hDPSCs. They also observed a smoother articular surface when hDPSCs were used instead of primary chondrocytes.

Recent reports have shown that hDPSCs suppress osteoarthritic macrophages mainly by secreting soluble factors, such as hepatocyte growth factor and transforming growth factor beta-1. The literature has shown that a single dose of locally administered hDPSCs significantly improves tissue regeneration. Li et al[3] found that the intra-articular injection of hDPSCs had a suppressive effect on osteoarthritic macrophages *in vitro* and *in vivo*, alleviating cartilaginous damage in a rabbit knee osteoarthritis model. Similarly, in an experimental study involving an induced knee osteoarthritis model in rats, the injection of hDPSCs demonstrated positive effects in terms of restoring structural and morphological features, such as cellular hypertrophy and increased thickness of the joint cartilage, without an observed decrease in the number of chondrocytes. Moreover, local and systemic injections of hDPSCs in rats with progressive temporomandibular joint arthritis demonstrated therapeutic effects by inhibiting the expression of matrix metalloproteinases participating in bone and cartilage remodeling.

Reconstruction of bone defects represents a significant challenge in orthopaedic surgery. Several studies (including both animal models and human clinical trials) have investigated the use of hDPSCs with or without different types of scaffolds to repair cranial, maxilla, and mandible bone defects. In particular, a rabbit experimental study conducted by Feng et al[4] suggested that gene therapy using Runt-related transcription factor 2 (Runx2)-modified hDPSCs was more effective during new bone formation in rapid distraction osteogenesis of the tibia when 1 ml of DPSCs suspension was injected directly into the distraction gap. In that study, the histological appearance of the lengthened segment showed newly formed mature and trabecular bone with complete bony continuity in the distraction gap, confirmed with high-resolution 3D micro-computed tomography images.

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Human Dental Pulp Stem Cells: Do They Hold Potential for Orthopaedics?

Osteonecrosis is a degenerative bone disease characterized by the death of bone marrow and trabecular bone due to an interruption of the subchondral blood supply. Advanced disease ultimately can lead to the destruction of the joint involved. Therefore, early diagnosis increases the chances of treatment success. Clinically, the most frequently proposed treatment modalities of aseptic osteonecrosis of the femoral head include core decompression with various variants, non-vascularized and vascularized bone grafts, intertrochanteric and rotational bone grafts, and intertrochanteric transtrochanteric osteotomies.

MSCs administration is a novel strategy for treating bone and joint-related diseases. Feitosa et al[5], in an experimental study, evaluated bone tissue recovery following the transplantation of hDPSCs in ovines with osteonecrosis of the femoral head induced by ethanol intra-bone injections. The investigators found that bone regeneration was faster in animals treated with core decompression and hDPSCs injections than in animals treated with core decompression alone. Also, the histological results showed good bone tissue recovery in animals treated with core decompression and hDPSCs injections. Similar results have been reported in pig and rat models using bone marrow- and adipose tissue-derived stem cells, respectively. [references] However, no studies have been conducted to compare outcomes between these stem cell sources.

Last, the main disadvantage of hDPSCs resides in their limited number of primary cells available in the dental pulp tissue compared to bone marrow and fat, yet cultured with promising growth rates. Additionally, its use demands carefully planned isolation and preservation from childhood and early adulthood before disease onset.

Conclusion

Tissue engineering continues to attract increasing attention as a promising treatment for various disorders, including cartilage defects, osteoarthritis, bone defects, and hip osteonecrosis. The success of tissue engineering relies on three factors: (1) seed cells, (2) biomaterials (scaffolds), and (3) bioactive molecules. MSCs are an attractive donor cell type for tissue engineering because their properties (self-renewal, multipotency, immunomodulatory properties, and limited or no adverse effects) make them a safe and effective therapeutic tool for regenerative medicine. hDPSCs are easily accessible and exhibit higher proliferative capacities than bone marrow-derived MSCs. These characteristics render hDPSCs suitable cell candidates for cell-based therapies and tissue engineering in orthopaedics.

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Partial-Thickness Supraspinatus Tears: Do We Know How to Treat Them?

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Introduction

Partial-thickness tears of the posterosuperior rotator cuff are frequent problems that present particular challenges to the shoulder surgeon. The underlying physiopathology of partial-thickness tears is variable. In older adults, a partial tear develops in the context of the wide spectrum of rotator cuff disease. First, intrinsic and extrinsic factors cause the day-to-day insult to the tendons. Unsatisfactory tendon healing then leads to tendinopathy, followed by partial and full-thickness tears and, ultimately, rotator cuff arthropathy. In younger, active patients who practice overhead sports, repeated external rotation movement in abduction causes posterosuperior impingement between the supraspinatus and the posterosuperior glenoid and a partial articular tear can develop. More rarely, a partial tear can develop in the context of a traumatic injury.

The most controversial issues related to the management of partial-thickness tears are the precise diagnosis of the problem, the decision-making algorithm to indicate a surgical procedure, the selection of the best procedure for each tear, and the use of biological alternatives for management. The objective of this Current Perspective is to offer a critical review of the standard of care of these patients in order to stimulate discussion on these specific issues.

The Diagnosis Conundrum of a Partial Supraspinatus Tear

The typical patient with a degenerative partial tear has signs and symptoms of subacromial pain and a varying degree of stiffness or biceps symptoms at the time of consultation. After history-taking and physical examination, imaging techniques show a partial tear of the supraspinatus, and the diagnosis is made.

This straightforward diagnostic workup has several limitations as most subjects who present to a consultation because of shoulder pain with symptoms consistent with subacromial pain and impingement either have no altered cuff anatomy or present with only mild tendinopathy; often, the symptoms are not directly related to the cuff tendons but rather to inadequate scapulothoracic kinematics[1]. Moreover, when a partial tear is present, it is difficult to properly assess the tear with an isolated physical examination: impingement tests have sensibilities and specificities of <60%, and differentiating a partial tear from a full-thickness tear is often impossible. Even standard magnetic resonance imaging (MRI) has sensitivity and specificity values of <70% and <40%, respectively.

Diagnosis is further complicated by the high incidence of asymptomatic partial tears. Ultrasound examination of asymptomatic shoulders will identify partial supraspinatus tears in 15% of the population, and 18% of English women >64 years of age have asymptomatic partial tears. In younger, active subjects, the issue is even more relevant: 50% of university-level Japanese baseball players or international-level handball players had asymptomatic partial tears.

Thus, it is naïve to assume that all patients with subacromial pain and impingement symptoms have a partial-thickness tear. The surgeon should consider carefully whether other issues, specifically scapular dyskinesis, frozen shoulder, and biceps problems, might be causing the symptoms instead of a partial tear that might be perfectly asymptomatic.

To Operate or Not To Operate: That is the Question

Once it has been established that a partial-thickness posterosuperior cuff tear is present and is the cause of the symptoms, the clinician should consider the best treatment for the patient. There is limited information on the natural history of partial tears than can guide the surgeon to decide on whether or not to consider surgery. It has been reported that 20% of symptomatic bursal-sided tears will progress in size within 24 months; but even in patients with substantial symptoms who are scheduled for surgery, delaying surgery for 6 months might avoid surgery altogether in one-third of cases, without compromising surgical outcomes for the rest.

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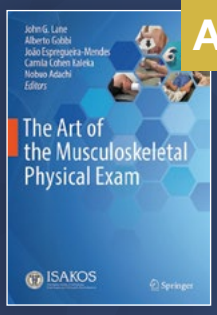

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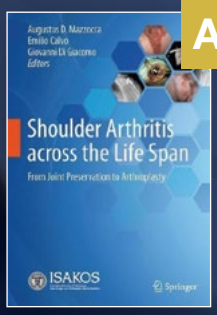

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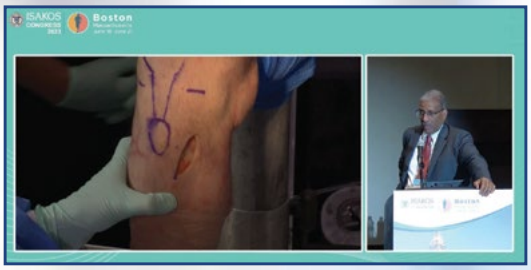

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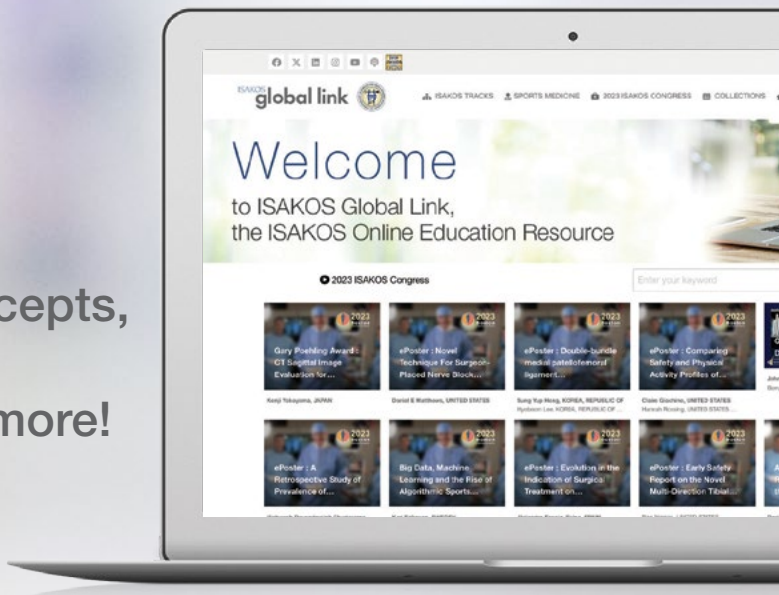

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Partial-Thickness Supraspinatus Tears: Do We Know How to Treat Them?

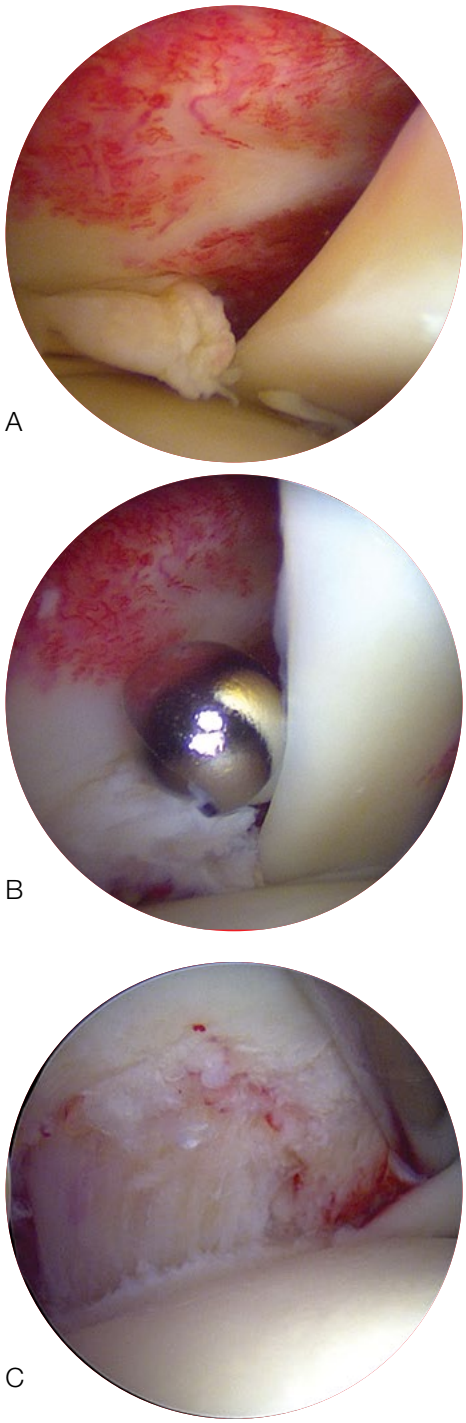
Similarly, while 60% of asymptomatic tears will progress in size after 5 years, only 10% of symptomatic tears will progress in size at 2 years; again, delaying surgery in these cases might avoid surgery in one-fourth of cases, without worsening clinical outcomes of the surgical procedure for the rest. Thus, the focus is usually placed on identifying factors that will predict progression of the tear: higher-grade tears, larger tears, tears that affect the posterior biceps pulley or the rotator cable, and tears that have been symptomatic for a longer period of time have been known to progress more frequently and to have persistent symptoms over time. Tears with these characteristics are often considered for surgery.

However, proceeding with surgery simply because of the fear of tear progression might be misguided. First, even in cases of high-risk tears, there is a reasonable chance that the tears might remain stable and asymptomatic over the long term. Second, the surgical procedure in cases of progression (even progression to a mid-sized full-thickness tear) is very similar in scope, success rate, and recovery time as compared with the current treatments for partial-thickness tears. Third, there are very limited long-term data on the efficacy of any surgical procedure for the management of partial-thickness tears, and it is unclear whether surgery has any impact on the natural history of rotator cuff disease[2]. Thus, conservative treatment needs to be considered as it has been shown to be effective[3], and repeated imaging and clinical assessment every 6 to 12 months might be the best option for most degenerative tears. On the contrary, if the patient has persistent symptoms and functional deficits for an extended period of time despite appropriate conservative management, there is no reason to delay the procedure.

The Repair vs. Complete-and-Repair Dilemma

There are three classical alternatives for the surgical management of partial-thickness posterosuperior tears: debridement (Fig. 1), isolated repair of the layer affected (Fig. 2), and completion of the tear to a full-thickness tear followed by repair. The merits of debridement are difficult to assess, although good clinical outcomes have been reported. However, the debridement itself has no effect on the biomechanical environment, and, from a biological perspective, it is uncommon to find substantial inflammation of the tissue to be debrided. Both of these findings should raise the questions of (1) whether the available literature data was obtained from subjects who presented in fact an asymptomatic partial tear, and (2) whether other associated procedures (such as biceps tenotomy), or the postoperative rehabilitation routine, had a greater impact on the improvement observed in those patients.

Both isolated repair of the affected layer and complete-and-repair have shown to be effective for the management of rotator cuff tears, and both procedures have benefits and disadvantages.



01 A low-grade articular-side partial tear of the anterior supraspinatus in a left shoulder as viewed from the posterior portal (A). The partial tear is debrided with a shaver placed through the rotator interval (B) until good-quality tendon is reached (C).

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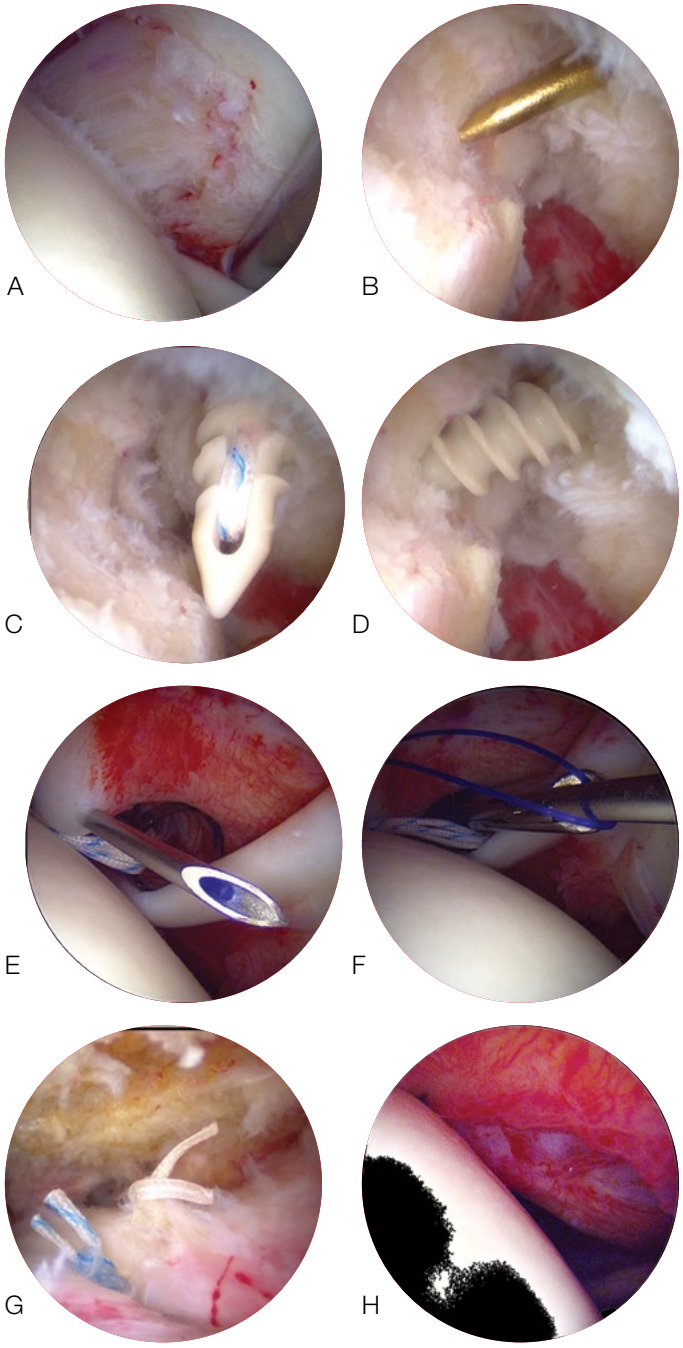
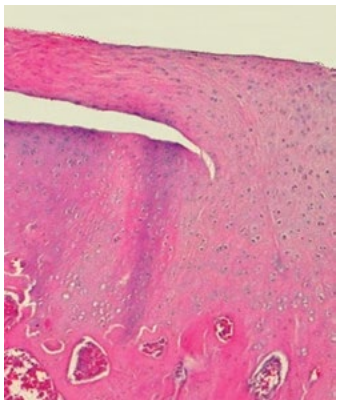


02 A transtendinous repair of a partial articular tear of the supraspinatus in a left shoulder. Once the tear is debrided (A), the footprint is prepared (B) and an anchor is placed through a stab incision on the intact supraspinatus (C) and is placed on the exposed footprint (D). Next, a needle is used to carefully drive through the sutures through articular layer (E and F); these sutures are retrieved and tied in the subacromial space (G), yielding a good-looking repair from the articular space (H).

Isolated repair of the affected layer has the advantage of keeping the remaining, non-affected, tendon intact, but it might be more technically demanding because (1) many bursal tears have very poor-quality remnants in the bursal side; these are difficult to repair properly because of lack of good quality tendon and thinness of the remnant, (2) a proper transtendinous technique that restores the previous anatomy is challenging in cases of articular tears, as there is controversy on whether to include the capsule in the repair and on how to perform a proper repair that brings the torn layer back to place without causing over tension of the intact bursal layer, and (3) transtendinous repair of partial articular tears can be associated with postoperative pain and stiffness. Complete-and-repair techniques sacrifice the remaining tendon (and with it the healthy enthesis) but are more straightforward from a technical standpoint, and the repair of the newly developed full-thickness tear has consistent good results. Despite these differences, the longer-term clinical outcomes of both techniques seem to be similar, and it is clear that in both cases a retear (meaning the development of a full-thickness tear after surgery) can occur in up to 10% of cases[4]. It is a tough day when, as a surgeon, you find yourself in the position of explaining to a patient that, after you repaired her “partial” tear, she has ended up with a “full” tear.

When addressing a partial-thickness tear, the surgeon should carefully consider the quality of the remaining tendon attachment, examining it both from the subacromial and glenohumeral spaces and probing it to assess its firmness and elasticity. The size of the remaining tendon is less important than its quality: if the tendon “looks and feels” good, then a repair of the layer affected should be attempted, as the intact tendon enthesis (Fig. 3) will never be reproduced if the tear is completed. If the quality of the remaining tendon is questionable, then completing the tear and performing a technically easier repair is probably the best alternative.



03 A histologic sample of the supraspinatus-to-humerus enthesis of a healthy young rabbit. It can be clearly appreciated how the tendon tissue converts to a chondral tissue that progressively calcifies into normal-looking cancellous bone.

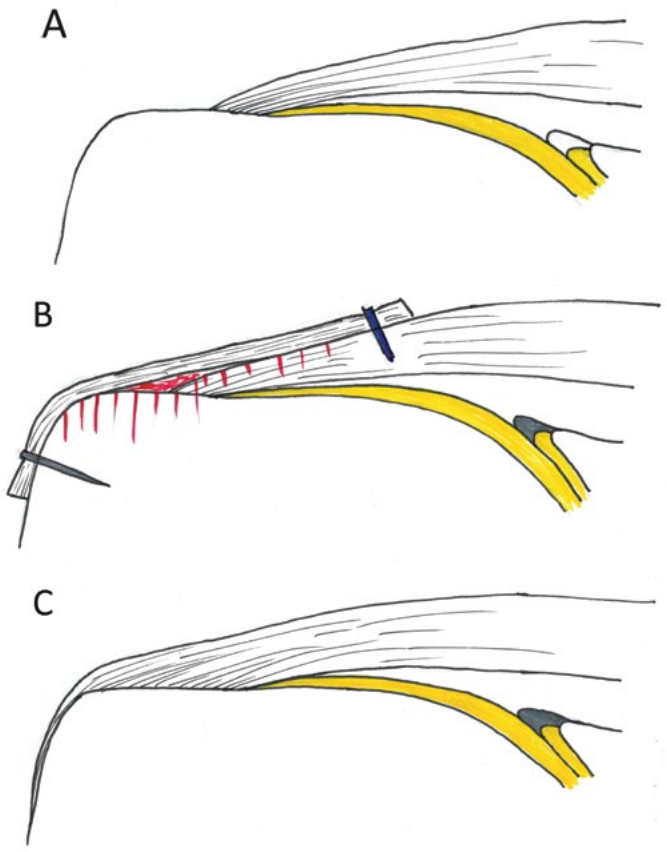
The (Un)Fulfilled Promise of Biological Alternatives

Three biological strategies have been suggested for the management of partial posterosuperior tears: mesenchymal stem cells, platelet rich plasma (PRP), and recently, a bioinductive collagen implant.

Mesenchymal stem cells bring with them the promise of *restitutio ad integrum*, as complete healing of the tendon and restoration of the native enthesis have been demonstrated in animal studies. Unfortunately, much like the expectations associated with nuclear fusion, the healing-potential expectations that stem-cell therapies have brought to orthopaedic surgeons over the past 40 years always still seem to be 10 to 15 years away. There is little if any evidence available to support its use today in partial-thickness tear, either as standalone treatment or as adjuvants to different repair techniques.

PRP is often considered as an alternative to expensive, difficult-to-obtain stem cells. Platelets are abundant, autogenic, and easy to extract and deploy. They are also full of a complete litany of exotic growth factors that carry in their own names the promise (again) of tendon-healing. With this in mind, different researchers have used them extensively to treat partial-thickness tears. It is unclear what is, among the myriad possible purification techniques, the best way to extract the platelets, and where and how many times the platelets should be injected. Despite these hurdles, different authors have found that applying PRP over the diseased tendon with an ultrasound guided injection is effective and safe, at least in the short term, to manage the symptoms of partial-thickness tears. Achieving the desired healing of the tendon is another issue that has not been resolved[3].

Recently, a bioinductive collagen implant made from denaturalized collagen of bovine origin has been proposed as another biological alternative for the management of partial-thickness cuff tears. The implant is arthroscopically inserted over the bursal side of the torn tendon and fixed with specific staples to the underlying tendon without further procedures done to the torn tendon. The implant is infiltrated by tendon cells from the underlying tendon, and eventually is reabsorbed, leaving additional tendon-like tissue at the grafting site. When applied over a bursal tear, the implant integrates and helps in the healing of the damaged bursal layer (Fig. 4); when used over an articular partial tear, the extra tendon provided in the subacromial layer protects the tensioned remaining fibers and, once integrated, effectively lateralizes the footprint of the tendon. There is both animal and human evidence that these mechanisms do indeed happen when managing partial rotator cuff tears with this implant, and there is increasing evidence that the use of the bioinductive implant improves the clinical outcomes and the anatomy of the diseased tendon[5]. An ongoing randomized controlled trial, comparing this new alternative to traditional complete-and-repair, will soon shed light on the true usefulness of this new tool.



04 The proposed mechanism of action of the bioinductive collagen implant over a bursal-sided tear. The bursal-sided degenerative partial tear is patent with the lateral footprint exposed and no signs of any remaining repairable bursal layer (A). After the tendon is subtly debrided and the footprint is prepared, the collagen implant is placed over the injured tendon and is fixed with staples (B). Over time, tendon cells infiltrate the collagen implant, the implant reabsorbs, and new tendon is formed in its place (C).

Partial-Thickness Supraspinatus Tears: Do We Know How to Treat Them?

Conclusion

The management of partial articular tears of the posterosuperior cuff is challenging. In a patient with a symptomatic partial tear, the clinician should focus their diagnostic skills on trying to identify other factors that might be the cause of the symptoms and should not consider every partial tear that is "found in the scene" as the culprit, as most of these tears are asymptomatic. When the partial tear seems indeed to be the cause of the symptoms, caution should be warranted before proceeding to surgery, as conservative treatment is often effective and many of these tears become asymptomatic and do not progress over time. Once surgery is considered, both traditional techniques (isolated repair of the affected layer or completion of the tear and repair) are useful and reasonably effective, but the key is defining if the remaining tendon is healthy enough; if this is the case, the intact tendon with its beautiful, intricate enthesis should be kept when possible. Finally, biologic alternatives are available, and PRP might be useful for providing short-term clinical improvements in some patients. The role of newer inductive collagen implants for this indication is becoming clearer, and seems to be promising, but its true long-term efficacy is yet to be proven.

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Navigating Resources for Optimal Rehabilitation Following Anterior Cruciate Ligament Reconstruction

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Introduction

Anterior cruciate ligament (ACL) injuries represent a significant burden within the realm of sports medicine, with a notable surge in incidence over recent years, particularly among young athletes engaged in high-impact sports. Consequently, there has been a corresponding rise in the number of ACL reconstruction procedures being performed worldwide. However, the success of surgical intervention hinges crucially on the postoperative rehabilitation process. Current evidence supports the pivotal role of rehabilitation in facilitating optimal functional outcomes, enabling safe return to sports, and mitigating the risk of re-rupture. Thus, rehabilitation following ACL reconstruction has emerged as a cornerstone of the comprehensive management of this injury, highlighting the imperative for tailored and evidence-based rehabilitation protocols.

As we delve deeper into ACL rehabilitation, it becomes imperative to explore how this critical phase is approached across different socioeconomic contexts. The purpose of this article is to juxtapose the rehabilitation paradigms employed in two disparate settings: one characterized by abundant resources and access to state-of-the-art facilities (Aspetar Hospital in Doha, Qatar) and the other marked by resource constraints and limited access to advanced rehabilitation modalities (Hospital Sotero del Rio in Santiago de Chile). By contrasting these two ends of the spectrum, we aim to elucidate the nuanced strategies employed to maximize patient outcomes despite varying resource availability.

ACL Reconstruction, Rehabilitation, and Return-to-Sports Testing in a Limited-Resource Setting

Lack of Consensus on RTS Testing

Return-to-sports (RTS) testing after ACL reconstruction has historically generated controversy because of the lack of evidence supporting its use. Different guidelines have been developed; however, there is no consensus, and a recent meta-analysis[1] showed that only 23% of patients undergo some type of RTS testing before resuming sports activity after ACL reconstruction. Another recent study[2] demonstrated that these test batteries would only predict the possibility of RTS, but not the risk of a new ACL tear, which is what they have been designed for.

The implementation of these programs includes associated costs in terms of personnel, physical space, and expensive devices. National data from 2019 showed that >15% of ACL reconstructions performed in Chile were done in the public system, which is used by patients with lower economic resources because it is financed by the state. However, state-of-the-art rehabilitation, including the presence of these batteries of tests in the Chilean public health system, is practically non-existent because of the high demand for physiotherapists (who are usually the operators of these tests) for other health care tasks. For this reason, the vast majority of patients who RTS after ACL reconstruction make the decision to return according to the time frame recommended by their treating physician (Fig. 1) and their own perception of safety (a factor known as psychological readiness, which is considered to be important for successful rehabilitation and RTS).

01 Timeline used in Hospital Sotero del Rio for allowance of different sports activities during ACLR rehabilitation period. It is important to note that clearance for the different activities is only time-based.

Pilot Project at Hospital Sotero del Rio in Santiago, Chile

Projects have been presented to develop these RTS tests in our system, but they involve a high monetary cost, and, unfortunately, the lack of clarity regarding which tests are the most cost-effective makes it difficult to convince the individuals who make the final decisions. In addition, the literature on ACL reconstruction in limited-resource settings is scarce and is mainly focused on outcomes and economic analysis and not on rehabilitation[3].

In this context, we developed a pilot project in our hospital (Hospital Sotero del Rio in Santiago, the largest public hospital in our country that offers free health care). This process first required identifying patients undergoing ACL reconstruction (100 patients operated every year) who had returned to sports at the previous level, without new re-injuries and with at least a 2-year follow-up. For that purpose, patients who had undergone ACL reconstruction in the period 2019-2021 were contacted and evaluated. The rehabilitation protocol in our setting includes only a first round of 10 physiotherapy sessions (not possible in all cases), followed by home exercises (using a handout guideline designed by a physiotherapist) and non-supervised gym rehabilitation (allowed at 3 months after surgery).

The data showed that only 66% of the patients underwent the full round of 10 physiotherapy sessions after surgery. Despite that lack of supervised rehabilitation, the rate of RTS at the previous level was 82%. In addition, none of the patients underwent any RTS testing before returning to previous activity and the only parameter for RTS was the time since surgery. The re-rupture rate in the period studied was <1%.

Future directions include studying this group of patients who had a successful RTS and performing a battery of RTS tests in a state-of-the-art health facility, with the objective of defining the importance of applying these tests in a health-care system with limited resources and being able to prioritize some tests over others if any positive associations are found.

During the development of this pilot project, we realized that patients with a low number of formal physiotherapy sessions have high rates of RTS at the previous level after ACL reconstruction in our setting. The future challenge is to demonstrate whether performing RTS testing is an intervention that makes sense in a system with different needs and limited resources.

ACL Reconstruction and Rehabilitation "The Aspetar Way"

This section describes the Aspetar Orthopaedic and Sports Medicine Hospital approach to rehabilitation and testing after ACL reconstruction[4,5]. Aspetar Hospital, in Doha, Qatar, is a highly specialized institution offering services to regional and international athletes. Since 2007, athletes from around the globe have been treated. Approximately 250 ACL reconstructions are performed annually in Aspetar, with approximately 100-150 additional patients undergoing rehabilitation at our hospital after undergoing operative treatment at other institutions worldwide. The hospital infrastructure is supported financially, by the state of Qatar, to provide state-of-the-art comprehensive services for registered and recreational athletes and accommodates both publicly- and privately-insured patients.

ACL Rehabilitation

At Aspetar, we believe rehabilitation and return to play should be based on criteria, not time, although initial time limitations respect biological healing and ligamentization. Specific evaluation times are: (1) prior to surgery (to obtain baseline data if the knee allows), (2) immediately postoperatively (1 week), (3) 6 weeks, (4) 3 months, and (5) 4.5 months postoperatively. As the patient's performance improves, another evaluation occurs at the end of the third phase of the Aspetar Sports Specific Training Program, with a final evaluation before discharge. If criteria are unmet, the patient continues rehab with adjustments. Patients advance to the next level only when goals are fulfilled, ensuring safety with tests applied at each phase.

Immediately postoperatively, the basic phases of rehabilitation are followed, respecting the biological phase of healing, inflammation, and maturation of the graft. Early strategies to control joint reaction and/or swelling and to improve range of motion (ROM), muscular activation, and neuromuscular coordination, are, of course, implemented as standard practice.

The use of simple tools in a standardized way provides the initial information to guide the process. ROM measurement with goniometer and inclinometer, the swipe (stroke) test for knee effusion, and manual stability tests (i.e., the Lachman-Noulis test and the pivot-shift test [when time allows, after month 4]) are universally applied to monitor the clinical status and progress. These data are captured during the daily physiotherapy evaluation, and a biweekly report is also communicated to the surgeon. Red flags are immediately raised, and a surgical consultation is done.

A variety of physical qualities are developed concurrently throughout rehabilitation, depending on the stage of recovery of the joint. Below is an overview of the various modalities used from the early to later stages of rehabilitation.

Navigating Resources for Optimal Rehabilitation Following Anterior Cruciate Ligament Reconstruction

Motor Control and Muscle Activation Deficits

1. Neuromuscular stimulation
2. EMG (electromyography) biofeedback training
3. Virtual reality during functional exercises (balance, squat, hinge) to redevelop visual scanning and reaction times and to provide neurocognitive challenge to optimize motor learning

Strength and Power Development

1. Isokinetic training
2. Isoinertial wheel training
3. Velocity-based training

Power and Plyometric Development

1. Flooring transitions: sprung floor to rubber floor to sand surface
2. Force-plate analysis for testing and biofeedback during training

Running Load and Mechanics Development

1. Underwater treadmill
2 Alter G treadmill
3. Woodway Curve treadmill
4. Instrumented treadmill for biomechanical and EMG muscle-activation analysis
5. IMU (intertial measurement unit) sensor and GPS (global positioning satellite) analysis of on-field running

Change of Direction Mechanics

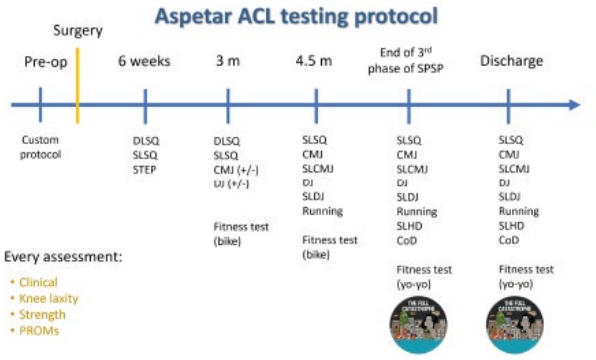
1. Sled and Vertimax pulley multiplanar training
2. Indoor turf acceleration/deceleration and footwork development
3. On-field individual sports-specific skill redevelopment
4. On-field sports-specific competitive scenario development

Ongoing Analysis Throughout Rehabilitation Process as Appropriate

1. Clinical examination of knee (swelling, ROM, GNRB testing)
2. Isometric hip and calf strength
3. Isokinetic quadriceps and hamstring strength
4. 3D biomechanical analysis of countermovement, horizontal jumps, and drop jumps
5. 3D biomechanical treadmill running and force plate acceleration
6. 3D biomechanical change of direction (planned and reactive)
7. On-field inertial sensor running analysis

ACL Testing Protocol

At our hospital, we follow a specific timeline for testing (Fig. 2). Clinical evaluation, joint laxity, PROMs, and strength are assessed at each visit. ROM is measured with a goniometer and inclinometer, while swelling is evaluated using the stroke (swipe) test. Joint stability is assessed with a Dyneelax apparatus following a progression protocol, starting with AP testing at 100 N-m at 6 weeks and increasing to full AP and rotational testing up to 150 N-m. VAS, IKDC, ACL-RSI, and Tampa Scale of Kinesiophobia scores are collected at every appointment.



02 Summary of Aspetar ACLR testing battery. SPSP=sport-specific training, PROM=patient-reported outcome measures, DLSQ=double-leg squat, SLSQ=single-leg squat, STEP=step down, CMJ=countermovement jump, DJ=2-leg drop jump, SLCMJ=single-leg countermovement jump, SLDJ=single-leg drop jump, SLHD=single-leg hop for distance, CoD=change of direction. (Reprinted, with permission from the author and journal, from: Kotsifaki R, *Aspetar Journal*, 2023 November, 12[4]:293-301).

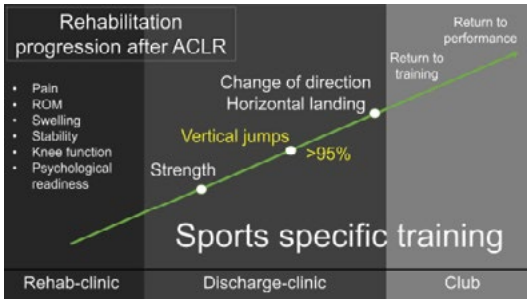
Abnormal stability results are flagged as a >5-mm side-to-side difference or a nonparallel increase with higher force applications. Red-flagged results slow rehabilitation and prompt orthopaedic re-evaluation. Muscle testing is crucial and includes hip adductors, abductors, external rotators, soleus, quadriceps, and hamstrings using an isokinetic dynamometer, force plates, and HHD. Quadriceps and hamstrings are evaluated isometrically at 60° and 30° of knee flexion at 6 weeks postoperatively. At 3 months, a full isokinetic protocol (2 sets of 5 repetitions at 60°/s, concentric mode) is performed, and eccentric hamstrings testing is done after 4.5 months in professional athletes.

Motor control is evaluated from week 6, beginning with simple tasks and progressing to more demanding ones. This is done using marker-based 3D motion analysis to assess joint angles, torques, and powers. Simple double squats, single squats, and step-down tests start at week 6, progressing to countermovement and 2-leg drop jumps by month 3 and single-leg jumps by month 4.5.

In the final stages, the protocol includes change-of-direction drills, running, and a cardiovascular endurance test (yo-yo test). Ground reaction forces (GRFs) are measured at all evaluations using an instrumental treadmill or a 3D motion analysis on turf. Rehabilitation phases and progressions are based on meeting specific criteria. Athletes advance to the next phase only when criteria are met, with initial time and biological factors considered. Return to sports and performance does not begin before 4.5 months and is based on ongoing progress and achievements.

Journey from Injury to Return-to-Performance

At Aspetar, athletes return to their teams when all rehab phases are completed progressively and clinical, subjective, psychological, and motor-control criteria are met. Jumping and running mechanics must be normalized, and 100% symmetry in quadriceps and hamstrings is required. The progression from early postoperative to return-to-performance is shown in Fig. 3. Our goal is functional dynamic stability, achieved when neuromuscular components are balanced and symmetrical. By measuring all parameters, we can reduce the risk of recurrences and performance deficits that can harm an athlete's career.



03 Overview of the components of rehabilitation that we need to restore before clearing an athlete to resume training with their club. (Reprinted, with permission from the author and journal, from: Kotsifaki R, *Aspetar Journal*, 2023 November, 12[4]:293-301).

Summary

In this article, we explore contrasting rehabilitation settings following ACL reconstruction surgery, focusing on resource availability. Despite the unclear consensus on the ideal ACL rehab protocol and its impact on surgical outcomes, it is fascinating to observe how surgeons design effective rehabilitation protocols tailored to their patients' needs, whether in limited-resource environments or state-of-the-art facilities. This comparison highlights the adaptability and innovation in ACL rehabilitation across different healthcare settings.

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Peroneus Longus Tendon is a Viable Graft Option for ACL Reconstruction

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Introduction

The anterior cruciate ligament (ACL) tear is a common orthopeadic injury, particularly in young and active patients. Over time, there has been a significant increase in the number of ACL reconstructions, possibly reflecting changes in surgical indications and an increased desire on the part of patients to return to high-intensity activities after injury. The main options for graft donor sites for ACL reconstruction are the patellar tendon, the hamstrings tendons, the quadriceps tendon, and allografts.

The patellar tendon graft, although considered the gold standard, has higher morbidity at the donor site and may be associated with anterior knee pain, difficulty kneeling, and patellar fractures. The hamstrings tendons graft presents less morbidity at the donor site, with greater extension strength; however, possible disadvantages include weakness at higher knee flexion angles, the risk of graft laxity, and unpredictability of the graft size. The quadriceps tendon graft, which has gained popularity among many surgeons in recent years, has comparable functional results to the patellar tendon graft but also is associated with donor site morbidity. Possible complications of this graft include an increased risk of bleeding, the formation of hematomas, and retraction of the rectus femoris, leading to a visible deformity in the distal region of the thigh.

Allografts, in turn, offer the advantages of reduced surgical time and the absence of donor site morbidity. Disadvantages include lower availability, increased cost, slower integration time, the risk of graft vs. host disease, and higher failure rates, especially in younger patients.

In this context, the peroneus longus tendon, which has demonstrated satisfactory results when used as a graft source for other orthopeadic procedures (e.g., reconstruction of the plantar calcaneonavicular ligament [the "spring ligament"], the deltoid ligament, the lateral ankle ligaments and the Achilles tendon), has recently gained attention as a promising graft option for ACL reconstructions.

Biomechanical Considerations

The use of the peroneus longus tendon as a graft is possible because of the synergistic action of the peroneus brevis. The functions of the peroneus longus tendon are plantar flexion of the first ray and eversion of the foot. Some studies have even shown that the peroneus brevis tendon is a more effective evertor of the ankle than the peroneus longus[1]. When harvesting the peroneus longus, a tenorrhaphy is performed between the remaining distal portion of the peroneus longus tendon and the peroneus brevis tendon in an attempt to preserve some function.

Biomechanical studies have demonstrated no significant differences in tensile strength tests between the peroneus longus and the hamstrings tendons. In the study by Shi et al, the ultimate tensile strengths of doubled peroneus longus tendon, quadrupled hamstrings tendons, and native ACL were 4,268 ± 285, 4,090 ± 265, and 2,020 ± 264 N, respectively[2].

With regard to graft diameter, the double peroneus longus graft usually has a diameter comparable to that of the quadrupled hamstrings graft. In a meta-analysis of 7 studies (361 patients), the mean peroneus longus tendon autograft diameter was 8.42 mm, which is an appropriate diameter for ACL reconstructions[3].

Harvesting Technique

The harvesting of the peroneus longus tendon graft is performed ipsilateral to the involved knee. Initially, an incision of approximately 3-4 cm is made in the lateral region of the ankle, approximately 2-3 cm above and 1 cm posterior to the tip of the lateral malleolus (Fig. 1).

01 An incision of approximately 3-4 cm is made in the lateral region of the ankle, approximately 2-3 cm above and 1 cm posterior to the tip of the lateral malleolus.

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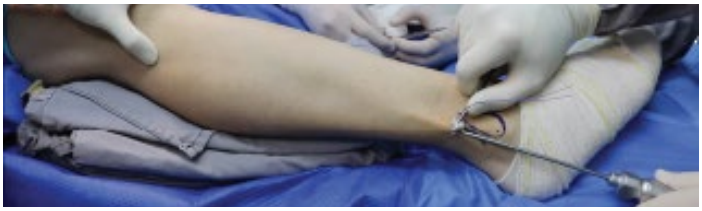
Dissection is performed through subcutaneous tissue, and the peroneal tendons are identified: the peroneus longus is the most superficial, whereas the peroneus brevis is deeper and has a muscle belly that makes it easier to identify (Fig. 2).

02 After subcutaneous dissection, the peroneal tendons are identified. In the image above, the Kelly forceps is placed between the peroneus longus tendon (more superficial) and the peroneus brevis tendon (deeper).

Then, a side-to-side tenorrhaphy of the distal portion of peroneus longus tendon is performed on the peroneus brevis tendon (Fig. 3) , and the peroneus longus tendon is sectioned with the scalpel.

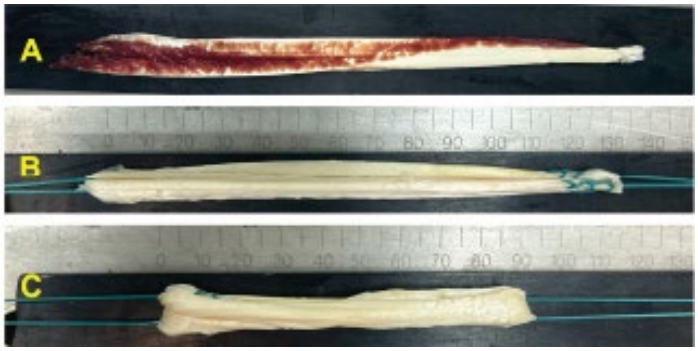
03 Side-to-side tenorrhaphy of the distal portion of peroneus longus and brevis tendons is performed with a Vicryl 1-0 suture thread. Peroneus longus tendon is the most superficial, and peroneus brevis tendon is deeper and has a muscle belly that facilitates its identification.

Finally, with the aid of a closed tendon stripper, the peroneus longus tendon is stripped proximally, with care being taken to respect a safety zone of 4-5 cm distal from the head of the fibula to avoid iatrogenic injury to the branches of the peroneal nerve (Fig. 4).



04 Harvesting of the peroneus longus tendon with the aid of a tendon stripper. The assistant should position the thumb approximately 4-5 cm distal to the head of the fibula to determine the safety zone in order to prevent the tendon stripper from injuring the branches of the peroneal nerve.

The peroneus longus tendon graft can be prepared double or triple folded, depending on graft length (Fig. 5).



05 A: Peroneus longus tendon graft just after harvesting.
B: Double-stranded peroneus longus tendon graft.
C: Triple-stranded peroneus longus tendon graft.

Structures at Risk During Harvesting of the Peroneus Longus Tendon Graft

Sural nerve: This structure is at risk during the posterolateral incision in the ankle. To avoid injury, the lower limit of the incision must respect the margin of 2 cm proximal to the tip of the lateral malleolus.

Branches of the peroneal nerve: These structures are at risk during the passage of the tendon stripper to detach the tendon from the muscles. To avoid injury, the tendon stripper must not advance beyond a safety margin of 4-5 cm distal to the head of the fibula.

Indications

Peroneus longus tendon graft can be used for knee ligament reconstructions. It can be a suitable alternative in:

- Combined ACL and medial collateral ligament injuries, avoiding medial hamstrings harvesting.
- Kneeling patients, as an alternative for bone–patellar tendon–bone (BTB) and quadriceps tendon grafts.
- Revision surgeries and multiligament injuries, especially in places with limited allograft availability.

Contraindications

Contraindications for peroneus longus tendon harvesting include peroneal tendons tears or severe tendinopathy of the peroneus brevis with eversion weakness, as it will be the sole evertor of the ankle after harvesting of the peroneus longus tendon. Preoperative clinical assessment of the ankle is routinely performed, and magnetic resonance imaging (MRI) is only requested in case of any relevant clinical finding.

Clinical Outcomes

ACL reconstructions performed with peroneus longus tendon grafts seem to have functional outcomes comparable to those of reconstructions performed with hamstring grafts. Larger studies have not demonstrated differences in functional outcomes such as Tegner activity scale scores, graft laxity, and reconstruction failure rates. Postoperative Lysholm and IKDC subjective scores were similar or slightly higher in patients undergoing reconstruction with the peroneus longus tendon graft when compared to the hamstrings graft.[3] In a meta-analysis comparing both grafts, He et al showed a difference of 1.55 points in the mean Lysholm score and a mean difference of 3.24 in the postoperative subjective IKDC score, which, despite being statistically significant, is not clinically relevant.[3] Peroneus longus tendon harvesting leads to less manipulation and lower morbidity in the knee, so this difference on knee focused functional scores can probably be attributed to the morbidity of hamstrings harvesting. Overall, there is not enough data to evidence superiority of one graft choice over another, and the functional results of both grafts can be considered similar.

Peroneus Longus Tendon is a Viable Graft Option for ACL Reconstruction

Donor Site Morbidity

Harvesting of peroneus longus tendon graft, when performed with appropriate technique, is safe and has a very low risk of complications. Iatrogenic injury to the branches of the peroneal nerve is rare, with few cases described in the literature[4]. Paresthesia due to lesions of the sural nerve can be avoided by respecting the safety margins for the incision, with low occurrence rates.

Foot and ankle functional scores, such as the FADI (Foot and Ankle Disability Index) and the AOFAS (American Orthopeadic Foot and Ankle Society) Ankle Hindfoot Scale, have shown minimal or no differences between preoperative and postoperative function. The meta-analysis by He et al showed no statistically significant difference for the FADI and a tiny difference of 0.31 out of 100 points on the AOFAS scale, which is clinically insignificant.

Regarding loss of strength after peroneus longus tendon harvesting, Angthong et al[5] reported substantially lower eversion and inversion peak torques when comparing involved and non-involved sides during early isokinetic testing at a mean 7-month follow-up. However, after 2 years of follow-up, Shi et al[2] reported no significant differences between the operated and non-operated ankles on isokinetic assessments.

Although we believe that larger studies evaluating long-term biomechanical changes in the foot should be carried out, the harvesting of the peroneus longus tendon for use as a graft seems to present low morbidity, without major repercussions on the donor site.

Postoperative Protocol and Rehabilitation

In our clinical practice, when ACL reconstruction is performed with peroneus longus tendon graft, we usually include exercises for ankle mobility, strengthening of ankle invertors and evertors, and proprioception training in the rehabilitation program.

Conclusion

Peroneus longus tendon graft is a viable option for ACL reconstruction, with adequate biomechanical properties, functional results comparable with those of hamstrings grafts, and low morbidity at the donor site. It is not our first option graft choice in primary ACL reconstruction as graft options around the knee are usually more convenient and practical. However, in revision procedures or multiligament injuries, the peroneus longus tendon can be an excellent option that we believe should be in the arsenal of every knee surgeon.

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Diversity in Orthopaedic and Trauma Surgery: The Italian Perspective of WOW Italia

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Orthopaedic surgery, like many other medical specialties, has historically been male-dominated. Despite women comprising nearly half of medical school graduates, their representation in orthopaedic surgery remains disproportionately low[1]. Research has shown that women are less likely to be hired for orthopaedic positions, receive lower salaries than their male counterparts, and are underrepresented in leadership roles within the field[2]. The phenomenon of underrepresentation of women at leadership levels is generalized to science, technology, engineering, and math (STEM) fields, but orthopaedic surgery has been reported to be the least-attractive specialty among other surgical specialties for female medical students. Several factors that may deter female medical students from considering a career in orthopaedic surgery have been identified, including the fear of not being accepted by senior faculty, the lack of female role models, and unconscious bias in recruitment and promotion processes[4]. Female medical students, more so than their male counterparts, prefer having same-sex mentors[3].

Previous studies have demonstrated that the lack of female representation in orthopaedics is one of the main factors that can create a vicious cycle of underrepresentation and exclusion. Without visible role models or mentors to look up to, aspiring female orthopaedic surgeons may struggle to envision themselves succeeding in the field. This lack of representation can also impact recruitment and retention efforts, as women may perceive orthopaedic surgery as an unwelcoming or hostile environment.

The percentage of females in the Italian National Society of Orthopaedic and Traumatology (SIOT) was reported to be 11% in 2019[5]. To address this gap, in 2020, SIOT established the Diversity and Inclusion Committee. This was the first diversity-related committee of any surgical society in Italy. In the same year, a group of 13 female orthopaedic surgeons founded the Women in Orthopaedics Worldwide Italia (WOW Italia) in response to an international call to action.

WOW Italia, a non-profit association, was founded with the goals of (1) promoting diversity, equity, and inclusion in orthopaedics, (2) empowering women orthopaedic surgeons, and (3) closing the gender gap in this specialized surgical area. The group is committed to providing women orthopaedic surgeons with the support, resources, and opportunities that they need in order to thrive in their careers. The strategy to reach these goals includes networking events, mentorship programs, and advocacy initiatives. WOW Italia takes networking seriously, understanding that connections in the field of orthopaedic surgery are critical for career advancement. The organization hosts a variety of events throughout the year, ranging from small gatherings to large conferences. These events provide women orthopaedic surgeons with the opportunity to meet colleagues, exchange ideas, and forge meaningful connections. Networking isn't just about exchanging business cards; it's about building relationships that can lead to collaborations, mentorship opportunities, and career growth. By fostering a supportive and inclusive networking environment, WOW Italia helps women in orthopaedics expand their professional circles and take advantage of valuable resources.

Moreover, WOW Italia leverages technology to facilitate networking beyond physical events. The organization maintains an active online community where members can connect virtually, share insights, and seek advice. Whether through social media platforms, discussion forums, or virtual meet-ups, WOW Italia ensures that women orthopaedic surgeons have access to a vibrant and supportive network, regardless of their location or schedule constraints.

So, what exactly does WOW Italia offer its members? Let's take a closer look.

Mentorship Programs

Mentorship lies at the heart of WOW Italia's mission to support women in orthopaedics. The organization recognizes the importance of having guidance and support, particularly for early-career professionals navigating the complexities of the field. Through its mentorship programs, WOW Italia pairs experienced orthopaedic surgeons with mentees, providing them with valuable insight, advice, and encouragement.

Mentorship relationships within WOW Italia extend beyond traditional one-on-one interactions. The organization fosters a culture of mentorship in which members are encouraged to seek guidance from peers and senior colleagues alike. Whether through formal mentorship programs or informal mentorship connections forged at networking events, WOW Italia ensures that women orthopaedic surgeons have access to the support that they need in order to succeed.

WOW Italia emphasizes the importance of mentoring for young surgeons, and the benefit for the mentor by the mentee, that is called "reverse mentoring". Experienced surgeons benefit from the fresh perspectives and innovative ideas of their mentees, whereas mentees gain valuable insight and wisdom from their mentors. By fostering a culture of mutual learning and growth, WOW Italia creates a dynamic mentorship ecosystem that benefits all members of the orthopaedic community.

Educational Resources

In a rapidly evolving field such as orthopaedic surgery, staying up to date with the latest advancements is essential. WOW Italia understands the importance of continuous learning and professional development, which is why the organization offers a wide range of educational resources to its members.

WOW Italia provides access to high-quality educational content. These resources cover a variety of topics, including surgical techniques, clinical research, practice management, and career development. By investing in educational initiatives, WOW Italia equips its members with the knowledge and skills they need to excel in their careers.

Moreover, WOW Italia leverages its network of experts to curate educational content that is relevant, practical, and engaging. Whether through guest lectures, panel discussions, or hands-on workshops, WOW Italia ensures that its educational programs address the diverse needs and interests of its members. By fostering a culture of lifelong learning, WOW Italia empowers orthopaedic surgeons to stay at the forefront of their field and deliver the highest quality care to their patients.

Advocacy and Outreach

Advocacy lies at the core of WOW Italia's mission to promote gender equality in orthopaedics. The organization advocates for policy changes and institutional reforms that address the systemic barriers faced by women in the field. This policy includes increased representation of women in leadership positions, equitable recruitment and promotion practices, and supportive work environments that are free from discrimination and bias.

WOW Italia works to engage with policy makers, professional organizations, and health care institutions to raise awareness about the challenges faced by women in orthopaedics and to advocate for meaningful change, by participating in advocacy campaigns, drafting position statements, and collaborating with other stakeholders to advance gender-equity initiatives. By amplifying the voices of women orthopaedic surgeons and advocating for their rights and interests, WOW Italia aspires toward a more inclusive and diverse orthopaedic community.

Diversity in Orthopaedic and Trauma Surgery: The Italian Perspective of WOW Italia

Community Support

Perhaps the most valuable aspect of WOW Italia is the sense of community that it provides to its members. Orthopaedic surgery can be a demanding and challenging field, and having a supportive community can make all the difference. WOW Italia fosters a sense of belonging and camaraderie among women orthopaedic surgeons, providing them with a safe space to share experiences, seek advice, and find solidarity.

It is in fact a great honor to invite you all as our guests at our 3rd National WOW Congress, taking place in Rome on October 19, 2024, under the theme "Innovation, Inclusion, and Economic Impact in Orthopaedics and Traumatology." During this session, we will discuss how artificial intelligence can help to reduce the gender gap and how inclusivity also has a positive economic impact within health care settings in that it not only promotes social equity but also drives innovation and economic growth. Studies have consistently shown that diverse teams and inclusive workplaces are more innovative, productive, and financially successful.

Finally, one of the flagship initiatives of WOW Italia is #SpeakUpOrtho, an essential initiative aimed at shedding light on the pervasive biases, inequalities, and instances of harassment that are prevalent within the field of orthopaedics. This initiative reflects an acknowledgment that without recognition of these issues, the potential for meaningful cultural change remains elusive.

However, it's crucial to note that #SpeakUpOrtho is not about fostering a culture of negativity or casting aspersions. Rather, it seeks to carve out a safe, supportive, and confidential space where individuals can share their experiences openly, knowing that their voices will be heard and respected. It's about amplifying the voices of those who may feel marginalized or silenced within the orthopaedic community, providing them with a platform to speak their truth. In doing so, #SpeakUpOrtho aims to foster empathy, understanding, and solidarity among orthopaedic professionals. By sharing both the challenges and triumphs encountered along the way, we can collectively learn and grow, striving toward a more inclusive and equitable future for all.

Everyone's experiences matter. Whether we've faced discrimination, harassment, or bias within the field or have witnessed acts of kindness and inclusivity, our story has the power to spark conversations, inspire change, and empower others.

Since its foundation, WOW Italia has granted more than 50 places for training course, master and congresses, has organized three national and four regional meetings, and was present in more than 30 orthopaedic meetings; but there is still a lot to do.

Closing the gap and building a supportive and safe working environment requires a collective effort and should be a priority for all orthopaedic surgeons.

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