

# European Federation of National Associations of Orthopaedic Sports Traumatology

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From the President of the EFOST Congress 2008,

Dear Friends,

We are a month away from the congress now.

It would delight us greatly to see all the speakers and participants in the congress. I would like to thank you all in advance for your interest in our scientificaly and socially rich congress and also for your interest and support in EFOST.

**EFOST President Dr. J. Huylebroek** and I are waiting for you in Antalya.

**PS: The new Israeli works and the EFOST scientific program are also shared in this e-letter.**

Let's meet in Antalya in November 26-29, 2008.

**M. N. DORAL,**  
Congress President

The last version of the EFOST 2008 scientific program is listed below.

## 26 November

### HALL 1

09:00	Registration opens
14.00-15.00	Symposium 1:  <b>CURRENT TRENDS IN CARTILAGE REPAIR</b> Moderators: F. Almqvist - I. Akgün  Mosaicplasty - G. Versier First generation ACL - F. Almqvist Second generation ACL - J. V. Lauwe Scaffolds and growth factors - E. Basad
15.15-	Lecture 1 :

15.30-15.45	<b>Lecture 5 :</b> <b>The evolution and principles of anatomic double bundle ACL reconstruction</b> - <b>P. Christel</b>
15.45-16.15	<b>Coffee Break - Exhibits</b>
16.15-17.15	<b>Symposium 5:</b>  <b>FUTURE OF SPORTS TRAUMA</b> <b>Moderators: G. Cerulli - J. Bergfeld</b>  <b>Current position and the future of sports traumatology - J. C. Imbert</b> <b>History of arthroscopy and ACL surgery - H. Paessler</b> <b>Treatment of athletic injuries: What we have learned in 50 years - G. Cerulli</b> <b>The role of ISAKOS in the future of sports trauma - J. Bergfeld</b>
17.15-17.30	<b>Lecture 9 :</b> <b>How to manage anteromedial knee instabilities - G. Canata</b>
17.30-17.45	<b>Lecture 13 :</b> <b>Knee extensor mechanism injuries in sports - P. Dijan</b>
17.45-18.00	<b>Lecture 15 :</b> <b>Arthroscopic management of tibial plateau fractures - K. Benedetto</b>
20.00	<b>Welcome Cocktail</b>

## HALL 2

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09:00	Registration opens
14.00-15.00	<p>Symposium 2:</p> <p><b>REVISION SURGERY FOR SHOULDER INSTABILITY</b></p> <p>Moderators: R. Hackney - M. Demirhan</p> <p>Introduction</p> <p>Multi-directional instability - R. Hackney</p> <p>Bony defects - F. Kelberine / P. Hardy</p> <p>Posterior instability - O. Courage</p> <p>Pain and stiffness after stability surgery - M. Demirhan</p>
15.15-15.30	<p>Lecture 2 :</p> <p>All inside technique of ACL reconstruction - G. Cerulli, F. Vercillio, G. Zamarra</p>
15.30-15.45	<p>Lecture 6 :</p> <p>Definition and measurement of knee instabilities - P. Landreau</p>
15.45-16.15	Coffee Break-Exhibits
16.15-17.15	Symposium 6:

## **MENISCAL REPAIR AND REPLACEMENT**

**Moderators: R. Verdonk - İ. Özkan**

**Current techniques for meniscal repair - F. Almqvist**

**Results of meniscal allografts and scaffolds - R. Verdonk**

**New techniques of repair in radial tears - K. Nakata**

**CMI meniscal implant - K. Lagae**

**Discussion**

**17.15-  
17.30**

**Lecture 10 :**

**Shock wave therapy in sports medicine - M. Rozenblat**

**17.30-  
17.45**

**Lecture 14 :**

**PRGF in the cartilage defects in the knee joint - M. Mosconi**

**17.45-  
18.00**

**Lecture 16 :**

**Acute tendinous injuries of the elbow - M. Ceruso**

**20.00**

**Welcome Cocktail**

## **HALL 3**

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09:00	Registration opens
14.00-15.00	<p>Symposium 3:</p> <p><b>SETRADE SESSION</b></p> <p>Moderators: C. Esteve de Miguel - O. Güven</p> <p>Wireless arthroscopy - P. Guillén - T Fernández</p> <p>New treatments in musculotendinous lesions - T. Fernández, P. Guillén</p> <p>Arthroscopic treatment of knee osteoarthritis - C. E. de Miguel</p> <p>Sporting activities after prosthetic implantation - C. S. Marchori, A. Barra</p> <p>Compartment syndrome in athletes - F. Avila</p>
15.15-15.30	<p>Lecture 3 :</p> <p>Allograft ACL reconstruction - M. Özenci</p>
15.30-15.45	<p>Lecture 7 :</p> <p>Variations of tennis leg - K. Sas</p>
15.45-16.15	Coffee Break - Exhibits
16.15-	Symposium 7:

17.15	<b>OSTEOCHONDRAL LESIONS OF THE ANKLE</b>  Moderators: F. Sciarretta - S. Aydođdu  Clinical evaluation & treatment options - D. Samada & A. Bosch  Biophysical stimulation - L. Massari  Microfracture - D. G. Bernal  MACI - A. Gigante  Resorbable scaffolds - F. V. Sciarretta
17.15-17.30	Lecture 11 :  Lateral epicondylolysis of the elbow in athletes. Management with growth factors - L. Vargas
17.30-18.00	FREE PAPER 1
20.00	Welcome Cocktail

## HALL 4

09:00	Registration opens
14.00-15.00	Symposium 4:

	Lecture 4 :
15.15-15.30	Gait analysis in athletes - M. Bozkurt
	Lecture 8 :
15.30-15.45	Tendon problems around the ankle in athletes - T. Ögüt
15.45-16.15	Coffee Break - Exhibits
16.15-17.15	<p>Symposium 8:</p> <p><b>SHOULDER PROBLEMS IN ATHLETES</b></p> <p>Moderators: J. Huylebroek - S. Akpınar</p> <p>Sterno-clavicular lesions - N. Pouliart</p> <p>Clavicular fractures in sportsmen - B. Berghs</p> <p>Acromio-clavicular problems - P. Rotsaert</p> <p>Diagnosis of SLAP-lesions - P. Rotsaert</p> <p>Treatment of SLAP- lesions - F. Handelberg</p>
	Lecture 12 :
17.15-17.30	Fatigue and overtraining - H. Chalabi
17.30-18.00	FREE PAPER 2
20.00	Welcome Cocktail

**27 November**

# HALL 1

8.00-8.55	<b>INSTRUCTIONAL COURSE - 1</b> <b>Round Table</b> <b>When &amp; how to perform primary ACL Reconstruction</b> <b>C. Esteve de Miguel</b> <b>C. Sanchez Marchori</b> <b>A. Barra</b> <b>M. Verstickel</b>
9.00-9.15	<b>Lecture 17 :</b> <b>Biomechanics of the shoulder - M. Lamontagne</b>
9.15-9.30	<b>Lecture 21 :</b> <b>What a new research center would look like in the year 2020 - S. Woo</b>
9.30-10.30	<b>Symposium 9 :</b> <b>PRESIDENTIAL GUEST SYMPOSIUM : FUTURE TECHNOLOGIES IN JOINT SURFACE RECONSTRUCTION</b> <b>Moderators: G. Nierenberg- F. Korkusuz</b>  <b>Novel Nano-materials for bone and cartilage regeneration - E. Zussman</b> <b>The cell arm of Cell Base Therapy in Joint Surface Reconstruction - G. Maor</b> <b>Overview and state of the art with glimpse to the future Cell Based Therapy - G. Nierenberg</b>
10.30-11.00	<b>Coffee Break-Exhibits</b>
11.00-11.05	<b>Welcome Address - R. Tandogan</b>
11.10-11.20	<b>From the President of the Congress; "The History of EFOST &amp; Collaboration with the National Sports Trauma Societies" M. N. Doral</b>
11.20-11.25	<b>Past President of EFOST – F. Benazzo</b>
11.25-11.30	<b>From the President of EFOST - J. Huylebroek</b>
11.30-11.40	<b>Presentation of the 6th EFOST Congress 2010 Brussels - F. Almqvist &amp; P. Landreau</b>
11.40-11.55	<b>Presentation of the Presidents of National and International Societies</b>
11.55-12.15	<b>Presidential Guest Speaker: Tendinopathies in Sports - From basic research to the field – K. M. Chan</b>
12.15-12.30	<b>Luis Figo (to be confirmed)</b>
12.30-13.30	<b>Lunch Break-Satellite Symposium/ Industry Workshops</b>
13.30-14.00	<b>Live Surgery: Double bundle ACL - P. Christel Moderator: R. Tandogan</b>
14.00-14.30	<b>Live Surgery: Bankart Repair - F. Kelberine Moderator: M. N. Doral</b>
14.30-15.30	<b>Symposium 13 :</b>

	<p><b>PITFALLS AND NEW CONCEPTS IN THE REHABILITATION OF PATIENTS FOLLOWING ACL RECONSTRUCTION</b></p> <p>Moderators: J. Nyland - F. Can</p> <p>Considerations of ACL Reconstruction and Rehabilitation in the Younger and Older Patient – F. Can  Can we successfully return acl injured patients to sport without surgical intervention? – Y. Kaplan  Rehabilitation following acl reconstruction with hamstring tendon autograft – A. Pasierbinski  Rehabilitation and results following combined acl-unicompartmental knee reconstruction – D. Beard  Efficacy of the ground force 360 device for improving dynamic knee stability – J. Nyland</p>
15.30-16.00	Coffee Break - Exhibits
16.00-16-15	<p>Lecture 25 :</p> <p>New concepts in doping: gene doping in sport - H. Demirel</p>
16.15-16.30	<p>Lecture 29 :</p> <p>A Tissue-engineered Approach to Tendon and Ligament Reconstruction - G. Poehling</p>
16.30-16.45	<p>Lecture 33 :</p> <p>Results of healing response procedures in fresh subtotal ACL tears - E. Basad</p>
16.45-17.00	<p>Lecture 37 :</p> <p>The use of navigation systems in ligament surgery - B. Klos</p>
17.00-18.00	<p>Symposium 17 :</p> <p><b>KEY POINTS IN ACL RECONSTRUCTION</b></p> <p>Moderators: M. N. Doral - L. Pederzini</p> <p>Double tunnel ACL reconstructions - L. Pederzini  Double tunnel ACL reconstruction with aperture fixation - A. Imhoff  Technical pearls in surgery - A. Atay  Single tunnel ACL reconstruction: Have we been wrong? - G. Camillieri  Future prospects in ACL reconstructions – S. Gür / M. N. Doral  Avoiding complications in ACL reconstruction - R. Tandogan</p>
18.35-19.45	Business Meeting EFOS
20.15	Cocktail prolongé / Under the auspices of World Archery Federation & President Prof. U. Erdener

**HALL 2**

8.00-8.55	<p><b>INSTRUCTIONAL COURSE - 2</b></p> <p><b>Arthroscopic techniques in shoulder instability</b></p> <p><b>Moderators: F. Kelberine - A. Atay</b></p> <p><b>Imaging techniques in shoulder instability - M. Shahabpour</b></p> <p><b>Choice of suture and anchors - F. Kelberine</b></p> <p><b>Alternatives to suture fixation - P. Landreau</b></p> <p><b>Arthroscopic repair of Bankart lesions - Ö. A. Atay</b></p>
9.00-9.15	<p><b>Lecture 18 :</b></p> <p><b>Can functional braces be effective in ACL injured knees? - F. Kelberine</b></p>
9.15-9.30	<p><b>Lecture 22 :</b></p> <p><b>Lateral meniscal variations and treatment strategy - A. Atay</b></p>
9.30-10.30	<p><b>Symposium 10 :</b></p> <p><b>RESULTS OF ACL RECONSTRUCTIONS</b></p> <p><b>Moderators: P. Imbert- A. Atay</b></p> <p><b>Anatomical results - P. Dijan</b></p> <p><b>Results of fascia lata - B. Schlatterer</b></p> <p><b>Return to sports after ACL reconstruction - D. Dejour</b></p> <p><b>ACL injury and osteoarthritis - P. Imbert</b></p>

11.00-  
12.30

## OPENING CEREMONY - HALL 1

14.30-15.30

Symposium 14 :

### CHRONIC SPORTS TRAUMA OF THE ELBOW

Moderators: F. Kelberine - G. Leblebicioğlu

Chronic elbow instability - G. Leblebicioğlu

Tennis elbow and different treatment modalities – J. Lecocq

Arthroscopic treatment of tennis elbow - F. Kelberine

Cartilage lesions - L. Pederzini

Common fractures in sports - M. Kömürcü

15.30-16.00

Coffee Break-Exhibits

16.00-16-15

Lecture 26 :

The role of microfracture in osteoarthritic knees - D. K. Bae

16.15-16.30

Lecture 30 :

Double Bundle ACL Reconstruction - My Viewpoint 2008 - J. Bergfeld

16.30-16.45

Lecture 34 :

Long term results of proximal tibial osteotomy for varus knee - H. Sur

16.45-17.00

Lecture 38 :

Compartment syndrome treated by Botulinium toxin injection J. Lecocq

17.00-18.30

Symposium 18 :

### THE ATHLETE'S SHOULDER: GREEK EXPERIENCE

Moderators: P. Papadopoulos - M. Mahiroğulları

Biomechanics – M. Losifidis

	<p>Rotator cuff pathologies and classifications - P. Papadopoulos</p> <p>Bony Bankart - J. Christoforidis</p> <p>Acute posterior dislocations - G. Kontakis</p>
18.35-19.45	Business Meeting EFOS
20.15	Cocktail prolongé / Under the auspices of World Archery Federation & President Prof. U. Erdener

## HALL 3

	<p>INSTRUCTIONAL COURSE - 3</p> <p><b>Role of physiotherapy in orthopaedic surgery</b></p> <p>Moderators: Servet Tunay - M. Kömürcü</p> <p>8.00-8.55 Physiotherapy from the view of an orthopaedic surgeon - D. Bek</p> <p>Early rehabilitation after surgery - İ. Yüksel</p> <p>Late rehabilitation after surgery - F. Can</p> <p>Return to sport activities - V. B. Tunay</p>
	Lecture 19 :
9.00-9.15	Chronic muscle injuries of the lower extremities in sports - M. Rozenblat
	Lecture 23 :
9.15-9.30	Low back pain in young athletes - J. Lecocq
	Symposium 11 :
9.30-10.30	<p><b>PEDIATRIC SPORTS INJURIES</b></p> <p>Moderators: R. Smigielski - E. Acaroğlu</p> <p>Epidemiology of pediatric sports injuries - R. Smigielski</p> <p>Management of patello-femoral problems in adolescents - S. Aydoğdu</p>

	<p>Spinal injuries in pediatric athletes - E. Acaroğlu</p> <p>Physeal fractures - C. Aksoy</p>
10.30-11.00	Coffee Break - Exhibits
11.00-12.30	<b>OPENING CEREMONY - HALL 1</b>
14.30-15.30	<p>Symposium 15 :</p> <p><b>INJURY PREVENTION &amp; MEDICAL ORGANIZATION IN FORMULA 1</b></p> <p>Moderators: Fatih Küçükdurmaz</p> <p>Driver as a high level athlete - F. Küçükdurmaz</p> <p>Acute injuries and initial evaluation - L. Gorove</p> <p>Stress induced injuries in open wheel cars - A. Hintsä</p> <p>Safety regulations and equipments in car races - A. Mellor</p>
15.30-16.00	Coffee Break-Exhibits
16.00-16-15	<p>Lecture 27 :</p> <p>Acute elbow sport related injuries - L. Pederzini</p>
16.15-16.30	<p>Lecture 31 :</p> <p>Clinical biomechanics research to better understand musculo-skeletal function and injury prevention - M. Lamontagne</p>
16.30-16.45	<p>Lecture 35 :</p> <p>The phenomena of bone bruises - M. Shahabpour</p>
16.45-17.00	<p>Lecture 39 :</p> <p>Arthroscopic ACL repair in acute lesions - G. L. Canata</p>
17.00-18.30	<p>Symposium 19 :</p> <p><b>PREVENTION OF SPORTS INJURIES (EASTERN EUROPE)</b></p>

	<p><b>Moderators: F. Benazzo - P. Biosca</b></p> <p><b>Introduction</b> - A. Gluschenko</p> <p><b>General prevention</b> - E. Dorofeeva</p> <p><b>Muscle injury prevention</b> - Z. Bahtijarevic</p> <p><b>Ligament injury prevention</b> - G. Makarov</p> <p><b>Prevention program of FC Shakhtar-Donetsk</b> - A. Gluschenko</p> <p><b>Conclusion</b> - F. Benazzo</p>
<b>18.35-19.45</b>	<b>Business Meeting EFOS</b>
<b>20.15</b>	<b>Cocktail prolongé / Under the auspices of World Archery Federation &amp; President Prof. U. Erdener</b>

## **HALL 4**

<b>8.00-8.55</b>	<p><b>INSTRUCTIONAL COURSE - 4</b></p> <p><b>Update on synovial pathologies of the knee joint</b></p> <p><b>Moderators: F. Çilli - Ö. Pehlivan</b></p> <p><b>Current concepts in the knee synovial tissue Ö. Pehlivan</b></p> <p><b>Synovial pathologies of the knee joint - S. Çakmak</b></p> <p><b>Treatment options M. İnan Synovial pathologies and exercise - F. Çilli</b></p>
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9.00-9.15	<p>Lecture 20 :</p> <p>Injuries in taekwon do - M. L. Baydar</p>
9.15-9.30	<p>Lecture 24 :</p> <p>Arthroscopy in children: Indications and technical pearls - Y. Sarpel</p>
9.30-10.30	<p>Symposium 12 :</p> <p><b>SPORTS INJURIES OF THE UPPER EXTREMITY</b></p> <p>Moderators: D. A. Jontschew- M. Demirtaş</p> <p>Rotator cuff injury in javelin athletes: Diagnosis methods, rehabilitation, pitfalls – I. Vassilev</p> <p>Common injures of upper the extremity in professional athletes diagnosis and treatment - V. Matev</p> <p>Sports Injures of the Finger Ligaments-Diagnosis and indications for surgery - E. Mateva</p> <p>Rehabilitation and return to sports after conservative and surgical treatment of upper extremity injuries - K. Dussa</p> <p>Conservative versus surgical treatment of elbow injuries in sports - Y. Berkovic</p>
10.30-11.00	Coffee Break-Exhibits
11.00-12.30	<b>OPENING CEREMONY - HALL 1</b>
14.30-15.30	<p>Symposium 16 :</p> <p><b>GROIN INJURIES IN SPORTS (POLISH SPORTS TRAUMA SOCIETY)</b></p> <p>Moderators: R. Smigielski - H. H. Öztekin</p>

	<p>Adamczyk</p> <p>General surgery – hernias and related problems - P. Szopiński</p> <p>Neuropathies and compression syndromes - U. Zdanowicz</p> <p>Bone and joints problems related to groin pain - M. Drwięga</p> <p>Tendon pathologies - R. Śmigielski</p> <p>Role of rehabilitation in groin problems - A. Pasierbiński</p>
15.30-16.00	Coffee Break - Exhibits
16.00-16-15	<p>Lecture 28 :</p> <p>Symptomatic bi-partite patella - K. Ateşok</p>
16.15-16.30	<p>Lecture 32 :</p> <p>Prevention of soccer injuries - H. H. Öztekin</p>
16.30-16.45	<p>Lecture 36 :</p> <p>Stretching : Revisiting adductor injuries and their prevention - E. Ergen</p>
16.45-17.00	<p>Lecture 40 :</p> <p>Rotator cuff tears in athletes - M. Karahan</p>
17.00-18.30	Free Paper 3
18.45-19.45	Business Meeting EFOS
20.15	Cocktail prolongé / Under the auspices of World Archery Federation & President Prof. U. Erdener

## 28 November

### HALL 1

8.00-8.55	<p>INSTRUCTIONAL COURSE - 5</p> <p><b>Stress fractures Part I: Epidemiology, anatomy and diagnosis</b></p> <p>Moderators: A. Finestone – D. Bek</p>
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	<p>Epidemiology and anatomy of SF - A. Finestone  External and Internal risk factors for SF - I. Ekenman  Diagnosis and treatment - A. Finestone  Discussion</p>
9.00-9.15	<p><b>Lecture 41 :</b>  PCL reconstruction using posterior trans-septal portal - J. H. Ahn</p>
9.15-9.30	<p><b>Lecture 45 :</b>  PCL reconstruction: How to improve the results – P. P Mariani</p>
9.30-10.30	<p><b>Symposium 21 :</b>  <b>MULTI-LIGAMENT INJURIES OF THE KNEE</b>  Moderators: R. Tandogan- J. Bergfeld</p> <p>PCL injury in the athlete:Evaluation and management - J Bergfeld  Posterolateral reconstruction - R. Tandogan  Combined ACL-PCL Reconstruction - A. Kayaalp  Complex medial side injuries – G. L. Canata</p>
10.30-11.00	<p>Coffee Break - Exhibits</p>
11.00-11.15	<p><b>Lecture 49 :</b>  The future of cartilage repair - F. Almqvist</p>
11.15-11.30	<p><b>Lecture 53 :</b>  Achilles tendon, insertional tendinopathy and treatment - N. Mafulli</p>
11.30-11.45	<p><b>Lecture 57 :</b>  New on the Horizon: Meniscus replacement using a novel collagen meniscus implant; 5 to 6 year follow-up results - B. Rodkey</p>
11.45-12.30	<p>Free Paper 4</p>
12.00-13.30	<p>Lunch Break-Satellite Symposium / Industry Workshops</p>
13.30-14.30	<p>General Assembly EFOS</p>
14.30-15.30	<p><b>Symposium 25 :</b>  <b>BIOMECHANICS</b>  Moderators: S. L. Woo - K. Atesok</p> <p>Biomechanical Variation of Double Bundle ACL Reconstruction – S. L. Woo  Gender Differences in Neuromuscular Strategy in ACL Injury Prevention - M. Lamontagne  Biomechanical Measurement Methods to Analyze the Mechanisms of Sport Injuries - S. Arıtan</p>
15.30-16.00	<p>Coffee Break-Exhibits</p>

	<p><b>ACL SURGERY UPDATE: WHAT IS NEW ?</b>  Moderators: E. Mendes - R. Tandogan</p> <p>Prevention of acl injuries - H. Jones  Role of allografts in knee ligament surgery - M. N. Doral  Double bundle ACL reconstruction - P. Christel  ACL surgery combined with PRGF in elite soccer players - J. E. Mendes</p>
17.00-17.15	<p><b>Lecture 67 :</b>  ACL reconstruction in adolescent soccer players - J. Huylebroek</p>
17.15-17.30	<p><b>Lecture 71 :</b>  Arthroscopy assisted cartilage transplantation - F. Almqvist</p>
20.00	<p>Announcement of the winners of the best paper and poster awards</p>
20.30	<p><b>GALA DINNER: Featuring Group Waltz &amp; Hacettepe University Dance Sestet</b></p>

## HALL 2

	<p><b>INSTRUCTIONAL COURSE - 6</b></p>
8.00-8.55	<p><b>Arthroscopic techniques in rotator cuff surgery</b></p> <p>Moderator: O. Courage</p> <p>-O. Courage  -P. Landreau  -F. Kelberine</p>
9.00-9.15	<p><b>Lecture 42 :</b>  Combined knee trauma - D. Fritschy</p>
9.15-9.30	<p><b>Lecture 46 :</b>  TKA in patients with extra-articular deformity - D. K. Bae</p>
9.30-10.30	<p><b>Symposium 22 :</b></p> <p><b>SHOULDER PROBLEMS IN ATHLETES</b></p> <p>Moderators: M. Demirhan - A. Imhoff</p>

	<p><b>Impingement syndromes - D. Daubresse</b></p> <p><b>Treatment options in the first time dislocator - O. Courage</b></p> <p><b>Acromio-clavicular joint problems - M. Demirhan</b></p> <p><b>Posterosuperior impingement and anterosuperior impingement in overhead athletes - A. Imhoff</b></p>
10.30-11.00	<b>Coffee Break - Exhibits</b>
11.00-11.15	<p><b>Lecture 50 :</b></p> <p><b>Arthroscopic AC joint reconstruction with 2 TightRope, anatomical and biomechanical background and 3 years results - A. Imhoff</b></p>
11.15-11.30	<p><b>Lecture 54 :</b></p> <p><b>Shoulder arthroplasty and sports - J. Huylebroek</b></p>
11.30-11.45	<p><b>Lecture 58 :</b></p> <p><b>Preparing A Manuscript for Publication - G. Poehling</b></p>
11.45-12.30	<b>Free Paper 5</b>
12.30-13.30	<b>Lunch Break-Satellite Symposium/ Industry Workshops</b>
13.30-14.30	<b>General Assembly EFOS</b>
14.30-15.30	<p><b>Symposium 26 :</b></p> <p><b>EXTREME SPORTS</b></p> <p><b>Moderators: F. Kelberine - G. Mann</b></p> <p><b>Introduction - O. Mei-Dan</b></p> <p><b>Sailing - F. Kelberine</b></p> <p><b>Down Hill Ski - F. Benazzo</b></p> <p><b>Down Hill Bicycling - D. Lindner</b></p> <p><b>Alpine Rescue - M. Vogrin</b></p>

15.30-16.00	<b>Coffee Break - Exhibits</b>
	<b>Symposium 30 :</b>
	<b>ITALIAN CONSENSUS CONFERENCE ON THE TREATMENT OF PAIN IN TKA: FAVORING POST-OP PHYSICAL ACTIVITY</b>
	<b>Moderators: M. Marcacci - M. Tokgözoğlu</b>
16.00-17.00	<b>Round table</b>
	<b>M. Marcacci, F. Benazzo, P. Adravanti, G. Cerulli</b>
17.00-17.15	<b>Lecture 68 :</b>
	<b>Gait analysis in sports traumatology - M. Maestro</b>
17.15-17.30	<b>Lecture 72 :</b>
	<b>Sports after TKA - M. Tokgözoğlu</b>
	<b>Announcement of the winners of the best paper and poster awards</b>
20.00	
20.30	<b>GALA DINNER: Featuring Group Waltz &amp; Hacettepe University Dance Sestet</b>

## HALL 3

	<b>INSTRUCTIONAL COURSES – 7</b>
8.00-8.55	<b>Wrist injuries in sports</b>
	<b>Moderators: M. Ceruso - G. Leblebicioğlu</b>
	<b>Overview of sports injuries - M. Ceruso</b>
	<b>TFCC lesions - A. Üzümcügil</b>
	<b>Wrist instabilities in athletes- S. Ada</b>
	<b>Fractures - G. Leblebicioğlu</b>
	<b>Lecture 43 :</b>
9.00-9.15	<b>Arthroscopic and open techniques in the stiff knee - P. Dijan</b>
	<b>Lecture 47 :</b>
9.15-9.30	<b>Sports injuries in the adolescent - M. Mosconi</b>
	<b>Symposium 23 :</b>

9.30-10.30	<p><b>STRESS FRACTURES PART 2 : PREVENTION AND TREATMENT</b></p> <p>Moderators: G. Mann - T. Ögüt</p> <p>Prevention of SF in the military set up - G. Mann</p> <p>The more problematic stress fractures and surgical intervention - S. Orava</p> <p>Various modalities to hasten SF healing - I. Hetsroni</p> <p>Discussion</p>
10.30-11.00	<b>Coffee Break-Exhibits</b>
11.00-11.15	<p><b>Lecture 51 :</b></p> <p>Treatment of symptomatic discoid lateral meniscus in children - J. H. Ahn</p>
11.15-11.30	<p><b>Lecture 55 :</b></p> <p>Revision Anterior Cruciate Ligament Reconstruction: treatment options - P. Colombet</p>
11.30-11.45	<p><b>Lecture 59 :</b></p> <p>Thoraco-lumbar injuries in athletes - E. Acaroğlu</p>
11.45-12.00	<p><b>Lecture 61 :</b></p> <p>Head and neck injuries in sports - M. Zabek</p>
12.00-12.15	<p><b>Lecture 63 :</b></p> <p>Achilles tendinopathy - R. Smigielski</p>
12.15-12.30	<p><b>Lecture 65 :</b></p> <p>Mechanism of football injuries in Euro 2008 - M. Binnet</p>
12.30-13.30	<b>Lunch Break-Satellite Symposium/ Industry Workshops</b>
13.30-14.30	<b>General Assembly EFOST</b>
14.30-15.30	<b>Symposium 27 :</b>

	<p><b>CURRENT PERSPECTIVES ON ACL SURGERY</b></p> <p>Moderators: I. Akgün-J. Huylebroek</p> <p>Single bundle reconstruction - B. Altinel</p> <p>Double bundle reconstruction - M. Karahan</p> <p>ACL injury and osteoarthritis - Ö. Taşer</p> <p>Do we need fixation for the ACL graft - J. Huylebroek</p>
15.30-16.00	Coffee Break-Exhibits
16.00-17.00	<p>Symposium 31 :</p> <p><b>BICEPS ANCHOR AND THE A-C JOINT IN SPORTS</b></p> <p>Moderators: S. Akpınar - S. Bölükbaşı</p> <p>SLAP lesions and biceps injuries: Clinical evaluation and arthroscopic classification - M. Mahiroğulları</p> <p>Treatment of SLAP lesions and internal impingement - İ. Yanmış</p> <p>Biceps tendon: Tenotomy or tenodesis - S. Akpınar</p> <p>Acromio-clavicular joint injuries in athletes - H. Kesmezacar</p>
17.00-17.15	<p>Lecture 69 :</p> <p>Proprioception in the knee joint - J. M. Pariseaux</p>
17.15-17.30	<p>Lecture 73 :</p> <p>The biomechanical principles of ACL rehabilitation - J. M. Pariseaux</p>
20.00	Announcement of the winners of the best paper and poster awards
20.30	GALA DINNER: Featuring Group Waltz & Hacettepe University Dance Sestet

**HALL 4**

8.00-8.55	<p><b>ICL 7</b></p> <p><b>Moderator; U.Haklar-İ.Esenkaya</b></p> <p><b>Arthroscopic assisted methods in Upper Extremity Trauma</b>      <b>İbrahim Yanmış</b></p> <p><b>Arthroscopy in Knee Fractures, Tibia Plateau and Patella</b>      <b>İrfan Esenkaya</b></p> <p><b>Arthroscopy in Ankle Trauma</b>      <b>Devrim Akseki</b></p> <p><b>Arthroscopy in Traumatic Hip</b>      <b>Mehmet Aşık</b></p>
9.00-9.15	<p><b>Lecture 44 :</b></p> <p><b>Abdominal and thoracic injuries on the field. Decision making and intervention - H. Chalabi</b></p>
9.15-9.30	<p><b>Lecture 48 :</b></p> <p><b>Ankle fractures in athletes - E. S. Pemovska</b></p>
9.30-10.30	<p><b>Symposium 24 :</b></p> <p><b>WRIST INJURIES</b></p> <p><b>Moderators: L. Kinnen - G. Leblebicioğlu</b></p> <p><b>Pathology of extensor carpi ulnaris in athletes - L. Kinnen</b></p> <p><b>Current treatment of scaphoid fractures - S. Van Den Dungen</b></p> <p><b>New techniques in the treatment of distal radius fractures in athletes - P. Brounsen</b></p>
10.30-11.00	<p><b>Coffee Break - Exhibits</b></p>
11.00-11.15	<p><b>Lecture 52 :</b></p> <p><b>Thigh muscle injuries in professional football players: The UEFA Champions League injury study - J. Ekstrand</b></p>
	<p><b>Lecture 56 :</b></p>

11.15- 11.30	<b>Tendinopathies around the foot and ankle - M. Maestro</b>
11.30- 11.45	<b>Lecture 60 :</b>  <b>Arthroscopic rotator cuff repair - decision making - M. Demirtaş</b>
11.45- 12.00	<b>Lecture 62 :</b>  <b>Biomechanical analysis of lower extremity joints during takeoff in long jump: 3D study - S. Arıtan</b>
12.00- 12.15	<b>Lecture 64 :</b>  <b>How to improve proprioception in athletes - O. Tetik</b>
12.15- 12.30	<b>Lecture 66 :</b>  <b>Patello - femoral pain syndrome - S. Karaoğlu</b>
12.30- 13.30	<b>Lunch Break - Satellite Symposium/ Industry Workshops</b>
13.30- 14.30	<b>General Assembly EFOT</b>
14.30- 15.30	<b>Symposium 28 :</b>  <b>MENISCUS: A NEW PERSPECTIVE</b>  <b>Moderators: Y. Kocabey - M. Shahabpour</b>  <b>MRI evaluation of menisci - M.Shahabpour</b>  <b>Discoid meniscus:Ultrastructural and clinical features - A.Atay</b>  <b>Mucoid degeneration and cysts - H.Pınar</b>  <b>Degeneration of the meniscus - E.Taşkıran</b>
15.30- 16.00	<b>Coffee Break-Exhibits</b>
	<b>Symposium 32 :</b>

16.00-17.00	<b>WINTER SPORTS (SLOVENIA)</b>  <b>Moderators: M. Vogrin - B. Demiraž</b>  <b>M. Vogrin</b>  <b>M. Rupnik</b>  <b>M. Veselko</b>
17.00-17.15	<b>Lecture 70 :</b>  <b>Judo after total knee and hip arthroplasty</b>  <b>N. Lefevre</b>  <b>D. Rousseau</b>
17.15-17.30	<b>Lecture 74 :</b>  <b>Syndesmotic injuries of the ankle in athletes - E. S. Pemovska</b>
20.00	<b>Announcement of the winners of the best paper and poster awards</b>
20.30	<b>GALA DINNER: Featuring Group Waltz &amp; Hacettepe University Dance Sestet</b>

## 29 November

### HALL 1

8.00-8.55	<b>INSTRUCTIONAL COURSE - 8</b> <b>Rehabilitation of Patellofemoral Pain Syndrome</b> <b>Moderators: H.Pinar - M. Callaghan</b>  <b>Subclassification of patellofemoral pain - M. Callaghan</b> <b>How can we strengthen the quadriceps in patients with PFS - D. Kaya</b> <b>Patellar taping and bracing: Is it effective? - İ. Yüksel</b> <b>Isokinetic rehabilitation - J. M. Pariseaux</b>
9.00-9.15	<b>Lecture 75 :</b> <b>Revision ACL surgery - J. E. Mendes</b>
	<b>Symposium 33 :</b>

	<p><b>Moderators: U. Haklar - D. Dejour</b></p> <p><b>Overview of patellar dislocations in athletes - U. Haklar</b>  <b>Conservative treatment - J. Nyland</b>  <b>MPFL reconstruction - M. Ochi</b>  <b>Trochleoplasty when &amp; how - D. Dejour</b></p>
10.15-10.40	<p><b>Presentation of the best paper award</b>  <b>Presentation of the Winner of the Best Poster Award</b>  <b>Presentation of the EFOSF fellows : M. A. Rauh, W. Wind</b></p>
10.40-11.00	<b>Coffee Break - Exhibits</b>
11.00-12.00	<p><b>Symposium 36 :</b>  <b>ALLOGRAFTS IN SPORTS TRAUMATOLOGY</b>  <b>Moderators: C. D. Papageorgiou - M. Özenci</b></p> <p><b>Allografts : General information and graft sources - A. Kouzelis</b>  <b>Cost and safety of allografts - A. Ververidis</b>  <b>Allografts in ACL reconstruction - M. Losifidis</b>  <b>Allografts in PCL reconstruction - D. Alaseirlis</b>  <b>Allografts and meniscus transplantation - C. D. Papagerogiou</b></p>
12.00-12.15	<p><b>Lecture 82 :</b>  <b>Total hip arthroplasty and sports - R. Binazzi</b></p>
12.15-12.30	<p><b>Lecture 85 :</b>  <b>Sports after THA - B. Atilla</b></p>
12.30-13.00	<b>Closing Ceremony</b>

## HALL 2

8.00-8.55	<p><b>INSTRUCTIONAL COURSE - 9</b></p> <p><b>New Trends in Sports Injuries in the Military</b></p> <p><b>Moderators: M. Başbozkurt - G. Poehling</b></p>
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	<p><b>Shoulder instability: What are new trends? - G. Poehling</b></p> <p><b>Shoulder injuries in the military person: Traumatic first time dislocation and unusual cases - İ. Yanmış</b></p> <p><b>Wrist injuries in military personnel - M. Kömürcü</b></p> <p><b>Knee problems in military personnel - M. Mahiroğulları</b></p> <p><b>Stress fractures in military personnel - G. Versier</b></p>
9.00-9.15	<p><b>Lecture 76 :</b></p> <p><b>Risk of ankle OA after long term sports activities in the recreational and competitive levels - N. V. Dijk</b></p>
9.15-10.15	<p><b>Symposium 34 :</b></p> <p><b>SPORTS INJURIES OF THE ANKLE</b></p> <p><b>Moderators: N. V. Dijk- H. Pınar</b></p> <p><b>Techniques and tricks for an early recovery of ankle sprains - H. Chalabi</b></p> <p><b>Surgical treatment of acute G 3 ankle sprains in athletes - B. Pijnenburg</b></p> <p><b>Osteo-chondral injuries of the talus – M. Maestro</b></p> <p><b>Hindfoot endoscopy – N. V. Dijk</b></p>
10.15-10.40	<p><b>PRESENTATION OF THE BEST PAPER AWARD – HALL 1</b></p> <p><b>Presentation of the Winner of the Best Poster Award</b></p> <p><b>Presentation of the EFOSF fellows and the lecture</b></p>
10.30-11.00	<p><b>Coffee Break - Exhibits</b></p>
11.00-12.00	<p><b>Symposium 37 :</b></p>

## **INJURIES**

**Moderators - İ. Özkan - R. Cugat**

**Intra-articular BMP and HA improves cartilage defect healing - F. Korkusuz**

**Growth factors and hyaline cartilage : Basic science - R. Cugat**

**Growth factors: Clinical applications in tendon and muscles - R. Cugat**

**Doping and growth factors - P. Biosca**

12.00-12.15	<b>Lecture 83 :</b> <b>Conservative vs. surgical treatment of osteochondral lesions of the talar dome - N. V. Dijk</b>
12.15-12.30	<b>Lecture 86 :</b> <b>Pediatric spine injuries - A. Alanay</b>
12.30-13.00	<b>Closing Ceremony</b>

## **HALL 3**

8.00-8.55	<b>INSTRUCTIONAL COURSE - 10</b> <b>Shoulder anatomy and patho-mechanics from an ortopedic surgeons' viewpoint</b> <b>Moderators: H. Özsoy - D. Daubresse</b>  <b>Arthroscopic portals and the risk of injury to the neurovascular structures - D. Daubresse</b> <b>Anatomy and biomechanics of the rotator interval - H. Özsoy</b>  <b>Functional anatomy of subscapularis and effects of open and arthroscopic techniques and subscapularis function - M. Demirtaş</b>  <b>Functional anatomy of supraspinatus and infraspinatus attachment and the</b>
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	<b>Lecture 77 :</b>
9.00-9.15	<b>Ski injuries - K. Benedetto</b>
	<b>Lecture 78 :</b>
9.15-9.30	<b>Clinical relevance of gene therapy and growth factors in sports injuries - İ. Özkan</b>
	<b>Lecture 79 :</b>
9.30-9.45	<b>Augmentaiton of ACL in partial tears - B. Demirağ</b>
	<b>Lecture 80 :</b>
9.45-10.00	<b>Major sports injuries in basketball - B. Uslu</b>
	<b>Lecture 81 :</b>
10.00-10.15	<b>Tibial plateau fractures: surgical treatment and pitfalls – R. Cugat</b>
10.15-10.30	<b>Presentation of the best paper award</b>  <b>Presentation of the Winner of the Best Poster Award</b>  <b>Presentation of the EFOSF fellows and the lecture</b>
10.30-11.00	<b>Coffee Break - Exhibits</b>
11.00-12.00	<b>Symposium 38:</b>  <b>NURSING : WHAT SURGEONS SHOULD NOT DO IN THE OPERATING ROOM (ROUND TABLE)</b>  <b>Moderator: M. Mosconi</b> <b>C. Courier : Basic Instrumentation Regarding Arthroscopic Procedures in the Shoulder Joint</b>  <b>M. Verstichel : Pitfalls in ACL repair : Traps and Tricks</b>

	<b>Lecture 84 :</b>
12.00-12.15	<b>ACL injuries in children - R. Seil</b>
12.15-12.30	<b>Lecture 87 :</b>
	<b>Return to sports criteria after ACL surgery - R. Seil</b>
12.30-13.00	<b>Closing Ceremony</b>

## HALL 4

12.30-13.00	<b>Closing Ceremony</b>
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EFOST SPECIALTY  
DAY DURING  
VIENNA 2009 EFORT  
CONGRESS

Topics: WINTER SPORTS and  
SHOULDER INJURIES.  
Chairmen will be Burt Klos and  
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EFOST CONGRESS 25-27 Nov 2010  
Brussels Program Chairmen: F.  
Almqvist-P. Landreau

Honorary President: Bill Clancy  
and René Verdonk

The Congress will include  
different sessions, such as:

- Radiologic
- Foot and ankle
- Legal medicine
- History of orthopaedics in  
Belgium
- PRP and regenerative  
medicine
- Basic research in sports  
medicine and traumatology
- Magellan society
- ESSKA symposium

### Application criteria for the 2009 DJO Team Physician Travelling Fellowship

Trip of 2 weeks in US in reference trauma centers linked with sport  
teams.

2 fellows in 4 centers (3 days / each) ending at the AOSSM specialty day  
during the AAOS.

Orthopaedic surgeons must be under 40 years, to be selected through their involvement in sport medicine field.

Selection will be based upon publications and experience as a team physician.

Report at efof meeting and in the e-newsletter



## Technical note: Elbow Arthroscopy

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**Abstract :** The technique of elbow arthroscopy has now become standardised. The patient in lateral decubitus with the arm hanging allows the widest possible access to both the anterior and posterior compartments. The joint is completely accessible through 5 portals which should be defined on individual anatomy and not according to pre-established measurements from landmarks. Neurological risks can be minimised by respecting safety precautions and a routine exploration.

**Key Words:** Arthroscopy, elbow, technique, complications.

### **Introduction**

Because the elbow is a narrowed joint surrounded by a neurovascular network. For these reasons, elbow is particularly interesting to be explored arthroscopically but the technique has been well refined. A recent multicentric study by the French Arthroscopic Society (1) pointed

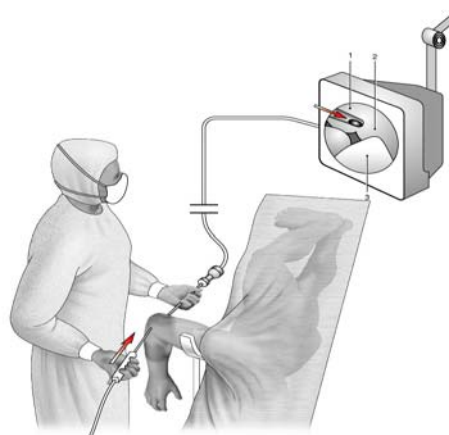
out how the surgeons performing elbow arthroscopy were experimented one. So a specific training is required to dramatically decrease the high rate of complications reported in the literature (2,3,4).

Anesthesia depends on the surgeon's experience. However we do recommend a general one which is more comfortable for both the patient and the surgeon especially in lateral decubitus position and in time consuming procedures. It allows an immediate postoperative neurological assessment conversaly to a regional block.

Three patient's settings are possible: dorsal decubitus, prone position and the most used and our preferred one, lateral decubitus (5). It has the advantages of the prone position but remains more comfortable for the anaesthesiologist. The patient is lying on the unaffected side, the arm in 90° of antepulsion maintained by a holder. With the forearm hanging free, the elbow is flexed at 90°spontaneously (figure 1). In this position the joint is stable, it can be mobilised with a good access to both anterior and posterior compartments. In case of failed arthroscopy, it allows an easy conversion to open surgery. The main disadvantage is the learning curve to explore and work in the anterior compartment : because the scope is located posteriorly, the surgeon's movements are reversed compared to what is displayed on the screen, as if the joint was being filmed from the front (figure 2) (6).



Pict. 1



Pict. 2

Figure 1 : Lateral decubitus position. The upper limb is stable with the holder. The forearm is hanging free to allow mobilisation.

Figure 2 : The surgeon faces the posterior aspect of the elbow and works in the anterior compartment. The screen displays this compartment as if it was seen from the front so the movements are inversed

A tourniquet is placed at the upper part of the limb, usually at the holder level. It will be inflated after exsanguination. Aseptic preparation should include wrist and fingers before a waterproof draping. So, the whole limb is hanging free. The elbow is superficial; the bony landmarks should be drawn (figure 3) before the fluid diffusion which might mask them later. They will guide the portals but without considering the pre-established measurements in centimeters reported in the literature as there is no comparison between the elbow of a young gymnast and the one of a heavy judo player.



Pict. 3

Figure 3: Drawing of bony landmarks and posterior portals.

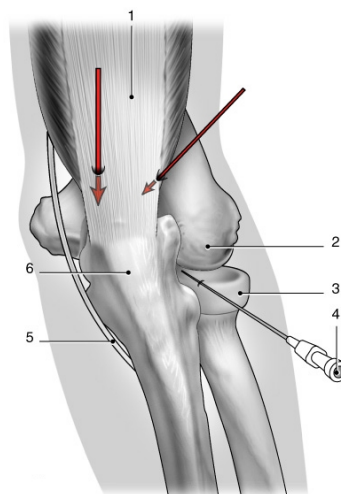
Surgical team and instrumentation. Whatever the patient's position, the

surgeon faces the elbow with his assistant by his side to mobilize the elbow. The arthroscopic column with all modules is located on the opposite side. Surgical instruments are placed just beside of operator's hand to let him have a constant control on the monitor as well as the landmarks and portals.

The standard arthroscopic equipment can be generally used with a 4 mm scope and shaver. Sometimes a 2.7 mm wide-angle scope can be preferable in tight joint. Passive irrigation with simple gravity is enough. The French Arthroscopic Society (1) does not recommend the use of a pump to avoid fluid diffusion in soft tissue. In the same aim, cannulas are usefull.

The procedure starts with a joint distension with saline to pull away the nerves. Superficial incisions are done with a blade #11 and completed with a small haemostat. In prone position, when the thorough exploration is needed, the arthroscopy begins by the posterior compartment (enlarged in elbow extension) and secondarily by the anterior one (with the elbow flexed).

Posterior approaches and exploration. (figure 4)



Pict. 4

Figure 4 : Scheme of posterior portals. The needle is inserted inthe direct posterior

portal to inflate the joint. The red arrows represent the direction of posterosuperior portals always far from the ulnar nerve (5).

The direct posterior portal is done first, located between the capitulum, the lateral edge of the olecranon and the superior aspect of the radial head. Marked with an intramuscular needle, it allows distending the joint by injecting 15 cc of saline. The inflated subtricipital recess and a free back-flow through the needle confirm the distension. The scope is introduced horizontally with a blunt trocar to reach cartilaginous surfaces. Another inserted needle allows the drainage. Through this portal you can see the radial head which rotates in pronation and supination from the radioulnar joint to its lateral edge. Sometimes masked by a synovial pad which can be easily removed with a shaver from a second posterior portal. Rotating the scope

Shows the posterior part of the capitulum. Pushing the scope upward along the lateral gutter shows the joint line between olecranon and trochlea (a slight varus is helpful) with its bare area between horizontal and vertical parts of olecranon (figure 5). So you reach the tip of the olecranon and the subtricipital pouch.



Pict. 5

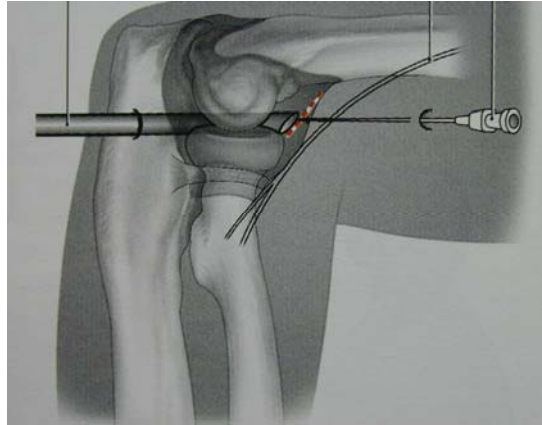
Figure 5 : Arthroscopic view of the olecranon notch with the bare area without cartilage between horizontal and vertical parts.

A second superior posterolateral portal is then done under arthroscopic control. A needle placed along the lateral margin of the triceps tendon 2 cm above the olecranon oriented towards the olecranon fossa. Switching the scope, it allows exploration of the olecranon fossa, the tip of the olecranon which slides along the trochlea in flexion extension and the medial gutter with the ulnar nerve often visible through the capsule. Moving the scope downward in the lateral gutter you reach the previous described posterolateral recess from above with the radial head, the synovial pad and the annular ligament.

A third posterosuperior portal can be made by the side of the previous one or through the triceps tendon. Marked with a needle it gives access to the medial gutter perfectly parallel to the ulnar nerve to indicate the future course of the instruments. It is prohibited to use in this area any motorised or suction devices.

Anterior approaches and exploration.

The anterolateral portal is the most commonly used. Made on a flexed elbow at 90° and with a distended joint to move the radial nerve away (7,8). It can be located at the level of the humeroradial joint or more proximally and can even pass over the lateral condyle, the choice depending on the indication. Using a needle taking in account the anteversion of the humeral lower metaphysis which pushes the needle forward. So we prefer to perform this portal under arthroscopic control with the scope pushed through the direct posterior portal in the triangle between radial head, capitulum and trochlea with a combined axial traction to avoid cartilage damage (figure 6). The blade incision is oriented 45° parallel to the radial nerve course and the trocar must be directed towards the middle part of the joint to avoid slipping on the capsule.



Pict. 6

Figure 6 : The anterolateral portal is performed under direct visual control on a line (red) parallel to the radial nerve.

Two anterolateral portals are simultaneously useful in some indications one for a retractor, one for instruments.

The anteromedial portal can be performed by transfixation through the forearm flexor pronator tendons. Damage to the basilic vein is avoided as it can be seen by transillumination.

This anteromedial portal can also be made initially following the anterior side of the intermuscular septum above the medial condyle.

Switching these two portals the whole anterior compartment is seen : the coronoid process which slides along the trochlea up to the coronoid fossa. The anterior part of the radial head, the radial notch, the anterior part of the capitulum, the anterior attachment of the capsule on the humerus by pivoting the scope and sometimes the scope can be introduced between the radial head and annular ligament down to the quadrate ligament (figure 7).



Pict. 7

Figure 7 : Arthroscopic view of the anterior aspect of the humeroradial joint with the annular ligament (arrows)

The portals must be closed to avoid synovial fistulae. The early postoperative neurological assessment is mandatory.

#### Conclusion

After a specific training, arthroscopy at the elbow is of major interest because it gives access to the entire joint which is not possible with open surgery. The low morbidity of soft tissue is interesting at the elbow where inflammation and stiffness are often a problem.

The established indications are: removal of loose bodies, osteochondritis dissecans of capitulum, synovial diseases (humeroradial folds, biopsy, tumors, synovectomy). The relative indications are arthrolysis for arthrosis or posttraumatic stiffness, posteromedial bony impingement and epicondylitis. Fixation of articular fractures is still experimental (1).

#### References

- 1) Elbow Arthroscopy. Symposium. F Kelberine, F Bonnomet et la Société Française d'Arthroscopie. Rev. Chir.Orthop. 2006, 92, supp au n° 8, 451-46
- 2) Complications in arthroscopy: the knee and other joints. Committee on complications of Arthroscopy Association of North America 1986 ; 2 : 253-258.
- 3) Locker B, Bonvarlet JP, Kelberine F. L'arthroscopie du coude in Ann Soc Fr Arthrosc. Montpellier Sauramps 1995; 4: 81-106.

- 4) Kelly EW, Morrey BF, O'Driscoll SW. Complications of elbow arthroscopy. J Bone Joint Surg (Am) 2001; 83: 25-34.
  - 5) Poehling G, Whipple T, Sisco L & Goldman B. - Elbow arthroscopy : a new technique - Arthroscopy 1989, 5, 222
  - 6) Kelberine F. Arthroscopie du coude, Enc Med Chir, techniques chirurgicales- Orthopédie traumatologie, 44-317, 2002.
  - 7) Gallay SH, Richards RR, O'Driscoll SW. Intraarticular capacity and compliance of stiff and normal elbow. Arthroscopy 1993; 9: 9-13.
  - 8) Marshall PD, Fairclough JA, Johnson SR, Evans EJ - Avoiding nerve damage during elbow arthroscopy-J Bone Joint Surg (Br) 1993 ; 75 :129-31
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## New manuscripts From "ISRAEL"

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### **Distances to the Subacromial Bursa From 3 Different Injection Sites as Measured Arthroscopically**

Sardeil M, Burks R

**Purpose:** The purpose of this study was to assess the distance for a standard needle to reach the subacromial bursa through 3 commonly used approaches.

**Methods:** Thirty patients without associated rotator cuff tears underwent arthroscopic evaluation of the shoulder. The bursa was entered without shaving or altering of the bursa. By use of standard arthroscopic portals, a spinal needle was inserted from an anterior, lateral, and posterior position and measured to define the distance to the subacromial bursa from the skin.

**Results:** The mean distance with anterior needle placement was  $2.9 \pm 0.6$  cm. The mean distance with lateral needle placement was  $2.9 \pm 0.7$  cm. The mean distance with posterior needle placement was  $5.2 \pm 1.1$  cm. The mean body mass index for the group of patients was 27.5. The minimum was 18.7, and the maximum was 42.8.

**Conclusions:** The distance to the subacromial bursa from the anterior and lateral approaches appears to be consistent and within reach of a standard 22- or 25-gauge needle. The distance to the subacromial bursa from a posterior approach appears to be almost double that of the anterior and lateral approaches and may not be reachable by standard 22- and 25-gauge needles in all patients. There appears to be no correlation between distances to the subacromial bursa from the anterior, lateral, or posterior approaches and the patient's body mass index. Given the relative

distances measured to the subacromial bursa from the anterior, lateral, and posterior positions, clinicians may choose a longer needle to improve the accuracy of placement when approaching the subacromial bursa from a posterior position. Use of a standard-length needle will provide reasonable accuracy from the anterior and lateral positions.

**Distances to the Subacromial Bursa From 3 Different Injection Sites as Measured Arthroscopically. *Arthroscopy*, September 2008; 24(9);992-6**

### **The Diagnostic Accuracy of a Clinical Examination in Determining Intra-articular Hip Pain for Potential Hip Arthroscopy Candidates**

Martin RR, Irrgang JJ, Sekiva JK

**Purpose:** One purpose of this study was to determine whether signs and symptoms could identify when a majority of the hip pain was originating from intra-articular sources in potential arthroscopic surgery candidates. The second purpose was to quantify pain reduction after an anesthetic intra-articular injection in those with potential labral pathology. **Methods:** Subjects with hip pain being evaluated by an orthopaedic surgeon specializing in hip arthroscopy were prospectively enrolled in the study. Clinical examination results were recorded. Sensitivity, specificity, and likelihood ratios were calculated to determine their accuracy in identifying those who would have greater than 50% pain relief from those with 50% pain relief or less.

**Results:** We enrolled 105 subjects in this study. An anesthetic intra-articular injection was performed in 49 potential candidates for arthroscopic surgery (47%). The mean age in these 49 subjects was 42 years (SD, 15 years; range, 18 to 68 years), with 25 men (51%) and 24 women (49%). According to magnetic resonance imaging (MRI) arthrogram, 18 individuals had a definite labral tear, 29 had a possible tear, and 2 had no labral tears. In those with definite tears or possible tears, 39% (n = 7) and 45% (n = 13), respectively, did not achieve a greater than 50% reduction of pain. Groin pain, clicking, pinching pain with sitting, lateral thigh pain, flexion abduction external rotation test, flexion–internal rotation–adduction test, and trochanteric tenderness were not useful in identifying those with greater than 50% pain relief from those with 50% relief or less.

**Conclusions:** The symptoms and signs investigated in this study did not accurately or consistently identify subjects with primary intra-articular pain sources. Furthermore, candidates for hip arthroscopy with a labral tear identified on MRI arthrogram had varied responses to anesthetic intra-articular injection. Therefore all labral tears identified on MRI arthrogram may not be a major contributor to patients' pain complaints, and medical personnel should look for other causes of pain.

**The Diagnostic Accuracy of a Clinical Examination in Determining Intra-articular Hip Pain for Potential Hip Arthroscopy Candidates. *Arthroscopy*, September 2008; 24(9);1013-8.**

**Position of Hip Resurfacing Component Affects Strain and**

## Resistance to Fracture in the Femoral Neck

Parker TV, Glisson RR, Dominguez DE, Kitaoka K, Ottaviano D

**Background:** Retrieval studies have suggested that the cause of femoral implant failure after metal-on-metal hip resurfacing is multifactorial. Both varus positioning of the femoral component and notching of the superior part of the femoral neck have been associated with femoral component failure. The hypotheses of this study were that placement of a femoral resurfacing component alters femoral neck loading and that the cortical strain pattern reflecting this loading is directly related to the spatial orientation of the resurfacing component. An additional hypothesis was that notching of the superior part of the neck during implantation results in a decreased resistance to neck fracture under axial loading.

**Methods:** Varus, anteverted, retroverted, and anatomic positions of the femoral component were tested in sixty-four cadaveric femora. Simulated stance-phase loading was applied, and the shear strain on the femoral neck cortex was quantified with use of a photoelastic method. Preimplantation and postimplantation strain levels were compared over the entire neck region with use of generalized estimating equations. The influence of anteversion and retroversion of the component and notching of the superior part of the neck on the neck strength were evaluated.

**Results:** Placement of the implant in 10° of varus alignment relative to anatomic positioning increased strain on the superior aspect of the neck by 19% to 23% compared with intact femora. Anteverted and retroverted placement of the implant produced elevated strain in the anterior-inferior and posterior-inferior aspects of the neck, respectively. Placement of the component stem in alignment with the anatomic neck axis decreased neck cortical strain 6% to 19% compared with intact femora. Notching of the superior aspect of the neck decreased neck strength by 21%.

**Conclusions:** Relatively small deviations from anatomic alignment of a resurfacing hip component result in marked localized increases in loading of the femoral neck under conditions approximating single-limb stance. Neutral positioning of the femoral component results in localized strain reduction. Notching of the superior aspect of the femoral neck significantly reduces the resistance to fracture ( $p = 0.008$ ). Clinical Relevance: The implantation-related changes observed in this analysis might be used to model the initial loading conditions in the femoral neck after resurfacing and may serve to validate finite element analysis predictions and clinical observations.

**Position of Hip Resurfacing Component Affects Strain and Resistance to Fracture in the Femoral Neck.** *The Journal of Bone and Joint Surgery (American)*. 2008;90:1951-1960.

## Adolescent Idiopathic Scoliosis and Exercising: Is There Truly a Liaison?

## Clinical Case Series

*Kenanidis E, Potoupnis M E, Papavasiliou KA, Sayegh FE, Kapetanos GA.*

**Objective:** Evaluation and comparison of the prevalence of adolescent idiopathic scoliosis (AIS) among 2 groups of patients (athletes and nonathletes) to determine whether athletic activities are related to the development of AIS.

Summary of Background Data. The potential association between AIS and exercising remains uncertain. The latter has often been considered as a therapeutic means and a causative factor of the former.

**Methods:** A group of 2387 adolescents (boys: 1177, girls: 1210, mean age: 13.4 years) was evaluated. All completed a questionnaire concerning personal, somatometric, and secondary sex characteristics, type, duration and character of daily-performed physical activities, and existing cases of AIS among relatives. Patients were classified into 2 groups according to their answers; "athletes" and "nonathletes." The groups were comparable as far as age, height, weight, onset of menstruation, family history of scoliosis, and side of handedness were concerned. Children underwent physical examination by 3 orthopedic surgeons who were unaware of their level of athletic activities. Children considered, by all, to be suspicious of suffering from scoliosis, underwent further radiographic evaluation.

**Results:** In 99 cases (athletes: 48, nonathletes: 51), AIS was radiographically confirmed (Cobb angle  $>10$ [degrees]). No statistically significant difference was found between athlete and nonathlete adolescents ( $P = 0.842$ ), athlete and nonathlete boys ( $P = 0.757$ ), and athlete and nonathlete girls ( $P = 0.705$ ), as far as the prevalence of AIS was concerned. The mean value of the Cobb angle of the main scoliotic curve was not statistically different between male athletes and nonathletes ( $P = 0.45$ ) and female athletes and nonathletes ( $P = 0.707$ ). With the Cobb threshold reset at  $20$ [degrees], no statistically significant differences were detected either.

**Conclusion:** Our results demonstrate that systematic exercising is probably not associated with the development of AIS. Actively participating in sports activities doesn't seem to affect the degree of the main scoliotic curve either.

**Adolescent Idiopathic Scoliosis and Exercising: Is There Truly a Liaison? Spine. 33(20):2160-2165, September 15, 2008.**

## Influence of Sacral Morphology in Developmental Spondylolisthesis.

*Wang Z, Parent S, Mac-Thiong J-M, Petit Y, Labelle H*

A radiographic study was conducted to investigate sacral morphology in a children and adolescent population with developmental L5-S1 spondylolisthesis.

**Objective;** To determine the relationship between sacral morphology and developmental L5-S1 spondylolisthesis.

Summary and Background Data. The morphology of the adult sacrum has been recently shown to be abnormal in low grade spondylolisthesis. However, sacral

morphology has never been evaluated in a pediatric population where remodeling and secondary changes are less pronounced. It remains unknown if these changes in sacral morphology are primary or secondary in developmental L5-S1 spondylolisthesis.

**Methods.** The lateral standing radiographs of 131 subjects, aged 6 to 20 years old with developmental L5-S1 spondylolisthesis (91 low grade and 40 high grade) were analyzed with a dedicated software allowing to measure the following parameters, which were analyzed for each subject by the same individual and compared to a cohort of 120 subjects without any spinal pathology with similar age and sex distribution: the sacral table index (STI), sacral table angle (STA), sacral kyphosis (SK), S1 superior angle, S2 inferior angle, and grade of spondylolisthesis. Student t test was used to compare the parameters between the groups.

**Results.** This study demonstrated that STA is significantly smaller ( $P < 0.01$ ) in children and adolescents with L5-S1 spondylolisthesis compared to a similar control group. Furthermore, STA is significantly smaller in high-grade spondylolisthesis when compared to subjects with low grade. There is also a significant difference in segmental sacral morphology (S1 and S2 anatomy) in the spondylolisthesis group. Increasing sacral kyphosis is also found to be significantly associated with spondylolisthesis.

**Conclusion.** The sagittal sacral morphology is a constant anatomic variable specific to each individual and unaffected by the position of the patient in space. The anatomy of the sacrum in children and adolescents with L5-S1 spondylolisthesis is particular and different from a control group. This study suggests that sacral anatomy may have a direct influence on the progression of spondylolisthesis; a lower STA and higher sacral kyphosis may be 2 factors predisposing to vertebral slip in developmental spondylolisthesis.

**Influence of Sacral Morphology in Developmental Spondylolisthesis. Spine. 33(20):2185-2191, September 15, 2008.**

### **The exercise-related rise in plasma cobalt levels after metal-on-metal hip resurfacing arthroplasty**

Khan M, Kuiper JH, Richardson JB

Wear of metal-on-metal bearings causes elevated levels of cobalt and chromium in blood and body fluids. Metal-on-metal bearings have two distinct wear phases. In the early phase, the wear rate is high. Later, it decreases and the bearing enters a steady-state phase. It is expected that as the wear rates decline, the level of cobalt detected in plasma will also decrease. We studied the baseline and exercise-related cobalt rise in 21 patients (13 men and eight women) with a mean age of 54 years (38 to 80) who had undergone successful hip resurfacing at a mean of 44 months (10 to 96) earlier. Our results showed that circulating baseline cobalt levels were not significantly correlated with the time since implantation ( $r = 0.08$ ,  $p = 0.650$ ). By contrast, the exercise-related cobalt rise was directly correlated with the inclination angle of the acetabular component ( $r = 0.47$ ,  $p = 0.032$ ) and inversely correlated with the time since implantation ( $r = -0.5$ ,  $p = 0.020$ ).

**Conclusion.** Inclination of the acetabular component should be kept less than  $40^\circ$  to

decrease the production of wear debris.

**The exercise-related rise in plasma cobalt levels after metal-on-metal hip resurfacing arthroplasty. Journal of Bone and Joint Surgery - British Volume, Vol 90-B, Issue 9, 1152-1157.**

### **Early magnetic resonance imaging compared with bone scintigraphy in suspected scaphoid fractures**

Beeres FJP, Rhemrev SJ, Hollander D, Kingma LM, Meylaerts SAG, Cessie S, Bartlema KA, Hamming JF, Hogervorst M.

The work evaluated 100 consecutive patients with a suspected scaphoid fracture but without evidence of a fracture on plain radiographs using MRI within 24 hours of injury, and bone scintigraphy three to five days after injury. The reference standard for a true radiologically-occult scaphoid fracture was either a diagnosis of fracture on both MRI and bone scintigraphy, or, in the case of discrepancy, clinical and/or radiological evidence of a fracture.

MRI revealed 16 scaphoid and 24 other fractures. Bone scintigraphy showed 28 scaphoid and 40 other fractures. According to the reference standard there were 20 scaphoid fractures. MRI was falsely negative for scaphoid fracture in four patients and bone scintigraphy falsely positive in eight. MRI had a sensitivity of 80% and a specificity of 100%. Bone scintigraphy had a sensitivity of 100% and a specificity of 90%.

**Conclusion.** This study did not confirm that early, short-sequence MRI was superior to bone scintigraphy for the diagnosis of a suspected scaphoid fracture. Bone scintigraphy remains a highly sensitive and reasonably specific investigation for the diagnosis of an occult scaphoid fracture.

**Early magnetic resonance imaging compared with bone scintigraphy in suspected scaphoid fractures. Journal of Bone and Joint Surgery - British Volume, Vol 90-B, Issue 9, 1205-1209.**

### **Delaying treatment of supracondylar fractures in children. HAS THE PENDULUM SWUNG TOO FAR?**

Ramachandran M, Skaggs DL, Crawford HA, Eastwood EM, Lalonde FD, Vitale MG, Do TT, Kay RM

The aim of this retrospective multicentre study was to report the continued occurrence of compartment syndrome secondary to paediatric supracondylar humeral fractures in the period 1995 to 2005. The inclusion criteria were children with a closed, low-energy supracondylar fracture with no associated fractures or vascular compromise, who subsequently developed compartment syndrome. There were 11 patients (seven girls and four boys) identified from eight hospitals in three countries. Ten patients with severe elbow swelling documented at presentation had a mean delay before surgery of 22 hours (6 to 64). One patient without severe swelling documented at presentation suffered arterial entrapment following reduction, with a subsequent compartment syndrome requiring fasciotomy 25 hours after the index procedure.

**Conclusion.** This series is noteworthy, as all patients had low-energy injuries and presented

with an intact radial pulse. Significant swelling at presentation and delay in fracture reduction may be important warning signs for the development of a compartment syndrome in children with supracondylar fractures of the humerus.

**Delaying treatment of supracondylar fractures in children HAS THE PENDULUM SWUNG TOO FAR?**  
*Journal of Bone and Joint Surgery - British Volume*, Vol 90-B, Issue 9, 1228-1233.

## **Antibacterial Properties of Synovial Fluid in the Knee**

Gruber BF, Miller BS, Onnen J, Welling R, Wojtys EM

This study evaluated antimicrobial properties of synovial fluid against 3 gram-positive organisms: *Staphylococcus aureus*, *Streptococcus pyogenes*, and *Staphylococcus epidermidis*. Synovial fluid was collected from the knees of 52 patients. Three gram-positive bacteria culture lines were incubated in wells containing either synovial fluid and broth, or broth alone. Fluid was plated and incubated, and colonies were counted after 1, 4, and 24 hours to determine bacterial growth. Statistically significant differences in bacterial counts were found between control and experimental groups at 0, 4, and 24 hours for all 3 bacterial species. Bacterial counts in the control specimens demonstrated exponential growth over 24 hours as would be expected in the absence of growth inhibition. In contrast, bacterial counts in all of the synovial fluid specimens decreased steadily over 24 hours. **Conclusion.** These results demonstrate synovial fluid possesses potent bactericidal activity against the most common gram-positive pathogens responsible for septic arthritis. Delineating these antimicrobial properties further may offer avenues to augment the body's protection against bacterial infections.

**Antibacterial Properties of Synovial Fluid in the Knee.** *The Journal of Knee Surgery*  
2008;21:180-185

## **The Influence of Early Weight-Bearing Compared with Non-Weight-Bearing After Surgical Repair of the Achilles Tendon**

Suchak AA, Bostick GP, Beaupré LA, Durand DAC, Jomha NM

**Background:** The optimal rehabilitation protocol after surgical repair of an Achilles tendon rupture has not been well defined. The objective of this randomized study was to compare the effect of early weight-bearing with that of non-weight-bearing on early postoperative recovery following repair of an acutely ruptured Achilles tendon.

**Methods:** Between October 2003 and May 2006, 110 patients with a surgically repaired Achilles tendon rupture were enrolled from one of two major trauma-care tertiary hospitals. All patients were non-weight-bearing for the first two weeks postoperatively. At the two-week postoperative visit, patients were randomized to either weight-bearing or non-weight-bearing for an additional four weeks. Compliance was measured with a pressure sensor in the fixed-hinge ankle-foot orthosis given to each patient. Follow-up assessments were performed at six weeks, three months, and six months postoperatively. The primary outcome was health-related quality of life assessed with use of the RAND 36-Item Health Survey (RAND-36). Secondary outcomes were activity level, calf strength, ankle range of motion, return to sports and work, and complications.

**Results:** Ninety-eight patients (89%) completed the six-month follow-up. At six weeks, the weight-bearing group had significantly better scores than the non-weight-bearing group in the RAND-36 domains of physical functioning, social functioning, role-emotional, and vitality scores ( $p < 0.05$ ). Patients in the weight-bearing group also reported fewer limitations of daily activities at six weeks postoperatively ( $p < 0.001$ ). At six months, no significant differences between the groups were seen in any outcome, although both groups had poor endurance of the calf musculature. No rerupture occurred in either group.

**Conclusions:** Early weight-bearing after surgical repair of an acute Achilles tendon rupture improves health-related quality of life in the early postoperative period and has no detrimental effect on recovery.

**The Influence of Early Weight-Bearing Compared with Non-Weight-Bearing After Surgical Repair of the Achilles Tendon.** *The Journal of Bone and Joint Surgery (American)*. 2008;90:1876-1883.