Chairs:

football: Does sexy research translate to real-world prevention?

Load management in elite

Session A • SYMPOSIUM 1

Chair: Evert VERHAGEN -

18.00-19.00

football: Difficult but not

Session A • SYMPOSIUM 12

Chair: TBA

13.30-14.30

Session B • SYMPOSIUM 2

Chair: Sanjay SHARMA -

09.00-09.30

Chair: Carolyn EMERY - Canada

14.30-15.30

Chair: Kimberly HARMON - USA

13.30-14.30

Chair: Eamonn DELAHUNT -

14.30-15.30

Chair: Sanjay SHARMA -

11.00-12.30

Chair: Margo MOUNTJOY -

11.00-12.30

Chair: Evert VERHAGEN -

10.30-11.00

Chair: Willem MEEUWISSE -

11 February

08.00 Registration

09.00-09.30 OPENING OF THE SCIENTIFIC SESSIONS Room Salle des Princes

09.30-10.30 OPENING OF THE SCIENTIFIC SESSIONS Room Salle des Princes

10.30-11.00 Coffee Break

11.00-12.30 Room Salle des Princes

10.30-11.00 Coffee Break

12.30-13.30 Lunch

12.30-13.30 Lunch

15.30-16.30 THEMATIC POSTERS SESSIONS Poster Area – Level -2 (from session 1 to session 30)

16.30-17.00 Coffee Break

16.30-17.00 Coffee Break

17.00-18.00 Room Salle des Princes

17.00-18.00 Room Salle des Princes

18.00-19.00 Room Salle des Princes

18.00-19.00 Room Salle des Princes

19.00-20.00 Room Salle des Princes

20.00-21.00 Room Salle des Princes

21.00-22.00 Room Salle des Princes

22.00-23.00 Room Salle des Princes

23.00-00.00 Room Salle des Princes

00.00-01.00 Room Salle des Princes

01.00-02.00 Room Salle des Princes

02.00-03.00 Room Salle des Princes

03.00-04.00 Room Salle des Princes

04.00-05.00 Room Salle des Princes

05.00-06.00 Room Salle des Princes

06.00-07.00 Room Salle des Princes

07.00-08.00 Room Salle des Princes

08.00-09.00 Room Salle des Princes

09.00-10.00 Room Salle des Princes

10.00-11.00 Room Salle des Princes

11.00-12.00 Room Salle des Princes
Sat 13 February

08.30-09.15 KEYNOTE 4 Room Salle des Princes
Injury prevention: when return to play is not the way
Speaker: Michael TURNER - United Kingdom

09.30-11.00 Room Salle des Princes
Tokyo 2020: Protecting the athletes from environmental and logistical challenges
Chair: Lee TAYLOR - athlete from environmental and logistical challenges

11.00-11.30 Coffee Break

11.30-13.00 Room Salle des Princes
Training load and injury prevention in youth team sports: Evidence informing best practice and policy across five high risk sports
Chair: Carlyn EMERY - Canada

13.00-14.30 Lunch

14.30-15.30 Room Salle des Princes
Heat injury and illness prevention for Tokyo 2020: What is the IOC doing?
Chair: Yannis PITSILADIS - Greece

15.30-16.30 Room Salle des Princes
Performance driven injury prevention: how to perform an effective hip screening exam to identify the ‘hip at risk’
Chair: Martin ÅKERLUND - Sweden

16.30-17.00 Coffee Break

17.00-17.45 KEYNOTE 5 Room Salle des Princes
Understanding the basis of success: How fewer injuries will help you win trophies
Speaker: Martin HÄGGLUND - Sweden

17.45-18.05 HONORARY KEYNOTE LECTURE Room Salle des Princes
Publishing in Exercise and Sport Science: 1790-2020
Speaker: Howard G. KNUTTEN - USA

18.05-18.15 CLOSING CEREMONY Room Salle des Princes

20.00 FACULTY DINNER (by invitation)
Wednesday 10 February

16.00 Registration
18.30 OPENING CEREMONY - Room Salle des Princes
19.00 Welcome Reception hosted by the Minister of State of the Principality of Monaco - Diaghilev Hall

Thursday 11 February

08.00 Registration
09.00-09.30 OPENING OF THE SCIENTIFIC SESSIONS

09.30-10.30 Room Salle des Princes

KEYNOTE 1

INJURY PREVENTION FROM A PROFESSIONAL SPORTS LEAGUE PERSPECTIVE: THE JOURNEY FROM THEORY TO IMPLEMENTATION [114]
Speaker: Willem MEEUWISSE - Canada

10.30-11.00 Coffee Break
11.00-12.30 Session A • SYMPOSIUM 1

LOAD MANAGEMENT IN ELITE FOOTBALL: DOES SEXY RESEARCH TRANSLATE TO REAL-WORLD PREVENTION? [462]
Chairs: Thor Einar ANDERSEN - Norway, Alan McCALL - United Kingdom

11.00-11.05 Load management: The hottest topic in injury prevention
Thor Einar Andersen - Norway

11.05-11.20 Load management in a professional club: Ideal conditions versus reality
Alan McCall - United Kingdom

11.20-11.35 Managing workload in a national team: Like a box of chocolates?
Grégory Dupont - United Kingdom/France

11.35-11.50 Managing load in an elite youth academy: A fine line
Michel S. Brink - The Netherlands

11.50-12.05 What’s the evidence? The first RCT of load management as prevention
Torstein Dalen-Lorentsen - Norway

12.05-12.15 The future of load management in injury prevention: Where to now?
Alan McCall - United Kingdom

12.15-12.30 Panel discussion
Andersen, McCall, Dupont, Brink, Dalen-Lorentsen

11.00-12.30 Session B • SYMPOSIUM 2

PROTECTING THE OLYMPIANS OF TOMORROW; SHOULD WE BE CARDIAC SCREENING THE ELITE PAEDIATRIC ATHLETE? [497]
Chair: Sanjay SHARMA - United Kingdom

11.00-11.15 Introduction: Sudden death in paediatric athletes; Magnitude of the problem
Demetri Constantinou - South Africa

11.15-11.30 Are we pushing kids too hard, too early? Physiological responses to training in elite paediatric athletes
Craig Williams - United Kingdom

11.30-11.45 Can we cardiologically evaluate kids using the tools made for adults?
Maria-Carmen Adamuz - Qatar

11.45-12.00 What to do with the elite paediatric athlete with suspected heart disease?
Guido Pieles - United Kingdom

12.00-12.15 Future strategies of cardiac care in elite paediatric athletes
Matthew Wilson - United Kingdom

12.15-12.30 Panel discussion: Striking a balance between child protection and developing the future Olympic superstars: Role of international sporting organisations
Sharma, Constantinou, Williams, Adamuz, Pieles, Wilson

11.00-12.30 Session C • SYMPOSIUM 3

PRIMARY, SECONDARY AND TERTIARY PREVENTION STRATEGIES FOR ANKLE SPRAINS: AN ESSENTIAL UPDATE AND GUIDE FOR CLINICIANS WORKING WITH FIELD- AND COURT-SPORT ATHLETES [292]
Chair: Eamonn DELAHUNT - Ireland

11.00-11.15 The results of epidemiological and injury mechanism research are integral to the planning of effective ankle sprain injury prevention strategies
Eamonn Delahunt - Ireland

11.15-11.30 Preventing first-time ankle sprains in field- and court-sport athletes: what works and why?
Evert Verhagen - The Netherlands

11.30-11.45 Braces and tape: Integrating clinical expertise and best evidence to make informed decisions for the primary and secondary prevention of ankle sprains in field- and court-sport athletes
Claire Hiller - Australia

11.45-12.00 A guide to implementing effective therapeutic interventions to prevent ankle sprain injury recurrence and chronic ankle instability in field- and court-sport athletes
Phillip Gribble - USA

12.00-12.15 Managing the difficult ankle: optimal surgical approaches to prevent ongoing impairments following ankle sprain injury
Gino M.M.J. Kerkhoffs - The Netherlands

12.15-12.30 Panel discussion: Future directions for ankle sprain injury prevention research in field- and court-sport athletes and its uptake in clinical practice
Delahunt, Verhagen, Hiller, Gribble, Kerkhoffs
**SCIENTIFIC PROGRAMME**

Thursday 11 February

### Session D • FREE COMMUNICATIONS

#### Room Auric

**YOUTH ATHLETES**

Chairs: Kathryn ACKERMAN - USA, Natália F. N. BITTENCOURT - Brazil

**11.00-11.10**
- Coach awareness and practice in relation to growth/maturation and training load in young competitive gymnasts: implications for injury prevention #591
  - Tejal Sarika Patel (United Kingdom), Sean Cumming (United Kingdom), Sean Williams (United Kingdom), Bekker Sheree (South Africa/United Kingdom), Alex McGregor (United Kingdom), Karen Williams (United Kingdom), Louise Fawcett (United Kingdom)

**11.10-11.20**
- Injury incidence and patterns in male youth elite level football players: a prospective study #1133
  - Nikki Rommers (Belgium), Roland Rössler (Switzerland), Matthieu Lenoir (Belgium), Erik Witvrouw (Belgium), Eva D'Hondt (Belgium)

**11.20-11.30**
- Growth plate fractures in adolescent climbers: a critical review #1046
  - Gareth Jones (United Kingdom), Volker Schöffl (United Kingdom/Germany), isabelle Schöffl (United Kingdom/Germany), Christoph Lutter (Germany), Nigel Callender (United Kingdom), Mark Johnson (United Kingdom), Tim Halsey (United Kingdom)

**11.30-11.40**
- Survival analysis of lower-limb apophyseal injuries in youth elite soccer in association with growth and skeletal maturation #1689
  - Olivier Materne (Qatar), Abdulaziz Farooq (Qatar), Karim Chamari (Qatar), Amanda Johnson (Qatar), Adam Weir (Qatar/The Netherlands), Per Hölmich (Denmark), Matt Greig (United Kingdom), Lars Mc Naughton (United Kingdom/South Africa)

**11.40-11.50**
- Increased injury risk in youth athletics when growth rates are high and skeletal maturation is low #1229
  - Eriik Halvorsen Vik (Qatar/Norway), Daniel Martinez-Silván (Qatar), Abdulaziz Farooq (Qatar), Marco Cardinale (Qatar/United Kingdom), Amanda Johnson (Qatar), Roald Bahr (Qatar/Norway)

**11.50-12.00**
- Is motor performance related to injury risk in adolescent elite-level soccer players? A causal inference approach to injury risk assessment #1472
  - Nikki Rommers (Belgium), Roland Rössler (Switzerland), Ian Shrier (Canada), Matthieu Lenoir (Belgium), Erik Witvrouw (Belgium), Eva D'Hondt (Belgium), Evert Verhagen (The Netherlands)

**12.00-12.10**
- Performance in dynamic movement tasks and occurrence of low back pain in youth floorball and basketball players #1400
  - Marileena Rosäl (Finland), Kati Pasanen (Finland/Canada), Ari Heinonen (Finland), Sami Ayramo (Finland), Anu Räsänen (Canada), Mari Leppänen (Finland), Grethe Myklebust (Norway), Tommi Vasankari (Finland), PKKa Kannus (Finland), Jari Parkkari (Finland)

**12.10-12.20**
- Is inferior dual-task performance a risk factor for injury in youth soccer? A prospective study #993
  - Evi Wezenbeek, Dries Pieters, Joke Schuermans, Tine Willems, Erik Witvrouw (Belgium)

**12.20-12.30**
- Big data in youth elite football: could machine learning help us to better understand injury risk? #1470
  - Nikki Rommers (Belgium), Roland Rössler (Switzerland), Evert Verhagen (The Netherlands), Florian Vandecasteel (Belgium), Steven Verstockt (Belgium), Matthieu Lenoir (Belgium), Eva D’Hondt (Belgium), Erik Witvrouw (Belgium)

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### Session E • FREE COMMUNICATIONS

#### Room Van Dongen

**TEAM SPORTS I**

Chairs: Hideyuki KOGA - Japan, Nicola PHILLIPS - United Kingdom

**11.00-11.10**
- Prevention of shoulder and elbow injuries in high school baseball players: a time-to-event analysis #1187
  - Hitoshi Shitara, Tsuyoshi Taka, Noritaka Hamano, Tsuyoshi Sasaki, Masataka Kamiyama, Kurumi Fukui, Hirotaka Chikuda (Japan)

**11.10-11.20**
- The relationship between tightness of the hip joint and shoulder/elbow injury in high school baseball pitchers – a prospective study #1152
  - Noritaka Hamano, Hitoshi Shitara, Tsuyoshi Ichinose, Tsuyoshi Sasaki, Kamiyama Masataka, Miyamoto Ryoosuke, Fukui Kurume, Tsuyoshi Taka, Takuro Kuboi, Fumitaka Endo, Kenji Takagishi, Hirotaka Chikuda (Japan)

**11.20-11.30**
- How do football (soccer) injuries occur? A systematic video analysis of 345 moderate and severe-match injuries #1386
  - Christian Klein, Patrick Luig, Thomas Henke, Hendrik Bloch, Petra Platen (Germany)

**11.30-11.40**
- Prevalence of hip and groin pain and changes in Hip and Groin Outcome Score over a season in elite Gaelic Athletic Association players #1315
  - Enda King (Ireland), Chris Richter (Ireland/United Kingdom), Kistian Thorborg (Denmark), Andrew Franklyn-Miller (Ireland/Australia), Eanna Falvey (Ireland), James O’Donovan (Ireland)

**11.40-11.50**
- Match injury incidence: comparisons between team and individual in Rugby Union #1478
  - Leah Bitchell, Gemma Robinson, Victoria Stiles, Prabhat Mathema, Isabel Moore (United Kingdom)

**11.50-12.00**
- Epidemiology of injury in English schoolboy Rugby Union #1440
  - Matthew Hancock, Simon Roberts, Craig Barden, Carly McKay, Simon Kemp, Keith Stokes (United Kingdom)

**12.00-12.10**
- A Comparison of Injuries between Male and Female Amateur Rugby Union Players #1519
  - Caithriona Yeomans, Thomas M. Cornys, Roisin Cahalan, Gyles D. Warrington, Andrew J. Harrison, Helen Purtil, Mark Lyons, Mark J. Campbell, Liam G. Glynn, Ian C. Kenny (Ireland)

**12.10-12.20**
- Effects of a strength and proprioceptive training programme on neck function and concussive injury risk in elite Scottish Rugby Union players #1631
  - Stuart Bailey, Russell Martindale, Jen Sweeting, Jared Deacon, Florence Laing, Chris Leck, Debbie Palmer (United Kingdom)

**12.20-12.30**
- Comparison of injuries and illnesses between regular competition and short-term match congestion during a full season in elite male professional basketball #1325
  - Steven Doeven, Michel S. Brink, Barbara Huijgen, Johan de Jong, Koen Lemmink (The Netherlands)
Functional anatomical assessment, accuracy of exercise and correct muscle activation are paramount for effective and efficient prevention of injury in the lower limb.

Future prevention strategies to reduce injuries in judo.

Warm ups and injury prevention don't have to be boring! The use of creative and inclusive “Deliberate Play” methods to influence the unique environments lifestyle sports such as canoe slalom produce.

Learn about the different ways poor and inadequate sleep can increase sports injury risk - Learn about the science of sleep and circadian rhythms - Learn about practical interventions aimed at managing poor sleep.

Poor oral health is common in athletes and affects performance. Find out why and how to implement practical solutions for prevention in elite sport.

Can you distinguish normal from abnormal ECG findings in athletes? 6-Steps to accurate ECG interpretation using the International Criteria led by Prof Drezner.

Biomechanical insight of how tackle technique alters the risk of head impacts in collision sports. If it can be coached? Injury risk management solutions are debated.
### Session B • SYMPOSIUM 4

**13.30-14.30**  
Room Prince Pierre  
**INJURY PREVENTION PROGRAMMES IN RUGBY UNION: ACROSS COUNTRIES AND INTO COMMUNITIES [238]**  
Chair: Jon PATRICIOS - South Africa

- 13.30-13.32  
**Introduction: Why rugby?**  
Jon Patricios - South Africa

- 13.32-13.44  
**RugbySmart: Positively pioneering injury prevention**  
Ken Quarrie - New Zealand

- 13.44-13.56  
**From “the pitch” to the pitch: World Rugby’s approach to implementing the Activate Injury Prevention Programme**  
Michael Hislop - Ireland

- 13.56-14.08  
**BokSmart: Using a multipronged approach to develop targeted interventions for an ever-evolving game**  
Wayne Viljoen - South Africa

- 14.08-14.20  
**Sports Concussion South Africa: Country-wide community-based concussion care**  
Jon Patricios - South Africa

- 14.20-14.30  
**Questions and panel discussion**

### Session C • SYMPOSIUM 5

**13.30-14.30**  
Room Camille Blanc  
**CONTACT SPORTS ON ARTIFICIAL GRASS PITCHES: GETTING BENEATH THE SURFACE OF INJURY RISK – HOW IMPORTANT IS THE DIVOT? [232]**  
Chair: Keith STOKES - United Kingdom

- 13.30-13.42  
**It's not just how common, but how severe: The burden of injuries on grass and artificial pitches in Rugby Union**  
Keith Stokes - United Kingdom

- 13.42-13.54  
**Differential injury rates on natural vs. artificial surfaces in the NFL: Lessons from American Football**  
Allen Sills - USA

- 13.54-14.06  
**Biomechanical Testing of Shoe-Surface Interactions and Footwear Design Implications**  
Richard Kent - USA

- 14.06-14.18  
**Strategies for injury reduction on artificial turf pitches**  
Simon Kemp - United Kingdom

- 14.18-14.30  
**Questions and panel discussion**  
Stokes, Sills, Kent, Kemp

### Session D • SYMPOSIUM 6

**13.30-14.30**  
Room Auric  
**DO THE THREE E's OF INJURY PREVENTION (EDUCATION, ENFORCEMENT, ENGINEERING) WORK IN ALPINE SKIING AND SNOWBOARDING? [284]**  
Chair: Claude GOULET - Canada

- 13.30-13.32  
**Introduction of symposium and speakers**  
Claude Goulet - Canada

- 13.32-13.44  
**Does risk compensation undo the protection of ski helmet use?**  
Gerhard Ruedl - Austria

- 13.44-13.56  
**Educating for injury prevention: child and youth skiing and snowboarding**  
Brent E. Hagel - Canada

- 13.56-14.08  
**Using the biomechanics of injury to design safer snow sports equipment and on-slope injury prevention strategies**  
Irving Scher - USA

- 14.08-14.20  
**Sport injury epidemiology to support regulation implementation in alpine skiing and snowboarding**  
Claude Goulet - Canada

- 14.20-14.30  
**Panel Discussion: Future directions for research and informing best practice in the prevention of injuries for alpine skiers and snowboarders**  
Goulet, Ruedl, Hagel, Scher

### Session E • SYMPOSIUM 7

**13.30-14.30**  
Room Van Dongen  
**INNOVATIONS TO PREVENT RUNNING INJURIES [319]**  
Chair: Leonardo METSAVAHT - Brazil

- 13.30-13.40  
**Problem overview: epidemiology**  
Mansueto Gomes-Neto - Brazil

- 13.40-13.50  
**The complexity of running injuries and its risk factors**  
Leonardo Metsavaht - Brazil

- 13.50-14.00  
**Costs for identifying running-related injury risks**  
Gustavo Leporace - Brazil

- 14.00-14.10  
**Neuromuscular training to prevent running-related injuries**  
Fábio Arcanjo - Brazil

- 14.10-14.30  
**Panel Discussion: Implementation of running-related injury prevention programs in clinical practice**  
Metsavaht, Gomes-Neto, Leporace, Arcanjo
Session F • WORKSHOP
Room Bosio 1
Keeping golfers on course for glory: prevention of illness and injury in golf #973
Andrew Murray - United Kingdom, Daniel Coughlan - United Kingdom
I What works in preventing illness and injury in golf? And what illness and injury preventing are there for other sports? with @etpi @docandrewmurray.

Session G • WORKSHOP
Room Bosio 2
#Playlikeagirl: keeping our female athletes healthy and performing!
#976
Marie-Elaine Grant - Ireland, Margo Mountjoy - Canada
I #Playlikeagirl: keeping female athletes healthy and performing at their top potential! Learn about the latest prevention science for females #GenderGap! #GoGIRL.

Session H • WORKSHOP
Room Lifar
The SmartHER way forward for British female Olympic and Paralympic athletes #983
Anita Biswas - United Kingdom, Richard Burden - United Kingdom
I The English Institute of Sport’s application of research and innovation to enable elite female athletes to thrive and fulfil their health and performance potential

Session I • WORKSHOP
Room Poulenc 1
Travel advice that can help your athletes win a medal #1009
Nebojša Nikolić - United Kingdom
I Participants grouped according to specifics of their sports. Each travel guideline will be presented and discussed. Each group will adapt it to their sport needs.

Session K • WORKSHOP
Room Genevoix 1
Ten years of talent pathway health data in AFL – Collating this information with future injury and illness in the AFL #1010
Peter Harcourt - Australia, Anik Shawdon - Australia
I A review AFL player health outcomes to AFL pathway health data to answer: What pre-competition longitudinal health data is useful in predicting health outcomes?

Session L • WORKSHOP
Room Genevoix 2-3
Food as medicine: optimizing nutrition and its role in sports injury prevention #1016
Jacqueline Winkelmann - USA
I What should athletes eat to prevent injury or illness? Beyond stretching: food as medicine for illness and injury prevention.
Session B • SYMPOSIUM 9

14.30-15.30  Room Prince Pierre

TWO DECADES OF THE TRIPP MODEL: HAS IMPLEMENTATION MADE ITS MARK? [198]

Chair: TBA

14.30-14.45  Reflecting on two decades of the TRIPP model – what is it and how has it been used to make an impact?
TBA

14.45-14.55  Implementing injury prevention in sports - are we winning?
James O’Brien - Australia/Austria

14.55-15.05  Behavioural approaches to enhance implementation
Carly McKay - United Kingdom

15.05-15.15  Implementation is more than an afterthought to your RCT
Evert Verhagen - The Netherlands

15.15-15.30  Panel discussion: Where do we go next if we want to increase the impact of our preventive efforts
O’Brien, McKay, Verhagen

Session C • SYMPOSIUM 10

14.30-15.30  Room Camille Blanc

TOWARDS NEW HORIZONS IN INJURY PREVENTION FOR BIG AIR AND SLOPESTYLE EVENTS IN BEIJING 2022 WINTER OLYMPICS [531]

Chair: Torbjørn SOLIGARD - Norway/Switzerland

14.30-14.42  The epidemiology of injuries in snowboarding and freestyle skiing in the Olympic Games
Torbjørn Soligard - Norway/Switzerland

14.42-14.54  Biomechanical evaluation of Big Air Jumps: Analysis of on-slope measurements to reduce injuries
Irving Scher - USA

14.54-15.06  IOC project Big Air / Slopestyle: Harnessing injury risk in the Beijing Winter Olympics with novel course design tools
Matthias Gilgien - Norway/Switzerland

15.06-15.18  IOC project Big Air / Slopestyle: The link between jump design, injury risk and user satisfaction
Claes Högström - Norway

15.18-15.30  Panel discussion: Injury prevention for Big Air and Slopestyle events in Beijing 2022 Winter Olympics
Soligard, Scher, Gilgien, Högström

Session D • SYMPOSIUM 11

14.30-15.30  Room Auric

PREVENTING OVERUSE INJURIES IN TEAM SPORTS – YES WE CAN! AS EVIDENCED BY THE HIT SPORT – VOLLEYBALL [453]

Chairs: Natália F. N. BITTENCOURT - Brazil, Christopher SKAZALSKI - Qatar/Norway

14.30-14.32  Introduction – The all too common state of overuse problems in volleyball

14.32-14.44  Patellar tendinopathy: can we block the spike of jumper’s knees in volleyball?
Johannes Zwerver - The Netherlands

14.44-14.56  Navigating the risk factor identification minefield and implementing a tailored prevention program to decrease patellar tendinopathy that works!
Natália F. N. Bittencourt - Brazil

14.56-15.08  Monitoring training and competition load in volleyball…can we really prevent these overuse injuries?
Christopher Skazalski - Qatar/Norway

15.08-15.20  Injury prevention from the coach’s point of view, a real-world example of injury prevention and championship results
Kerry MacDonald - Canada

15.20-15.30  Panel Discussion: How we can learn from the mistakes of the past to prevent future overuse injuries and complaints among our team sport athletes
Zwerver, Bittencourt, Skazalski, MacDonald
**Session E • FREE COMMUNICATIONS**
Room Van Dongen

**HEAD IMPACTS & CONCUSSION**

Chairs: Daniel T. P. FONG - United Kingdom, Karim KHAN - Canada

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>14.30-14.40</td>
<td>Evaluation of in-ear sensor systems for quantifying head impacts in youth football</td>
<td>Stian Bahr Sandmo (Norway), Andrew S. McIntosh (Australia), Thor Einar Andersen (Norway), Inga K. Koerte (Germany/USA), Roald Bahr (Norway)</td>
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<td>14.40-14.50</td>
<td>Head impact exposure in youth football – are current interventions hitting the target?</td>
<td>Stian Bahr Sandmo (Norway), Thor Einar Andersen (Norway), Inga K. Koerte (Germany/USA), Roald Bahr (Norway)</td>
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<td>14.50-15.00</td>
<td>Head impact doses and “no-go” deficits in Olympic and non-Olympic sport athletes</td>
<td>Adam Bartsch (USA), Lori Glover (USA), Jay Alberts (USA), Jason Cruickshank (USA), Elizabeth Jansen (USA), Edward Benzell (USA), Sergey Samorezov (USA), Vincent Miele (USA), Julian Bailes (USA), Gerald McGinty (USA), Steven Rowson (USA), Christopher D Lauro (USA), Tyler Rooks (USA), Kenneth Cameron (USA), Megan Houston (USA), Emily Kieffer (USA), Laurel Ng (USA), Kiran Mathews (USA), Mikael Swaren (Sweden), Norman Link (USA), Missy Fraser (USA), Jason P. Mihalik (USA), Johanna Mihalik-Register (USA), JT Eckner (USA), Annalise Lane (USA)</td>
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**SCIENTIFIC PROGRAMME**
Thursday 11 February
Session K • WORKSHOP
14.30-15.30
Room Genevoix 1

Down Under the foot – optimising foot function in sport #1047
Susan Mayes - Australia

I An evidence-based approach to foot intrinsic muscle strengthening and methods that can facilitate optimal foot function will be presented in this practical workshop.

Session L • WORKSHOP
14.30-15.30
Room Genevoix 2-3

ACL secondary prevention: build hardware and think software #1452
Renato Andrade - Portugal, Rogério Pereira - Portugal

I Learn how to recover normal movement patterns and biomechanical capacities after ACL injury, by addressing human software and hardware with strengthening and motor learning exercise-based interventions.

THEMATIC POSTERS SESSIONS

15.30-16.30
Poster Area – Level -2

Please refer to pages 72-86 for full details

SESSION 1 - SHOULDER
Chair: Elizabeth A. ARENDT - USA
Posters #1430 #1103 #1702 #1142 #1669 #1107 #1516 #938

SESSION 2 - WATER SPORTS
Chair: Margo MOUNTJOY - Canada
Posters #1200 #1118 #1161 #1339 #1672 #1652 #1610 #1646

SESSION 3 - COMBAT SPORTS
Chair: Hideyuki KOGA - Japan
Posters #1066 #1741 #1745 #1547 #1059 #1360 #1304 #1032

SESSION 4 - FOOT - ANKLE
Chair: Daniel T. P. FONG - United Kingdom
Posters #1449 #1518 #1739 #1466 #981 #1334 #1162

SESSION 5 - LOAD MONITORING
Chair: Karim KHAN - Canada
Posters #1321 #1665 #1619 #1403 #1382 #1530 #1356 #1317

SESSION 6 - DANCE
Chair: Yannis PITSILADIS - United Kingdom
Posters #1607 #1001 #1292 #1559 #1576 #1595 #1561 #1295

SESSION 7 - LOW BACK & PELVIS
Chair: Nicola PHILLIPS - United Kingdom
Posters #1354 #1214 #1469 #1703 #1505 #1236 #1237 #1120

SESSION 8 - FATIQUE
Chair: Yorck Olaf SCHUMACHER - Qatar
Posters #1141 #1337 #1714 #1425 #1193 #1200 #1149 #1176

16.30-17.00
Coffee Break

SCIENTIFIC PROGRAMME
Thursday 11 February
Session A • SYMPOSIUM 12
Room Salle des Princes
17.00-18.00
INJURY PREVENTION IN WOMEN’S FOOTBALL: DIFFICULT BUT NOT IMPOSSIBLE! [236]
Chair: Andrea MOSLER - Australia
17.00-17.12
Preventing injury in women’s football, a global problem
Andrea Mosler - Australia
17.12-17.24
What really works to reduce injury risk in women’s football?
Markus Waldén - Sweden
17.24-17.36
Prevention programmes only work if you do them; implementation strategies to reduce injury risk
Kay M. Crossley - Australia
17.36-17.48
Mars vs Venus, how injury prevention strategies for women’s football embrace the differences
Martin Hägglund - Sweden
17.48-18.00
Panel discussion: Future directions for researching the unresolved questions, and optimising injury prevention implementation by clinicians and stakeholders involved in elite women’s football
Mosler, Waldén, Crossley, Hägglund

Session B • SYMPOSIUM 13
Room Prince Pierre
17.00-18.00
SLEEPING FOR SUCCESS IN SPORT [295]
Chair: Christa JANSE VAN RENSBURG - South Africa
17.00-17.12
Overview: Why sleep is integral to performance
Meeta Singh - USA
17.12-17.24
Sleep to prevent injury and illness
Kieran O’Sullivan - Ireland
17.24-17.36
Athlete-specific challenges to sleep: An applied perspective
Christa Janse van Rensburg - South Africa
17.36-17.48
A ‘Sleep Toolbox’ for practitioners: How to identify and target poor sleep in athletes
Amy Bender - Canada
17.48-18.00
Panel discussion

Session C • SYMPOSIUM 14
Room Camille Blanc
17.00-18.00
THE POWER OF ATHLETES’ STORIES FOR EVIDENCE-BASED INJURY PREVENTION IN SPORTS [170]
Chair: Evert VERHAGEN - The Netherlands
17.00-17.05
Can you hear me? The true stories that numbers won’t tell
Caroline Bolling - The Netherlands/Brazil
17.05-17.15
Step 1 – “As long as I can perform I am not injured”
Caroline Bolling - The Netherlands/Brazil, Evert Verhagen - The Netherlands
17.15-17.25
Step 2 – “It is not just me!”
Caroline Bolling - The Netherlands/Brazil
17.25-17.35
Step 3 – “One exercise won’t change my life”
Sheree Bekker - South Africa/United Kingdom
17.35-17.45
Step 4 – “Yes, your intervention works. So what?!”
Evert Verhagen - The Netherlands
17.45-18.00
Panel discussion: Making words and numbers count: the value of mixed-methods approaches in improving athlete health protection
Verhagen, Bolling, Bekker

Session D • SYMPOSIUM 15
Room Auric
17.00-18.00
PRIMARY PREVENTION OF MENTAL HEALTH SYMPTOMS AND DISORDERS IN ELITE ATHLETES [52]
Chair: Brian HAINLINE - USA
17.00-17.05
#BreakThe Silence: The importance of addressing athlete mental health
Abhinav Bindra - India
17.05-17.16
The Sport Mental Health Assessment and Recognition Tools: a new global initiative
Vincent Gouttebarge - The Netherlands
17.16-17.27
Primary Prevention – Creating an environment that supports mental wellness in sport
Brian Hainline - USA
17.27-17.38
Primary Prevention – Addressing toxic environments in sport
Margo Mountjoy - Canada
17.38-17.49
Primary Prevention – Managing transition from sport: from injury to retirement
Rosemary Purcell - Australia
17.49-18.00
Panel discussion: Future directions for the primary prevention of mental health symptoms and disorders in elite athletes
Bindra, Gouttebarge, Hainline, Mountjoy, Purcell
Session E • SYMPOSIUM 16
Room Van Dongen

17.00-17.10 ❙ Sport-specific injury mechanism of ACL – Studies from Japan
Yuka Kimura - Japan

17.10-17.20 ❙ Prevention of ACL injuries in Asia – Community Outreach
Kam-Ming Mok - Hong Kong, China

17.20-17.30 ❙ Clinical examination of ACL – Bridging knee instability with player perceptions
Hideyuki Koga - Japan

17.30-17.40 ❙ Treatment of ACL injuries – the Korea Experience
Jin-Goo Kim - Republic of South Korea

17.40-17.50 ❙ Return-to-play decisions after rehabilitation – What is missing to prevent injuries?
Patrick Shu Hang Yung - Hong Kong, China

17.50-18.00 ❙ Panel Discussion: How to synthesize of East and West in ACL research
Kimura, Mok, Koga, Kim, Yung

Session F • WORKSHOP
Room Bosio 1

17.00-18.00 ❙ How to prevent fifth metatarsal stress fractures #1033
Yoshitomo Saita - Japan, Masashi Nagao - Japan

Session G • WORKSHOP
Room Bosio 2

17.00-18.00 ❙ Let’s kick out of football...groin injuries! - blending science and practice in prevention of groin injuries in football #1052
Marcin Bator - Poland

Session H • WORKSHOP
Room Lilac

17.00-18.00 ❙ The ball is in your court - methodological challenges when arranging RCT’s in youth team sports #1053
Hanna Lindblom - Sweden, Ida Åkerlund - Sweden

Session I • WORKSHOP
Room Scotto

17.00-18.00 ❙ Systemic approach of heart rate variability analysis: a tool to better understand and use fatigue typology and prevention #1064
Cyril Besson - Switzerland, Laurent Schmitt - France

17.00-18.00 ❙ “Adding insult to injury” – primary and secondary prevention as a field-of-play strategy #1078
David Zideman - United Kingdom/Switzerland, Marie-Eloïse Grant - Ireland/Switzerland

Session J • WORKSHOP
Room Poulenc 1

17.00-18.00 ❙ Deep impact – Immersive and innovative concussion prevention for youth athletes #1083
Boris Gojanovic - Switzerland, Stéphane Tercier - Switzerland

Session K • WORKSHOP
Room Genevoix 1

17.00-18.00 ❙ Telling your athletes to get a good night’s sleep? Creating awareness of sleep deprivation as a risk factor for sport injury in youth athletes #1095
Sarah Richmond - Canada, Ian Pike - Canada
Session C • SYMPOSIUM 19
Room Camille Blanc
18.00-19.00
Tackle Risk in Contact Sports: Short-term Pain for Long-term Salvation [477]
Chair: Simon Kemp - United Kingdom

18.00-18.12
What is it about the rugby tackle that needs to inform prevention?
Simon Kemp - United Kingdom

18.12-18.24
Football helmets and shoulder pads – part of the problem or part of the solution?
Allen Sills - USA

18.24-18.36
Evolution or Revolution – which is the most appropriate approach?
Keith Stokes - United Kingdom

18.36-18.48
Engineering approaches to the “Tackling Problem” – from field to laboratory
Chris Sherwood - USA

18.48-19.00
Panel discussion: Injury risk during contact events: Where do we go from here?
Kemp, Sills, Stokes, Sherwood

Session D • SYMPOSIUM 20
Room Auric
18.00-19.00
Sports Injury Prevention and Harm Reduction in the Global South: Socioecological Considerations for Contextualised Research, Policy, and Practice [221]
Chair: Sheree Bekker - South Africa/United Kingdom

18.00-18.02
Introduction
Sheree Bekker - South Africa/United Kingdom

18.02-18.10
Ensuring the global relevance of sports injury prevention and harm reduction: The imperative for contextualised research, policy, and practice
Sheree Bekker - South Africa/United Kingdom

18.10-18.20
Overcoming cultural stigma to promote safety and fair play for recreational athletes with impairment in sub-Saharan Africa: the Ghanaian and Kenyan experience
Yetse A. Tuakli-Wosornu - Ghana/USA

18.20-18.30
The landscape of adopting, adapting and implementing sports injury prevention programs in sub-Saharan Africa: The Nigerian and South African experience
Ummukulthoum Bakare - Nigeria/South Africa

18.30-18.40
The complexity of injury prevention: The Brazilian experience
Luciana De Michelis Mendonça - Brazil

18.40-19.00
Discussion
Bekker, Tuakli-Wosornu, Bakare, De Michelis Mendonça
**Session E • SYMPOSIUM 21**

**Room Van Dongen**

**The Holy Grail: The Primary Prevention of Both Athlete Injury + Illness in Sport: Relative Energy Deficiency in Sport (RED-S)**

*Chair: Margo Mountjoy - Canada*

- **18.00-18.05**
  - *Introduction: What is RED-S?*
  - Margo Mountjoy - Canada

- **18.05-18.15**
  - *Primary prevention of low energy availability: Fueling + body composition management*
  - Louise Burke - Australia

- **18.15-18.25**
  - *Primary prevention of eating disorders/disordered eating*
  - Jorunn Sundgot-Borgen - Norway

- **18.25-18.35**
  - *Primary prevention through athlete screening for RED-S*
  - Kathryn Ackerman - USA

- **18.35-18.45**
  - *Primary prevention of RED-S through sport rule changes*
  - Margo Mountjoy - Canada

- **18.45-19.00**
  - *Discussion*
  - Mountjoy, Burke, Sundgot-Borgen, Ackerman

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**Session F • WORKSHOP**

**Room Bosio 1**

**Climbing on the band wagon! - Heel hook injuries in climbers - medical management and injury prevention #1099**

*Uzo Ehiogu - United Kingdom, Volker Schöffl - Germany*

- *What is scale of heel hook injuries in climbers?*
- Are eccentric preventative programmes appropriate for preventing heel hook injuries in the climbing athlete?

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**Session G • WORKSHOP**

**Room Bosio 2**

**The sporting spine – Getting to the core of injury prevention #1117**

*Tim Allardyce - United Kingdom, Marie-Elaine Grant - Ireland*

- #sporting-spine: learn about the risks, practical and prevention science for spinal injury:
  - Update on the current thinking on the core of Spinal Injury Prevention!

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**Session H • WORKSHOP**

**Room Lilar**

**Mouthguards – protection, concussion and performance ... What is the connection? #1136**

*Paul Piccininni - Switzerland/Canada, Anthony Clough - Switzerland/United Kingdom*

- Mouthguards are one of the most effective pieces of protective equipment in sport.
- Can they play a role in concussion prevention and/or performance enhancement?
Friday 12 February

Session A • SYMPOSIUM 22

Room Salle des Princes

FROM COPENHAGEN TO DUBLIN VIA OSLO: COLLABORATING TO TACKLE PRIMARY, SECONDARY AND TERTIARY GROIN INJURY PREVENTION IN SPORTS [330]

Chairs: Thor Einar ANDERSEN - Norway, Per HÖLMICH - Denmark

09.30-09.35 Introduction
09.35-09.47 Agreement and disagreement in terminology: How to move forward?
Andrew Franklyn-Miller - Ireland
09.47-09.59 What are the symptoms and impairments?
Thor Einar Andersen - Norway
09.59-10.11 Primary prevention: Is strengthening of the adductors enough?
Joar Harøy - Norway
10.11-10.23 Screening for secondary prevention: What are the options?
Kristian Thorborg - Denmark
10.23-10.35 What is the role of movement control and 3D-biomechanics in secondary prevention?
Enda King - Ireland
10.35-10.45 Tertiary prevention: Conservative or surgical?
Per Hölmich - Denmark
10.45-11.00 Panel discussion: Future directions for research informing best practice in the prevention of groin pain in athletes (GPA)
Franklyn-Miller, Andersen, Harøy, Thorborg, King, Hölmich

Session B • SYMPOSIUM 23

Room Prince Pierre

PREVENTION OF SUDDEN CARDIAC DEATH: CROSSING THE IMPLEMENTATION GAP [136]

Chair: Jonathan DREZNER - USA

09.30-09.35 Overview: Challenges and controversies in the prevention of sudden cardiac death
Jonathan Drezner - USA
09.35-09.50 Cardiac screening in young athletes: Defining an evidence-based protocol
Sanjay Sharma - United Kingdom
09.50-10.05 Incidence of SCD: Which athletes should we consider “high” risk?
Kimberly Harmon - USA
10.05-10.20 ECG screening: Establishing priorities when resources are limited
Mats Börjesson - Sweden
10.20-10.35 Crossing the implementation gap for cardiac screening through education and innovative models of health care delivery
Jonathan Drezner - USA
10.35-11.00 Panel discussion: Future directions for cardiac screening and sports cardiology training
Drezner, Sharma, Harmon, Börjesson

Session C • SYMPOSIUM 24

Room Camille Blanc

INJURIES IN RUNNERS: EPIDEMIOLOGY, RISKS AND PREVENTION [321]

Chair: Evert VERHAGEN - The Netherlands

09.30-09.42 On your marks, ready, go! What is the injury problem in running
Evert Verhagen - The Netherlands
09.42-09.54 In one mind - the psychology of injury prevention and running performance
Toomas Timpka - Sweden
09.54-10.06 Novel risk factors associated with running injuries: An important step in designing intervention for prevention
Martin Schwellnus - South Africa
10.06-10.18 Do running shoe features influence injury risk?
Laurent Malisoux - Luxembourg
10.18-10.30 Viewpoints on advanced statistical analyses of running-related injury data: pathways and pitfalls
Rasmus Nielsen - Denmark
10.30-10.40 Education and e-Health in the prevention of running-related injuries
Luiz Hespanhol Jr - Brazil
10.40-11.00 Panel discussion: What are the white spots in our knowledge on running injuries and their prevention and what should we focus on in the next decade?
Verhagen, Timpka, Schwellnus, Malisoux, Nielsen, Hespanhol
10.30-11.00  Session D • FREE COMMUNICATIONS

Room Auric

**INJURY PREVENTION I**

Chairs: Roald Bahr - Norway/Qatar, Clare Arderin - Sweden/Australia

09.30-09.40  45% lower acute injury incidence but no effect on overuse injury prevalence in youth floorball players who used an injury prevention exercise programme: two-armed parallel-group cluster randomised controlled trial #967

Ida Åkerlund, Markus Wåldén, Sofi Sonesson, Martin Hägglund (Sweden)

09.40-09.50  Does the Oslo Sports Trauma Research Center shoulder injury prevention program affect the risk factors external rotation strength and internal rotation range of motion? A randomized controlled study among adolescent handball players #1148

Hilde Fredriksen (Norway), Ann Cools (Belgium), Roald Bahr (Norway/Qatar), Grethe Myklebust (Norway)

09.50-10.00  Spraino® reduces the risk of lateral ankle sprain injury among indoor sport athletes: a pilot randomized controlled trial with 510 participants #1627

Filip Gertz Lydahl (Denmark), Thomas Bandholm (Denmark), Janne Tolstrup (Denmark), Mikkel Clausen (Denmark), Stephanie Mann (Denmark), Pelle Petersen (Denmark), Thor Gronhrykke (Denmark), Uwe Kersting (Denmark/Germany), Eamonn Delahun (Ireland), Kristian Thorborg (Denmark)

10.00-10.10  Floorball participation, injury prevention expectations, injury risk perceptions and health problems in Swedish youth players at the start of a season #1599

Nirmala Perera (Sweden/United Kingdom/Australia), Ida Åkerlund (Sweden), Martin Hägglund (Sweden)

10.10-10.20  We have the injury prevention programme, but how well do youth use it? #1546

Nirmala Perera (Sweden/United Kingdom/Australia), Martin Hägglund (Sweden)

10.20-10.30  The effect of a workshop on coaches’ adoption and adherence to the activate injury prevention exercise programme #1481

Craig Barden, Carly McKay, Keith Stokes (United Kingdom)

10.30-10.40  The Effectiveness of Online ACL Injury Prevention Education for Sports Coaches #1756

Joseph Janosky, Titiayo Ologhobo, James Rusomano, Sandra Goldsmith, Laura Robbins (USA)

10.40-10.50  Can a Massive Open Online Course (MOOC) inform concussion prevention knowledge translation? #1255

Stephanie Adams, Pierre Fremont, Jennifer Lock, Keith O Yeates, Carolyn Emery, Leslie Reid, Penny Werthner, Kathryn Schneider (Canada)

10.50-11.00  Is it possible to stimulate injury-preventive behaviour in adult novice runners with an online intervention? Results of a randomized controlled trial #1215

Ellen Kemler, Maaike Cornelissen, Vincent Gouttebarge (The Netherlands)
**Session F • WORKSHOP**
Room Bosio 1

**Why we should keep doing preseason assessment in athletes? #1147**
Luciana De Michelis Mendonça - Brazil, Natália F. N. Bittencourt - Brazil

This workshop aims to discuss the clinical reasoning in planning the preseason assessment (PA), how to monitor injury risk through parameters of results and the application of it at preventive programs.

**Session G • WORKSHOP**
Room Bosio 2

**Olympic athlete safety and performance: making sense of sensor fusion data #1159**

Adam Bartsch - USA, Mikael Swaren - Sweden

Olympic sport athletes can be monitored by fusing data from multiple sensor systems. In doing so, an objective, data-driven health and safety surveillance program is created.

**Session H • WORKSHOP**
Room Litar

**Pain prevention: well-intentioned, but sometimes unrealistic and unhelpful? #1243**

Morten Hegh - Denmark, Kieran O'Sullivan - Ireland

Is prevention of pain always helpful, even for everyday aches and pains? What are the risks associated with always seeking to prevent pain?

**Session I • WORKSHOP**
Room Scotto

**Variety is the spice of life! How to design and implement an effective lower extremity injury prevention program in your setting using evidence-based principles #1171**

Marc Norcross - USA, Alex Donaldson - Australia

Co-designing and implementing flexible, pragmatic, evidence-based injury prevention programs – what to include and how to do it.

**Session J • WORKSHOP**
Room Poulenc 1

**The important piece of the puzzle – end-users’ perspectives in injury prevention training #1190**

Eva Ageberg - Sweden, Sofia Bunke - Sweden

How engage end-users to develop and implement injury prevention training? We discuss process and practical solutions to create end-user motivation and ownership.

**Session K • WORKSHOP**
Room Genevoix 1

**Physical literacy for sport injury prevention – Addressing sport injury as a public health issue #1219**

Sarah Richmond - Canada, Ian Pike - Canada

Sport injury IS a public health issue - addressing injury prevention through the promotion of physical literacy

**Session L • WORKSHOP**
Room Genevoix 2-3

**Making it stick: adherence research in sports injury prevention #1224**

Oluwatoyosi Owoeye - USA/Canada


11.00-11.30

**Coffee Break**

11.30-13.00

**Session A • SYMPOSIUM 25**
Room Salle des Princes

**HAMSTRING INJURY PREVENTION IS POSSIBLE... MAYBE. KIND OF. ISH. #240**

Chairs: Tania Pizzari - Australia, Johannes Tol - The Netherlands/Qatar

11.30-11.33

**Introduction**

Johannes Tol - The Netherlands/Qatar

11.33-11.43

**Risk factors for hamstring injuries: Same old same old?**

Tania Pizzari - Australia

11.43-11.58

**When you can’t run slower: Can elite athlete monitoring prevent hamstring injuries in sprinters?**

Noel Pollock - United Kingdom

11.58-12.10

**Workload associated with risk of hamstring injury: Stating the obvious, but where’s the evidence?**

Nicol van Dyk - Qatar

12.10-12.25

**Implementation of successful prevention systems: Challenges and opportunities**

Martin Wollin - Australia

12.25-12.40

**“Put me in coach, I’m ready!” Refocusing return to sport and how prevention practices might influence our decision making**

Arnlaug Wangensteen - Norway

12.40-12.50

**Can we prevent hamstring re-injuries?**

Johannes Tol - The Netherlands/Qatar

12.50-13.00

**Panel discussion: Future directions for hamstring injury prevention and implementation**

Pizzari, Tol, Pollock, van Dyk, Wollin, Wangensteen
Session B • SYMPOSIUM 26
Room Prince Pierre

EVIDENCE BASED PREVENTION OF ILLNESS ASSOCIATED WITH LONG-HAUL TRAVEL IN ELITE ATHLETES: SORTING THE WHEAT FROM THE CHAFF [469]

Chair: Wayne DERMAN - South Africa

11.30-11.40
Introduction and overview
Wayne Derman - South Africa

11.40-11.55
Evidence-based strategies for management and mitigation of long-haul jet lag in athletes
Christa Janse Van Rensburg - South Africa

11.55-12.10
Pharmacological and pharmaceutical approaches to illness prevention: From A to Zinc: The evidence base
Nick Webborn - United Kingdom

12.10-12.25
What the team physician needs to know about vaccination and illness prevention: an evidence based approach
Tim Meyer - Germany

12.25-12.40
How to fly long and stay healthy: The evidence from travel medicine research
Wayne Derman - South Africa

12.40-13.00
Panel discussion/questions
Janse Van Rensburg, Webborn, Meyer, Derman

Session C • SYMPOSIUM 27
Room Camille Blanc

INJURY PREVENTION IN YOUTH SPORT: WHERE DOES THE FUTURE LIE? [271]

Chair: Carolyn EMERY - Canada

11.30-11.35
Laying the framework for discussion of approaches to injury prevention in youth sport
Carolyn Emery - Canada

11.35-11.47
Training strategies: The key to injury prevention in youth
Kati Pasanen - Canada/Finland

11.47-11.59
Targeting sport specialization in youth sport: Isn’t it clear?
Chris Whatman - New Zealand

11.59-12.11
Protective equipment in youth sport: Issues and recommendations
Brent E. Hagel - Canada

12.11-12.23
Apps and social media are the ticket to changing the culture for injury prevention in youth sport
Evert Verhagen - The Netherlands

12.23-12.35
Rule changes in youth sport: Evidence informing policy
Carolyn Emery - Canada

12.35-12.40
5 minutes 5 slides: Highlighting 5 targets in injury prevention in youth sport
Carolyn Emery - Canada

12.40-13.00
Panel discussion: Where does the future lie in injury prevention in youth sport?
Emery, Pasanen, Whatman, Hagel, Verhagen
**Session E • FREE COMMUNICATIONS**

**TEAM SPORTS II**

*Chairs: Elizabeth A. ARENDT - USA, Markus WALDÉN - Sweden*

11.30-11.40 ◆ Shoulder rotation strength changes from preseason to midseason: a cohort study of 292 youth elite handball players without shoulder problems #1020
Behnam Liaghat (Denmark), Jesper Bencke (Denmark), Mette Kreutzfeldt Zebis (Denmark), Henrik Sørensen (Denmark), Grethe Myklebust (Norway), Niels Wedderkopp (Denmark), Martin Lind (Denmark), Merete Møller (Denmark)

11.40-11.50 ◆ Injuries are negatively associated with team performance in professional cricket #1396
Luke Goggins, Nicholas Peirce, Steve Griffin, Ben Langley, Keith Stokes, Carly McKay, Sean Williams (United Kingdom)

11.50-12.00 ◆ Risk factors for dominant shoulder injury in elite female Australian cricket players: a prospective study #1497
Myles Murphy, Paola Chivers, Kate Mahony, Andrea Mosier (Australia)

**Room Van Dongen**

12.00-12.10 ◆ Injury incidence of elite New Zealand cricketers: an update from 2009-2015 #1042
Tim Dovbysh, Duncan Reid, Dayle Shackel (New Zealand)

12.10-12.20 ◆ Cutting technique and risk for non-contact knee injuries in youth basketball and floorball players #1422
Mari Leppänen (Finland), Anni Rantala (Finland), Jari Parkkari (Finland), Tommi Vasankari (Finland), Sami Äyrämö (Finland), Tron Krosshaug (Norway), Pekka Kansu (Finland), An Heinonen (Finland), Kati Pasanen (Finland/Canada)

12.20-12.30 ◆ Injury burden differs considerably between single teams from German professional male handball: surveillance of three consecutive seasons #1690
Hendrik Bloch, Christian Klein, Patrick Luig (Germany)

12.30-12.40 ◆ Evaluation of body checking policy for injury prevention in non-elite adolescent ice hockey players #1446
Carolyn Emery, Paul H. Elison, Vineetha Varriyar K. V., Luz Palacios-Derflingher, Amanda M. Black, Maciej Krolikowski, Nicole Spencer, Kathryn Schneider, Shellina Babul, Martin Mrazik, Constance Lebrun, Claude Goulet, Alison K. MacPherson, Brent E. Hagel (Canada)

12.40-12.50 ◆ Injury surveillance in junior elite field hockey: comparative study of three different recording techniques #1256
Udo Rolle, Heileen Till-Martin, Anna Levi (Germany)

12.50-13.00 ◆ Perceived barriers and facilitators towards an injury prevention program in professional male ice hockey teams among players and staff members #1166
Romana Brunner, Mario Bizzini, Nicola Mattiuletti, Karin Niedermann (Switzerland)

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**Session F • WORKSHOP**

**Room Bosio 1**

11.30-12.30 Monitoring loads to prevent injuries in team sports. Is it worth the effort? #1232
Javier Peña - Spain, Marti Casals - Spain

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11.30-12.30 How weareables can protect the health of athletes during sporting competitions in the heat #1666
Yannis Pitsiladis - United Kingdom, Benoit Mariani - Switzerland

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11.30-12.30 Preventing low back pain in sports – should we image, and how do we interpret images? #1244
Kieran O’Sullivan - Ireland, Bruce Forster - Canada

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11.30-12.30 How to create the wellbeing infrastructure and monitoring processes for your performance team whilst integrating into the wider team strategies? Focus on wellbeing and performance delivery for support staff.

**Session G • WORKSHOP**

**Room Bosio 2**

11.30-12.30 Monitoring loads to prevent injuries in team sports. Is it worth the effort? #1232
Javier Peña - Spain, Marti Casals - Spain

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**Session H • WORKSHOP**

**Room Litar**

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Javier Peña - Spain, Marti Casals - Spain

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**Session I • WORKSHOP**

**Room Scotto**

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**Session J • WORKSHOP**

**Room Poullenc 1**

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Kieran O’Sullivan - Ireland, Bruce Forster - Canada

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11.30-12.30 How to create the wellbeing infrastructure and monitoring processes for your performance team whilst integrating into the wider team strategies? Focus on wellbeing and performance delivery for support staff.

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11.30-12.30 Uncensored: the sensible use of head-impact sensors in sports #1266
Stian Bahr Sandmo - Norway, Declan Patton - USA/Canada

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11.30-12.30 How to evaluate and use head impact sensors to quantify head loading in contact sports? We will take you through just that – step by step.
**Session K • WORKSHOP**

11.30-12.30 Room Genevoix 1

**Knowledge translation in injury and concussion prevention: Interdisciplinary perspectives to inform prevention in youth volleyball – an applied example #1723**

Kathryn Schneider - Canada, Kerry MacDonald - Canada

Reduction concussion risk in youth volleyball - how an interdisciplinary team approach has addressed research and policy implementation.

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**Session L • WORKSHOP**

11.30-12.30 Room Genevoix 2-3

**The effect of injury on performance: the gold medal analytical strategy #1279**

Tyrel Stokes - Canada, Ben Raysmith - Australia/Sweden

Understanding a common framework for measuring different types of performances, and avoiding important errors in analytical strategies.

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13.00-14.30 Lunch

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**THEMATIC POSTERS SESSIONS**

15.30-16.30 Poster Area - Exhibition Hall Diaghilev

Bitte refer to pages 87-101 for full details

**SESSION 21 - MSK AND REHAB**

Chair: Nicola PHILLIPS - United Kingdom

Posters #1249 #1416 #1503 #1612 #1564 #1769 #1650

**SESSION 22 - CRICKET AND CLIMBING**

Chair: Martin SCHWELLNUS - South Africa

Posters #1090 #1091 #1562 #1206 #1162 #1100

**SESSION 23 - INJURY PREVENTION MEASURES**

Chair: Carolyn EMERY - Canada

Posters #948 #1253 #1379 #998 #1614 #1289 #1290 #1640

**SESSION 24 - INJURY SURVEILLANCE**

Chair: Karim KHAN - Canada

Posters #1310 #1697 #1670 #1659 #1597 #1603 #1643 #1467

**SESSION 25 - MEDICINE**

Chair: Jonathan DREZNER - USA

Posters #1445 #1544 #1003 #1094 #1135 #1276 #1671

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**KEYNOTE 3**

14.30-15.15 Room Salle des Princes

TROPICAL PARADISE OR DANGER ZONE? BEAT THE HEAT TO PROTECT ATHLETES IN A SWELTERING 2020 TOKYO

Speaker: Sébastien RACINAIS - Qatar

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16.30-17.00 Coffee Break
**Session A • SYMPOSIUM 28**

**Room Salle des Princes**

**THE VALUE OF LONGITUDINAL DATA FOR THE PREVENTION OF INJURY AND ILLNESS. LESSONS LEARNED FROM INTERNATIONAL SURVEILLANCE PROGRAMS** [105]

Chair: **Ian SHRIER** - Canada

17.00-17.04

| Introduction |
|-------------
| **Ian Shrier** - Canada |

17.04-17.16

| Evaluating the implementation and results from prevention programs in Danish children age 6-11 years over 5.5 years |
|-----------------------------
| **Niels Wedderkopp** - Denmark |

17.16-17.28

| Keeping your athletes available throughout a season: The value and benefits of timely feedback informed by injury and illness monitoring |
|-----------------------------
| **Evert Verhagen** - The Netherlands |

17.28-17.40

| Informing and maintaining policy change through research findings: Experiences with body checking in Canadian youth hockey |
|-----------------------------
| **Carolyn Emery** - Canada |

17.40-18.00

| Panel discussion: How to reap athlete benefits from longitudinal data |
|-----------------------------

**Session B • SYMPOSIUM 29**

**Room Prince Pierre**

#METOSPORT – THE PREVENTION OF NON-ACCIDENTAL VIOLENCE IN SPORT SETTINGS: IT’S NOT JUST ABOUT ONE BAD APPLE [219]

Chairs: **Sheree BEKKER** - South Africa/United Kingdom,
**Margo MOUNTJOY** - Canada

17.00-17.05

| Introduction: #MeTooSport: The contemporary cultural context of the prevention of non-accidental violence in sport settings |
|-----------------------------
| **Sheree Bekker** - South Africa/United Kingdom |

17.05-17.15

| The vulnerability of disability: Prevalence and prevention of harassment and abuse in athletes with impairment |
|-----------------------------
| **Yetsa A. Tuakli-Wosornu** - Ghana/USA |

17.15-17.25

| Injury prevention through safeguarding: The work of the International Olympic Committee |
|-----------------------------
| **Susan Greinig** - Switzerland |

17.25-17.35

| The imperative for systemic change: understanding, contextualising, and influencing a culture of safeguarding in sport settings |
|-----------------------------
| **Sheree Bekker** - South Africa/United Kingdom |

17.35-17.45

| "Only by speaking out can we create lasting change": Lessons from the Nassar tragedy for sports medicine |
|-----------------------------
| **Margo Mountjoy** - Canada |

17.45-18.00

| Discussion |
|-----------------------------

**Session C • SYMPOSIUM 30**

**Room Camille Blanc**

**KNOWLEDGE TRANSLATION: BRIDGE BETWEEN THE EVIDENCE AND REAL-WORLD INJURY PREVENTION IMPACT** [272]

Chair: **Kathrin STEFFEN** - Norway

17.00-17.05

| Introduction: From lab to the fields of play |
|-----------------------------
| **Kathrin Steffen** - Norway |

17.05-17.15

| From evidence to impact: How to get the message out to increase adoption of injury prevention programmes in the real world |
|-----------------------------
| **Nirmala Perera** - Australia/Sweden |

17.15-17.25

| Getting evidence into practice: The meaning of ‘context’ for implementation of injury prevention programmes |
|-----------------------------
| **Kathrin Steffen** - Norway |

17.25-17.35

| Using the science of language to explicate the language of science: The role of communication and social psychology in implementation |
|-----------------------------
| **Carly McKay** - United Kingdom |

17.35-17.45

| Nation-wide implementation of an injury prevention exercise programme: Is there a real-world impact? |
|-----------------------------
| **Martin Hägglund** - Sweden |

17.45-18.00

| Panel discussion: “Down the rabbit hole – curiouser and curiouser” - practical tips to mitigate implementation challenges, opportunities and future direction for real world injury prevention outcomes |
|-----------------------------
| **Kathrin Steffen, Nirmala Perera, Carly McKay, Martin Hägglund** |

**Session D • SYMPOSIUM 31**

**Room Auric**

**PREVENTION OF INJURY IN THE OVERHEAD THROWING ATHLETE: PREDICTION, PREVENTION AND WORKLOAD** [51]

Chair: **Jason L. ZAREMSKI** - USA

17.00-17.04

| Epidemiology of injury in the overhead throwing athlete |
|-----------------------------
| **Jason L. Zaremski** - USA |

17.04-17.16

| The etiology of throwing injury in an overhead throwing athlete: What are the contributing factors? |
|-----------------------------
| **Merete Møller** - Denmark |

17.16-17.26

| Measuring true volume of workload in baseball pitchers and applications to workload in overhead throwing athletes |
|-----------------------------
| **Jason L. Zaremski** - USA |

17.26-17.38

| Shoulder throwing injury prevention in handball players: The Oslo Sports Trauma Research Center experience |
|-----------------------------
| **Stig Andersson** - Norway |

17.38-17.50

| Factors that may predict injury in overhead throwing athletes: the range of motion debate |
|-----------------------------
| **Rodney Whiteley** - Qatar |

17.50-18.00

| Panel discussion: Future directions for research and implementation for best practice in the prevention of overuse throwing injury in sport |
|-----------------------------
| **Jason L. Zaremski, Merete Møller, Stig Andersson, Rodney Whiteley** |
Session E • SYMPOSIUM 32

17.00-18.00

THE EFFECT OF THE ‘FACE TO FACE’ EDUCATION PROGRAM TO RUGBY MEDICAL ON THE SEVERE HEAD INJURY [541]

Chair: Mutsuo YAMADA - Japan

17.00-17.12
The outline of WR education system
Mutsuo Yamada - Japan

17.12-17.24
Concussion education in prehospital immediate care in sports
Andrew Smith - England

17.24-17.36
The effect of the concussion card on the number of severe head injuries
Lucy Clarke - Hong Kong, China

17.36-17.48
Panel discussion: The effect of concussion education and the risk of severe head injury in rugby
Yamada, Smith, Clarke

Session F • WORKSHOP

17.00-18.00

Shining on centre stage: does sport injury prevention translate to dance? #1284
Sarah J. Kenny - Canada, Janine Stubbe - The Netherlands

Dance is coming to the Olympics! It’s time to talk about dance, to learn what makes dancers unique, to do our best to keep them injury free.

Session G • WORKSHOP

17.00-18.00

Prevention is better than cure: the role of psychological interventions in sports injury risk reduction #1293
Andreas Ivarsson - Sweden, Adam Gledhill - United Kingdom

Do you want practical suggestions for integrating psychological techniques into injury prevention? We’ll cover that!

Session H • WORKSHOP

17.00-18.00

Looking to the past for the future of harm reduction in sport: a call for meaningful informed consent and health literacy initiatives in elite athlete development #1299
Asad Siddiqi - USA

Can the tools of the past unlock the future of harm reduction in sports medicine? Informed consent and health literacy may be the keys.
**Session A • HEAD-TO-HEAD DEBATE 2**
Room Salle des Princes

**KILL THE SACRED COW: RETURN TO PLAY CRITERIA SHOULD BE TRASHED IN FAVOUR OF TIME (BIOLOGY)-BASED CRITERIA** [121]

Chair: Karim KHAN - Canada

- 18.00-18.05 Setting the scene for the debate and introduction of speakers and debate format
  Karim Khan - Canada
- 18.05-18.20 Speaker for the affirmative: To improve our safe return to play we need to respect biological healing
  Erik Witvrouw - Belgium
- 18.20-18.35 Speaker for the negative: Studies show that the present RTP criteria are valid
  Lynn Snyder-Mackler - USA
- 18.35-18.47 Rebuttals
  Erik Witvrouw - Belgium, Lynn Snyder-Mackler - USA
- 18.47-18.50 Chair’s sum-up and post-debate audience vote
  Karim Khan - Canada
- 18.50-19.00 Audience discussion

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**Session B • SYMPOSIUM 33**
Room Prince Pierre

**GASTROINTESTINAL ISSUES IN SPORT: UTILIZING DIET, THE GUT MICROBIOTA AND PROBIOTICS FOR PREVENTION OF ILLNESS IN ATHLETES** [150]

Chair: Owen CRONIN - Ireland/United Kingdom

- 18.00-18.12 Gastrointestinal issues in our athletes: Prevalence, mechanisms and prevention through dietary habit
  Jamie Pugh - United Kingdom
- 18.12-18.24 Exercise effects and the elite athlete microbiome: What do we know?
  Owen Cronin - Ireland/United Kingdom
- 18.24-18.36 Probiotics to prevent illness in athletes: The evidence and current state of play
  Neil C. Williams - United Kingdom
- 18.36-18.48 Manipulating our microbes: Microbial strategies to improve athlete health and prevent illness in elite sport
  Orla O’Sullivan - Ireland
- 18.48-19.00 Panel discussion: What evidence and knowledge gaps are missing? How we must co-ordinate efforts to focus research in this field and to provide a solid evidence base for our athletes
  Pugh, Cronin, Williams, O’Sullivan

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**Session C • SYMPOSIUM 34**
Room Camille Blanc

**THE 11+ JOURNEY: 14 YEARS AND STILL GOING STRONG?** [166]

Chairs: Mario BIZZINI - Switzerland, Holly SILVERS-GRANELLI - USA

- 18.00-18.12 Background of the 11+ programme
  Mario Bizzini - Switzerland
- 18.12-18.24 Understanding age, gender, level of play and adherence issues related to the 11+
  Holly Silvers-Granelli - USA
- 18.24-18.36 Tailoring the 11+ to the professional football context
  James O’Brien - Australia/Austria
- 18.36-18.48 Prevention has to start early: The 11+ kids
  Roland Rössler - Switzerland
- 18.48-19.00 Panel discussion: How should the 11+ programme looks like in the future? How we deal with implementation challenges? What about the children and 11+ kids?
  Bizzini, Silvers-Granelli, O’Brien, Rössler

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**Session D • SYMPOSIUM 35**
Room Auric

**IOC CONSENSUS ON METHODOLOGY FOR RECORDING AND REPORTING OF DATA FOR INJURY AND ILLNESS SURVEILLANCE** [573]

Chairs: Roald BAHR - Norway/Qatar, Karim CHAMARI - Qatar

- 18.00-18.08 Why do we need a new consensus document?
  Roald Bahr - Norway/Qatar
- 18.08-18.24 The key elements and changes in the new consensus statement
  Willem Meeuwisse - Canada
- 18.24-18.36 How the STROBE-IE (Injury/Illness Epidemiology) checklist can help you – planning and reporting from studies
  Karim Khan - Canada
- 18.36-18.48 How does the new consensus statement translate to the world of tennis – a model for other federations?
  Babette Pluim - The Netherlands
- 18.48-19.00 Panel discussion: What are the next steps to encourage consistency in data collection and research reporting?
  Bahr, Chamari, Meeuwisse, Khan, Pluim
Session E • FREE COMMUNICATIONS

Room Van Dongen

ACL INJURIES

Chairs: Fares HADDAD - United Kingdom, Evert VERHAGEN - The Netherlands

18.00-18.10
- The mechanisms of anterior cruciate ligament injuries in male professional football players in the Middle East: a systematic video analysis of 15 cases #1584
  - Raouf Nader Rekik, Roald Bahr, Flavio Cruz, Pieter D’Hooghe, Paul Read, Montassar Tabben, Karim Chamari (Qatar)

18.10-18.20
- Soccer players who rupture their ACL demonstrate biomechanical risk factors while decelerating: a prospective cohort study #1068
  - Celeste Dix, Amelia Arundale, Holly Silvers-Granelli, Ryan Zarzycki, Adam Marmon, Lynn Snyder-Mackler (USA)

18.20-18.30
- Lower extremity malalignments associated with ACL injury risks may also be related to decreased field performance #1532
  - Yohei Shimokochi, Satoshi Kuwano, Shogo Uota, Wakana Sasakabe, Takauchi Haruka, Takatsu Tomohiro, Shinshiro Mineta, Frederick Henderson, Takaaki Mishima, Moe Machida-Kosuga, Issei Ogasawara, Ken Nakata (Japan)

18.30-18.40
- The association between ACL injury and restricted hip range of motion among athletes #1093
  - Diego Escudeiro de Oliveira, Pedro Bachs Jorge, Marcos Vaz de Lima, Aires Duarte Junior, Claudio Santilli (Brazil)

18.40-18.50
- Age-appropriateness of common neuromuscular training exercises in ACL injury prevention programs #1221
  - Daphne Ling, Caroline Boyle, Joseph Janosky, Brenda Chang, Naomi Roselaar, James Kinderknecht, Robert Marx (USA)

18.50-19.00
- Effect of six-week exercise training on reducing biomechanical re-injury risk factors of professional female basketball players with anterior cruciate ligament reconstruction during stop jump #1207
  - Jihong Qiu, Patrick Shih Hang Yung (Hong Kong, China)

Session F • WORKSHOP

Room Bosio 1

“Take my breath away”: asthma in female athletes, effects of reproductive hormones and strategies for screening and management #1362

Constance Lebrun - Canada, Patricia K. Doyle-Baker - Canada

- Does menstrual-linked asthma (MLA), or perimenstrual asthma (PMA) exist? We will discuss practical strategies for detection and preventative intervention.

Session H • WORKSHOP

Room Lifar

Modern day observations of golf injury etiology and physical assessment #1370

Gill Lance - USA, Mike Voight - USA

- Epidemiology of Injuries in Golf - Is this a problem?
  - Golf Fitness Screening – the foundation to improving performance and preventing injury.

Session I • WORKSHOP

Room Scotto

Neuromuscular training vs. movement re-education for prevention of running related-injuries #1375

Gustavo Leporace - Brazil, Fábio Arcanjo - Brazil

- The rationale for approaching biomechanical risk factors.
  - How to select adequate running re-education strategies and neuromuscular exercises for injury prevention?

Session J • WORKSHOP

Room Poulenc 1

EAT, SLEEP, SWIM, REPEAT: how to implement prevention strategies for overuse injuries in elite/competitive swimmers?

- An integrated approach #1389

Kevin Kuppens - Belgium, Céline Labie - Belgium

- Evidence and expert based integrated approach for reducing the risk of overuse injuries in competitive and elite swimmers.

Session K • WORKSHOP

Room Genevoix 1

The missing link: what to do when reality causes imperfect data collection #1399

Örjan Dahlström - Sweden, Chinchin Wang - Canada

- Proper handling of missing data is a challenge but essential to properly interpret results. We explore recent developments in this field.

Session L • WORKSHOP

Room Genevoix 2-3

Taping and bracing for injury prevention: a help, habit or hazard? #1419

Marie-Elaine Grant - Ireland

- # Taping and Bracing for prevention: Review of the science, learn the criteria to make informed choices for prevention, avoid habitual or potentially hazardous use.
Saturday 13 February

**Session A • SYMPOSIUM 36**
Room Salle des Princes

**TOKYO 2020: PROTECTING THE ATHLETE FROM ENVIRONMENTAL AND LOGISTICAL CHALLENGES** [248]

Chair: Lee TAYLOR - United Kingdom

09.30-09.33 | Introduction: Environmental and logistical challenges to athlete health
Lee Taylor - United Kingdom

09.33-09.45 | Jetlag and travel fatigue prevention and treatment at the games
Christa Janse van Rensburg - South Africa

09.45-09.57 | Illness during travel and at the games: how to prevent illness?
Martin Schwellnus - South Africa

09.57-10.09 | Air quality/pollution challenges to athlete health at the games: Prevention and treatment
Valérie Bougault - France

10.09-10.21 | Water quality/pollution challenges to athlete health at the games: Prevention and treatment
Margo Mountjoy - Canada

10.21-10.33 | Challenges to athlete health at the hottest modern Olympics in history
Sébastien Racinais - Qatar

10.33-10.45 | Countermeasures to prevent illness and preserve performance in hot and humid conditions
Lee Taylor - United Kingdom

10.45-11.00 | Panel discussion: Future directions in the prevention of concussion in youth sport.
Taylor, Janse van Rensburg, Schwellnus, Bougault, Mountjoy, Racinais

**Session B • SYMPOSIUM 37**
Room Prince Pierre

**CONCUSSION PREVENTION IN YOUTH TEAM SPORTS: EVIDENCE INFORMING BEST PRACTICE AND POLICY ACROSS FIVE HIGH RISK SPORTS** [266]

Chair: Carolyn EMERY - Canada

09.30-09.35 | The public health burden of concussion in youth team sport: Introduction of session and speakers
Carolyn Emery - Canada

09.35-09.47 | Primary prevention of concussion in youth American Football: Tackle training, equipment, and rules
Jason P. Mihalik - USA

09.47-09.59 | A comprehensive approach to concussion prevention in youth ice hockey
Carolyn Emery - Canada

09.59-10.11 | Preventing concussion in youth rugby: Dispelling the myths of tackle training, load modification, and neuromuscular training
Keith Stokes - United Kingdom

10.11-10.23 | Best practice in concussion prevention in youth lacrosse
Dawn Comstock - USA

10.23-10.35 | Targeting intrinsic and extrinsic risk factors for concussion in youth soccer
Kathryn Schneider - Canada

10.35-10.40 | Highlights for best practice and policy across 5 team sports
Carolyn Emery - Canada

10.40-11.00 | Panel discussion: Future directions in the prevention of concussion in youth sport.
What evidence has potential for translation across sport-specific contexts?
Emery, Mihalik, Stokes, Comstock, Schneider
**NEVER MENTION PREVENTION! [371]**

Chairs: Martin ASKER - Sweden, Rodney WHITELEY - Qatar

**Session C • SYMPOSIUM 38**
Room Camille Blanc

09.30-09.42 ❙ How would you train if you weren’t governed by fear of injury?
Rodney Whiteley - Qatar

09.42-09.54 ❙ Injury prevention programmes are bargains, but very few are buying them: Why?
Merete Møller - Denmark

09.54-10.06 ❙ I choose a throwing performance programme over injury prevention training every day of the week!
Martin Askar - Sweden

10.06-10.18 ❙ I don’t do hamstring injury prevention training, it will just decrease your performance!
Tania Pizzari - Australia

10.18-10.30 ❙ If I do the Copenhagen Adduction Exercise, I’ll be sore for a week, so no thank you!
Andreas Serner - Denmark/Qatar

10.30-10.42 ❙ 30 years of research and clinical experience on the bumpy road of injury prevention - what do we see on the horizon?
Rodney Whiteley - Qatar

10.42-11.00 ❙ Panel discussion: Adherence to injury prevention strategies that have proven efficacy is a challenge for sports medicine practitioners. How can we improve the practical translation from research to real world settings? How can we enhance implementation of injury prevention in sport?
Whiteley, Moller, Askar, Pizzari, Serner

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**INJURY PREVENTION II**

Chairs: Jonathan DREZNER - USA, Erich MÜLLER - Austria

09.30-09.40 ❙ Do non-elite soccer teams implement neuromuscular training to prevent non-contact anterior cruciate ligament injuries? #1217
Christophe Eeckhaut, Lieselot Longé, Winnie Debecker, Lore Meganck, Lynn Leemans, Ronald Bury, David Beckwée, Tim Hendriks, Michel Stéphane (Belgium)

09.40-09.50 ❙ Implementing a School Prevention Program to Reduce Injuries through Neuromuscular Training (SPRINT). A cluster-randomized controlled trial #1605
Carla Vandenberg (Canada), Carolyn Emery (Canada), Sarah Richmon (Canada), Luz Palacios-Derflingher (Canada), Carly McKay (United Kingdom), Patricia K. Doyle-Baker (Canada), Megan McKinlay (Canada), Clodagh Toonney (Canada), Alberto Nettel-Aguirre (Canada), Evert Verhagen (The Netherlands), Kathy Belton (Canada), Alison K. MacPherson (Canada), Brent E. Hage (Canada)

09.50-10.00 ❙ Injury prevention: exploring factors affecting adherence to different exercise programmes in men’s community rugby union #1320
Matthew Attwood, Carly McKay, Simon Roberts, Grant Trewarthra, Keith Stokes (United Kingdom)

10.00-10.10 ❙ Kinematic and neuromuscular predictors of failed landings during unanticipated drop-jumps: implications for injury prevention #1579
Nicholas Romanchuk, Céline Girard, Daniel Benoit (Canada)

10.10-10.20 ❙ The preventive effect of targeted adductor training on groin pain from football players #997
Julia Smakal, Nadja Jamrog, Bartosz Wojanowski (Germany)

10.20-10.30 ❙ Supervised implementation of a neuromuscular training warm-up programme to improve adherence and reduce injuries in youth basketball: A cluster randomised trial #1457
Oluwatoyosi Owoeye (USA/Canada), Kati Pasanen (Canada/Finland), Anu Räisänen (Canada), Kimberly Befus (Canada), Tyler J. Tait (Canada), Carlyn Stilling (Canada), Vineetha Warrriyar (Canada), Luz Palacios-Derflingher (Canada), Carolyn Emery (Canada)

10.30-10.40 ❙ Identifying the challenges to implementing a netball neuromuscular warm-up using concept mapping #1496
Erin Smyth, Renee Appaneal, Michael Drew, Alanna Antcliff, Gordon Waddington, Juanita Weissensteiner, Phillip Newman, Alex Donaldson (Australia)

10.40-10.50 ❙ Warm-up practices in high school basketball: Searching for clues to improve injury prevention program implementation strategies #1345
Anu Räisänen (Canada), Oluwatoyosi Owoeye (Canada/USA), Kimberly Befus (Canada), Carla Vandenberg (Canada), Kati Pasanen (Canada/Finland), Carolyn Emery (Canada)

10.50-11.00 ❙ The effectiveness of neuromuscular training warm-up programme to reduce knee and ankle injuries in youth basketball: A historical cohort study #1511
Oluwatoyosi Owoeye (USA/Canada), Kati Pasanen (Canada/Finland), Kimberly Befus (Canada), Carlyn Stilling (Canada), Brianna Gham (Canada), Tyler J. Tait (Canada), Tate Hubka-Rao (Canada), Luz Palacios-Derflingher (Canada), Vineetha Warrriyar (Canada), Carolyn Emery (Canada)
Independent risk factors associated with illness-related medical encounters during a 109 km cycling event are older age, slower cycling speed and warmer environmental conditions: a SAFER study in 102251 race starters

Independent risk factors associated with injury-related medical encounters during a 109 km cycling event are female sex, older age, faster cycling speed and environmental conditions: a SAFER study in 21824 cyclists

Years of training, older age, history of chronic disease and medication use are risk factors associated with overuse injuries in recreational cyclists: a cross-sectional SAFER study in 97946 cyclists

Average race day environmental data underestimates individual athlete environmental exposure in a mass-participation endurance cycling event with a staggered start: a SAFER study

Sleep and general health predict higher injury rates in endurance athletes: a prospective study

How can we prevent Exercise-Induced Laryngeal Obstruction (EILO) from obstructing the athletes’ career? How can we prevent Exercise-Induced Laryngeal Obstruction (EILO) from obstructing the athletes’ career?

Athletes’ breathing, asthma or EILO? Undiagnosed EILO hampers athletes’ career. Asthma medication used for wrong reasons. EILO can be treated.

Successful medical teams are characterised by effective leadership. What is leadership, why does it matter, how can you harness it?

Injury prevention: the role of video analysis

How do we use video analysis with injury surveillance to understand injury risk? We will consider practical issues involved in video analysis.

Mirror mirror on the wall.... What’s the minimum machine learning I should know: a brief introduction to machine learning

Machine Learning: What it is/is not and how some techniques work.

This workshop will give you the keys to talk to coaches about training load and make you able to translate load and injury research into practical solutions.
SCIENTIFIC PROGRAMME
Saturday 13 February

**Session K • WORKSHOP**

09.30-10.30

Room Genevoix 1

**Elite cycling: preventing injury and increasing rider safety #1273**

*Stephen Boyce - United Kingdom, Neil Heron - United Kingdom*

Cycling is a popular global sport. Road racing can be a dangerous environment with a high potential for injury and trauma. Can we make professional cycling safer for riders? Can we improve our management of concussion and trauma? We discuss the practicalities, offer solutions and invite debate.

**Session L • WORKSHOP**

09.30-10.30

Room Genevoix 2-3

**Going from 2016 to 2020 and beyond: from “screening will never predict injuries” to “complex systems thinking”, lessons learnt from big data collection, and how to keep it simple #1476**

*Nikki Rommers - Belgium, Bruno Tassignon - Belgium*

From 2016 to 2020 and beyond: screening will never predict injuries and complex systems, lessons learnt from big data and how to KiSS.

**Session A • SYMPOSIUM 39**

11.00-11.30

Coffee Break

11.30-13.00

Room Salle des Princes

**TRAINING LOAD AND INJURY [146]**

*Chair: Karim CHAMARI - Qatar*

11.30-11.33

*Introduction*

*Karim Chamari - Qatar*

11.33-11.45

*Training load monitoring: Objective and subjective tools – feasibility in the field*

*Karim Chamari - Qatar*

11.45-11.57

*Training load data analysis: What variables, what stats, what tools? What does it all mean when I just want to prevent injuries?*

*Rodney Whiteley - Qatar*

11.57-12.09

*From research to the football World Cup: lessons learned from implementing training load monitoring in elite football players*

*Grégory Dupont - United Kingdom/France*

12.09-12.21

*Navigating the complex relationship between training load and groin injury in professional male football players*

*Andrea Mosler - Australia*

12.21-12.33

*Training load specifics for tendons – prevention of injuries and re-injuries when there is ‘pathology’, pain, or a ‘normal’ tendon?*

*Jill Cook - Australia*

12.33-12.45

*Modifying training loads to reduce the risk of further injury for athletes following knee surgery*

*Kay M. Crossley - Australia*

12.45-13.00

*Discussion*

**Session B • SYMPOSIUM 40**

11.30-13.00

Room Prince Pierre

**THE INJURY PREVENTION (R)EVOLUTION - A PRIMER FOR TOMORROW [362]**

*Chairs: Nicol van DYK - Qatar, Johann WINDT - Canada*

11.30-11.35

*Introduction: Back to the future for prevention?*

*Nicol van Dyk - Qatar*

11.35-11.45

*Injury surveillance has changed dramatically: What will it look like in 2024?*

*Torbjørn Soligard - Norway/Switzerland*

11.45-12.00

*Technology will change the game - and it already has*

*Lorena Torres Ronda - USA*

12.00-12.15

*Don’t bring your opinion to a data fight: Analytics will enhance our prevention strategies*

*Johann Windt - Canada*

12.15-12.30

*Scaling up our prevention capacity - the key is context*

*Carly McKay - United Kingdom*

12.30-12.45

*Will future coaches be better partners to effectively drive injury prevention efforts? 5 ways you can make sure they are*

*Kerry MacDonald - Canada*

12.45-13.00

*Panel discussion and case study: We will illustrate an injury prevention strategy/intervention using a practical example*

*Nicol van Dyk, Soligard, Torres Ronda, Windt, McKay, MacDonald*

**Session C • SYMPOSIUM 41**

11.30-13.00

Room Camille Blanc

**INJURY PREVENTION – WHAT CAN YOU LEARN FROM OUR BIGGEST MISTAKES? [255]**

*Chair: Michael TURNER - United Kingdom*

11.30-11.45

*Epidemiological headaches*

*Evert Verhagen - The Netherlands*

11.45-12.00

*Injury prevention in youth sport: it isn’t just about the research findings*

*Carolyn Emery - Canada*

12.00-12.15

*Sports medicine solutions that failed*

*Babette Pluim - The Netherlands*

12.15-12.30

*Trust your physio, we don’t make mistakes*

*Caroline Boling - The Netherlands/Brazil*

12.30-12.45

*Popular injury prevention myths that aren’t supported by science*

*Michael Turner - United Kingdom*

12.45-13.00

*Panel Discussion:*

*Turner, Verhagen, Emery, Pluim, Boling*
**DISTANCE RUNNING**

**Session D • FREE COMMUNICATIONS**

**Room Auric**

**Chair: Kathryn ACKERMAN - USA**

**11.30-11.40** Experienced runners with an above average training load have the highest risk of exercise associated muscle cramping (EAMC) #1538

Martin Schwellnus, Esme Jordaan (South Africa)

**11.40-11.50** Risk factors associated with injuries in first-time marathoners: a 12-week prospective study #1041

Breit Toresdahl, Kathryn McElheny, Mark Alan Fontana, Jordan Metzl, Brittany Ammerman, James Kinderknecht (USA)

**11.50-12.00** Primary or secondary injury prevention in recreational runners: does it differ? #1427

Tryntje Fokkema, Robert-Jan de Vos, Sita M.A. Biema-Zeinstra, Marienke van Middelkoop (The Netherlands)

**12.00-12.10** The use of artificial intelligence tools to estimate running-related injury risk profiles in recreational runners #1491

Gustavo Leporace, Gustavo Nakaoka, Leonardo Metsavaht, Luiz Hespanhol Jr (Brazil)

**12.10-12.20** A novel comparison of impact accelerations between prospectively injured runners and runners with and without a history of injury #1338

Aocii Burke, Kieran Moran, Enda Whyte, Sarah Dillon, Shane Gore, Siobhán O’Connor (Ireland)

**12.20-12.30** Environmental factors, training factors, race pace and distance, older age, and metabolic/endocrine disease are independent risk factors associated with adverse events in runners: a SAFER study in 76654 starters #1534

Martin Schwellnus (South Africa), Nicola Sewry (South Africa), Mats Borjesson (Sweden), Sonja Swanevelder (South Africa), Esme Jordaan (South Africa)

**12.30-12.40** Self-reported medical conditions/medication use, older females, and slow pace are independent risk factors for all medical encounters in a 90 km ultramarathon: a SAFER study in 70328 runners over 5 years #1539

Nicola Sewry, Jeremy Boulter, Martin Schwellnus (South Africa)

**12.40-12.50** Metabolic/endocrine disease, older females, longer race distance, slower race pace and higher WBGT are independent risk factors associated with medical encounters in 21.1 km and 56 km runners: a SAFER study in 76654 starters #1536

Martin Schwellnus (South Africa), Nicola Sewry (South Africa), Mats Borjesson (Sweden), Sonja Swanevelder (South Africa)

**12.50-13.00** Slower runners, older females and route characteristics are independent risk factors for serious/life-threatening medical encounters in a 90 km ultramarathon: a SAFER study in 70328 runners over 5 years #1540

Nicola Sewry, Jeremy Boulter, Martin Schwellnus (South Africa)
### Session F • WORKSHOP
11.30-12.30  
Room Bosio 1

**Stimulating talent development and preventing injuries simultaneously – bio-banded training in elite youth football? #1477**

Nikki Rommers - Belgium, Jan Willem Teunissen - The Netherlands

*Talent development meets injury prevention in adolescent elite football players: the right training at the right time works like a charm.*

### Session G • WORKSHOP
11.30-12.30  
Room Bosio 2

**Performance driven injury prevention #1487**

Hunter Visser - Canada

*In this session you will learn to help athletes manage the four mental and physical states that cause over 95% of injuries and performance errors.*

### Session H • WORKSHOP
11.30-12.30  
Room Lifar

**The acute:chronic workload ratio: evolution or revolution? #1145**

Sean Williams - United Kingdom, Ian Shrier - Canada

*What are the limitations of the ACWR? And can these challenges be overcome? We will discuss potential solutions to this issue.*

### Session I • WORKSHOP
11.30-12.30  
Room Scotto

**Studying techniques to reduce the risk of injuries in contact sports - from the lab to the field #1531**

Sharief Hendricks - South Africa/United Kingdom, Gregory Tierney - United Kingdom

*Demonstrate current methodologies used to study techniques in contact sports for effective injury prevention and discuss potential future innovations.*

### Session J • WORKSHOP
11.30-12.30  
Room Poulenc 1

**Rugby-7s is fast, but are we running and about to knock-on! Evidence-based rugby-7s injury prevention concepts #1542**

Victor Lopez Jr - USA/New Zealand, Patria Hume - New Zealand

*What are developing markets rugby-7s injury risks? What interventions improve developing nations performance? We discuss evidence-based solutions.*
**Session B • SYMPOSIUM 43**
Room Prince Pierre

**IMPLEMENTING CHANGE IN PERFORMANCE AND PREVENTION: PERSUASION, PERSEVERANCE, PASSION [181]**

Chairs: Mario BIZZINI - Switzerland, Nicola PHILLIPS - United Kingdom

- 14.30-14.35 Setting the scene for leadership in practice change
  Nicola Phillips - United Kingdom

- 14.35-14.45 The 11+ story: how F-MARC changed practice on a global basis
  Mario Bizzini - Switzerland

- 14.45-14.55 Changing practice in a performance environment – Australian Ballet
  Susan Mayes - Australia

- 14.55-15.05 Leading a change in practice for reducing injuries in a team setting
  Mo Gimpel - United Kingdom

- 15.05-15.15 Increasing professional engagement in change – setting the tone
  Emma Stokes - Qatar/Ireland

- 15.15-15.30 Panel discussion: How do we change mindsets to adopt a different approach for injury prevention?

**Session C • SYMPOSIUM 44**
Room Camille Blanc

**INJURY PREVENTION IN HANDBALL: WHAT HAVE WE LEARNED AND WHERE ARE WE GOING? [568]**

Chairs: Lior LAVER - United Kingdom/Israel, Grethe MYKLEBUST - Norway

- 14.30-14.42 Laying the ground for the next step in injury prevention in Handball – The Handball Consensus statement on injury and illness data collection
  Lior Laver - United Kingdom/Israel

- 14.42-14.54 Injury prevention strategies for the lower extremities in handball: More than just a throwing sport!
  Grethe Myklebust - Norway

- 14.54-15.06 Risk factors and injury prevention for the upper extremities in handball
  Martin Asker - Sweden

- 15.06-15.18 The role of load management in injury prevention in handball
  Merete Møller - Denmark

- 15.18-15.30 Discussion

**Session D • SYMPOSIUM 45**
Room Auric

**IT'S NOT COMPLICATED: INJURY PREVENTION IN SPORT THROUGH A COMPLEX SYSTEMS APPROACH [218]**

Chairs: Sheree BEKKER - South Africa/United Kingdom, Nicol VAN DYK - Qatar

- 14.30-14.35 Introduction
  Nicol van Dyk - Qatar

- 14.35-14.45 The evolution of injury prevention models in the past 30 years
  Willem Meeuwisse - Canada

- 14.45-14.55 Risk factor identification to injury pattern recognition – key principles in complex systems theory
  Natália F. N. Bittencourt - Brazil

- 14.55-15.05 Small big data - How to apply complex approaches at an individual level
  Nicol van Dyk - Qatar

- 15.05-15.15 What works in Melbourne on a muggy Monday won't work in Soweto on a sunny Saturday: considerations for successful implementation in complex settings
  Sheree Bekker - South Africa/United Kingdom

- 15.15-15.30 Panel discussion
  van Dyk, Meeuwisse, Bittencourt, Bekker

**Session E • SYMPOSIUM 46**
Room Van Dongen

**PREVENTION OF LONG-STANDING GROIN PAIN IN ATHLETES [361]**

Chair: Per HÖLMICH - Denmark

- 14.30-14.42 Prevention with athletic exercise based on pathology
  Sadao Niga - Japan

- 14.42-14.54 Prevention of core muscle injuries in athletes
  Alexander E. Poor - USA

- 14.54-15.06 Cross-motion swing produces effective pelvic motion for prevention by three-dimensional movement analysis
  Mitsunori Kaya - Japan

- 15.06-15.18 Development of clinical entities, treatment, and prevention
  Per Hölmich - Denmark

- 15.18-15.30 Panel discussion: Future strategies for long-standing groin pain prevention
  Niga, Poor, Kaya, Hölmich
### Session F • WORKSHOP
#### 14.30-15.30
**Room Bosio 1**

*Injury risk reduction in elite road cycling: shoulder performance matters!* #1578

**Kevin Kuppens** - Belgium, **Stefan Deckx** - Belgium

An interactive workshop emphasizing the need for shoulder girdle training aiming at injury risk reduction in elite road cyclists.

### Session G • WORKSHOP
#### 14.30-15.30
**Room Bosio 2**

*Engaging with modern media: are sports medicine clinicians missing the mark for injury prevention?* #1589

**Osman Ahmed** - United Kingdom, **Karen Litzy** - USA

Elevate your media game. Discover how you can tap into mainstream and social media platforms to disseminate evidenced based sports injury information to the public.

### Session H • WORKSHOP
#### 14.30-15.30
**Room Lifar**

*#SoMe or Not #SoMe? How to turbocharge knowledge translation in sport and exercise medicine for real-world prevention impact* #1600

**Nirmala Perera** - Switzerland/Sweden/United Kingdom/Australia, **Steffan Griffin** - United Kingdom

Interactive workshop to empower delegates to actively contribute towards #IOCprev2020 #SoMe strategy to spread key injury prevention message to a global audience.

### Session I • WORKSHOP
#### 14.30-15.30
**Room Scotto**

*How hard do you have to be a hardened professional sportsperson? Lessons from England Cricket's lumbar spine stress fracture research program, exploring bone density, bone adaptation, injury resilience and readiness to perform* #1632

**Nicholas Peirce** - United Kingdom, **Pete Alway** - United Kingdom

How hard is a hardened sportsperson? What does safe career bone progression look like? England Cricket presents data that informs sport.

### Session J • WORKSHOP
#### 14.30-15.30
**Room Poulenc 1**

*Youth elite football: Attacking injuries from an epidemiological and clinical perspective* #1644

**Olivier Materne** - Qatar, **Eirik Halvorsen Wik** - Qatar/Norway

This workshop will highlight methodological and clinical considerations related to injury risk and youth football development.

### Session K • WORKSHOP
#### 14.30-15.30
**Room Genevoix 1**

*KOJI AWARENESS™, the self-evaluation system for total body movement* #1789

**Koji Murofushi** - Japan

Access to the appropriate body screening is significant for preventing injury. This workshop will highlight the new system, which does not require a specific tool.

### Session L • WORKSHOP
#### 14.30-15.30
**Room Genevoix 2-3**

*Are running mechanics limiting the development of the endurance athlete?* #1169

**Chris Bramah** - United Kingdom

The workshop aims to discuss whether we can optimise running mechanics to improve injury & performance outcomes amongst endurance runners.

### Session A • SYMPOSIUM 47
#### 15.30-16.30
**Room Salle des Princes**

**INJURY PREVENTION APPS – CLAP OR SCRAP?** [467]

**Chair:** **Tron KROSSHAUG** - Norway

- **15.30-15.35**
  - Introduction
  - **Tron Krosshaug** - Norway

- **15.35-15.45**
  - GET SET – the IOC/OSTRC app: The importance of user involvement
  - **Kathrin Steffen** - Norway

- **15.45-15.55**
  - Real-world injury reduction after implementation of the Knee Control exercise based injury prevention programme: An app success story
  - **Markus Waldén** - Sweden

- **15.55-16.00**
  - Taking it to the next level. Sophisticated 3D animations for injury prevention delivery
  - **Tron Krosshaug** - Norway

- **16.00-16.10**
  - Injury prevention through apps, how to reach our audience?
  - **Evert Verhagen** - The Netherlands

- **16.10-16.30**
  - Panel discussion: Injury prevention through mobile apps – how can we improve?
  - **Krosshaug, Steffen, Waldén, Verhagen**
Session B • SYMPOSIUM 48

Room Prince Pierre

PROTECTING RESPIRATORY HEALTH IN ATHLETES: WHAT CAN WE DO BETTER? [174]

Chairs: James Hull - United Kingdom, Michael Loosemore - United Kingdom

15.30-15.35
- Introduction
  Michael Loosemore - United Kingdom

15.35-15.45
- Respiratory problems in athletic individuals: What’s hot and what’s not?
  James Hull - United Kingdom

15.45-15.55
- Allergy and pollution exposure when exercising: Can we do better to protect respiratory health?
  Michael Koehle - Canada

15.55-16.05
- Respiratory tract infections: The good, the bad and the ugly
  Martin Schwellnus - South Africa

16.05-16.15
- Delivery of optimal respiratory health in a world-class performance system: Can it be done?
  Michael Loosemore - United Kingdom

16.15-16.30
- Panel discussion: Future directions in respiratory health: how can we help improve the most important medical problem in athletes
  Loosemore, Hull, Koehle, Schwellnus

Session C • SYMPOSIUM 49

Room Camille Blanc


Chairs: Paul Dijkstra - Qatar, Andrea Mosler - Australia

15.30-15.42
- Our confusing hip language is undermining prevention and protection
  Clare Ardern - Sweden/Australia

15.42-15.54
- To prevent and protect the hip, we have to understand primary cam morphology, its cause and prognosis – but can we yet?
  Paul Dijkstra - Qatar

15.54-16.06
- Screening and intervention to prevent primary cam morphology – is too much sports medicine creating a mountain out of a molehill?
  Andrea Mosler - Australia

16.06-16.18
- Protecting the athlete with primary cam morphology from developing femoroacetabular impingement syndrome and osteoarthritis
  Sion Glyn-Jones - United Kingdom

16.18-16.30
- Panel Discussion: This discussion will focus on the current state of evidence on protecting athletes from developing cam morphology, femoroacetabular impingement syndrome and early hip osteoarthritis. The importance of multi-center collaboration for clinical research, to reach consensus on sharing data and experiences, and develop the foundations for a prospective Individual Patient Data Meta-analysis will also be discussed
  Ardern, Dijkstra, Mosler, Glyn-Jones

Session D • SYMPOSIUM 50

Room Auric

HEALTH IMPACT OF LIFE-LONG PARTICIPATION IN OLYMPIC SPORT [574]

Chair: Yannis Pitsiladis - United Kingdom

15.30-15.42
- Too much of a good thing? The cardiovascular profile of older habitual high volume training endurance athletes
  Jeroen Swart - South Africa

15.42-15.54
- The benefits and consequences of a life in competitive sport: A musculoskeletal perspective
  James Hull - United Kingdom

15.54-16.06
- The health impact of life-long participation in Olympic sport: Lessons from Tokyo 1964
  Michiko Dohi - Japan

16.06-16.18
- The legacy of the Olympic Games and major sporting events: new horizons for life expectancy and health
  Victoriya Badtlieva - Russia

16.18-16.30
- Questions and panel discussion

Session E • FREE COMMUNICATIONS

Room Van Dongen

INJURIES & LOAD MONITORING

Chair: Lars Engbretsen - Norway/Switzerland

15.30-15.40
- Multiple workload spikes and the risk of shoulder injuries in adolescent competitive tennis players: the SMASH cohort study #1675
  Eva Skillgat (Sweden), Ann Cools (Belgium), Jaime Fernandez-Fernandez (Spain), Fredrik Johansson (Sweden)

15.40-15.50
- Training load management and prevention: effects on injury prevalence in high-level rugby center #599
  Juliet Paulus, Arnaud Laly, Sébastien Guns, Jean-François Kaux (Belgium)

15.50-16.00
- Training load and other risk factors for soft tissue injury risk in professional rugby union: a 13 team, 2-season study of 383 injuries #1358
  Stephen West, Sean Williams, Dario Cazzola, Matthew Cross, Simon Kemp, Keith Stokes (United Kingdom)

16.00-16.10
- Match congestion and training load influence injury risk in collegiate men’s and women’s soccer #1461
  Robert Huggins, Ryan Curtis, Courteney L. Benjamin, Yasuki Sekiguchi, Erin Wasserman, David Klossner, Douglas J. Casa (USA)

16.10-16.30
- Monitoring workload to evaluate injury risk: the impact of missing data #1453
  Lauren Benson (Canada), Carlyn Stilling (Canada), Oluwatosiyo Owoye (Canada/USA), Carolyn Emery (Canada)

16.20-16.30
- Workload weighted for tissue damage results in higher acute:chronic workload ratio for injured vs. uninjured athletes #1485
  Lauren Benson (Canada), Oluwatosiyo Owoye (Canada/USA), Carlyn Stilling (Canada), W. Brent Edwards (Canada), Carolyn Emery (Canada)
<table>
<thead>
<tr>
<th>Session</th>
<th>WORKSHOP</th>
<th>Room</th>
<th>15.30-16.30</th>
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<tbody>
<tr>
<td>Session F</td>
<td>Bridging the gap to keep them in the game: sharing a successful knowledge translation initiative to upscale evidence-informed sport injury prevention programs #1678</td>
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<td>Carla Vandenberg - Canada, Kati Pasanen - Canada/Finland</td>
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<td>Sharing the KT process used to upscale injury prevention warm-ups in Canadian community sport: Tips on putting your research into practice.</td>
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<td>Session G</td>
<td>Gold standard with gold quality – tips on how to perform a randomized controlled trial (RCT) with high quality #1684</td>
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<td>Eva Skillgate - Sweden</td>
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<td>For participants to gained knowledge in the most important biases in clinical epidemiology, and on how to plan, implement and evaluate RCTs within sports medicine.</td>
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<td>Session H</td>
<td>Getting hip with injury prevention: how to perform an effective hip screening exam to identify the “hip at risk” #1705</td>
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<td>Marc Philippon - USA, Dustin Nabhan - USA</td>
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<td>We will discuss and demonstrate the importance of the hip screening exam in the understanding and prevention of FAI in athletes.</td>
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<td>Session I</td>
<td>Behave yourself, and avoid overuse injuries #1143</td>
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<td>Ulrika Tranaeus - Sweden, Andreas Ivarsson - Sweden</td>
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<td>Why do athletes ignore warning signals of overuse injuries? Help them to identify signs of overuse injuries and coach them to awareness and a behavioural change. Start all over with ABC!</td>
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<td>Session J</td>
<td>Functional performance testing to assess injury risk in elite youth sport: the long and winding road from the lab to the field and back again #1473</td>
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<td>Nikki Rommers - Belgium, Jo Verschueren - Belgium</td>
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<td>Lessons learnt and results observed: how to improve functional performance testing in injury prevention practice in elite youth sport.</td>
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**Session K • WORKSHOP**

**Session L • WORKSHOP**

**KEYNOTE 5**

**HONORARY KEYNOTE LECTURE**

**CLOSING CEREMONY**

**FACULTY DINNER (by invitation)**
SESSION 1 • SHOULDER
Postera Area – Level -2

Chair: Elizabeth A. ARENDT - USA

The relationship between shoulder pain, physical exam findings, and structural pathology in elite wheelchair athletes #1430
Chei Blauwet (USA/Germany), Wayne Derman (South Africa), Nick Webborn (United Kingdom), Dylan Morrissey (United Kingdom), Julian Chakraverty (United Kingdom), Paul Martin (United Kingdom), Guzel Irïssova (Russian Federation/Germany)

Evaluation of sport specific adaptations at the shoulder joint and core endurance among elite female volleyball players with and without overuse related shoulder problems #1103
Lydia Bucher (Switzerland), Perrette Bauschung Pfister (Switzerland), Ann Coils (Belgium/Denmark)

Is there an association between shoulder injuries in young elite judokas and reduced shoulder range of motion and poor performance in the closed kinetic chain upper extremity stability test? #1702
Thiago Ferreira (Brazil), Fernanda Madaleno (Brazil), Juliana Ocarino (Brazil), Evert Verhagen (The Netherlands), Renan Resende (Brazil)

Risk factors for shoulder pain in junior flatwater kayak athletes #1142
Tatsuya Kasuyama, Kazuhiro Tsuzuki, Naoki Onoto (Japan)

Do clinical Pilates exercises affect scapular stabilization? #1669
Mehmet Micoğulları, S. Fatma Uygar, H. Baran Yosaçağlı, Bûnyamin Hakoever (Turkey)

Acute effect of vibration stimulus around shoulders on sensorimotor control #1107
Masanori Morikawa, Yuki Urabe, Junpei Sasadai, Somu Kotoshiba, Makoto Komaya, Kazuki Fukui, Noriaki Maeda (Japan)

The relationship between scapular internal rotation angle at stride foot contact and scapular internal rotation angle at maximum shoulder external rotation in baseball pitching #1516
Yuki Nomura, Hajime Toda, Masaki Kayotose, Shun Watanabe, Masahiro Yoshida, Makoto Yoshida, Kezo Yamaizato (Japan)

The immediate effects of serving on shoulder rotational range of motion in tennis players #938
Katy Williams, Clair Hebron (United Kingdom)

SESSION 2 • WATER SPORTS
Postera Area – Level -2

Chair: Margo MOUNTJOY - Canada

The incidence of Injuries and Illness during open-water swimming events: Optimising swimmer safety #1220
Amilia Alfrangis, Martin Suzan, Courtney Kipps (United Kingdom)

Swimming-related complications during triathlon event #1118
Amilia Alfrangis, Martin Suzan, Courtney Kipps (United Kingdom)

The incidence of scapholunate ligament disruption in competitive divers #1161
Alethea Beck (United Kingdom)

Physical risk factors for shoulder injuries in water polo #1339
Félix Croteau, Shawn Robbins, David Pearsall (Canada)

SESSION 3 • COMBAT SPORTS
Postera Area – Level -2

Chair: Hideyuki KOGA - Japan

Methods for monitoring training load in competitive swimming #1672
Stef Feijen (Belgium), Angela Tate (USA), Kevin Kuppens (Belgium), Filip Struyf (Belgium)

Swim-training volume and shoulder pain across the life span of the competitive swimmer: a systematic review #1652
Stef Feijen (Belgium), Angela Tate (USA), Kevin Kuppens (Belgium), Anke Claes (Belgium), Filip Struyf (Belgium)

Towards reducing time loss from play: illness and injury surveillance in an elite women’s water polo team #1610
Shauna Christine Hwee Sian Sim, Andrea Jiewen Chen, Uudawattage Dinesh Chaminde Sirisena (Singapore)

The incidence of swimmer’s shoulder and its relevance with the range of movement amongst young swimmers #1646
Károly Töröcs, Anna Schmidtko-Varnagy, Gabriella Szendo, Lehel Bánti, Ágnes Mayer (Hungary)

Investigating the effect of mouth guard use on aerobic performance in amateur boxers #1066
Irfan Ahmed (United Kingdom)

Is there variation in injury and illness severity, hours of training and absence of sports participation in young elite judo athletes during different times in season? A longitudinal study with 121 young judokas #1741
Thiago Ferreira (Brazil), Fernanda Madaleno (Brazil), Juliana Ocarino (Brazil), Evert Verhagen (The Netherlands), Renan Resende (Brazil)

Injuries and illnesses severity and training hour profile of 121 Brazilian young elite judokas during the first eight weeks of season: a descriptive cohort study #1745
Thiago Ferreira (Brazil), Fernanda Madaleno (Brazil), George Sabino (Brazil), Juliana Ocarino (Brazil), Evert Verhagen (The Netherlands), Renan Resende (Brazil)

Video analysis of injury mechanisms in Taekwondo athletes #1547
Hee Seong Jeong (Republic of South Korea), David O’Sullivan (Republic of South Korea), Dae Hyeon Jeong (USA), Sae Yong Lee (Republic of South Korea)

Biomechanical risks of knee injury in mixed martial arts: a video-based notation analysis #1059
Kam Ming Mok, Ivan YH Lau, Lobo Louie, Patrick Shu Hang Yung (Hong Kong, China)

Top-level karate athletes: are they implementing preventative injury measures? #1360
Montassar Tabbou (Qatar), Dusana Cierna (Slovakia), Laura Perez Martin (Spain), Rafael Arriaza (Spain)

Injury analysis in mixed martial arts athletes #1304
Mandy Zhang, Bao Ying Lim, Boon Hor Ho, Benedict Tan, Kelvin Chew (Singapore)

Circadian rhythms and rapid time zone travel: a prospective study of their interaction in elite karate athletes traveling from America to Tokyo, Japan #1392
Green Waggger (USA), Dimitri Papadopoulos (USA), David Murrie (United Kingdom), Mark Kasper (USA)
SESSION 4 • FOOT - ANKLE

Chair: Daniel T. P. FONG - United Kingdom

1. How does the DABI relate to return after ankle injury? #1449
   Aude Aguilaniu (Belgium), Jean-Louis Crosier (Belgium), Cédric Schwart (Belgium),
   Nadia Dardenne (Belgium), Peter D’Hooghe (Qatar), Yanis Zahraoui (Belgium), Romain Collin (Belgium),
   Jean-François Kaux (Belgium)

2. Balance control in chronic ankle instability and healthy subjects: traditional analysis of centre of
   pressure displacement and nonlinear analysis of its variability #1518
   José Esteves, Ricardo Dinis, Orlando Fernandes, Maria António Castro, Raul Oliveira,
   Pedro Pezarat Correia (Portugal)

3. Foot and ankle injuries in young elite judo athletes are associated with reduced ankle range of
   motion and poor performance in the modified star excursion balance test #1739
   Thiago Ferreira (Brazil), Fernanda Madaleno (Brazil), Juliana Ocarino (Brazil),
   Evert Verhagen (The Netherlands), Renan Resende (Brazil)

4. Effect of a single short electrostimulation session of the fibularis muscles on dynamic postural
   stability and eveteror muscles strength #1466
   François Fourchet, Artiom Garchine, Antoine Sureau, Nicolas Le Coroller, Guillaume Servant,
   Boris Gojanovic (Switzerland)

5. Does ankle instability alter muscle activation of lower extremity and ground reaction force during
   landing? A meta-analysis #981
   Sungho Ha, Hyunggyu Jeon, Sae Yong Lee (Republic of South Korea)

6. Understanding the impact of ankle injuries among contemporary pre-professional dancers:
   incidence and risk factors #1334
   Adinda Mailuhu, Rogier van Rijn, Janine Stubbe, Sita M.A., Bierma-Zeinstra, Marienke van Middelkoop
   (The Netherlands)

7. Epidemiology of Ankle Sprains in Elite High School Basketball Players: Medical and Physical
   Checkup Report, Relationships between Prevalence of Ankle Sprains, Unstable sensation, ATFL pathology and the Balance Test #1162
   Shuichi Nakayama, Tsukimura Naoki, Iwakura Nahoko, Yamamoto Takayuki, Ito Eri,
   Takebayashi Tomotomi, Uchino Sayuri, Numasawa Shun, Arimoto Kum, Ikeda Shigehiro (Japan)

SESSION 6 • DANCE

Chair: Yannis PITSILADIS - United Kingdom

1. Effects of hamstring flexibility and increased range of motion since childhood on spinal and
   pelvic sagittal balance and lower extremity alignment: an EOS X-ray-imaging system analysis in
   dancers and football players #1607
   Neslihan Aksu, Vefa Atansay, Busra Akgonul, Ayhan Nedim Kara, Azmi Hamzaoglu (Turkey)

2. Return to dance following arthroscopic knee surgeries: what are the differences between return
   to sport and return to dance #1001
   Neslihan Aksu, Vefa Atansay, Busra Akgonul, Bugra Ayaz, Ayhan Nedim Kara, Azmi Hamzaoglu (Turkey)

3. Association of spinopelvic alignment, lower extremity alignment, hamstring tightness, lower
   extremity range of motion with landing patterns in ballet dancers, folk dancers and football
   players #1129
   Neslihan Aksu, Vefa Atansay, Busra Akgonul, Ayhan Nedim Kara, Azmi Hamzaoglu (Turkey)

4. Bone mineral density and associated factors: do young female dancers and other recreational
   sport athletes differ? #1559
   Meghan Critchley, Ciodagh Toomey, Stacey M. Lobos, Luz Palacios-Derflinger, Sarah J. Kenny,
   Carolyn Emery (Canada)

5. Association between baseline factors and risk of injury amongst pre-professional dancers #1576
   Sarah J. Kenny, Vineetha Warriya K. V., Luz Palacios-Derflinger, Jackie Whittaker, Carolyn Emery
   (Canada)

6. Achilles and patellar tendinopathy structure of elite ballet dancers remains stable across one year
   of training and performances #1595
   Arpita Tan, Richard Clark, Bhavesh Kumar (United Kingdom)

7. Musculoskeletal injuries and dance exposure across three years in elite adolescent ballet
   dancers: is there a pattern? #1561
   Valeriya Volkova, Sarah J. Kenny (Canada)
SESSION 7 • LOW BACK & PELVIS

Chair: Nicola PHILLIPS - United Kingdom

A cross-sectional study of low back pain among retired international athletes (runners, swimmers, rowers, and hockey players)
Dale Cooper, Debbie Palmer, Mary O’Hanlon, Mark Batt (United Kingdom)

Low back pain and associated factors among Italian equestrian athletes: a cross-sectional study
Mario Ferrante, Francesca Bonetti, Filippo Maria Quattrini, Maura Mezzetti, Sabrina Demarie (Italy)

I Neuromuscular responses of the hamstring and trunk muscles during unanticipated trunk perturbations
Ayako Higashihara (Japan), Jurdan Mendiguchia (Spain), Takashi Ono (Japan), Yasuharu Nagano (Japan), Shogo Sasaki (Japan), Shinshiro Mineta (Japan), Norikazu Hirose (Japan)

I Modified kettlebell squats could be safer for the low back of athletes with limited ankle dorsiflexion
Sahin Dogukan Kasapoglu, Gulmez Irfan, Uzun Selda, Ramazanoglu Nusret, Goktug Sanli, Vildan Gozde Gumusbas, Yasar Tatar (Turkey)

I What are the movement patterns associated with good and poor lumbopelvic stability?
Margaret Perrott, Jill Cook, Don Vicendese, Tania Pizzari (Australia)

I An investigation of contact injuries in field hockey
Huw Rees, Ulrik McCarthy Persson, Catherine Blake (Ireland)

I Low back pain in field hockey athletes
Huw Rees, Ulrik McCarthy Persson, Catherine Blake (Ireland)

I Between-side differences in velocity of trunk rotations: can this identify the likelihood of low back pain?
Erika Zemkova, Michal Jelen (Slovakia)

SESSION 8 • FATIGUE

Chair: Yorck Olaf SCHUMACHER - Qatar

I Alteration of dynamic postural control of lower extremity after fatigue
Yong-dae Choi, Sae Yong Lee (Republic of South Korea)

I Examining the relationship between identity and injury fear avoidance: The influence of masculine and athletic identities
Ieuwun Cranwick, Ashley Jones, Phil Clarke, Tod David (United Kingdom)

SESSION 9 • RISK FACTORS

Chair: Natália F. N. BITTENCOURT - Brazil

I Is proximal stability a risk factor for knee injuries in athletic populations? A systematic review with meta-analysis and best-evidence synthesis
Lionel Chia (Australia), Danilo De Oliveira Silva (Australia/Brazil), Marnee McKay (Australia), Justin Sullivan (Australia), Fabio Micolis de Azevedo (Brazil), Evangelos Pappas (Australia)

I Core stability as a risk factor for the development of acute lower extremity injuries in an athletic population: a prospective study
Cedric De Blaiser, Roel De Ridder, Tine Willems, Stefan Vermeulen, Philip Roosen (Belgium)

I Training protective factors for knee pain in Olympic class sailors
Shawn Hunt, Kathryn Roach, Eryan Milian, Katie Dabrowski, Nathan Kuck, Peter Modera, Courtney Ross, Katherine Stewart, Michael Twitty, Kaylee Van Deusen, Lei Zhang (USA)

I Perceived injury risk among elite track & field athletes—a questionnaire-based study
Marta Mereman (Sweden)
SESSION 10 • HAMSTRING
Poster Area – Level -2
Chair: Clare ARDERN - Sweden/Australia

I Running style-dependent risk factors for patellofemoral pain #1002
Julia Smakal, Nadja Jamrog, Bartosz Wojanowski (Germany)

I A risk factor analysis for head, neck, and face injuries between US men and women rugby-7s players by age-groups #1594
Christian Victoria (USA), Danielle C. Ompad (USA), Shen-Ying Richard Ma (USA/New Zealand), Meryle G. Weinstein (USA), Robert C. Cantu (USA/Ireland), Answorth A. Allen (USA), Victor Lopez Jr (USA/New Zealand)

SESSION 11 • CONCUSSION I
Poster Area – Level -2
Chair: Jane THORNTON - Canada

I High concussion rate amongst South African university rugby student tournament #964
James Craig Brown (South Africa), Lindsay Starling (South Africa), Keith Stokes (United Kingdom), Pierre Vives (South Africa), Sean Surmon (South Africa), Keith Derman (South Africa)

I Sport-related concussion in Japanese high school rugby players #1618
Mana Otomo, Suguru Torii, Toru Fukubayashi (Japan)

SESSION 12 • CONCUSSION II
Poster Area – Level -2
Chair: TBA

I Differences in neck proprioception post concussion, at return to play and at end of season in professional rugby union players #1372
Alan Barbero, Theo Farley (United Kingdom)

I Risk factors for post-concussion subsequent musculoskeletal injuries #1465
Thomas Buckley, Jessie Oldham, Caroline Howard, Robert Lynall, Buz Swanik, Nancy Getchell (USA)

I Clinical symptoms and condition-specific health-related quality of life impairments in amateur athletes following return-to-activity after sport-related concussion: a prospective, matched-cohort study #1285
Finn Böttner (Ireland), David Howell (USA), Calibhe Doherty (Ireland), Catherine Blake (Ireland), John Ryan (Ireland), Eamonn Delahunt (Ireland)
I MSK injury likelihood is increased during the 4-month period after a concussion #1412
Lee Herrington, Joshua Wass, Moses Wootten, Caroline Lander (United Kingdom)

I Testing neurocognitive function and balance following sport concussion - do we need baselines? #1755
Michael Hutchison, Alex Di Battista, Kyla Pyndura, Doug Richards (Canada)

I Subsequent injury risk is not specific to concussion in Rugby Union #1208
Isabel Moore, Danielle Vcary, Jim Rafferty, Prabhat Mathema (United Kingdom)

I An assessment of injuries sustained to professional rugby union players following a sports related concussion #1708
Stuart O’Flanagan, Jordan Joe (Ireland)

I Safety of an early, active concussion rehabilitation protocol among professional, collegiate/university, and interscholastic athletes: the active rehab study #1348
Johna Register-Mihalik (USA), Kevin Guskiewicz (USA), Stephen Marshall (USA), Karen McCulloch (USA), Jason P. Mihalik (USA), Martin Mrazik (Canada), Ian Murphy (New Zealand), Dhiren Naidu (Canada), Shabbar Ranapuwala (USA), Kathryn Schneider (Canada), Paula Gildner (USA), Vasiliki Kostogiannes (USA), Michael McCrea (USA)

SESSION 13 • YOUTH FOOTBALL
Chair: Markus WALDÉN - Sweden

I Developmental changes in quadriceps and hamstring muscle strength from youth to senior: a cross-sectional study in 125 elite football players #1563
Larsa Ishøj, Kasper Krommes, Mathias Nielsen, Kasper Thornton, Per Hölmich, Per Aagaard, Jacob Penalver, Kristian Thorborg (Denmark)

I Effects of the Knee Control programme on jump-landing technique and performance in youth players #1294
Hanna Lindblom, Martin Häggland, Markus Waldén, Siw Carlfjord (Sweden)

I The effects of fatigue induced by high intensity soccer-specific simulation on jump-landing mechanics and functional hamstrings to quadriceps ratio in youth players #1683
Raja Mohammed Firdad Raja Addin, Dailid Adil Bukry, Haizdrz Manaf, Maria Justine, Hosni Hasan, Hashbullah Ismail, Rashed Alzari (Malaysia)

I Prevention of fifth metatarsal bone stress fracture in youth Japanese soccer players #1615
Yoshitomo Saita, Nagao Masashi, Kobayashi Yohei, Kobayashi Keiji, Wakayama Takanori, Ikeda Hiroshi (Japan)

I Acute effects of small-sided games on the lower limb functional asymmetry in young soccer players #1039
Italo Sannicandro, Giacomo Cofano, Anna Rosa Rosa, Paolo Traficante, Andrea Piccinino (Italy)

I Acute fatigue effects after Small-Sided Games on functional asymmetry and short sprint performance in young soccer players #1040
Italo Sannicandro, Giacomo Cofano, Anna Rosa Rosa, Paolo Traficante, Andrea Piccinino (Italy)
SESSION 16 • BIOMECHANICS
Poster Area – Level -2
Chair: Erich MÜLLER - Austria

Gender differences in landing mechanics after Anterior Cruciate Ligament Reconstruction #1629
Ahmad Alnazi (Saudi Arabia), Faisal Al-Enezi (Saudi Arabia), Mishal Aldaifan (Saudi Arabia), Hamad Al Amer (Saudi Arabia), Alexis Ortiz (USA)

Relationship between pole vault biomechanics and previous injuries #1251
Pascal Edouard (France/Switzerland), Hervé Sanchez (France), Cyprien Bourrihon (France), Sébastien Homo (France), Julien Frère (France), Johan Cassirame (France)

Effect of prophylactic ankle taping on knee biomechanics during cutting and lateral jumping tasks in professional football (soccer) athletes #975
Pakapon Issaragrisil (Thailand)

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SESSION 17 • INDOOR TEAM SPORTS
Poster Area – Level -2
Chair: Evert VERHAGEN - The Netherlands

Variables associated to knee valgus in male soccer players during a single leg vertical landing task #1493
Gustavo Leoparce, Matheus Vianna, Leonardo Metsavaht, Marcio Tannure, Alex Souto Maior (Brazil)

Biomechanical asymmetries persist in athletes who return to sports after anterior cruciate ligament reconstruction #1378
Yumi Nomura, Masaaki Sugita, Toru Fukubayashi (Japan)

Rearfoot-strike induced hip internal rotation facilitates subsequent knee valgus and tibial internal rotation loadings in cuttings #1508
Issel Ogasawara, Shimokochi Yohei, Nakata Ken (Japan)

Prevention of ankle sprains, instability and fifth metatarsal fractures: A computer model assessment of the effect of hindfoot deformity on mechanical alignment of the lower extremity #1602
Patrick Williamson, Naven Duggal, Ara Nazarian (USA)

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Poster Area – Level -2

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SESSION 18 • FEMALE SPORTS
Poster Area – Level -2

Chair: Kathryn ACKERMAN - USA

- Epidemiology of illness in female athletes: a systematic review #1687
  Thomas Axon (United Kingdom), Nirmala Perera (Sweden/United Kingdom/Australia)

- Anthropometrics and knee dynamic valgus as explanatory factors for landing kinetics and ACL injury risk: a female football cohort study #1411
  Eder Bikandi (Spain), Francisco Amú-Ruiz (Colombia), Alitziber Gómez (Spain), Jose Antonio Lekeu (Spain), Jon Larruskain (Spain), Xabier Monasterio (Spain), Julen Arce (Spain), Igor Setuan (Spain), Mikel Izquierdo (Spain)

- Monitoring well-being and perceived exertion in relation to injury risk in elite female football players over 2 seasons #1127
  Jon Larruskain (Spain), Ane Uría (Scotland), Maiâlen Aidalur (Spain), Iraia Iturregi (Spain), Aritz Yarritu (Spain), Eder Bikandi (Spain), Julen Arce (Spain), Xabier Monasterio (Spain), Jose Antonio Lekeu (Spain), Imanol Martin-Garetxana (Spain)

- The prevalence and burden of pre-menstrual syndrome in the athletic population #1713
  Katie Lydon (Ireland), Sharon Madigan (Ireland), Alan Rankin (United Kingdom)

- Prevalence and burden of menstrual disorders in athletes: a questionnaire study #1740
  Katie Lydon (Ireland), Sharon Madigan (Ireland), Alan Rankin (United Kingdom)

- The Epidemiology of Injury in English Professional Women’s Football: A Prospective Cohort Study #1428
  Lawrence Mayhew, Peter Francis, Gareth Jones (United Kingdom)

- Epidemiology of sports injuries, including overuse injuries in female Japanese college basketball athletes #1119
  Yasaharu Naganotu, Yui Shimada, Naoki Sasaki, Masaki Shibata (Japan)

- Longitudinal documentation of self-reported and physical function in female adolescent athletes with bilateral recurrent ankle sprains #1688
  Masafumi Terada, Kuniharu Toshiyuki, Takashi Sugiyama, Yuki Kusagawa, Takahiro Tanaka, Kento Shimoho, Miyuki Horii, Tadao Isaka (Japan)
SESSION 20 • SCREENING AND PHE

**Chair:** Jonathan DREZNER - USA

- Relationship between balance and lower extremity ROM, H/Q ratio, hamstring tightness, beighton score in professional folk dancers and professional football players #1058
  - Busra Akgonul, Vefa Atansay, Ayhan Nedim Kara, Azmi Hamzaoglu, Neslihan Aksu (Turkey)
- Pre-season clinical assessment of the hip extensors, external rotators and abductors in competitive sprinters #1515
  - Pedro Luiz Flores Fagnan (Spain), Natália F. N. Bittencourt (Brazil), Fabian Peralta (Spain)
- Risk management through an assertive preseason assessment #1260
  - Natália F. N. Bittencourt, Renato de Paula da Silva, Paola de Figueiredo Caldeira, Robson José Rodrigo Tavares de Almeida, Jomar Jorge Ottoni, Gustavo Damásio Magliocca, Luciana De Michelas Mendonça (Brazil)
- Isokinetic profile and contralateral deficit of the lower limbs of artistic gymnastics athletes #1637
  - Stefânia Gonçalves Dias, Natália Batista Albuquerque Goulart Lemos, Morgana Lunardi, Fernando de Aguiar Lemos, Caroline Pieta Dias, João Carlos Oliva, Marco Aurélio Vaz (Brazil)
- The differences of static lower extremity alignment between female ballet students and female non-ballet students #1130
  - Min Jin Kim, Sae Yong Lee (Republic of South Korea)
- Sport Pre-participation health evaluation in elite athletes from a multisport club: proposal for a personalized protocol #1313
  - Ramon Pi, María Sanz de la Garza, Gonzalo Grazioti, Gil Rodas, Manuel García, Marta Sitges, Francheck Drobnic (Spain)
- Should the side-hop test be reduced from 40 cm to 30 cm when used in developmental athletes? #949
  - Isabel Schneider, Nicolai Kammann, Oliver Haertel (Germany)
- Injuries in long distance racecar drivers: A longitudinal study of pre participation examinations #1699
  - Josefine Stoll, Lucie Risch, Michael Cassel, Frank Mayer (Germany)

**SESSION 21 • MSK AND REHAB**

**Chair:** Nicola PHILLIPS - United Kingdom

- Stress fractures during top-level international Athletics championships #1249
  - Pascal Edouard (France/Switzerland), Anders Vinther (Denmark)
- The benefit of subgroup analysis when predicting rehabilitation outcomes in athletic groin pain patients #1416
  - Shane Gore, Chris Richter, Andrew Franklyn-Miller, Eanna Falvey, Enda King, Kieran Moran (Ireland)
- Expert opinion on the assessment and management of calf muscle strain injuries in sport #1503
  - Brady Green, Anthony Schache, Jodie McClelland, Adam Semciw, Tania Pizzari (Australia)
- Return to play from previous injury within 1 years may be an important risk factors to be considered in order to prevent recurrent injury during major events for young athletes #1612
  - Youngun Kim, Sejun Kim, Hee Seong Jeong, Sae Yong Lee (Republic of South Korea)
- A randomised controlled trial investigating the cross-education of strength and power following at-home unilateral calf exercises #1564
  - Niall Simmons, Sumona Mandal, Liang Zhi Wong, Andreas Mirallais, Flaminia Ronca, Bhavesh Kumar (United Kingdom)
- A systematic review of musculoskeletal injuries in professional golfers #1769
  - Patrick Robinson, Lain Murray, Andrew Duckworth, Roger Hawkes, Danny Glover, Nigel Tilley, Rob Hillman, Chris Oliver, Andrew Murray (United Kingdom)
- Commercially-available inertial measurement unit underestimates number of jumps for females more than males: implications for load monitoring and injury prevention #1650
  - Tyler J. Tait (Canada), Lauren Benson (Canada), Kimberley Befus (Canada), John Choi (Canada), Colin Hillson (Canada), Carly Stilling (Canada), Sagar Grewal (Canada), Kerry MacDonald (Canada), Kati Passanen (Canada/Finland), Carolyn Emery (Canada)

**SESSION 22 • CRICKET AND CLIMBING**

**Chair:** Martin SCHWELLNUS - South Africa

- The influence of BMI on chronic injuries and performance in climbing #1090
  - Gudmund Grønhaug (Norway)
- Why not? Use of healthcare and reasons not to seek healthcare by Norwegian climbers with chronic injuries #1091
  - Gudmund Grønhaug, Atle Hole Saeterbakken (Norway)
- Profile of injuries and illness in elite Pakistan cricketers: a longitudinal injury surveillance study over a season (52-weeks) #1562
  - Shane Hayes (Pakistan), Nirmala Perera (United Kingdom/Sweden/Australia)
- Risk factors associated with anxiety and depression in professional cricketers #1206
  - Sharief Hendricks (South Africa/United Kingdom), Nur Amino (South Africa), Ruan Schlebusch (South Africa), JP Van Wyk (South Africa), Stephen Mellalieu (United Kingdom), Vincent Gouttebarge (The Netherlands)
The characterisation of Dupuytren's disease in climbers #1062
Gareth Jones, Mark Johnson, Cara Woodards, Tim Halsey (United Kingdom)

Epidemiology of hospital treated cricket-related hand injuries over a 5-year period in Victoria, Australia #1100
Karishma Shah (United Kingdom), Nirmala Perera (United Kingdom/Sweden/Australia)

SESSION 23 • INJURY PREVENTION MEASURES
Poster Area - Exhibition Hall Diaghilev

Chair: Carolyn EMERY - Canada

- Impact of specific prevention training measured by the Star Excursion Balance Test modified (SEBTm) in young female soccer: a cluster randomised controlled trial #948
  Hugo Del Rabal, Brice Picot, Alexandre Rambaud (France)

- Using infographics and video to prevent injuries and illnesses in athletics #1253
  Pascal Edouard (France/Switzerland), Pedro Branco (United Kingdom), Jennifer Duncan (United Kingdom), Marianna Kiss (Switzerland/Hungary), Frederic Depiesse (France), Andrew Murray (United Kingdom)

- Field Hockey injuries and personal protective equipment: a status survey of German national teams #1379
  Sabrina Gorks, Thomas Henke, Petra Platen (Germany)

- Kinesiotaping: does it really prevent sports injuries? #958
  Yonatan Kaplan (Israel)

- The relationship between exercise frequency and development of knee osteoarthritis (OA) in young & middle-aged population using National Health Insurance Sharing Service (NHISS) #1614
  Soyoung Lee, Sae Yong Lee (Republic of South Korea)

- Injury prevention in professional football: perceptions and strategies of 72 brazilian football clubs #1289
  Christiane de Souza Guerino Macedo, Fernando Cassiolato Freitas, Dirce Shizuko Fujisawa (Brazil)

- Preventive strategies to control delayed onset muscle soreness and muscle fatigue in Brazilian paracanoë athletes #1290
  Christiane de Souza Guerino Macedo, Fernanda Bortolo Pesenti, Gelson Moreira Souza (Brazil)

- A "step" towards prevention of OA in physically active amputees using a novel foot prosthesis: a randomised controlled cross-over trial #1640
  Phoebe Runciman, John Cockcroft, Wayne Derman (South Africa)

SESSION 24 • INJURY SURVEILLANCE
Poster Area - Exhibition Hall Diaghilev

Chair: Karim KHAN - Canada

- Prevalence of CrossFit® related injuries in France: a retrospective study on 3023 participants #1310
  Flavio Bonnet, Hemrick Verwaerde (France)

- The clinical burden of severe sports injuries in England and Wales #1697
  Madeleine Davies, Tom Lawrence, Antoinette Edwards, Fiona Lecky, Carly McKay, Keith Stokes, Sean Williams (United Kingdom)

- Injury burden in American football #1670
  Samuel Johnson, Douglas Aukerman, Cathleen Brown, Marc Norcross (USA)

- Incidence, severity, and burden of hip, groin, and thigh muscle injuries in Division I collegiate American football #1659
  Marc Norcross, Douglas Aukerman, Cathleen Brown (USA)

- Epidemiology in the Japanese Deaf Football National Team in international tournaments #1597
  Yasuaki Saho, Tateishi Tomohiko (Japan)

- Injury rates and mechanisms of injury in female high school rugby #1603
  Isla Shill, Amanda M. Black, Stacy Sick, Ash Kostad, Luz Palacios-Derflingher, Kathryn Schneider, Brent E. Hagel, Carolyn Emery (Canada)

- Surveillance: Injury incidence and injury patterns in professional football players registered in Egyptian Football league #1643
  Mohamed Yahia (Egypt)

- Futbol Club Barcelona ACL injury epidemiology #1467
  Javier Yanguas Leyes, Sandra Mechó Meca, Xavier Alomar Serrallach, Ricard Pruna Grivé, Gil Rodas (Spain)

SESSION 25 • MEDICINE
Poster Area - Exhibition Hall Diaghilev

Chair: Jonathan DREZNER - USA

- Mysterious breathing problems in athletes – what can it be? #1445
  Hege Clemm, Ida Hammer, Maria Vollseter, Ola Røksund, Thomas Halvorsen (Norway)

- Preventing injury to the fetus: Using 3-Dimensional power flow Doppler ultrasonography to analyze placental blood flow during resistance training in pregnant athletes to guard against fetal hypoperfusion #1544
  Sara Gould, Chase Cawyer, Louis Dell'Italia, Lorie Harper, Marcas Bamm (USA)

- Impact of inhaler therapy on hyperpnoea-induced bronchoconstriction in elite swimmers, and test-retest repeatability of EVH challenge in those non-adherent to therapy #1003
  William Gowers, Guy Evans, Jane Carré, Matt Ashman, Anna Jackson, James Hopker, John Dickinson (United Kingdom)
SESSION 26 • YOUTH ATHLETES

Effects of salbutamol prior to diesel exhaust exposure does not affect dyspnea despite reducing the work of breathing in individuals with exercise-induced bronchoconstriction #1094
Sarah Koch (Canada), Joseph Welch (USA), Andrew Ramsook (Canada), Christopher Carlsten (Canada), Jordan A. Guenette (Canada), Michael Stephen Koehle (Canada)

Cardiac fibrosis markers: Galectin-3 and Suppression of Tumorigenicity 2 measurement in participant at the Tor des Géants #1135
Caroline Le Goff (Belgium), Jean-François Kaux (Belgium), Laurence Seidel (Belgium), Laurent Gergelé (France), Grégoire Milet (Switzerland), Magal Vallion (France), Pierre Croisille (France), Étienne Cavalier (Belgium)

Attitudes of elite athletes and their support staff to the influenza vaccine #1276
Frank O’Leary, James O’Donovan (Ireland)

Asthma-related sudden death in competitive athletes #1671
Oliver Price (United Kingdom), Kristen Kucera (USA), Hannah Price (USA), Jonathan Dreznier (USA), Andrew Menzies-Gow (United Kingdom), James Hull (United Kingdom)

SESSION 27 • FOOTBALL

Rising solar radiation in the late morning increases thermoregulatory strain during 2-h football training under a clear sky in the heat #1222
Hidenori Otani, Takayuki Goto, Heta Goto, Yuri Hosokawa, Minayuki Shirato (Japan)

Studying of selected performance and skill test batteries for prediction of severity of injury in Iran premier league football players aged 16-21 years old #1406
Negar Momeni, Mohammad Hossein Alizadeh, Hooman Minooeegad, Mostafa Zarei (Islamic Republic of Iran)

Rising solar radiation in the late morning increases thermoregulatory strain during 2-h football training under a clear sky in the heat #1222
Hidenori Otani, Takayuki Goto, Heta Goto, Yuri Hosokawa, Minayuki Shirato (Japan)

Dietary protein intake for injury prevention and muscle mass maintenance in football players #1487
William Seguin, John Pavlovich, James O’Doherty (Canada)

A randomized controlled trial of the FIFA 11+ shoulder injury prevention program in professional football players in Iran #1557
Negar Momeni, Mohammad Hossein Alizadeh, Hooman Minooeegad, Mostafa Zarei (Islamic Republic of Iran)
SESSION 28 • GROWTH AND MATURATION  
Poster Area - Exhibition Hall Diaghilev

Chair: Fares HADDAD - United Kingdom

1. Rectus femoris and iliopsoas contracture as a risk factors for Osgood-Schlatter disease in high performance youth athletes #1164
   Carlos Alonso Gomez Lopez, Citlali Martinez Martinez, Humberto Lopez Garcia (Mexico)

2. A controlled trial of the effects of neuromuscular training on biomechanical efficiency in adolescent student-athletes #1749
   Joseph Janosky, Daphne Ling, James Kinderknecht, Robert Marx (USA)

3. Injuries according to the percentage of adult height in an elite football academy #1421
   Xabier Monasterio, Susana Maria Gil, Iria Bidaurreta-Leiton, Jose Antonio Lekue, Gontzal Diaz-Belita, Juan Maria Santistebe, Imanol Martin-Garetxana, Eder Bikandi, Julen Arce, Jon Larruskain (Spain)

4. A Qualitative scoring system of unilateral loading, assessment of movement quality in youth multisport athletes during growth #1353
   Gemma Parry (United Kingdom)

5. Effect of maturation on knee extensor and flexor strength in male and female adolescent athletes #1639
   Kerry Peek (Australia), Kevin Ford (USA), Gregory Myer (USA), Timothy Hewett (USA), Evangelos Pappas (Australia)

6. Knee and ankle overuse injuries in youth basketball players #1490
   Carlyn Stilling (Canada), Oluwatoyosi B.A. Owoeyea (Canada/USA), Lauren Benson (Canada), Kati Paasanen (Canada/Finland), Carolyn Emery (Canada/USA)

SESSION 29 • CONCUSSION III  
Poster Area - Exhibition Hall Diaghilev

Chair: Margo MOUNTJOY - Canada

1. Concussion publicity and differences in collegiate athletes’ concussion awareness, understanding, and reporting behaviors in different countries #1246
   Erica Beidler (USA), Aila Alghwiri (Jordan), Jessica Wallace (USA), Siobhan O’Connor (Ireland)

2. Increased cervical strength is associated with reduced head impact magnitude in International Blind Football #1000
   Daniel Fitzpatrick, Peter Thompson, Courtney Kipps, Nick Webborn (United Kingdom)

3. Using implementation science to optimize the impact of concussion education #1502
   Emily Krosthus, Sara Chrisman, Ann Gleng, Tamerah Hunt, Rachel Hays, Kimberly Garrett, Maria Manzueta, Frederick Rivara (USA)

4. Lifetime prevalence and one-year incidence of sport-related concussion in adolescents #1735
   Jocelyn McCallum, Carolyn Emery, Paul H. Ellisson, Kathryn Schneider, Amanda M. Black (Canada)

5. Middle school sport parent reported norms concerning youth athlete concussion care-seeking and playing behaviors: implications for concussion prevention #1347
   Johna Register-Mihalik, Avinash Chandran, Aliza Nedimyer, Melissa Kay, Christine Callahan, Paula Gildner, Vasiliki Kostogiannes, Stephanie Krieg, Zachary Kerr (USA)

6. Knowledge of sports related concussion in young sports athletes #979
   Duncan Reid, Patria Hume, Chris Whatman, Alice Theadom, Simon Walters, Mark Fulcher, Maureen O’Reilly, Susan Mahon, Jules Lough (New Zealand)

7. Playing the game or gaming the system: are US private high school student-athletes reporting, hiding or faking concussions? #1778
   Katherine Snedaker, Jason Bouton (USA)

8. Effects of design elements of state-level traumatic brain injury laws on rates of new and recurrent concussions #1216
   Jingzhen Yang (USA), Hosea Harvey (USA), Lindsay Sullivan (USA), Lihong Huang (USA/China)
SESSION 30 • RUNNING
Poster Area - Exhibition Hall Diaghilev

Chair: Lars ENGBRETSEN - Norway/Switzerland

1 Risk factors for injuries in recreational runners with a history of running injuries #1230
Tryntsje Fokkema, Robert-Jan de Vos, Sita M.A. Bierma-Zeinstra, Marienke van Middelkoop (The Netherlands)

2 Prediction of running related injury incidence from training sessions descriptors of amateur trail runners #1674
Gabriela Gonzalez-Saez, Pablo Huijse, Ruben Gajardo (Chile)

3 Leg compartment pressures in collegiate runners: a comparison of symptomatic and asymptomatic athletes #989
Timothy Miller, Nicholas Early, Christopher Kaeding (USA)

4 The effect of changing foot progression angle using real-time visual feedback on rearfoot eversion during running #1420
Seyed Hamed Mousavi (The Netherlands), Laurens van Kouwenhove (The Netherlands), Reza Rajabi (Islamic Republic of Iran), Johannes Zwerver (The Netherlands), Juha Hjamins (The Netherlands)

5 Long-term medical conditions (LTMCs) in marathon participants #1726
Ashley Ridout, Laura Connolly, Deepa Bala, Courtney Kipps (United Kingdom)

6 Training factors and acute illness in marathon running event participants #1630
Ashley Ridout, Laura Connolly, Deepa Bala, Courtney Kipps (United Kingdom)

7 What are the main risk factors for lower-extremity running-related injuries? A retrospective survey-based on 3669 respondents #1405
Damien Santillip, Charlotte Beaudart, Olivier Bruyère, Jean-François Kaux (Belgium)

8 Epidemiology of injury and illness among trail runners: a systematic review #1569
Carol Viljoen (South Africa), Christa Janse van Rensburg (South Africa), Evert Verhagen (The Netherlands), Willem van Mechelen (The Netherlands), Ritva Tomas (Portugal), Marlene Schoeman (South Africa), Susan Scheepers (South Africa), Elzette Korkie (South Africa)

SESSION 31 • MSK RISK FACTORS
Poster Area - Exhibition Hall Diaghilev

Chair: Natália F. N. BITTENCOURT - Brazil

1 Relationship of patellofemoral angles and tibiofemoral rotational angles with jumper’s knee in professional folk dancers: an MRI analysis #999
Neslihan Aksu, Vefa Atasay, Isik Karalok, Ayhan Nedim Kara, Azmi Hamzaoglu (Turkey)

2 Calcaneal bone density and bone stress injury in NCAA division I Athletes and non-intercollegiate athlete college students #960
Jason Bennett, Tricia Austin, Ann Hayes, Mark Reinking (USA)

3 Kinematic risk factors of lower extremity overuse injuries during landing tasks in a physically active population: a systematic review and meta-analysis #1397
Camilla De Bleeker, Stefan Vermeulen, Cedric De Blaer, Tine Willems, Joke Schuermans, Roel De Ridder, Philip Roosen (Belgium)

4 Are lower limb isometric muscle torque and dorsiflexion range of motion associated with calf and Achilles tendon injuries among runners? A prospective study #1588
Sarah Dillon, Enda Whyte, Aoife Burke, Siobhan O’Connor, Shane Gore, Kieran Moran (Ireland)

5 Hip extensor weakness is associated with lower limb muscle strain in male elite volleyball athletes #1450
Natália F. N. Bittencourt, Renato de Paula da Silva, Paola de Figueiredo Caldeira, Alysson Lima Zun, Daniel Bornelli Campos Serio, Petterson Moura da Silva, Luciana De Micheis Mendonça (Brazil)

6 Variation of Tuck Jump Assessment kinetics in female athletes #1464
Lucy Kember, Isabel Moore, Rhodri Lloyd (United Kingdom)

7 Alterations in whole-body biomechanics during failed and successful unanticipated single-leg landings: implications for injury prevention #1580
Nicholas Romanchuk, Kenneth Smale, Michael Del Bel, Daniel Benoit (Canada)

8 Does hip strength predict dynamic valgus in female recreational runners? #1492
Gabriel Zeitoune, Jurandir Nadal, Luiz Alberto Batista, Leonardo Metsavaht, Paulo Lucareli, Gustavo Leporace (Brazil)

SESSION 32 • HEALTH AND PROTECTIVE EQUIPMENT
Poster Area - Exhibition Hall Diaghilev

Chair: Daniel T. P. FONG - United Kingdom

1 Short Track vs Hockey Helmets: Investigating Impact Attenuation Properties of Helmets in two skating sports #1679
Daniel Aponte, Suzanne Leclerc, David Pearsall (Canada)

2 Short Track vs Hockey Helmets: Using Finite Element Analysis to compare strain to the brain #1693
Daniel Aponte, Suzanne Leclerc, David Pearsall (Canada)

3 Do mouthguards prevent oro-facial trauma in sport: a systematic review #1037
Peter Fine (United Kingdom)
SESSION 33 • EPIDEMIOLOGY METHODOLOGY

Chair: Elizabeth A. ARENDT - USA

I Can a behaviour change intervention improve athlete oral health? #990
Julie Gallagher, Paul Ashley, Ian Needleman (United Kingdom)

I Eye injuries in sports: an update #1435
Thomas Henke, Gerhard Jendrusch, Petra Platen (Germany)

I How can we protect athletes from dental erosion? #1011
Hesham Matatabi, Paul Ashley, Pete Wilde, Ian Needleman (United Kingdom)

I Microbiome analysis in elite sport #1269
Ian Needleman (United Kingdom), Brian Klein (USA), Jared Hendrickson (USA), Mehmet Davrandi (United Kingdom), Julie Gallagher (United Kingdom), Paul Ashley (United Kingdom), David Spratt (United Kingdom)

I Equipment-related risk factors for ACL injury among recreational skiers – a case control study #1098
Gerhard Ruedi, Markus Posch, Katja Tecklenburg, Martin Faulhaber, Martin Burtscher (Austria)

SESSION 34 • MEDICATION/NUTRITION/VIT.D

Chair: Kathryn ACKERMAN - USA

I Vitamin D status and muscle injury risk in elite male football players over 3 seasons #1415
Julien Arce, Toscana Viar, Jose Antonio Lekue, Pacho Angulo, Imanol Martin-Gaetxan, Eder Bikandi, Xabier Monasterio, Jon Larrañaga (Spain)

I Individual and combined effects of hydration status and ice water dousing on physiological and performance indices during intermittent exercise in the heat #1718
Courtesey L. Benjamin, Yasuki Sekiguchi, Margaret C. Morrissey, Cody R. Butler, Erica M. Filep, Rebecca L. Stearns, Douglas J. Casa (USA)

I Can ibuprofen prevent acute mountain sickness in moderate altitude? #601
Ana Carolina Corte, Roberto Nahon, Breno Schor, Felipe Hardt, Rodrigo Sasson (Brazil)

I Self-medication in fitness centers #1368
Julien Dellaite, Victoria Lecleicoq, Jean-François Kauz, Olivier Bruyère (Belgium)

I Serum vitamin D levels and risk of musculoskeletal injury in university track and field athletes #1523
Timothy Miller, Sarah Harangody, Scott Kuzma, Robert Magnusen (USA)

I Knowledge, attitude and usage of doping drugs among national level athletes in Sri Lanka #972
Akhila Nilaweera, Upuli Nadishani, Geeth Nipunya, Naveen Wijekoon (Sri Lanka)

SESSION 35 • COACHING ETC.

Chair: Yannis PITSILADIS - United Kingdom

I The impact of sport specialization on injury, success, and perceptions of health #1057
Julie Agel, Todd Rockwood, Anne Eaton (USA)

I US Youth Soccer coaches do not possess adequate knowledge of Non-Contact ACL injuries and injury prevention programs #1365
Shelly Fetchen DiCesaro (USA)

I Coach education as a strategy to improve adherence to ACL injury prevention programs: a cluster-randomized controlled trial #1282
Daphne Ling, Caroline Boyle, Brandon Schneider, Joseph Janosky, James Kinderknecht, Robert Marx (USA)

I The relationship between the injuries in elementary PE and the stages of teacher professional development #1608
Yuki Nakamura (Japan)

I MOVE HEALTHY-The identification of current national injury prevention programs and beliefs of coaches and youth regarding injury prevention in 6 European countries #1218
Joske Nauta (The Netherlands), Johan de Jong (The Netherlands), Kristine De Martelaer (Belgium), Paul Dragoș (Romania), Remo Mombarg (The Netherlands), Danielle Narager Johansen (Denmark), Thomas Skovgaard (Denmark), Paul Szabo-Alexi (Romania), Evert Verhagen (The Netherlands), Anne Benjaminse (The Netherlands)
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**Poster Area - Exhibition Hall Diaghilev**

**Chair:** Yorck Olaf SCHUMACHER - Qatar

- Shining a Light on Injury Status: Developing an effective method to monitor player availability and improve communication between coaches and medical staff #1423
  Ciarán Purcell, Catherine Blake, Ulrik McCarthy Persson, Sinead McMahon, Caitriona Cunningham, Frank Kenny (Ireland)

- The ban of tramadol and hazard prevention in cycling #1770
  Xavier Bigard, Angeline Turin, Olivier Salamin, Raphael Faiss, Youssef Daali, Serge Rudaz, Francesca Rossi, Martial Saugy (Switzerland)

- Injuries among youth mountain bike racing coaches: first year data from a nation-wide injury surveillance system in the United States #1575
  Meredith Ehn, Daniel Cushman, Masaru Teramoto, Chris Spencer, Stuart Willick (USA)

- Injuries among youth mountain bike racers: first year data from a nation-wide injury surveillance system in the United States #1577
  Meredith Ehn, Daniel Cushman, Masaru Teramoto, Chris Spencer, Stuart Willick (USA)

- Sports-Related Concussion (SRC) in Road Cycling: Establishing the Roadside head injury assessment (RIDE) for Elite Road Cycling #1209
  Neil Heron, Elliott Jonathan (United Kingdom)

- 23% of race entrants in a mass-participation community-based 100 mile cycling race report a pre-race long-term medical condition #1737
  Courtney Kipps (United Kingdom), Martin Schwellnus (South Africa)

- Enduro mountain biking injuries during the Enduro World Series: a two-season prospective study #1454
  Debbie Palmer, Chris Ball, Geraint Florida-James (United Kingdom)

- Changes in cycling kinematics in function of exercise intensity and association with injury prevalence in amateur road cyclists: A 3D kinematic motion analysis study using statistical parametric mapping #1392
  Joke Schuermans (Belgium)

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**Chair:** Erich MÜLLER - Austria

- Using a MOTIFS intervention to influence patient-reported outcomes: a randomized cross-over plausibility study #1635
  Niklas Cederström, Simon Granér, Gustav Nilsson, Eva Ageberg (Sweden)

- The upper limb rotation test: reliability and validity study of a new upper extremity physical performance test #1086
  Philippe Deceleve, Trystan Attar, Tasnim Benamer, Valentine Gaspar, Joachim Van Cant, Ann Cools (Belgium)

- Your activities of daily life: a device worn, image-based survey technique for healthy and injured athletes #1663
  Marjanne Liederbach (USA)

- The test-retest reliability of bilateral and unilateral force plate derived parameters of the Countermovement Push Up (CMPU) in elite GB boxers #1352
  Gemma Parry (United Kingdom)

- Test-retest reliability of the reactive balance test: A neurocognitive functional test to evaluate adaptability within injury risk profiling #1006
  Jo Verschueren (Belgium), Bruno Tassinon (Belgium), Jeroen Van Cutsen (Belgium), Bert Puyim (Belgium), Kevin De Pauw (Belgium), Evert Verhagen (The Netherlands), Romain Meeusen (Belgium)

SESSION 38 • APPLIED KNOW-HOW  
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**Chair:** Evert VERHAGEN - The Netherlands

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  Marelis Badenhorst (South Africa), Lauren Fortington (Australia), Caroline Bolling (The Netherlands/Brazil), Evert Verhagen (The Netherlands), Carolyn Emery (Canada), Martin Schwellnus (South Africa), Kati Pasanen (Canada), Wayne Derman (South Africa), Caroline Finch (Australia)

- Maximising the relevance and dissemination of the IOC medical consensus statements: Key stakeholder's perceptions of the IOC medical consensus statements in a developed country (Australia) #1624
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