2015

Medical Education Programme

Orthofix Extremity Fixation. Experience Passion.

ORTHOFIX®

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Medical Education Programme

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Introduction

In order to continuously improve our educational activities, we have designed a very comprehensive 2015 Medical Education Programme which reflects the feedbacks from our ongoing course assessments and offers a wide range of competency-based activities to support our participants learning needs.

Our courses are designed to address four levels of competency-based learning:

Level 1 (L1)	Level 2 (L2)	Level 3 (L3)	Level 4 (L4)
Participants will acquire knowledge on basic and general principles of bone stabilization and post-operative management	Participants will acquire more in depth knowledge on specific topics (e.g. Upper Extremity)	Participants will acquire knowledge on management of complex limb trauma and limb reconstruction	Participants will acquire more extensive clinical knowledge by observing surgeries and out-patient clinics in hospitals of reference
Courses: FEF, DC	Courses: REC, UE, TPM, OTF, PAED	Courses: LRM, TL & TI-HEX, PAED ADV	Courses: HBO

It is critical for the successful implementation of this education strategy that delegates are selected with careful consideration and matching to the appropriate level of course. This facilitates a cohesive standard during the meeting, enables discussions to be held at the right level and, most importantly, achieve better learning outcome measures.

Our goal is to provide tailored learning opportunities which include hands-on workshops and extensive case discussions, designed to help improve clinician proficiency and patient outcomes. Our programmes are facilitated by greatly qualified international faculty who provides high teaching standard worldwide.

Orthofix Compliance Policy

Please read carefully

Who is responsible for it?

Sponsor: *Orthofix Subs or Distributors*

HCP: *Healthcare Professional*

The following guidelines* should lead your decision on:

COURSE SPONSORSHIP: Sponsors are permitted to invite HCPs to attend educational conferences or training courses, provided the selection is based upon the training and educational requirements of the individual HCP and is in no way tied to the HCP's past or potential future use of the Sponsors' products or services. Sponsors have to ensure that they comply with all national and local laws, regulations or professional codes of conduct with regards to transparency. In countries where specific provision is not made, Sponsors must maintain appropriate transparency by giving prior written notification to the hospital administration, the HCP superior (or other designated competent authority) expressly offering the possibility to comment and/or oppose the invitation or to designate an alternative HCP recipient. Copies of all such notifications, whether required or voluntary, must be provided to Orthofix.

COURSE ATTENDANCE: For compliance reason, the above mentioned **COURSE SPONSORSHIP** is subject to certified course attendance, therefore the HCP must attend the entire meeting and sign daily the Attendance Log sheet. The HCP should be aware that non-attendance will result in full payment of the course fee by him/her.

TRAVEL ARRANGEMENTS: Sponsors (such as Orthofix Subs or Distributors) may provide only economy or standard class air travel to HCPs unless the flight time is of a duration of greater than 5 hours. In cases of flight times greater than 5 hours, it is appropriate to consider premium economy or business class, provided this is permitted under the national and local laws, regulations and professional codes of conduct of the country where the HCP is licensed to practice and where the course takes place. In the case of conflict, the Sponsor should apply the stricter rule.
Travel and accommodation support given by Sponsor companies to HCPs should be strictly tailored to the duration of the congress or educational event.
It is not acceptable to make an advance payment to a HCP to cover prospective expenses.

Payments should generally be made to the supplier/vendor or intermediary agency. Alternatively, Sponsors may reimburse individual HCP expenses retrospectively against original invoices or receipts.

ACCOMPANYING PERSONS (SPOUSE OR GUESTS): It is not appropriate for Sponsors to pay or to organize (even if paid by the HCP) for the meals, travel, accommodation or entertainment of persons accompanying HCPs (such as spouse/guest) at member sponsored consultant meetings, unless the individual qualifies as a participant in their own right. The HCP must take sole responsibility for the payment and organization of the spouse/guest's expenses. Furthermore, Sponsors should not invite the accompanying person to attend any of the Sponsor related activities, including the course and associated meals, even when the HCP has paid for the spouse/guest expenses. Any uninvited appearance by an accompanying person should be strongly discouraged. This is really important because such actions are open to misinterpretation.

ENTERTAINMENT: Sponsors should not provide or organize entertainment for HCPs who attend the training course or who are engaged as consultants by the Sponsor. The same apply to HCP's accompanying persons.

GIFTS: According to Eucomed guidelines, mugs, stationery items, calendars, diaries, computer accessories for business use and clinical items such as wipes, nail brushes, surgical gloves and tourniquets are examples of acceptable modest value items. Items which are primarily for use in the home or car are not appropriate as they are not related to the HCP's practice nor are they for the benefit of patients.*
Orthofix has adopted a stricter policy on gifts, according to which only Eucomed permitted categories of gifts which are provided exclusively for educational (i.e., promotion or demonstration) and/or patient-related purposes (with no exceptions) are allowed.

** - Code of Ethical Business Practice – Eucomed Guidelines on Interactions with Healthcare Professionals (Amended September 2008 - Board approved, 11 September 2008)*

- Q&A on the Eucomed Guidelines On Interactions with Healthcare Professionals (GUIDANCE DOCUMENT June 2013 (v10))

Orthofix is committed to enforce a culture of compliance and ethical behaviour across the organization. This means conducting the business of the Company with integrity, in accordance with laws and regulations.

General Information

Venues

INTERNATIONAL COURSES

Verona Orthofix Education Centre, Orthofix Srl., Via delle Nazioni 9, Bussolengo, Italy

Padua Dipartimento di Medicina Molecolare, Anatomia Umana, Padua University, Via Gabelli 65, 35121, Padua, Italy

Dallas Texas Scottish Rite Hospital for Children, 2222 Welborn Street, Dallas, Texas, USA

Cape Town Lord Charles Hotel, Cape Town, South Africa

Paris Ecole de Chirurgie du Fer à Moulin, 7, rue du Fer à Moulin, Paris, France

Liverpool Medical Institution, 114 Mount Pleasant, Liverpool, UK

The Royal Liverpool University Hospital, Prescot Street, Liverpool, Merseyside, UK

Windsor Mercure Windsor Castle Hotel 18 High Street, Windsor Berkshire SL4 1LJ, UK

Pretoria Unitas Hospital (Netcare), Centurion, Pretoria, South Africa

Murnau Trauma Center Murnau Prof.-Küntscher-Str. 8 82418 Murnau, Germany

Contacts

SCIENTIFIC INFORMATION

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... other important information

BADGES / SECURITY CHECKS
All delegates will receive a name badge on site. The name badge is the ticket for booked activities and sessions. Admission to the Course will not be allowed without badge identification. For organizational and security reason, badges have to be worn at all time at the venue. Participants should not forget or lose their badge. For compliance reasons, attendees will be asked to register onsite everyday to certify their actual attendance.

LANGUAGE
The official language of the Courses is English. On request and if location permits, simultaneous translation into other languages will be arranged only for groups of at least 10 HCPs.

CERTIFICATE OF ATTENDANCE AND TRAINING MATERIALS OF THE COURSE
For compliance reason it is very important that participant signs daily the Attendance Log sheet. Upon return, each participant will receive an email with his/her Certificate of attendance only with 100% presence recorded.

INSURANCE
The organisers are not responsible for individual medical, travel or personal insurance. Participants should arrange their own cover.

PHOTOS / RECORDING / MOBILE PHONES
Taking pictures, video- or audio- recording during presentations is not allowed at all time without the speaker's prior permission. Mobile phones are strictly prohibited during all scientific sessions.

WIRELESS / HOTSPOT
Free wireless/hotspot is available in Verona Orthofix Venue for all attendees. Username and password can be found inside the badge. No wireless/hotspot will be provided by Orthofix outside the Verona Orthofix Venue.

2015 Extremity Fixation
Medical Education Programme

FEF **FEF** - Fundamentals of External Fixation - **L1**

DC **DC** - Damage Control in Pelvic and Musculoskeletal Injuries - **L1**

REC **REC** - Reconstruction - **L2**

UE **UE** - Upper Extremities - **L2**

TPM **TPM** - Trauma Patient Management - **L2**

OTF **OTF** - Open Tibial Fractures - **L2**

PAED **PAED** - Paediatric - **L2**

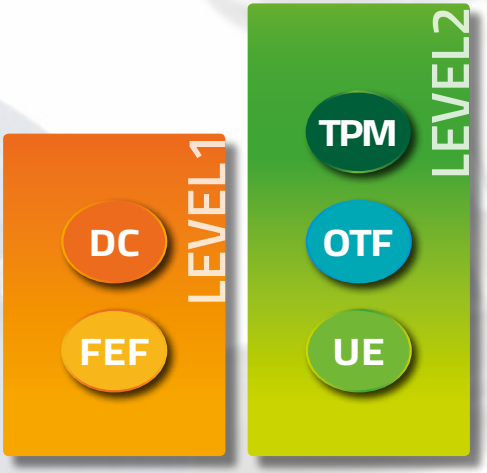
PAED ADV **PAED ADV** - Paediatric Advanced - **L3**

LRM **LRM** - Limb Reconstruction Meeting - **L3**

TL & TL-HEX **TL & TL-HEX** - Clinical Forum - **L3**

HBO **HBO PRETORIA** - Hospital Based Observership - **L4**

SUGGESTED LEARNING PATHWAYS
Trauma



Orthopaedics

Jan 1 2 3 **4** 5 6 7 8 9 10 **11** 12 13 14 15 16 17 **18** 19 20 21 22 23 24 **25** 26 27 28 29 30 31

Feb **1** 2 3 4 5 6 7 **8** 9 10 11 12 13 14 **15** 16 17 18 19 20 21 **22** 23 24 25 26 27 28

HBO Pretoria

FEF Verona

Mar **1** 2 3 4 5 6 7 **8** 9 10 11 12 13 14 **15** 16 17 18 19 20 21 **22** 23 24 25 26 27 28 **29** 30 31

TPM* Padua

Apr 1 2 3 4 **5** 6 7 8 9 10 11 **12** 13 14 15 16 17 18 **19** 20 21 22 23 24 25 **26** 27 28 29 30

LRM Cape Town

DC* Verona

May 1 2 **3** 4 5 6 7 8 9 **10** 11 12 13 14 15 16 **17** 18 19 20 21 22 23 **24** 25 26 27 28 29 30 **31**

HBO Pretoria

UE* Padua

FEF Windsor

TL&TL-HEX Dallas

Jun 1 2 3 4 5 6 **7** 8 9 10 11 12 13 **14** 15 16 17 18 19 20 **21** 22 23 24 25 26 27 **28** 29 30

REC Verona

OTF* Liverpool

PAED ADV Murnau

* Anatomical Lab

Jul 1 2 3 4 **5** 6 7 8 9 10 11 **12** 13 14 15 16 17 18 **19** 20 21 22 23 24 25 **26** 27 28 29 30 31

TPM* Paris — **HBO** Pretoria

Aug 1 **2** 3 4 5 6 7 8 **9** 10 11 12 13 14 15 **16** 17 18 19 20 21 22 **23** 24 25 26 27 28 29 **30** 31

Sep 1 2 3 4 5 **6** 7 8 9 10 11 12 **13** 14 15 16 17 18 19 **20** 21 22 23 24 25 26 **27** 28 29 30

HBO Pretoria — **FEF** Verona

Oct 1 2 3 **4** 5 6 7 8 9 10 **11** 12 13 14 15 16 17 **18** 19 20 21 22 23 24 **25** 26 27 28 29 30 31

PAED Verona

Nov **1** 2 3 4 5 6 7 **8** 9 10 11 12 13 14 **15** 16 17 18 19 20 21 **22** 23 24 25 26 27 28 **29** 30

HBO Pretoria — **REC** Verona

Dec 1 2 3 4 5 **6** 7 8 9 10 11 12 **13** 14 15 16 17 18 19 **20** 21 22 23 24 25 26 **27** 28 29 30 31

TL&TL-HEX Dallas

* Anatomical Lab

Product Calendar at Glance

	Feb	Mar	Apr	May	Jun	Jul	Sep	Oct	Nov	Dec
Galaxy™ Fixation System	FEF	TPM	DC	UE	OTF, PAED ADV	TPM	FEF			
Galaxy™ UNYCO	FEF	TPM	DC	FEF	OTF	TPM	FEF			
Galaxy™ Shoulder				UE						
Galaxy™ Elbow				UE						
Galaxy™ Wrist	FEF			UE			FEF			
Contours VPS-3				UE						
Contours PHP™				UE						
TrueLok Plus	HBO, FEF	TPM	LRM	HBO, TL & TL-HEX	PAED ADV, REC	HBO, TPM	HBO, FEF	PAED	TL & TL-HEX, HBO, REC	TL & TL-HEX
TL-HEX™	HBO	TPM	LRM	HBO, TL & TL-HEX	PAED ADV, REC	HBO, TPM	HBO	PAED	TL & TL-HEX, HBO, REC	TL & TL-HEX

	Feb	Mar	Apr	May	Jun	Jul	Sep	Oct	Nov	Dec
LRS ADVanced	HBO	TPM		HBO	OTF, PAED ADV, REC	HBO, TPM	HBO	PAED	HBO, REC	
XCaliber®	FEF						FEF			
Minirail				UE				PAED		
Minipennig				UE				PAED		
eight-Plate					PAED ADV			PAED		
Centronail® Lower Limb		TPM	DC		OTF	TPM				
Centronail® Humerus				UE						

FEF Fundamentals of External Fixation

Feb **1** 2 3 4 5 6 7 **8** 9 10 11 12 13 14 **15** 16 17 18 19 20 21 **22** 23 24 25 26 27 28

ADDRESSEES
Surgeons willing to increase their personal clinical experience on the use of external fixation.

Junior: young surgeons (last year resident level or registrars).

Places limited to 50 attendees.

PRODUCTS
- Galaxy™ Fixation System
- Galaxy™ UNYCO
- TrueLok Plus
- XCaliber®
- Galaxy™ Wrist

VENUE
Orthofix Education Centre, Verona, IT

REGISTRATION DEADLINE
23rd of January

OBJECTIVES
- Become familiar with the basic biomechanical principles, technical and clinical aspects of external fixation (Pin to Bar, Monolateral and Circular fixation system) for appropriate treatment selection and patient management.
- Be acquainted with treatment complications, their prevention and management.

23rd February

09.00 Welcome & Introduction

ESSENTIALS OF FRAME BIOMECHANICS
09.15 Indications for external fixation
09.30 Basic biomechanics of Monolateral External Fixation
09.45 Basic biomechanics of Circular External Fixation
10.00 Safe corridors and safe pin insertion techniques
10.30 Discussion
10.50 *Coffee break*
11.10 **Practical Session**
- Fundamentals of bone stabilization using Half Pins
- Fundamentals of bone stabilization using Cross Wires

13.30 *Lunch*
14.30 Post-operative management of patient with ExFix frame
14.50 Discussion

MODULAR FIXATION
15.00 Algorithm on decision-making in open fractures treatment
15.20 Damage Control Orthopaedics: concepts and new horizon for modular frames
15.40 Configurations for stable external fixation
16.00 Discussion
16.10 **Practical Session**
- Fixation: Pelvis to Ankle
- Application of monocortical fixator

18.00 End of the Day

24th February

MONOLATERAL FIXATION
09.00 Definitive treatment of tibial fractures with monolateral frames
09.20 **Practical Session**
Definitive External Fixation

HYBRID FIXATION
10.30 The hybrid fixation in tibial fractures
10.50 Discussion
11.00 *Coffee break*
11.20 **Practical Session**
The Hybrid Fixation

WRIST
12.20 Management of wrist fractures
12.40 **Practical Session**
Application of the Wrist Fixator
13.40 *Lunch*

CIRCULAR FIXATION I
14.30 Components and principles of circular frame assembly
14.50 Discussion
15.00 **Practical Session**
Tibial fracture reduction
16.30 Indications of circular fixation in periarticular fractures
16.50 Case discussion
17.30 End of the Day

25th February

CIRCULAR FIXATION II
09.00 Basic Principles of foot & ankle stabilization using Cross Wires & Half Pins
09.20 Discussion
09.30 **Practical Session**
Application in the foot & ankle
11.30 Final Remarks and Closure of the Course
12.00 *Light Lunch*
13.00 Departure

TPM Trauma Patient Management

Mar **1** 2 3 4 5 6 7 **8** 9 10 11 12 13 14 **15** 16 17 18 19 20 21 **22** 23 24 25 26 27 28 **29** 30 31

ADDRESSEES
Surgeons who have attended a FEF course or show proof records of External and Internal Fixation experience who desire to approach their clinical practice in a more comprehensive modality.

Places limited to 30 attendees.

PRODUCTS
- Galaxy™ Fixation System
- Galaxy™ UNYCO
- TrueLok Plus
- TL-HEX™
- Centronail® Tibia
- LRS ADVanced

VENUE
Dipartimento di Medicina Molecolare, Anatomia Umana, Padua, IT

REGISTRATION DEADLINE
18th February

OBJECTIVES
This course will allow participants to:
- Discuss a staged protocol for the treatment of high energy trauma patient to decrease the incidence of complications and improve outcomes.
- Analyze the critical elements in the decision and management of complex trauma patient.
- Increase personal clinical experience with these principles and techniques for appropriate patient selection and management.
- Training on anatomical specimens.

18th March

08.30 Welcome & Introduction

DAMAGE CONTROL IN TRAUMA

08.40 Damage control surgery in polytrauma – When and how?
09.00 Configurations for stable spanning external fixation
09.20 Comparison of temporary pelvic stabilization techniques
09.40 Discussion
09.50 **Practical Session** – Wet Lab Temporary Fixation: Pelvis to Ankle
11.20 *Break*

OPEN TIBIAL FRACTURES

11.40 Wound extensions in open tibial fractures
12.00 Management of bone loss in open tibial fractures -1 Distraction osteogenesis
12.15 Management of bone loss in open tibial fractures -2 The Masquelet method
12.30 Amputation and reconstructive amputation in open tibial fractures
12.50 Discussion
13.00 *Lunch*
14.00 **Practical Session** – Wet Lab
- Fasciotomy
- Application of monocortical fixator
- Fixator - assisted nailing

16.00 Case Discussion Faculty
17.00 End of day

19th March

HIGH ENERGY & PERI-ARTICULAR FRACTURES

08.30 Supra-condylar fractures of the femur
08.50 Knee Dislocations
09.05 Tibial Plateau fractures
09.25 Discussion
09.35 Segmental fractures of the tibia
09.55 Pilon Fractures
10.15 Discussion
10.25 *Break*
10.40 **Practical Session** – Dry Lab Definitive stabilization of pilon fractures with circular external fixation

COMPLICATIONS OF FRACTURES

12.00 Management of infection after open tibial fractures
12.15 Management of non-union of the tibia
12.30 Fixator – assisted correction of distal mal- and non-union
12.45 Discussion
13.00 *Lunch*
14.00 **Practical Session** – Wet Lab Acute correction of distal femoral mal-union
15.00 Management of non-union of the femur
15.15 Complications of growth plate injuries and management
15.30 Discussion
15.40 *Break*

THE HEXAPOD FIXATION SYSTEM

16.00 Principles of long bone deformity correction using variable strut length hexapod frames
16.20 Discussion
16.30 TL-HEX™ key design features and advantages compared to other hexapod frames
16.50 Discussion
17.00 End of day

20th March

08.30 **Practical Session** – Dry Lab TL-HEX™ hardware introduction & frame application
09.30 TL-HEX™ software introduction
10.00 *Break*
10.20 **Practical Session** – Dry Lab TL-HEX™ midshaft tibial malunion with multi-planar angular deformity
11.50 **Practical Session** TL-HEX™ foot deformity correction
13.20 Final remarks
13.30 End of Course and Light Lunch Buffet Discussion

LRM Limb Reconstruction Meeting

Apr 1 2 3 4 **5** 6 7 8 9 10 11 **12** 13 14 15 16 17 18 **19** 20 21 22 23 24 25 **26** 27 28 29 30

ADDRESSEES
Surgeons who want to deepen their knowledge in circular external fixation and have a particular interest in limb lengthening and reconstruction.

Places limited to 80 attendees.

PRODUCTS
- TrueLok Plus
- TL-HEX™

VENUE
Lord Charles Hotel, Cape Town, South Africa

REGISTRATION DEADLINE
16th March

OBJECTIVES
- Learn the principles of limb reconstruction in an interactive and practical course format.
- Get acquainted with the TrueLok Plus System, its details and applications in a limb reconstruction setting.
- Become familiar with the TrueLok Hexapod System hardware and software application.

***NOTE:** Monday 20th April THEATRE OBSERVATION either in Pretoria (closest airport: Johannesbourg) or in Pietermaritzburg (closest airport: Durban). Delegates should arrive on Sunday 19th April and depart with flights from 5 pm onwards to Cape Town.

21st April

PRINCIPLES OF DEFORMITY CORRECTION MINI-COURSE

08.00 Opening and Introduction
08.15 Normal Alignment and Joint Orientation
09.00 **Paperlab 1**
Normal Alignment and Joint Orientation
09.45 Radiology of the Lower Limbs
10.15 *Coffee Break*
10.30 Malaligment and Malorientation in the Frontal Plane
10.50 **Paperlab**
MAD, Malalignment and Malorientation Tests
11.20 Frontal Plane Mechanical and Anatomic Axis Planning
11.40 **Paperlab 3**
Uniapical Tibial Deformity
12.20 Case Discussion: Tibial Uniapical Deformity
13.00 *Lunch*
14.00 **Paperlab 4**
Uniapical Femoral Deformity
14.40 Osteotomy Rules and Frontal Plane Correction
15.00 Sagittal Plane Deformities
15.20 **Paperlab 5**
Sagittal Plane Deformities
15.50 *Coffee Break*
16.00 Oblique Plane Deformities
16.20 **Paperlab 6**
Oblique Plane Deformities
16.50 Translation and Angulation-Translation Deformities
17.10 Rotation and Angulation Rotation Deformities
17.30 Overview of Principles of Tissue Distraction
17.50 Panel Discussion: Planning in the Digital Era
18.30 End of First Day

22nd April

08.00 Panel Discussion: Osteotomy Techniques
08.30 Back to Basics Session: Building Better Frames
09.15 **Practical Session**
Oblique Plane Tibial Deformity
10.30 *Coffee break*
10.50 Discussion: What do I expect from my scrub nurse/tech?
11.20 **Practical Session**
Distal Tibial Valgus with Foot Stabilization
12.35 Better Outcomes through Better Pin Care
13.00 *Lunch*
14.00 Keynote Adress
14.40 **Practical Session**
Distal femoral valgus correction
15.55 *Coffee break*
16.10 Muscle and Nerve Releases: When and How?
16.40 **Practical Session**
Knee Flexion Contracture
17.55 Case Discussions
18.30 End of Second Day

23rd April

08.00 Circular Fixation for Foot and Ankle Conditions
08.30 **Practical Session**
Ankle Equinus Correction
09.45 Rehabilitation for Limb Reconstruction Patients
10.15 *Coffee break*
10.30 **Practical Session**
Complex Foot Deformity Correction
11.45 Do monolateral fixators still have a role?
12.15 **Ethics Session**: Cosmetic Lengthening Revisited
13.00 *Lunch*

Group Splits into two groups

Group 1: Fundamentals Course: TL-HEX™
14.00 Introduction to hexapod external fixation
14.15 TL-HEX™ key design features and advantages
14.45 TL-HEX™ hardware introduction
15.15 **Practical Session**
Tibial Malunion Rings First Method Application
16.15 Hexapod rules and nomenclature
16.45 **Practical Session**
Measurements and data acquisition template
17.15 Software Introduction
17.30 **Practical Session**
Software Correction of Tibial malunion

Group 2: TL-HEX™ Existing Users Module

14.00 Clinical Case Examples with TL-HEX™ and Tips
16.00 Overview of new hardware and software features
17.00 **Practical Session** Double level TL-HEX™ deformity correction
18.15 End of Third Day

24th April

08.00 Keynote Address

Group 1: Fundamentals Course TL-HEX™

08.45 **Practical Session** Adjustable neutral frame on intact tibia
09.45 **Practical Session** fracture correction with software
11.00 **Practical Session** Blount's Correction Prebuild Frame
12.00 **Practical Session** Blount's Application and Correction

Group 2: TL-HEX™ Existing Users Module

08.40 Overview of New Foot and Ankle Modules
09.30 **Practical Session** Ankle Equinus Correction
10.45 Case Discussions
11.45 **Practical Session** Complex Foot Deformity Correction
13.00 End of the Course

DC Damage Control in Pelvic and Musculoskeletal Injuries

Apr 1 2 3 4 **5** 6 7 8 9 10 11 **12** 13 14 15 16 17 18 **19** 20 21 22 23 24 25 **26** 27 28 29 30

ADDRESSEES
Surgeons who have a particular interest in Emergency Trauma and want to get more familiar with primary stabilization techniques of pelvic and lower limb fractures.

Places limited to 30 attendees.

PRODUCTS
- Galaxy™ UNYCO
- Galaxy™ Fixation System
- Centronail® Lower Limb

VENUE
Orthofix Education Centre, Verona, IT

Dipartimento di Medicina Molecolare, Anatomia Umana, Padua, IT

REGISTRATION DEADLINE
27th March

OBJECTIVES
- Develop the ability to evaluate, diagnose and prioritise treatment for the critically injured patient.
- Learn the techniques of primary stabilization in emergency trauma in an interactive and practical course format.
- Consolidate knowledge of relevant surgical anatomy.
- Deliberate the timing and options for definitive care.
- Training on anatomical specimens.

29th April

09.00 Welcome & Introduction

GENERAL CONSIDERATIONS

09.10 ATLS and influence on the quality of trauma care
09.30 Clearing trauma patients for surgery: Which parameters are the best?
09.50 The European Trauma Guidelines: What does the trauma surgeon need to know
10.10 Discussion
10.20 *Coffee Break*
10.40 ETC versus DCO
11.00 Primary CT scan vs. primary conventional X-ray
11.20 Hypothermia and trauma
11.40 Current definition of polytrauma
12.00 Chest trauma and prevention of respiratory failure
12.10 Discussion

STABILIZATION OF HEMODYNAMICALLY UNSTABLE PATIENTS WITH PELVIC INJURIES

12.20 ExFix vs. Binder vs. C-Clamp
12.40 Pelvic packing vs angiographic embolization
13.00 Video
13.10 *Lunch*
14.00 **Practical Session** - Dry Lab
Pelvic stabilization with external fixation

OPEN FRACTURES OF THE LOWER LIMB

14.30 Timing for index surgery in open fractures
14.45 Wound extensions and soft tissue debridement
15.15 Discussion
15.30 *Coffee Break*
15.45 Bone debridement
16.15 Skeletal stability with spanning fixation
16.30 Internal or external fixation?
16.45 Discussion
17.00 **Practical Session** - Dry Lab
- Monocortical bone stabilization with external fixation
- Spanning external fixation: across the knee and across the ankle
- Stabilization with intramedullary nailing

18.30 Amputation versus reconstruction
End of First Day

30th April - *PADUA*

Wet Labs

- Pelvic packing
- Pelvic stabilization
- Fasciotomy
- Flaps
- Unyco stabilisation

UE Upper Extremities

May 1 2 **3** 4 5 6 7 8 9 **10** 11 12 13 14 15 16 **17** 18 19 20 21 22 23 **24** 25 26 27 28 29 30 **31**

ADDRESSEES
Surgeons who have attended a FEF course or show proof records of External and Internal Fixation experience in the upper extremities.

Places limited to 30 attendees.

PRODUCTS
- Galaxy™ Wrist
- Galaxy™ Shoulder
- Galaxy™ Elbow
- Contours PHP™
- Contours VPS-3
- Centronail® Humerus
- Minipennig
- Minirail

VENUE
Dipartimento di Medicina Molecolare, Anatomia Umana, Padua, IT

REGISTRATION DEADLINE
8th April

OBJECTIVES
- Provide a comprehensive approach for the evaluation and treatment of trauma and orthopaedic conditions in the upper limb.
- Gain practical skills with external and internal fixation systems.
- Training on anatomical specimens.

7th May

09.00 Welcome & Introduction

HUMERUS
Trauma
09.30 Intramedullary nailing
- Indications
- Anatomy and application technique
- Case report

09.50 **Practical Session**
Fracture of the distal humerus: Nailing
10.40 Discussion
10.50 External fixation
- Indications
- Anatomy and application technique
- Case report

11.20 Discussion
11.30 *Coffee break*
11.40 Plating
- Indications
- Anatomy and application technique
- Case report

12.30 *Lunch*
13.30 **Practical Session**
- Galaxy™ Shoulder
- Contours PHP™

Reconstruction
15.30 Humeral non-union & malunion
16.10 Discussion

ELBOW I
16.20 Fractures and fracture/dislocations
- Example: failed case report
- Anatomy and biomechanics of the elbow
- Indications and classifications
- Case report

16.40 Discussion
16.50 Elbow stiffness
17.10 Discussion
17.20 End of the day

8th May

ELBOW II
09.00 **Practical Session**
External fixation in the elbow
- Galaxy™ Elbow Fixator System

11.00 *Coffee break*

FOREARM
Trauma
11.20 Fractures of the distal radius
- Anatomy and biomechanics of the forearm
- Plating/ExFix: When to use what

11.50 Discussion
12.00 **Practical Session**
Fractures of the distal radius:
- ExFix
- Plating

13.30 *Lunch*

Reconstruction
14.30 Non-union and malunion of the distal radius
15.00 Discussion

HAND
Trauma
15.10 External fixation in the hand
- Anatomy and biomechanics of the hand
- Treatment of fractures with ExFix
- Management of complex injuries

Reconstruction
15.30 Correction of deformities in the hand
15.40 Discussion
16.00 **Practical Session**
External fixation in the hand
17.30 End of course

FEF Fundamentals of External Fixation

May 1 2 **3** 4 5 6 7 8 9 **10** 11 12 13 14 15 16 **17** 18 19 20 21 22 23 **24** 25 26 27 28 29 30 **31**

ADDRESSEES
Surgeons willing to increase their personal clinical experience on the use of external fixation.

Junior: young surgeons (last year resident level or registrars).

Places limited to 40 attendees.

PRODUCTS
- Galaxy™ Fixation System
- Galaxy™ UNYCO
- TrueLok Plus
- TL-HEX™
- XCaliber®

VENUE
Mercure Windsor Castle Hotel, London, UK

REGISTRATION DEADLINE
15th April

OBJECTIVES
- Become familiar with the basic biomechanical principles, technical and clinical aspects of external fixation (Pin to Bar, Monolateral and Circular fixation system) for appropriate treatment selection and patient management.
- Be acquainted with treatment complications, their prevention and management.

13th May

ESSENTIALS OF FRAME BIOMECHANICS

9.15 Indications for external fixation
9.30 Basic biomechanics of Monolateral External Fixation
9.45 Basic biomechanics of Circular External Fixation
10.00 Safe corridors and safe pin insertion techniques
10.30 Discussion
10.50 *Coffee Break*
11.10 **Practical Session**
- Fundamentals of bone stabilization using Half Pins
- Fundamentals of bone stabilization using Cross Wires

13.30 *Lunch*
14.30 Post-operative management of patient with ExFix frame
14.50 Discussion

MONOLATERAL FIXATION I

15.00 Algorithm on decision-making in open fractures treatment
15.20 Damage control orthopaedics
15.40 Principles for stable fixator assembly
16.00 Discussion
16.10 **Practical Session**
- Fixation: Pelvis to Ankle
- Application of monocortical fixator

17.30 Case Discussion
18.00 End of the Day

14th May

MONOLATERAL FIXATION II

9.00 Management of complex periarticular fractures with monolateral fixation
9.20 **Practical Session** Definitive External Fixation

CIRCULAR FIXATION I

10.20 Individual components & functional blocks for static & dynamic frames
10.40 Discussion
11.00 **Practical Session** Tibial midshaft fracture reduction
12.30 *Lunch*
13.30 Indications of circular fixation in periarticular fractures
13.50 Discussion

CIRCULAR FIXATION II

14.00 Basic principles of foot & ankle stabilization using cross wires & half pins
14.20 Discussion
14.30 **Practical Session** Application in the foot & ankle
17.00 End of the day

15th May

CIRCULAR FIXATION II

08.30 Principles of long bone deformity correction using variable strut length hexapod frames
08.50 TL-HEX™ key design features and advantages compared to other hexapod frames
09.00 **Practical Session** TL-HEX™ hardware introduction & frame application on a tibia
10.20 *Coffee Break*
10.50 **Practical Session** TL-HEX™ software introduction and tibial fracture reduction
12.30 Light Lunch and end of course

TL & TL-HEX

TrueLok & TL-HEX™ Clinical Forum

Trauma & Post traumatic Reconstruction

May 1 2 **3** 4 5 6 7 8 9 **10** 11 12 13 14 15 16 **17** 18 19 20 21 22 23 **24** 25 26 27 28 29 30 **31**

ADDRESSEES

Experienced orthopedic surgeons who wants to deepen their knowledge in circular external fixation and have a particular interest in long bone fracture reduction and stabilization as well as post traumatic limb reconstruction.

Places limited to 30 attendees.

PRODUCTS

- TrueLok Plus
- TL-HEX™

VENUE

Texas Scottish Rite Hospital for Children, Dallas, US

REGISTRATION DEADLINE

20th April

OBJECTIVES

- Learn the principles of fracture reduction/stabilization and post traumatic limb reconstruction in an interactive and practical course format.
- Get acquainted with the TrueLok Plus, TL-HEX™ Trauma and TL-HEX™ systems, their details and applications in an acute fracture reduction/ stabilization and gradual posttraumatic limb reconstruction settings.
- Become familiar with the TrueLok Plus, TL-HEX™ Trauma and TL-HEX™ systems hardware and TL-HEX™ software applications.

TEXAS
SCOTTISH RITE HOSPITAL
FOR CHILDREN

20th May

07.00 Departure from the hotel
07.30 *Breakfast*
08.00 Welcome & Introduction
08.15 TrueLok Circular External Fixation: Key Design Features

TL-HEX™ TRAUMA: FROM TEMPORARY FIXATION TO DEFINITIVE TREATMENT

08.45 TL-HEX™ Trauma: Overall Concept & Clinical Applications
09.15 **Practical Session** Tibial Pilon Fracture Reduction & Stabilization Using TL-HEX™ Trauma Rapid Adjust Struts
10.15 *Coffee Break*
10.30 **Practical Session** Additional Stabilization and Frame Adjustment for Definitive Treatment
11.30 From Temporary Fixation to Definitive Treatment: TL-HEX™ Trauma Clinical Cases Review
12.00 *Lunch*

TRUELOK: POST TRAUMATIC DEFORMITY CORRECTION & LIMB RECONSTRUCTION

13.00 Uniplanar Deformity Correction using Hinges & Angular Distractor Based on Lower Limb Alignment & Joint Orientation
14.00 **Practical Session** Midshaft Tibial Oblique Plane Deformity Correction using TrueLok Hinges & Angular Distractor
15.30 *Coffee Break*
15.45 Treatment Choices in Segmental Bone Loss
16.30 Interactive Surgery Review: Post traumatic Limb Reconstruction
17.00 Clinical Cases Review: Trauma and Post traumatic Reconstruction
18.00 End of the Day

21st May

07.00 Departure from the hotel
07.30 *Breakfast*

TL-HEX™: COMPUTER ASSISTED DEFORMITY CORRECTION I

08.00 Introduction to Hexapod External Fixation
08.30 Principles of Long Bone Deformity Correction Using Hexapod Frames
09.30 X-Ray Measurements and Data Acquisition for Hexapod Frames
10.15 *Coffee Break*
10.30 TL-HEX™ Hardware: Key Design Features
11.00 **Practical Session** TL-HEX™ Frame Application for Tibial Malunion
12.00 *Lunch*
13.00 TL-HEX™ Software Introduction
13.30 **Practical Session** Deformity Analysis & Frame Mounting Parameters (Paper Lab)
14.00 **Practical Session** Tibial Malunion Deformity Correction (Rings First Method)
15.00 *Coffee Break*
15.15 Treatment of Nonunions using Hexapod Circular Fixation
16.00 Interactive Surgery Review: TL-HEX™ Post traumatic Limb Reconstruction
17.00 Clinical Cases Review: TL-HEX™ Trauma and Posttraumatic Reconstruction
18.00 End of the Day

22nd May

07.00 Departure from the hotel
07.30 *Breakfast*

TL-HEX™: COMPUTER ASSISTED DEFORMITY CORRECTION II

08.00 **Practical Session**
TL-HEX™ Distal Femoral Deformity Correction using Preassembled Hexapod Frame
09.30 TL-HEX™ Foot & Ankle Deformity Correction
10.15 *Coffee Break*
10.30 **Practical Session**
TL-HEX™ Post traumatic Foot Deformity Correction Followed by Ankle Fusion
12.00 *Lunch*
13.00 Clinical Cases Review: TL-HEX™ Foot & Ankle
14.00 Discussion & Closing Remarks
14.30 Adjourn
15.00 End of course

REC Reconstruction

Jun 1 2 3 4 5 6 **7** 8 9 10 11 12 13 **14** 15 16 17 18 19 20 **21** 22 23 24 25 26 27 **28** 29 30

ADDRESSEES
Surgeons who have attended a FEF course or show proof records of External Fixation experience.

Places limited to 50 attendees.

PRODUCTS
- LRS ADVanced
- TrueLok Plus
- TL-HEX™

VENUE
Orthofix Education Centre, Verona, IT

Registration Deadline
30th April

OBJECTIVES
- This course gives insight on how to assess limb alignment and length discrepancies, and correct deformities.
- Analyse and discuss pre-operative planning from X-ray correct acquisition to frame assembly.
- Become familiar with correction of post-traumatic deformities of the lower limb using external monolateral and circular fixation.
- Be acquainted with major complications of external fixation, their prevention and management.
- The hands-on sessions on sawbones will allow participants to gain experience with different devices and techniques.

3rd June

08.30 Welcome & Introduction

PREOPERATIVE PLANNING
08.40 Indications for external fixation
09.00 Discussion
09.10 Lower limb alignment and joint orientation, malalignment test uniplanar deformity correction planning
09.50 Discussion
10.00 *Coffee break*
10.15 Osteotomy techniques
10.45 Discussion

MONOLATERAL FIXATION
11.00 Acute and gradual deformity correction using a monolateral system
11.40 Discussion
11.50 **Practical Session**
Distal femoral valgus deformity correction
13.00 *Lunch*

CIRCULAR FIXATION
14.00 Circular external fixator: individual components & functional blocks
14.40 Discussion
14.50 **Practical Session**
Midshaft tibial deformity: gradual correction and acute adjustment using TL-HEX™ Rapid Struts
16.20 Combination strategies in deformity correction
16.50 Discussion
17.00 Clinical case presentations
17.30 End of the day

4th June

COMPLEX FOOT DEFORMITY CORRECTION
09.00 **Practical Session**
Complex distal tibial deformity correction with foot stabilization
10.30 Advanced foot & ankle stabilization techniques
10.50 *Coffee break*
11.00 **Practical Session**
Complex foot deformity correction
12.30 Circular external fixation: postoperative management & frame removal
13.00 *Lunch*

COMPUTER-ASSISTED DEFORMITY CORRECTION I
14.00 Principles of bone deformity correction using variable strut length hexapod frames
14.40 Discussion
14.50 TL-HEX™ key design features & advantages compared to other hexapod frames
15.10 Discussion
15.20 **Practical Session**
TL-HEX™ hardware introduction & frame application
16.50 TL-HEX™ software introduction
17.30 End of the day

5th June

COMPUTER-ASSISTED DEFORMITY CORRECTION II
08.30 **Practical Session**
TL-HEX™ midshaft tibial malunion with multi-planar angular deformity
10.00 *Coffee break*
10.20 **Practical Session**
TL-HEX™ foot deformity correction
11.40 **Practical Session**
TL-HEX™ distal femoral valgus deformity correction
13.00 *Lunch*
14.00 End of course

OTF Open Tibial Fractures

Jun 1 2 3 4 5 6 **7** 8 9 10 11 12 13 **14** 15 16 17 18 19 20 **21** 22 23 24 25 26 27 **28** 29 30

ADDRESSEES
Surgeons who have attended a FEF course and desire to treat Open Tibial Fractures using a combined approach utilising the latest techniques in plastic & orthopaedic trauma surgery. This course is suitable for orthopaedic and plastic surgeons involved in the early or late management of open tibial trauma.

Places limited to 30 attendees.

PRODUCTS
- Galaxy™ Fixation System
- LRS ADVanced
- TrueLok Plus
- Centronail® Tibia

VENUE
Liverpool Medical Institution, Liverpool, UK

The Royal Liverpool University Hospital, Liverpool, UK

REGISTRATION DEADLINE
11th May

OBJECTIVES
- Learn how to manage severe open tibial fractures in order to minimize complications and optimize outcomes.
- All aspects of the care of the patient will be addressed, from initial assessment to reconstruction and the indications for amputation.
- Training on anatomical specimens.

10th June

LIVERPOOL MEDICAL INSTITUTION

09.00 Welcome & introduction
09.10 Case discussions
09.40 A historical perspective
10.00 A/E management: timing for index surgery and antibiotics
10.15 Wound extensions and soft tissue debridement
10.35 Degloving
10.45 Discussion
10.55 *Coffee break*
11.30 Bone debridement
11.50 Wound dressings
12.00 Skeletal stability with spanning fixation
12.15 Internal or external fixation?
12.30 Discussion
12.45 *Lunch*
13.40 **WORKSHOP**
Spanning external fixation: across the knee and across the ankle
14.50 Vascular injuries
15.10 Compartment syndrome
15.30 Amputation in open tibial fractures
15.50 Discussion
16.00 *Coffee break*
16.30 Principles of soft tissue reconstruction: timing, type and technique
17.00 Discussion
17.10 End of the day

11th June

THE ROYAL LIVERPOOL UNIVERSITY HOSPITAL

09.30 Introduction and safety briefing
09.40 Introductory lecture

ANATOMY LAB

09.50 Fasciotomy and perforator localisation
10.30 Ankle spanning fixator
11.00 Femoral/popliteal artery exposure and shunting
11.30 *Coffee break*
11.50 Clinical localisation of perforators

ANATOMY LAB

12.00 Distal fasciocutaneous flap
12.40 Medial gastrocnemius flap
13.30 *Lunch*
14.30 Managing bone loss in the tibia
14.50 Bone transport in the tibia: osteotomy and docking site techniques
15.10 Discussion

ANATOMY LAB

15.20 Application of a fixator and osteotomy for bone transport
16.30 End of the day

12th June

LIVERPOOL MEDICAL INSTITUTION

09.00 Role of soft tissues and inflammation in fracture healing
09.30 Discussion
09.40 Severe open fractures in children
10.00 When things go wrong with soft tissues
10.20 When things go wrong with bone
10.40 Discussion
10.50 Case allocations
11.10 *Coffee break*
11.40 Case discussion
13.00 Course evaluations & certificates
13.10 End of course

PAED ADV Paediatric Advanced

Jun 1 2 3 4 5 6 **7** 8 9 10 11 12 13 **14** 15 16 17 18 19 20 **21** 22 23 24 25 26 27 **28** 29 30

ADDRESSEES
Experienced paediatric orthopaedic surgeons who have attended level2 course or show proof records of external fixation.

Places limited to 40 attendees.

PRODUCTS
- LRS ADVanced
- TrueLok Plus
- TL-HEX™
- eight-Plate
- Minirail
- Minipennig

VENUE
Trauma Center Murnau
Murnau, Germany

REGISTRATION DEADLINE
18th May

OBJECTIVES
- Management of acute limb injuries and correction of post-traumatic and congenital deformities and defects.
- Management of complications.
- Deformity correction session will give expert information on all available internal and external fixation systems such as plating, intramedullary nailing, monolateral fixation and circular frames (including computer assisted correction), and their indication for various types of clinical situations.
- Hands-on workshops will allow the participants to familiarize themselves with the different devices and techniques.
- Learn about the importance of preoperative planning, including correct radiographic image aquisition, deformity analysis (including software tools) and frame assembly.
- Case discussions with respected experts, emphasizing surgical pitfalls, strategic errors and complications.
- We encourage the participants to bring their own cases in the form of presentations or DICOM files.

15th June

09:00 Welcome

LOWER LIMB I

09.00 Introduction to Posttraumatic and Congenital Deformities in Paediatric Patients
09.45 Principles of Multiplanar Deformity Analysis and Correction
10.15 Practical Exercises (Pen & Paper)
10.45 *Coffee Break*
11.00 Lower limb alignment & joint orientation. Multiplanar deformity correction.
11.30 **Practical Session** Lower limb deformity correction with monolateral fixator
13.00 *Lunch Break*
14.00 Callotasis with monolateral and circular frames: complications management
14.45 **Practical Session** Correction of a lower limb deformity using a circular frame
16.15 Guided growth modulation using eight-plate: Principles, techniques, complications
17.15 Interactive discussion of clinical cases (collection of DICOM files)
18.00 End of Day

16th June

LOWER LIMB II

08.30 Correction of complex deformities secondary to epiphyseal injury
09.15 Introduction to the hexapod circular frame and software
09.50 *Coffee Break*
10.00 **Practical Session** Reconstruction of complex deformities using TL-HEX™ hexapod circular frame
11.30 Management of joint contractures with external fixators
12.15 Soft tissue considerations, tendon lengthenings
13.00 *Lunch Break*

UPPER LIMB

14.00 Congenital longitudinal defects of the upper limb
14.45 **Practical Session** Reconstruction of upper extremity bone defects and deformities using internal and external fixation devices (Mini-Fixator, Mini-Rail)
16.00 *Coffee Break*
16.15 Relevance of complementary orthotic support in limb reconstruction
17.00 Case discussion
17.30 End of Day

17th June

08.30 **Problem oriented practical workshop in small groups:** Analysis, planning and correction of complex limb deformities (free choice of devices/ techniques)
11.30 Presentation of the different solutions by the groups in the general auditorium
13.30 Lunch / End of Course

TPM Trauma Patient Management

Jul 1 2 3 4 **5** 6 7 8 9 10 11 **12** 13 14 15 16 17 18 **19** 20 21 22 23 24 25 **26** 27 28 29 30 31

ADDRESSEES
Surgeons who have attended a FEF course or show proof records of External and Internal Fixation experience who desire to approach their clinical practice in a more comprehensive modality.

Places limited to 30 attendees.

PRODUCTS
- Galaxy™ Fixation System
- TrueLok Plus
- TL-HEX™
- Centronail® Lower Limb
- LRS ADVanced

VENUE
Laboratoire du Fer à Moulin, Paris, FR

REGISTRATION DEADLINE
8th June

OBJECTIVES
This course will allow participants to:
- Discuss a staged protocol for the treatment of high energy trauma patient to decrease the incidence of complications and improve outcomes.
- Analyze the critical elements in the decision and management of complex trauma patient.
- Increase personal clinical experience with these principles and techniques for appropriate patient selection and management.
- Training on anatomical specimens.

6th July

08.30 Welcome & Introduction

DAMAGE CONTROL IN TRAUMA
08.40 Damage control surgery in polytrauma – When and how?
09.00 Configurations for stable spanning external fixation
09.20 Comparison of temporary pelvic stabilization techniques
09.40 Discussion
09.50 **Practical Session** – Wet Lab Temporary Fixation: Pelvis to Ankle
11.20 *Break*

OPEN TIBIAL FRACTURES
11.40 Wound extensions in open tibial fractures
12.00 Management of bone loss in open tibial fractures -1 Distraction osteogenesis
12.15 Management of bone loss in open tibial fractures -2 The Masquelet method
12.30 Amputation and reconstructive amputation in open tibial fractures
12.50 Discussion
13.00 *Lunch*
14.00 **Practical Session** – Wet Lab
- Fasciotomy
- Application of monocortical fixator
- Fixator - assisted nailing

16.00 Case Discussion Faculty
17.00 End of day

7th July

HIGH ENERGY & PERI-ARTICULAR FRACTURES
08.30 Supra-condylar fractures of the femur
08.50 Knee Dislocations
09.05 Tibial Plateau fractures
09.25 Discussion
09.35 Segmental fractures of the tibia
09.55 Pilon Fractures
10.15 Discussion
10.25 *Break*
10.40 **Practical Session** – Dry Lab Definitive stabilization of pilon fractures with circular external fixation

COMPLICATIONS OF FRACTURES
12.00 Management of infection after open tibial fractures
12.15 Management of non-union of the tibia
12.30 Fixator – assisted correction of distal mal- and non-union
12.45 Discussion
13.00 *Lunch*
14.00 **Practical Session** – Wet Lab Acute correction of distal femoral mal-union
15.00 Management of non-union of the femur
15.15 Complications of growth plate injuries and management
15.30 Discussion
15.40 *Break*

THE HEXAPOD FIXATION SYSTEM
16.00 Principles of long bone deformity correction using variable strut length hexapod frames
16.20 Discussion
16.30 TL-HEX™ key design features and advantages compared to other hexapod frames
16.50 Discussion
17.00 End of day

8th July

08.30 **Practical Session** – Dry Lab TL-HEX™ hardware introduction & frame application
09.30 TL-HEX™ software introduction
10.00 *Break*
10.20 **Practical Session** – Dry Lab TL-HEX™ multiplanar tibial deformity correction
11.50 **Practical Session** TL-HEX™ foot equinus deformity correction
13.20 Final remarks
13.30 End of Course and Light Lunch Buffet Discussion

FEF Fundamentals of External Fixation

Sep 1 2 3 4 5 **6** 7 8 9 10 11 12 **13** 14 15 16 17 18 19 **20** 21 22 23 24 25 26 **27** 28 29 30

ADDRESSEES
Surgeons willing to increase their personal clinical experience on the use of external fixation.

Junior: young surgeons (last year resident level or registrars).

Places limited to 50 attendees.

PRODUCTS
- Galaxy™ Fixation System
- Galaxy™ UNYCO
- TrueLok Plus
- XCaliber®
- Galaxy™ Wrist

VENUE
Orthofix Education Centre, Verona, IT

REGISTRATION DEADLINE
24th August

OBJECTIVES
- Become familiar with the basic biomechanical principles, technical and clinical aspects of external fixation (Pin to Bar, Monolateral and Circular fixation system) for appropriate treatment selection and patient management.
- Be acquainted with treatment complications, their prevention and management.

21st September

09.00 Welcome & Introduction

ESSENTIALS OF FRAME BIOMECHANICS
09.15 Indication for external fixation
09.30 Basic biomechanics of Monolateral External Fixation
09.45 Basic biomechanics of Circular External Fixation
10:00 Safe corridors and safe pin insertion techniques
10.30 Discussion
10.50 *Coffee break*
11.10 **Practical Session**
- Fundamentals of bone stabilization using Half Pins
- Fundamentals of bone stabilization using Cross Wires

13.30 *Lunch*
14.30 Post-operative management of patient ù with ExFix frame
14.50 Discussion

MONOLATERAL FIXATION I
15.00 Algorithm on decision-making in open fractures treatment
15.20 Damage control orthopaedics
15.40 Principles for stable fixator assembly
16.00 Discussion
16.10 **Practical Session**
- Fixation: Pelvis to Ankle
- Application of monocortical fixator

18.00 End of the Day

22nd September

MONOLATERAL FIXATION II
08.30 Management of complex periarticular fractures with monolateral fixation
08.50 **Practical Session**
Spanning external fixation: across the knee and across the ankle

HYBRID FIXATION
10.00 The hybrid fixation in distal tibial and pilon fractures
10.20 Discussion
10.30 *Coffee break*
10.50 **Practical Session**
The Hybrid Fixation

WRIST
11.50 Management of wrist fractures
12.10 **Practical Session**
Application of the Wrist Fixator
13.10 *Lunch*

CIRCULAR FIXATION I
14.00 Individual components & functional blocks for static & dynamic frames
14.20 Discussion
14.30 **Practical Session**
Tibial midshaft fracture reduction
16.00 Indications of circular fixation in periarticular fractures
16.20 Discussion
16.30 Case discussion
17.15 End of the day

23rd September

CIRCULAR FIXATION II
09.00 Basic principles of foot & ankle stabilization using Cross Wires & Half Pins
09.20 Discussion
09.30 **Practical Session**
Application in the foot & ankle
11.30 Case discussion
12.30 Closure of the course
12.40 *Light lunch*

PAED Paediatric

Oct 1 2 3 **4** 5 6 7 8 9 10 **11** 12 13 14 15 16 17 **18** 19 20 21 22 23 24 **25** 26 27 28 29 30 31

ADDRESSEES
Paediatric surgeons who have attended a FEF course or show proof records of External Fixation experience.

Places limited to 50 attendees.

PRODUCTS
- LRS ADVanced
- TrueLok Plus
- TL-HEX™
- eight-Plate
- Galaxy™ Fixation System

VENUE
Orthofix Education Centre, Verona, IT

REGISTRATION DEADLINE
11th September

OBJECTIVES
- This course gives insight on how to treat trauma conditions in young patients as well as how to correct deformities.
- The deformity correction session will give an in depth knowledge of all different treatment options: from internal plating to monolateral fixation, from classic circular frame to computer-assisted deformity correction system.
- The hands-on sessions on sawbones will allow participants to gain experience with different devices and techniques.
- Analyse and discuss pre-operative planning from X-Ray correct acquisition to frame assembly for correct application.
- Be acquainted with major treatment complications, their prevention and management.

12th October

09.00 Welcome & Introduction

TRAUMA
09.10 External fixation: indications & clinical applications in trauma
09.30 Discussion
09.40 **Practical Session**
Bone segment fixation in trauma using Galaxy™ Pin-to-Bar Fixator
10.40 *Coffee break*
11.00 Circular external fixation: individual components & functional blocks
11.30 **Practical Session**
Tibial midshaft fracture reduction & stabilization using Rapid Adjust Struts
13.00 *Lunch*

LIMB LENGTHENING AND DEFORMITY CORRECTION I
14:00 Guided growth modulation using eight-Plate: principles, techniques, results
14.30 Discussion
14.40 Osteotomy techniques
15.10 Discussion
15.20 Lower limb alignment & joint orientation. Uniplanar deformity correction planning
16.00 Discussion
16.10 **Practical Session**
Midshaft tibial varus deformity correction using TrueLok Hinges & Angular Distractor
17.30 End of the day

13th October

LIMB LENGTHENING AND DEFORMITY CORRECTION II
09.00 Callotasis with monolateral frames: how to escape from complications
09.40 **Practical Session**
Acute distal femoral valgus deformity correction using LRS Frame
11.00 External fixation: postoperative management & frame Removal
11.30 Discussion
11.40 Clinical case presentations
13.00 *Lunch*

COMPUTER-ASSISTED DEFORMITY CORRECTION I
14.00 Principles of long bone deformity correction using Variable Strut Length Hexapod Frames
14.40 Discussion
14.50 **Practical Session**
TL-HEX™ hardware introduction & frame application
16.10 TL-HEX™ software Introduction
17.10 Discussion
17.30 End of the day

14th October

COMPUTER-ASSISTED DEFORMITY CORRECTION II
08.30 **Practical Session**
TL-HEX™ midshaft Tibial Malunion Deformity Correction
10.00 *Coffee break*
10.20 The use of gradual correction with the TL-HEX™ external fixator in Blount's disease
10.20 Discussion
11.00 **Practical Session**
TL-HEX™ Multi-Planar Proximal Tibial Deformity (Blount's disease) Correction
12.00 **Practical Session**
Foot Demormity Correction
13.30 *Lunch*
14.30 End of course

REC Reconstruction

Nov **1** 2 3 4 5 6 7 **8** 9 10 11 12 13 14 **15** 16 17 18 19 20 21 **22** 23 24 25 26 27 28 **29** 30

ADDRESSEES
Surgeons who have attended a FEF course or show proof records of External Fixation experience.

Places limited to 50 attendees.

PRODUCTS
- LRS ADVanced
- TrueLok Plus
- TL-HEX™

VENUE
Orthofix Education Centre, Verona, IT

REGISTRATION DEADLINE
23rd October

OBJECTIVES
- This course gives insight on how to assess limb alignment and length discrepancies, and correct deformities.
- Analyse and discuss pre-operative planning from X-ray correct acquisition to frame assembly.
- Become familiar with correction of post-traumatic deformities of the lower limb using external monolateral and circular fixation.
- Be acquainted with major complications of external fixation, their prevention and management.
- The hands-on sessions on sawbones will allow participants to gain experience with different devices and techniques.

23rd November

08.30 Welcome & Introduction

PREOPERATIVE PLANNING
08.40 Indications for external fixation
09.00 Discussion
09.10 Lower limb alignment and joint orientation, malalignment test uniplanar deformity correction planning
09.50 Discussion
10.00 *Coffee break*
10.15 Osteotomy techniques
10.45 Discussion

MONOLATERAL FIXATION
11.00 Acute and gradual deformity correction using a monolateral system
11.40 Discussion
11.50 **Practical Session**
Distal femoral valgus deformity correction
13.00 *Lunch*

CIRCULAR FIXATION
14.00 Circular external fixator: individual components & functional blocks
14.40 Discussion
14.50 **Practical Session**
Midshaft tibial deformity: gradual correction and acute adjustment using TL Rapid Struts
16.20 Combination strategies in deformity correction
16.50 Discussion
17.00 Clinical case presentations
17.30 End of the day

24th November

COMPLEX FOOT DEFORMITY CORRECTION
09.00 **Practical Session**
Complex distal tibial deformity correction with foot stabilization
10.30 Advanced foot & ankle stabilization techniques
10.50 *Coffee break*
11.00 **Practical Session**
Complex foot deformity correction
12.30 Circular external fixation: postoperative management & frame removal
13.00 *Lunch*

COMPUTER-ASSISTED DEFORMITY CORRECTION I
14.00 Principles of bone deformity correction using variable strut length hexapod frames
14.40 Discussion
14.50 TL-HEX™ key design features & advantages compared to other hexapod frames
15.10 Discussion
15.20 **Practical Session**
TL-HEX™ hardware introduction & frame application
16.50 TL-HEX™ software introduction
17.30 End of the day

25th November

COMPUTER-ASSISTED DEFORMITY CORRECTION II
08.30 **Practical Session**
TL-HEX™ midshaft tibial malunion with multi-planar angular deformity
10.00 *Coffee break*
10.20 **Practical Session**
TL-HEX™ distal femoral valgus deformity correction
11.40 **Practical Session**
TL-HEX™ multi-planar proximal tibial deformity (Blount's disease) correction or ankle equinus correction
13.00 *Lunch*
14.00 End of course

TL & TL-HEX

TrueLok & TL-HEX™ Clinical Forum

Foot & Ankle Deformity Correction

Nov **1** 2 3 4 5 6 7 **8** 9 10 11 12 13 14 **15** 16 17 18 19 20 21 **22** 23 24 25 26 27 28 **29** 30

Dec 1 2 3 4 5 **6** 7 8 9 10 11 12 **13** 14 15 16 17 18 19 **20** 21 22 23 24 25 26 **27** 28 29 30 31

ADDRESSEES

Experienced orthopedic surgeons who want to deepen their knowledge in circular external fixation and have a particular interest in complex foot and ankle deformity correction and joint fusion.

Places limited to 30 attendees.

PRODUCTS

- TrueLok Plus
- TL-HEX™

VENUE

Texas Scottish Rite Hospital for Children, Dallas, US

REGISTRATION DEADLINE

2nd November

OBJECTIVES

- Learn the principles of foot & ankle deformity correction and joint fusion in an interactive and practical course format.
- Get acquainted with the TrueLok Plus and TL-HEX™ systems, their details and applications in complex foot & ankle deformity correction and joint fusion settings.
- Become familiar with the TrueLok Plus and TL-HEX™ systems hardware and TL-HEX™ software applications in foot and ankle area.

TEXAS
SCOTTISH
RITE HOSPITAL
FOR
CHILDREN

30th November

08.00 Welcome & Introduction

TRUELOK: EQUINUS DEFORMITY CORRECTION, ANKLE ARTHRODIATASIS AND FUSION

08.15 Principles of Foot & Ankle Equinus Deformity Correction without Osteotomies using Ilizarov Closed Distraction Osteogenesis Techniques
09.00 Foot & Ankle Equinus Deformity Correction Using Circular External Fixation and Different Osteotomy Techniques
09.45 TrueLok Circular External Fixation: Key Design Features
10.15 *Coffee Break*
10.30 **Practical Session** Equinus Deformity Correction using TrueLok Hinges and Angular Distractor
11.30 **Practical Session** Additional Stabilization of the Talus for Ankle Arthrodiatasis and Fusion
12.00 *Lunch*

TRUELOK: MULTI-PLANAR FOOT & ANKLE DEFORMITY CORRECTION

13.00 **Practical Session** Acute Charcot Foot Deformity Correction using TrueLok Rapid Adjust Struts
14.30 Interactive Surgery Review: TrueLok in Foot & Ankle Applications
15.15 *Coffee Break*
15.30 **Practical Session** Sequential Correction of Complex Clubfoot Deformity using TrueLok Preassembled Modules
17.00 Clinical Cases Review: Complex Foot & Ankle Deformity Correction
18.00 End of the day

1st December

07.00 Departure from the hotel
07.30 *Breakfast*

TL-HEX™: COMPUTER ASSISTED DEFORMITY CORRECTION I

08.00 Introduction to Hexapod External Fixation
08.30 Principles of Long Bone Deformity Correction Using Hexapod Frames
09.30 X-Ray Measurements and Data Acquisition for Hexapod Frames
10.15 *Coffee Break*
10.30 TL-HEX™ Hardware: Key Design Features
11.00 **Practical Session** TL-HEX™ Frame Application for Distal Tibial Valgus
12.00 *Lunch*
13.00 TL-HEX™ Software Introduction
13.30 **Practical Session** Deformity Analysis & Frame Mounting Parameters (Paper Lab)
14.00 **Practical Session** Distal Tibial Valgus Deformity Correction using Single-Level Vertical TL-HEX™ Frame
15.00 *Coffee Break*
15.15 TL-HEX™ for Foot & Ankle Deformity Correction: Indications, Hexapod Frame, Classification and Clinical Applications
16.00 **Practical Session** Equinus Deformity Correction followed by Ankle Arthrodiatasis/Fusion using Single-Level Vertical TL-HEX™ Frame
18.00 End of the day

2nd December

07.00 Departure from the hotel
07.30 *Breakfast*

TL-HEX: COMPUTER ASSISTED DEFORMITY CORRECTION II

08.00 **Practical Session**
Lisfranc Fracture Reduction (Midfoot Deformity Correction) using Single-Level Horizontal TL-HEX™ Frame

09.30 **Practical Session**
Correction of Complex Foot & Ankle Deformities by TL-HEX™ Frame Conversion to Double-Level Inline Orthogonal Frame

10.15 *Coffee Break*

10.30 **Practical Session**
Correction of Complex Foot & Ankle Deformities using Double-Level Inline Orthogonal Frame with Butt-Joint Connection

12.00 *Lunch*

13.00 Clinical Cases Review: TL-HEX™ Foot & Ankle

14.00 Discussion & Closing Remarks

14.30 End of the day

HBO PRETORIA

Feb	**1** 2 3 4 5 6 7 **8** 9 10 11 12 13 14 **15** 16 17 18 19 20 21 **22** 23 24 25 26 27 28
May	1 2 **3** 4 5 6 7 8 9 **10** 11 12 13 14 15 16 **17** 18 19 20 21 22 23 **24** 25 26 27 28 29 30 **31**
Jul	1 2 3 4 **5** 6 7 8 9 10 11 **12** 13 14 15 16 17 18 **19** 20 21 22 23 24 25 **26** 27 28 29 30 31
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Mentor: Franz Birkholtz, MD

Dr. Franz Birkholtz is a qualified and registered South African Orthopaedic Surgeon situated in Pretoria, Gauteng who specialises in:

- Orthopaedic Trauma (fractures)
- Post-traumatic Reconstruction (management of non-unions, mal-unions, infection and leg shortening).
  He has a track record as an efficient surgeon and an effective teacher in those fields and he hosts international surgeons on a regular basis to teach them advanced techniques in fracture management and limb reconstruction.

VENUE

Unitas Hospital (Netcare), Centurion, Pretoria, South Africa

The internationally acclaimed Netcare Unitas Hospital is the largest private hospital in South Africa. The 470-bed facility is the flagship of the Netcare group's 56 private hospitals across South Africa, and offers world-class healthcare services enabled by the latest technology, a team of highly experienced medical professionals and a commitment to render exceptional service to all stakeholders.

South Africa is a country with the highest per capita trauma load in the world. This centre performs approximately 150 frame / limb reconstruction cases per annum.

(http://www.netcare.co.za)

What you can expect during the program:

The course will focus on the use of TrueLok Plus and TL-HEX™ in acute trauma and trauma related situations like non-union, malunion, bone loss and infection. This will be done by observation of the surgical team in theatre and by learning pre-operative and post-operative care through ward rounds and attendance of the limb reconstruction follow-up clinic. During this full-immersion course, the surgeons should be able to observe approximately 4 operative cases and attend advanced lectures and workshops.

- Organized clinics treating patients with complex fractures and post-traumatic deformities
- Participating in surgeries utilizing TrueLok Plus, TL-HEX™ and LRS ADVanced
- Pre and Post operative follow-up
- Lectures and discussion on lower limb surgery

Note: The course is designed for advanced surgeons who have completed a minimum of 15 ring cases.

"The course is clearly intense, with 5 packed days of education. What the course successfully achieves, however, is the right balance of lectures, practical workshops, and theatre time, enabling delegates to assimilate new learning and apply into practice. Furthermore, the South African hosts create a very relaxed, informal, welcoming environment in which to learn and exchange ideas."

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