

Course program

AOTrauma Course—Basic Principles of Fracture Management

Precourse online activities: November 4–December 3, 2016

Course: December 4–9, 2016, Davos, Switzerland

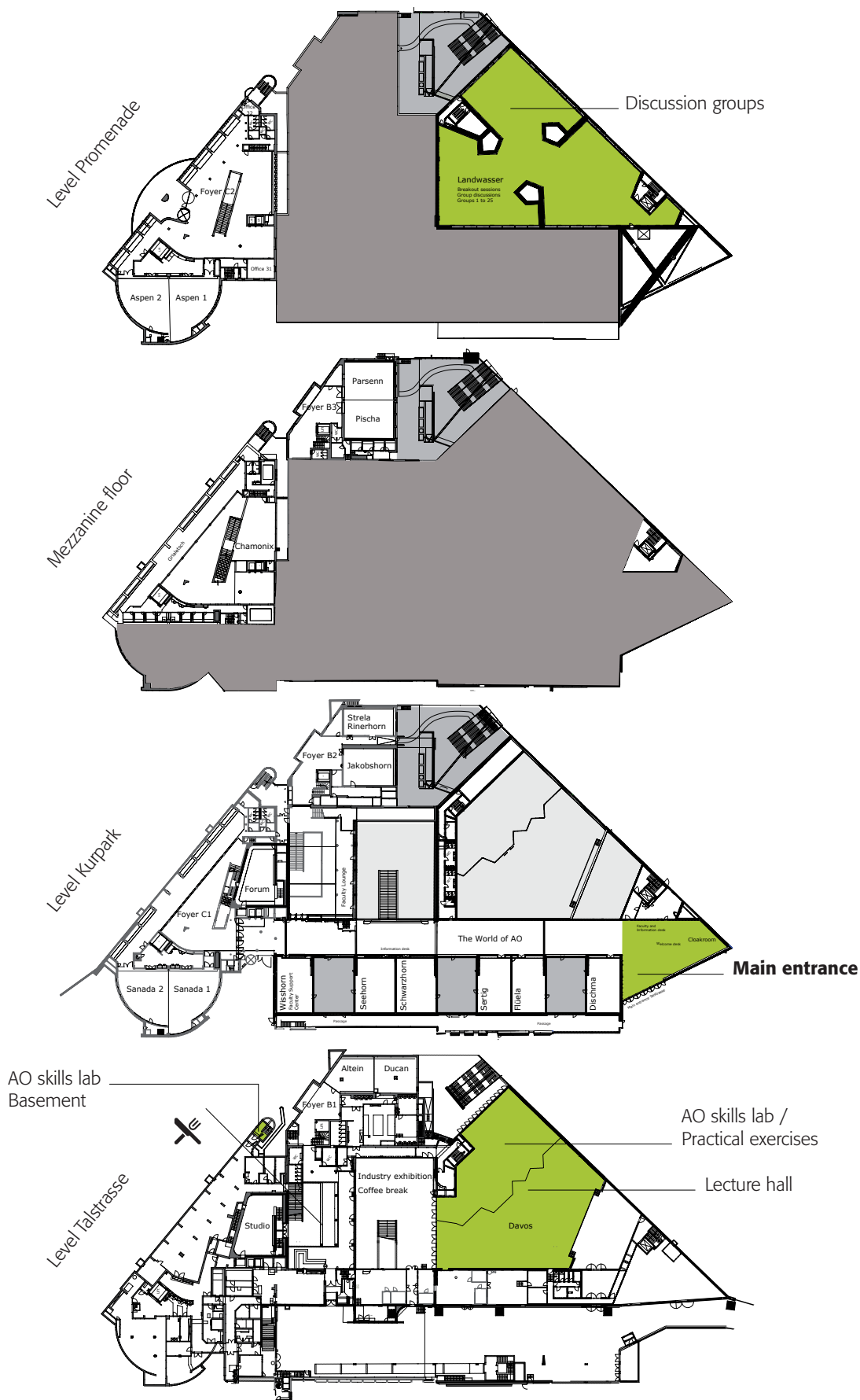
Postcourse online activity: December 10–23, 2016

Lecture hall: Davos



Home to
Trauma &
Orthopedics

Floor plan



The first AO Course was held in Davos in 1960—these early courses pioneered psychomotor techniques by teaching practical skills of AO Techniques. Since those early days over 455,000 surgeons and 155,000 ORP from over 110 countries have attended AO Courses.

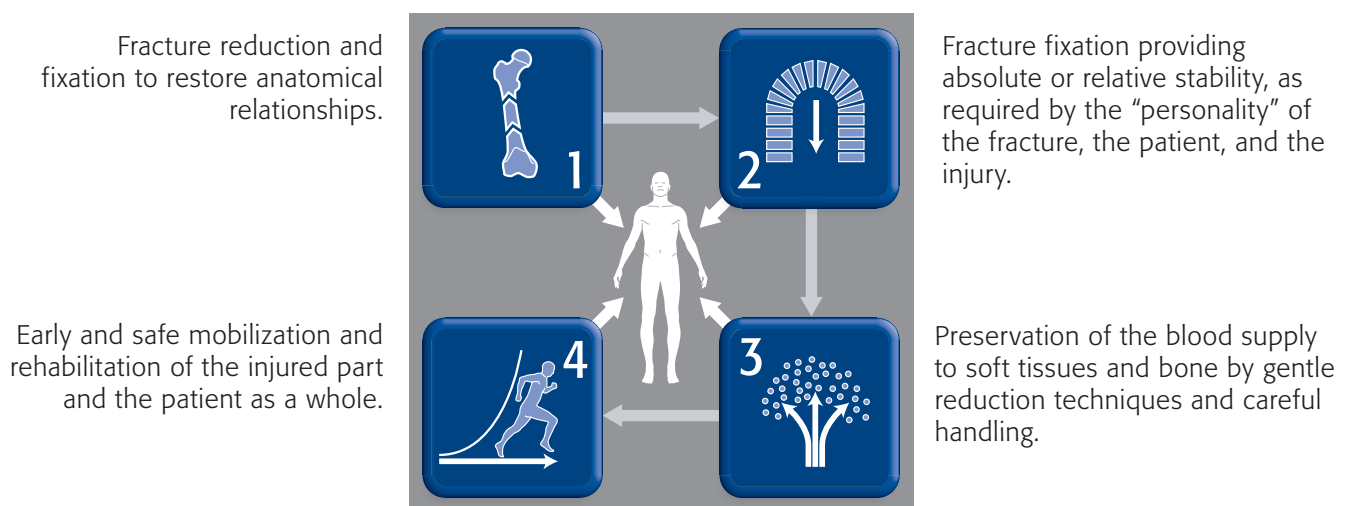
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Value statement

AOTrauma is committed to improve patient care outcomes through the highest quality education. We strive to combine the right knowledge and surgical skills that empower the orthopedic and trauma surgeons to put theory into practice and to improve fracture management for the benefit of the patient.

The AO Principles of fracture management



Dear AOTrauma course participant

Welcome to AOTrauma's Davos Courses 2016. AOTrauma provides a wide range of relevant courses designed to meet your specific professional needs. We are confident that you will find your course as well as the networking experiences professionally rewarding.

With a global reputation for innovation, leadership, and excellence in Continuing Medical Education (CME), the AOTrauma Clinical Division and the AO Education Institute are transforming education. AOTrauma is constantly expanding its portfolio of educational activities available to you. Continuing Medical Education is no longer just about face-to-face courses. Portfolios are being created to address the specific clinical problems that you encounter every day. Visit the AOTrauma home page (www.aotrauma.org) as new assets are being added every week.

The AOTrauma Davos Courses offer more than just a course experience. Your primary focus is active engagement in your course. In addition, we encourage you to

- interact with over 300 international faculty and discuss the specific issues you face
- expand your professional network by establishing new relationships with colleagues that include faculty and participants from over 80 countries
- visit and speak with staff and surgeons from the AO Foundation's Clinical Divisions and Institutes. Both the exhibits in the AO World and the visits offered to the AO Center Davos allow you to learn about the AO's ongoing activities and the resources available to support you in your clinical work

Your current level of knowledge, skills, and attitudes will be challenged throughout the week. The best-in-class curriculum and faculty will provide you with a memorable learning experience that will remain with you for a lifetime.

If you enjoy the experience during this week and would like to stay in touch with AOTrauma, we invite you to become a member. Membership requires only a completed AOTrauma Basic Principles Course and the payment of a reasonable yearly fee.



Kodi Kojima
Chairperson AOTrauma
Education Commission



John (Jack) Wilber
Chairperson AOTrauma
International Board

Goal of the course

The AOTrauma Course—Basic Principles of Fracture Management is part of a newly developed educational program teaching fundamental principles and current concepts in the treatment of injuries, incorporating the latest techniques in operative fracture management. The AOTrauma Basic Principles course is the initial step along the path of lifelong learning in the area of operative fracture management, and the main focus of this course is on teaching the basic principles of fracture management.

Target participants

The AOTrauma Course—Basic Principles of Fracture Management is targeted at surgical trainees and also open to certified orthopedic and trauma surgeons, who are interested in furthering their knowledge and skills in operative fracture management.

Learning objectives

At the end of this course, participants will be able to:

- Discuss the concepts of stability, their influence on bone healing, and how to apply implants to achieve appropriate stability
- Plan a treatment based on assessment, imaging, classification, and decision making
- Apply reduction techniques in fracture management with attention to the importance of the soft-tissue
- Treat diaphyseal and simple (peri)articular fractures using different application techniques
- Evaluate and recognize the special problems related to:
 - Fractures in the immature skeleton
 - Pelvic injuries
 - Osteoporotic fractures
 - Postoperative infection
 - Delayed union and/or nonunion
- Plan the initial treatment of the polytraumatized patient

Course description

This AOTrauma Basic Principles of Fracture Management course is part of AOTrauma's educational program for residents and based on a specific framework of competencies and learning outcomes. They feature a balanced mix of educational methods with a strong focus on interactive sessions.

Online precourse self-assessment prepares participants for the course and allows the faculty to tailor the course to the needs of the participants. Before attending the course, participants are expected to complete online modules on bone healing and classification.

The course will consist of several evidence-based lectures, which will cover the key information required. In practical exercises participants will be trained in the application of various techniques.

The AO Skills Lab consists of ten stations where participants will learn about the principles of fractures and test fracture management options. Discussing cases in small groups will help participants to understand decision-making processes and further develop management skills.

After the course an online postcourse self-assessment will provide participants with important feedback on how much they have learned.

Chairperson



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Course organization

AOTrauma Education

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Precourse online activities, Nov 4–Dec 3, 2016

ACTIVITIES

Task 1

Online precourse self-assessment (30 min)

The online precourse self-assessment consists of questions on your profile and expertise as well as of a set of multiple-choice questions with direct feedback. Your participation will help us to focus on your needs at the upcoming event.

Please complete the two e-learning modules "Biology of bone healing" and "Fracture classification" after the precourse self-assessment and before attending the course, because faculty will build on your newly acquired knowledge.

Task 2

E-learning module Biology of bone healing (20 min)

http://www.aovideo.ch/~aoelearn/aot_launch/bh.htm

Task 3

E-learning module Fracture classification (20 min)

http://www.aovideo.ch/~aoelearn/aot_launch/clas.htm

Sunday, December 4, 2016

TIME	AGENDA ITEM
15:00	Opening of the Congress Center
15:00–17:00	Registration of participants
17:00–18:00	Opening ceremony
18:00–19:00	FOUNDERS' RECEPTION

Monday, December 5, 2016

TIME	AGENDA ITEM	WHO
	LOCATION Davos	
08:00–08:10	Welcome and introduction to the course	M Tyllianakis, M Kremli
Module 1	Injury pattern—soft-tissue and bone	Moderator: M Tyllianakis
	At the end of this module, participants will be able to: • Describe how the patient related factors affect the management of fractures • Describe the importance of soft-tissues in fracture healing • Use the AO/OTA Fracture and Dislocation Classification to describe a fracture • Outline the treatment plan and priorities for open fractures	
08:10–08:20	Influence of patient factors and the mechanism of injury on fracture management	Y Al Mufargi
08:20–08:30	The soft-tissue injury—a high-priority consideration	S Guerrero
08:30–08:45	Management of open fractures	K Riansuwan
08:45–08:55	Questions and conclusions—injury pattern (soft-tissue and bone)	M Tyllianakis
08:55–09:15	COFFEE BREAK	
Module 2	Bone healing and stability	Moderator: E Carroll
	At the end of this module, participants will be able to: • Explain the biology of fracture healing and how it is affected by fracture treatment • Define absolute and relative stability and describe their effect on fracture healing • Describe the biomechanics of locking plates and how to achieve different types of stability • Explain the principles and steps of the lag screw technique	
09:15–09:25	Biology of bone healing—review of the eLearning activity	E Carroll
09:25–09:40	Absolute stability—biomechanics, techniques, and fracture healing	FP Du Plessis
09:40–09:55	Relative stability—biomechanics, techniques, and fracture healing	P Szypryt
09:55–10:10	Fracture fixation using locking plates	T Noda
10:10–10:25	Relative stability—nails and reaming	H Al-Qdhah
10:25–10:35	Questions and conclusions—bone healing and stability	E Carroll
10:35–10:40	LOCATION CHANGE TO PRACTICAL EXERCISE	
10:40–12:05	Practical exercise 1 Internal fixation with screws and plates—absolute stability	M Odat T Noda
12:05–13:35	LUNCH BREAK	

Monday, December 5, 2016

TIME	AGENDA ITEM	WHO
13:35–14:05	Practical exercise 2 Tibial fracture treated with different external fixator frame constructs—assessment of stability	R Vaidya R Yong
14:05–14:25	COFFEE BREAK	
	LOCATION Davos	
	RED TEAM	
14:25–16:30	AO Skills Lab A Note: participants spend 10 minutes at each station, then rotate Station A – Torque measurement of bone screws Station B – Soft-tissue penetration during drilling Station C – Heat generation during drilling Station D – Mechanics of bone fractures Station E – Fracture healing Station F – Techniques of reduction Station G – Mechanics of intramedullary fixation Station H – Mechanics of plate fixation, part 1 Station J – Mechanics of plate fixation, part 2 Station K – Damaged implant removal	M Tyllianakis T AlKindy K Hussein J Alzate N Annicchiarico E Benninger J Bishop, R Yong M Camuso E Carroll FP Du Plessis J Gary
	LOCATION Basement	
	GREEN TEAM	
14:25–16:30	AO Skills Lab B Note: participants spend 10 minutes at each station, then rotate Station A – Torque measurement of bone screws Station B – Soft-tissue penetration during drilling Station C – Heat generation during drilling Station D – Mechanics of bone fractures Station E – Fracture healing Station F – Techniques of reduction Station G – Mechanics of intramedullary fixation Station H – Mechanics of plate fixation, part 1 Station J – Mechanics of plate fixation, part 2 Station K – Damaged implant removal	M Kremli D Hahn OJ Insfran Hellmann H Al-Qdhah R Neiman T Noda H Seitz D Putineanu E Stamatidis P Szypryt R Vaidya
16:30–16:35	LOCATION CHANGE TO DISCUSSION GROUPS	

Monday, December 5, 2016

TIME	AGENDA ITEM	WHO
16:35–17:35	Discussion group 1 General principles, classification, concepts of stability, their influence on bone healing, and how to apply implants to achieve appropriate stability	
	Group 1 – Landwasser 1	Y Al Mufargi, J Bishop
	Group 2 – Landwasser 2	T AlKindy, M Camuso
	Group 3 – Landwasser 3	A Ursache, E Carroll
	Group 4 – Landwasser 4	K Hussein, FP Du Plessis
	Group 5 – Landwasser 5	J Alzate, J Gary
	Group 6 – Landwasser 6	N Anniccharico, D Hahn
	Group 7 – Landwasser 7	SH Choi, R Neiman
	Group 8 – Landwasser 8	S Guerrero, P Szypryt
	Group 9 – Landwasser 9	OJ Insfran Hellmann
		R Vaidya
	Group 27 – Davos	H Al-Qdhah, R Yong
	Group 28 – Davos	T Noda, E Benninger

Tuesday, December 6, 2016

TIME	AGENDA ITEM	WHO
	LOCATION Davos	
08:00–09:25	Practical exercise 3 Principles of the internal fixator using locking plates	J Bishop T AlKindy
09:25–09:30	LOCATION CHANGE TO LECTURE HALL	
Module 3	Surgical treatment of diaphyseal fractures	Moderator: M Kremli
	At the end of this module, participants will be able to: • Describe the treatment goals for diaphyseal fractures • Describe the treatment principle for diaphyseal fractures in the upper and lower extremities • Determine the type of reduction and stability needed for diaphyseal fractures • Describe and understand the dangers of radiation and how to avoid them • Explain the rationale behind preoperative planning and the importance of careful decision making with regard to reduction technique, implant requirements, and fixation techniques	
09:30–09:35	Introduction to Module 3	M Kremli
09:35–09:55	Principles of diaphyseal fracture management—what is important in treating these fractures?	N Annicchiario
09:55–10:10	Reduction techniques of diaphyseal fractures—principles and methods	SH Choi
10:10–10:30	Radiation hazards—how to avoid them	M Kremli
10:30–10:45	Preoperative planning—rationale and how to do it	M Odat
10:45–11:05	COFFEE BREAK	
11:05–11:20	Fractures of the humeral diaphysis	M Tyllianakis
11:20–11:35	Fractures of the forearm	M Odat
11:35–11:50	Fractures of the femoral diaphysis	R Yong
11:50–12:05	Fractures of the tibial diaphysis	R Vaidya
12:05–13:35	LUNCH BREAK	

Tuesday, December 6, 2016

TIME	AGENDA ITEM	WHO
13:35–14:50	Discussion group 2 Diaphyseal fractures—management principles Group 1 – Landwasser 1 Group 2 – Landwasser 2 Group 3 – Landwasser 3 Group 4 – Landwasser 4 Group 5 – Landwasser 5 Group 6 – Landwasser 6 Group 7 – Landwasser 7 Group 8 – Landwasser 8 Group 9 – Landwasser 9 Group 27 – Davos Group 28 – Davos	S Guerrero, A Sermon T Noda, D Putineanu K Riansuwan, E Benninger H Seitz, P Szypryt N Annicchiarico, R Yong E Stamatis, J Bishop A Ursache, M Camuso T AlKindy, J Gary H Al-Qdhah, D Hahn K Hussein, R Neiman Y Al Mufargi, FP Du Plessis
14:50–15:00	LOCATION CHANGE TO PRACTICAL EXERCISE	
15:00–16:05	Practical exercise 4 Tibial shaft fractures—intramedullary nailing with reaming	K Hussein K Riansuwan
16:05–16:20	COFFEE BREAK	
16:20–17:20	Practical exercise 5 (part 1) Preoperative planning—plan your forearm operation	M Kremli

Wednesday, December 7, 2016

Self-Directed Learning Modules

Chairpersons

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Wednesday, December 7, 2016

Lower Extremity

TIME	AGENDA ITEM	WHO
LOCATION Davos		
Module	Approaches and positioning of the lower extremity	Moderator: G Della Rocca
	Upon completion of this module, participants will be able to: - Describe the different ways to position patients for surgery of the lower extremity - Explain how to obtain imaging for intraoperative use - List the different surgical approaches used in trauma surgery for the lower extremity and their indications - Explain the limitations of exposures for the different approaches of the lower extremity	
08:00–08:05	Introduction	G Della Rocca
08:05–08:20	Soft-tissue in trauma	T Slongo
08:20–08:50	Approaches to the hip: - Kocher - Anterior–Smith–Peterson - Lateral–Watson–Jones	D Hahn
08:50–09:00	Approaches to the femoral shaft: Lateral extensile	C Olarte Salazar
09:00–09:20	Supine approaches to the knee: - Anterolateral - Medial	J Gary
09:20–09:40	Prone approaches to the knee: - Posteromedial - Direct posterior	G Della Rocca
09:40–10:00	Approaches to the ankle: - Anterolateral - Posteromedial	D Desai
10:00–10:30	COFFEE BREAK	
10:30–11:30	Demonstration of supine, prone, and lateral positions for lower extremity surgery with intraoperative imaging	R Pesantez-Hoyos
11:30–12:00	Questions and closing remarks	G Della Rocca
12:00–13:30	LUNCH	

Reduction Techniques

TIME	AGENDA ITEM	WHO
LOCATION Aspen		
Module	Reduction techniques and methods	Moderator: S Mehta
	Upon completion of this module, participants will be able to: - Explain forces of displacement and how to counteract - Define types of reduction and explain indications for each - List tools for reduction and their functions - Recall methods of verifying reduction intraoperatively - Demonstrate examples of reduction techniques in diaphyseal and articular fractures	
08:00–08:05	Introduction	S Mehta
08:05–08:25	Distraction, muscle vectors, displacement forces, and ligamento-taxis	E Carroll
08:25–08:45	Types of direct and indirect reduction	M Richardson
08:45–09:00	Tools of reduction	M Odat
09:00–09:20	COFFEE BREAK	
09:20–09:45	Intraoperative image intensifier–structured approach and systematic education	R Wright
09:45–10:00	Reduction of diaphyseal fractures	
10:00–10:20	Reduction of articular fractures	R Neiman
10:20–11:10	Case discussion of reduction examples Bone models and reduction clamps	P Guy
11:10–12:00	Questions and discussion	S Mehta
12:00–13:30	LUNCH	

Wednesday, December 7, 2016

Upper Extremity

TIME	AGENDA ITEM	WHO
LOCATION Davos		
Module	Approaches and positioning of the upper extremity	Moderator: M Camuso
	Upon completion of this module, participants will be able to: - Describe the different ways to position patients for surgery of the upper extremity - Apply the different surgical approaches used for the upper extremity based on their indications - List structures at risk for the different surgical exposures - Recognize the limitations of the different surgical exposures of the upper extremity - Explain how to obtain intraoperative imaging	
13:30–13:35	Introduction	M Camuso
13:35–13:45	Soft-tissue in upper extremity trauma	H Hoyen
13:45–14:10	Approaches to the shoulder: - Deltpectoral - Deltoid split	G Beadel
14:10–14:35	Approaches to the humerus: - Anterolateral - Posterior	D Rikli
14:35–15:00	Approaches to the elbow: - Kocher - Medial	C Ekholm
15:00–15:20	Approaches to the forearm: - Volar/Henry - Dorsal/Thompson	B Crist
15:20–15:40	Approaches to the distal radius: - Flexor Carpi Radialis (FCR) - Dorsal	H Hoyen
15:40–16:10	COFFEE BREAK	
16:10–17:10	Demonstration of supine, prone, beach chair, and lateral positions for upper extremity surgery with intraoperative imaging	R Pesantez-Hoyos
17:10–17:30	Questions and closing remarks	M Camuso

Postoperative Care/Implant Removal

TIME	AGENDA ITEM	WHO
LOCATION Aspen		
Module	Postoperative care—the patient and the surgeon, what to expect and do	Moderator: S Kates
	Upon completion of this module, participants will be able to: - Identify different methods of postoperative care following fracture fixation - Select proper postoperative care according to individual needs of patients - Recognize the indications and contraindications for implant removal - Describe the risks and difficulties of implant removal - Apply tips and tricks for implant removal in difficult situations (broken hardware)	
13:30–13:35	Introduction	S Kates
13:35–13:50	Postoperative pain management—review of our practice	M Kremli
13:50–14:05	Early mobilization in the first postoperative days—why do we do it?	J Bishop
14:05–14:20	Principles of early rehabilitation	
14:20–14:35	Orthoses and other supports for trauma patients: - Principles and indications - Case examples	A Sitnik
14:35–14:50	Weight bearing after open reduction and internal fixation: - Upper extremity - Pelvis and lower extremity	R Vaidya
14:50–15:05	Follow-up after open reduction and internal fixation	M Hatton
15:05–15:15	Questions and answers	S Kates
15:15–15:45	COFFEE BREAK	
15:45–16:00	Implant removal—why and when?	SB Han
16:00–16:15	Implant removal—tips and tricks	J Lee
16:15–17:15	Implant removal case presentation and discussion with participants	M Hatton
17:15–17:30	Summary, questions, and closing remarks	S Kates

Thursday, December 8, 2016

TIME	AGENDA ITEM	WHO
	LOCATION Davos	
08:00–09:10	Practical exercise 5 (part 2) Operate your plan—fixation of a type 22-C1 forearm fracture using the 8-hole and 11-hole locking plates	Y Al Mufargi OJ Insfran Hellmann
09:10–09:15	LOCATION CHANGE TO LECTURE HALL	
09:15–09:25	Questions and conclusions—treatment of diaphyseal fractures	M Camuso
Module 4	Treatment of articular fractures	Moderator: J Bishop
	At the end of this module, participants will be able to: • Describe the treatment goals for articular fractures • Define the key surgical principles to the management of articular fractures • Determine the type of reduction and stability needed for articular fractures • Outline the function and clinical indications for the tension band technique	
09:25–09:40	Management principles for articular fractures—how do they differ from diaphyseal fractures?	D Hahn
09:40–09:55	Reduction techniques for articular fractures—principles and methods	M Camuso
09:55–10:10	Fractures of the proximal humerus	E Benninger
10:10–10:25	Distal radial fractures—which to fix? How to fix?	J Bishop
10:25–10:45	COFFEE BREAK	
10:45–11:00	Fractures of the olecranon and patella	M Kremli
11:00–11:15	Femoral neck fractures	R Neiman
11:15–11:30	Trochanteric femoral fractures	OJ Insfran Hellmann
11:30–11:35	LOCATION CHANGE TO PRACTICAL EXERCISE	
11:35–12:00	Practical exercise 6 Tension band wiring of the olecranon	J Alzate
12:00–13:30	LUNCH BREAK	

Thursday, December 8, 2016

TIME	AGENDA ITEM	WHO
13:30–13:45	Distal femoral fractures—management principles	J Alzate
13:45–14:00	Tibial plateau fractures	D Putineanu
14:00–14:15	Distal tibial fractures—management principles	E Stamatis
14:15–14:30	Ankle fractures—a logical approach for their fixation	M Odat
14:30–14:40	“Smart Surgery” implants that monitor patient activity and fracture healing	G Richards
14:40–14:45	LOCATION CHANGE TO PRACTICAL EXERCISE	
14:45–15:45	Practical exercise 7 Ankle fracture, type 44-C	D Hahn K Hussein
15:45–16:05	COFFEE BREAK	
16:05–17:20	Discussion group 3 Articular fractures—management principles	
	Group 1 – Landwasser 1	A Ursache, E Benninger
	Group 2 – Landwasser 2	H Seitz, M Camuso
	Group 3 – Landwasser 3	E Stamatis, E Carroll
	Group 4 – Landwasser 4	K Riansuwan, J Bishop
	Group 5 – Landwasser 5	M Odat, D Hahn
	Group 6 – Landwasser 6	T Noda, R Neiman
	Group 7 – Landwasser 7	N Annicchiarico, A Sermon
	Group 8 – Landwasser 8	OJ Insfran Hellmann, FP Du Plessis
	Group 9 – Landwasser 9	SH Choi, D Putineanu
	Group 27 – Davos	Y Al Mufargi, R Vaidya
	Group 28 – Davos	J Alzate, J Gary
17:45–20:30	AO WORLD NIGHT	

Friday, December 9, 2016

TIME	AGENDA ITEM	WHO
	LOCATION Davos	
08:00–09:10	Practical exercise 8 Management of a trochanteric fracture using a proximal femoral nail antirotation	M Camuso, E Benninger
09:10–09:30	COFFEE BREAK	
09:30–09:40	Questions and conclusions—treatment of articular fractures	FP Du Plessis
09:40–09:55	Violation of principles	T AlKindy
Module 5	Polytrauma, emergency management, and complications	Moderator: A Ursache
	At the end of this module, participants will be able to: • Outline the algorithm for polytrauma management and discuss the roles of the team members • Recognize the pathology of severe pelvic trauma and identify the reasoning behind emergency pelvic stabilization • List the causes and factors that lead to postoperative infection • Name factors leading to delayed union and/or malunion	
09:55–10:10	Treatment algorithms for the polytrauma patient	A Sermon
10:10–10:25	Emergency management of pelvic fractures— a critical skill that can save lives	A Ursache
10:25–10:35	LOCATION CHANGE TO PRACTICAL EXERCISE	
10:35–11:25	Practical exercise 9 Stabilization of the pelvic ring using a large external fixator	SH Choi E Stamatis
11:25–12:00	LUNCH BREAK	

Friday, December 9, 2016

TIME	AGENDA ITEM	WHO
12:00–13:10	Discussion group 4 Special fractures (polytrauma, complications, etc) Group 1 – Landwasser 1 Group 2 – Landwasser 2 Group 3 – Landwasser 3 Group 4 – Landwasser 4 Group 5 – Landwasser 5 Group 6 – Landwasser 6 Group 7 – Landwasser 7 Group 8 – Landwasse 8 Group 9 – Landwasser 9 Group 27 – Davos Group 28 – Davos	J Alzate, E Benninger E Stamatis, FP Du Plessis S Guerrero, A Sermon T Noda, R Yong K Riansuwan, D Putineanu Y Al Mufargi, R Vaidya OJ Insfran Hellmann, J Gary H Al-Qdhah, J Bishop M Odat, R Neiman SH Choi, H Seitz T Al Kindy, M Camuso
13:10–13:15	LOCATION CHANGE TO LECTURE HALL	
13:15–13:30	Infection after osteosynthesis—how to diagnose and manage	J Gary
13:30–13:45	Delayed healing—causes and treatment principles	H Seitz
13:45–13:50	Questions and conclusions—polytrauma and complications	M Kremli
13:50–14:00	Closing remarks and end of course	M Tyllianakis, M Kremli

Postcourse online activities, December 10–23, 2016

ACTIVITIES

Task 1

Online postcourse self-assessment (10 min)

At the end of this course, you will receive an e-mail link to the postcourse self-assessment. Please take the opportunity to complete the self-assessment. This will help you to reflect on what you have learned during the event and also help us to improve future events.

Course information

Course fee

AOTrauma Masters Course—Basic Principles of Fracture Management CHF 2250.

Included in the course fee are a conference bag with documentation, coffee breaks, lunches, and AO World Night.

European CME Accreditation

For this event the UEMS—EACCME® in Brussels have granted 29 European CME credits (ECMEC).

Course certificate

The course certificates will be available at the end of the course at the welcome desk.

Evaluation guidelines

All AOTrauma courses apply the same evaluation process with paper and pencil questionnaires. This will help AOTrauma to ensure that we continue to meet your training needs.

Intellectual property

Course materials, presentations, and case studies are the intellectual property of the course faculty. All rights are reserved. Check hazards and legal restrictions on www.aofoundation.org/legal.

Recording, photographing, or copying of lectures, practical exercises, case discussions, or any course materials is strictly forbidden. Participants violating intellectual property will be dismissed.

The AO Foundation reserves the right to film, photograph, and audio record during their events. Participants must understand that in this context they may appear in these recorded materials. The AO Foundation assumes participants agree that these recorded materials may be used for AO marketing and other purposes, and made available to the public.

Security

Security checks will be conducted at the entrance of the building. Wearing of a name tag is compulsory during lectures, practicals, and discussion groups.

No insurance

The course organization does not take out insurance to cover any individual against accidents, thefts or other risks.

Use of mobile phones

Use of mobile phones is not allowed in the lecture rooms and in any other facilities during educational activities. Please be considerate of others by turning off your mobile phone.

Picture Gallery

Check out aodavoscourses.org for a daily selection of pictures from the Davos Courses 2016, the best from last year's courses, and a selection of photographs from the first ever AO Davos Courses.

Dress code

Davos: warm clothes and suitable shoes are advisable.



Course venue

Congress Center Davos

Talstrasse 49A
7270 Davos, Switzerland
Phone +41 81 414 62 00
Fax +41 81 414 62 29

General information

Sunday	12:00–19:00
Monday to Thursday	07:30–19:00
Friday	07:30–17:00

AO World

Sunday	15:00–17:00
Monday to Thursday	09:00–17:00 (Thursday –20:30)
Friday	09:00–15:30

Industry exhibition

Sunday	15:00–19:00
Monday to Friday	09:00–17:00 (Thursday –18:00)
Friday	09:00–15:30

Exhibitions

AO World

Visit the AO World in the main foyer, home to the AO Clinical Divisions, AO Institutes and the AO Foundation Initiatives. Here you can explore membership opportunities, browse our print and electronic publications and learn about groundbreaking activities within the AO. Discover research, development, fellowships, and other opportunities available to you by visiting all the booths in the AO World.

Industry exhibitors

Visit the exhibitions of our major industry partners DePuy Synthes and Siemens, who are also contributing in-kind support (material and logistics), and the other exhibitors: SYNBONE, Ethicon, Carl Zeiss AG, Invibio, Hectec GmbH, Oped, Victorinox, ICUC, and Moticon GmbH.

Media exhibitors

Lehmanns Media can be found at the entrance to the Congress Center.

Business center

There are business centers facilities in the Congress Center which are accessible to everybody.

Services

- Internet and e-mail access
- Printer access
- www.aotrauma.org
AO Course website offering course-related information

Opening hours

- 30 minutes before the first course of the day starts until
- 30 minutes after the last course ends

Disclaimer

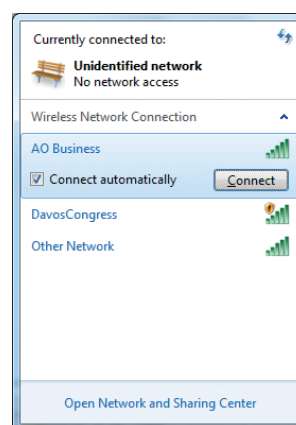
The use of your own computer in the business center network is inherently not secure. We strongly recommend that you take appropriate actions to protect your computer against unauthorized use or theft (eg, Firewall, VPN-Connection, VirusScanner). AO cannot be held responsible for any data loss or theft. For further information or support please contact:

AO Foundation
Phone +41 81 414 28 70
E-mail it.helpdesk@aofoundation.org

Wireless network

How to connect to the AO Wireless LAN

- Open the wireless network connection window
- Choose the **AO Business** network as shown in the printscreen below and click on the **Connect** button



- Our “AO Business” wireless network requires a WPA network key:
Network key: **aowireless**



- Then click on the **OK** button

AO Foundation—Principles of AO Educational Events

1) Academic independence

Development of all curricula, design of scientific event programs, and selection of faculty are the sole responsibilities of volunteer surgeons from the AO network. All education is planned based on needs assessment data, designed and evaluated using concepts and evidence from the most current medical education research, and involving the expertise of the AO Education Institute (www.aofoundation.org).

Industry participation is not allowed during the entire curriculum development and planning process to ensure academic independence and to keep content free from bias.

2) Compliance to accreditation and industry codes

All planning, organization, and execution of educational activities follow existing codes for accreditation of high-quality education:

- Accreditation Criteria of the Accreditation Council for Continuing Medical Education, USA (www.accme.org)
- ACCME Standards for Commercial Support: Standards to Ensure Independence in CME Activities (www.accme.org)
- Criteria for Accreditation of Live Educational Events of the European Accreditation Council for Continuing Medical Education (www.uems.eu)

Events that receive direct or indirect unrestricted educational grants or in-kind support from industry also follow the ethical codes of the medical industry, such as:

- Eucomed Guidelines on Interactions with Healthcare Professionals (www.medtecheurope.org)
- AdvaMed Code of Ethics on Interactions with Health Care Professionals (advamed.org)
- Mecomed Guidelines on Interactions with Healthcare Professionals (www.mecomed.org)

3) Branding and advertising

No industry logos or advertising (with the exception of the AO Foundation and AO Clinical Division) are permitted in the area where educational activities take place.

Sponsors providing financial or in-kind support are allowed to have a promotional booth or run activities outside the educational area with approval from the event chairperson.

4) Use of technologies and products in simulations

Case simulations are chosen as an educational method to educate skills, we only use technology approved by the AOTK System (AOTK)—a large independent group of volunteer surgeons developing and peer-reviewing new technology (more information about AOTK, its development and approval process can be found on the AO Foundation website: www.aofoundation.org).

5) Personnel

Industry staff is not allowed to interfere with the educational content or engage in educational activities during the event.

AO Research Institute Davos (ARI)

Mission

Excellence in applied Preclinical Research and Development within trauma and disorders of the musculo-skeletal system and translation of this knowledge to achieve more effective patient care worldwide.

Goals

- Contribute high quality applied **Preclinical Research and Development** focused towards clinical applications/solutions
- Investigate and **improve the performance** of surgical procedures, devices and substances
- Foster a **close relationship** with the AO medical community, academic societies, and universities
- Provide research environment/support/training for AO clinicians

At the AO World booths, meet with our team including our ARI Medical Research Fellows, establish contacts, freely discuss your clinical problems, ideas, and learn about the latest results from the AO Research Institute Davos (ARI). **Insight into the AO Center** will show our infrastructure under one roof and enable you to meet some of our research team.

Areas:

Collaborative Research Programs

- Annulus Fibrosus Rupture
- Acute Cartilage Injury

Craniomaxillofacial

- Imaging and planning of surgery, computer aided preoperative planning
- Bisphosphonate-Related Osteonecrosis of the Jaw

Spine

- Degeneration and regeneration of the intervertebral disc
- Fracture fixation in osteoporotic bone

Trauma

- Bone infection, including the development and testing of active anti-infective interventions
- Fracture fixation in osteoporotic bone including intra-operative assessment of bone quality, augmentation techniques and prophylaxis
- Evaluation of the cortical and trabecular bone remodeling (with special regards to the porosity) in the proximal humerus and its impact on the fracture zones
- Development of smart surgical instruments and implant concepts for optimized bone healing

Veterinary Medicine

- Improving osteosynthesis for small animals

Multidisciplinary

- Analysis of implant-specific functional anchorage with CT-technology
- Ex vivo testing using advanced biomechanical models
- In vivo studies using established or newly developed preclinical models
- Gene transfer- non viral and viral
- Implant design using the Finite Element Methods
- Implant positioning assistance, C-arm guided implant placement
- Telemetric monitoring of bone healing
- In vivo and in vitro quantification of bone turnover and scaffold degradation
- Longitudinal analysis within in vivo studies using CT-technology
- Medical image processing and analysis
- Polymers to deliver cells and biological factors, create potential space for tissue development and guide the process of tissue regeneration
- Prototype development and production
- Stem cell therapies for the treatment of bone, intervertebral disc and cartilage defects
- Bioreactor culture systems and mechanobiology
- Surface modification of PEEK to improve tissue integration
- Thermoresponsive gel for delivery of antibiotics, stem cells, growth factors, transfected cells etc.
- 3R – refinement of preclinical studies
- Standardization, optimization and improvement of preclinical methods and models

For the 2015 AO Research Institute Davos activity report and recent publications go to:
<http://www.aofoundation.org/ari/publications>

Sponsors

We thank our major industry partners **DePuy Synthes** and **Siemens** for contributing in-kind support (material and logistics) without which this event would not be possible. A special thanks to DePuy Synthes for providing an unrestricted educational grant for this event.



We also extend our thanks to the following co-sponsors:

Credit Suisse

Synbone

Ethicon



Upcoming AO Courses—Davos 2017

AO Courses— December 3–8, 2017

- AOTrauma Course—Basic Principles of Fracture Management
- AOTrauma Course—Advanced Principles of Fracture Management
- AOTrauma Course—Advanced Principles of Fracture Management for Swiss Residents
- AOTrauma Masters Course—Current Concepts
- AOTrauma Course—Management of Fractures of the Hand and Wrist
- AOTrauma Course—Pelvic and Acetabular Fractures Management
- AOTrauma Masters-Kurs
- AORecon Courses

AO Courses—December 10–14, 2017

- AOTrauma Course—Basic Principles of Fracture Management for Swiss Surgeons
- AOSpine Courses
- AOCMF Courses
- AONeuro Course
- AOVET Courses

List subject to changes. The final Davos courses list as well as worldwide courses lists will be available on www.aotrauma.org in January 2017.

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AOTrauma membership

Discover the advantages of joining the leading global trauma and orthopedic community, providing its members with education, research and networking opportunities worldwide.

Apply for membership at www.aotrauma.org



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