

AO Trauma Course— **Advanced Principles of Fracture Management**

October 11–13, 2021

Spa, Belgium

PROGRAM



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**trauma and
orthopedics**

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Mission

The AO's mission is promoting excellence in patient care and outcomes in trauma and musculoskeletal disorders.

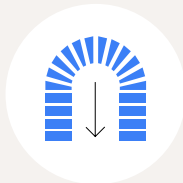
The AO principles of fracture management

1



Fracture reduction and fixation to restore anatomical relationships.

2



Fracture fixation providing absolute or relative stability, as required by the "personality" of the fracture, the patient, and the injury.

3



Preservation of the blood supply to soft tissues and bone by gentle reduction techniques and careful handling.

4



Early and safe mobilization and rehabilitation of the injured part and the patient as a whole.

Welcome

Dear AO Trauma course participant,

Welcome to the AO Trauma Advanced–Basic Principles of Fracture Management, which is planned and delivered to meet your needs using a competency-based curriculum approach and the AO's seven principles for high-quality education.

AO Trauma's innovative approach to education has been further strengthened as a result of the successful collaboration with the AO Education Institute in the application of state-of-the-art educational concepts in curriculum planning and all faculty development programs. This course is one of our many educational activities for providing lifelong learning, from the Residents Education Program through to specialized Continuing Professional Development (CPD) for practicing surgeons and clinicians.

We believe that your active engagement in this course will result in improved care for your patients. Your current level of knowledge and skills will be challenged by the activities and throughout the entire event. We are confident that the combination of education principles and relevant content from our curriculum, as well as your interaction with colleagues and expert faculty will provide an effective learning experience that meets your needs.

This course is part of an overall competency-based educational program that includes many other activities and resources for self-directed learning. The educational activities in each program are developed by an international taskforce of clinical experts and educationalists and made available to you through the Education section of www.aotrauma.org.

We hope you enjoy the course and benefit from the networking opportunities it provides for you to share experiences with your colleagues.



Mark Reilly
Chairperson AO Trauma
Education Commission



Mike Baumgaertner
Chairperson AO Trauma
International Board

If you enjoy the experience during your course and would like to stay in touch with the organization and its international network of surgeons, we invite you to become a member of AO Trauma. The benefits of membership, including options to get involved in new opportunities that advance trauma care are described at www.aotrauma.org.

Course description

Online precourse self-assessment prepares participants for the course and allows the faculty to tailor the course to the needs of the participants.

The course will be taught in a modular format. Each module consists 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. Discussing cases in small groups will help participants to understand decision-making and management skills.

After the course an online postcourse self-assessment will provide participants with an opportunity to review the important topics from the course. To support self-directed learning, a range of additional online resources will be offered.

Goal of the course

The AO Trauma Advanced Principles course builds upon the AO Principles and techniques learned in the AO Trauma Basic Principles course and focuses on the principles and techniques of operative fracture management in more complex injuries.

Target participants

The AO Trauma Course—Advanced Principles of Fracture Management is targeted at surgeons at the threshold of becoming independent surgeons and taking over decision-making responsibility for the treatment of complex injuries. Participants must have already completed the AO Trauma Course—Basic Principles of Fracture Management and must be actively involved in trauma management.

Learning objectives

Upon completion of this course, participants will be able to:

- Apply reduction techniques in fracture management with attention to soft tissues
- Assess and treat complex diaphyseal and (peri)articular fractures using advanced application techniques
- Demonstrate strategies for assessing and treating open fractures and soft-tissue injuries
- Initiate appropriate management for patients with pelvic injuries and polytrauma
- Recognize complications and manage them accordingly



Chairperson



Guy Putzeys
Kortrijk, Belgium

Regional faculty

Steven Velkes, Israel

National faculty

Francois Carlier, Belgium

Torsten Gerich, Belgium

Harm Hoekstra, Belgium

Jan Van Meirhaeghe, Belgium

Pieter Monteban, Belgium

Dan Putineanu, Belgium

Wim Vandesande, Belgium

Monday

October 11, 2021

09:00–09:15	Welcome and introduction	G Putzeys
Module 1		
Moderator: D Putineanu		
Review of the principles and new techniques		
09:15–09:30	Principles of operative fracture management: loadbearing or loadsharing	G Putzeys
09:30–09:45	Stress modulation of bridging plate constructs in diaphyseal fractures	S Velkes
09:45–09:55	OSapp introduction	P Varga
09:55–10:10	Achieving stability with intramedullary Nailing	H Hoekstra
10:10–10:30	Summary and Q&A	D Putineanu
10:30–10:50	Coffee break	
10:50–12:30	Practical exercise 1 + SGD 1 Reduction techniques Table 1 Table 2 Table 3 Table 4 Table 5 Table 6	W Vandesande G Putzeys F Carlier P Monteban D Putineanu J Van Meirhaeghe W Vandesande
12:30–13:20	Lunch break	

Module 2

Moderator: P Monteban

Injuries of the upper limb

13:20–13:35	Proximal humeral fractures—challenges when fixing	P Monteban
13:35–13:50	Prosthetic treatment of Proximal humeral fractures - an update	T Gerich
13:50–13:05	Operative treatment of Humeral shaft fractures— which implant?	D Putineanu
13:05–14:20	Distal humerus—intraarticular fractures: principles	T Gerich
14:20–14:40	Operative treatment of Distal radial fractures: when and how	W Vandesande
14:40–14:50	Summary and Q&A	P Monteban
14:50–14:55	Location change to practical exercises	
14:55–16:15	Practical exercise 2 Fixation of a four-fragment fracture in the proximal humerus using a proximal humeral interlocking system (PHILOS) plate Table 1 Table 2 Table 3 Table 4 Table 5 Table 6	P Monteban G Putzeys F Carlier T Gerich D Putineanu W Vandesande P Monteban
16:15–16:35	Coffee break	
16:35–17:35	Panel discussion: upper limb	G Putzeys
17:35–17:40	Location change to small group discussions	
17:40–18:55	Small group discussion 2: Upper extremity fractures—decision-making and methods of stabilization Discussion Group A Discussion Group B Discussion Group C	 G Putzeys, F Carlier T Gerich, P Monteban D Putineanu, W Vandesande
18:55–19:10	OSapp Q&A	P Varga

Tuesday

October 12, 2021

08:00–09:30	Practical exercise 3 Fixation of a distal humeral fracture 13C3 using a VA-LCP distal humeral plate Table 1 Table 2 Table 3 Table 4 Table 5 Table 6	T Gerich G Putzeys F Carlier P Monteban D Putineanu W Vandesande T Gerich
09:30–09:50	Coffee break	

Module 3

Moderator: W Vandesande

Injuries of the lower limb

09:50–10:05	Fixating Femoral neck fractures—how to reduce and keep it stable	W Vandesande
10:05–10:20	Intertrochanteric fractures—how to avoid disaster	S Velkes
10:20–10:35	Management of Subtrochanteric fractures: does it differ from intertrochanteric fractures?	T Gerich
10:35–10:50	Distal femoral fractures - do we prefer a plate or a nail?	F Carlier
10:50–11:00	Summary and Q&A	W Vandesande
11:00–11:05	Location change to small group discussions	
11:05–12:35	Small group discussion 3: Fractures of the femur Discussion Group A Discussion Group B Discussion Group C	G Putzeys, F Carlier T Gerich, P Monteban D Putineanu, W Vandesande
12:35–13:35	Lunch break	

13:35–15:05	Practical exercise 4 Distal femur: fixation of an intraarticular type 33C2.1 fracture using an LCP distal femoral plate Table 1 Table 2 Table 3 Table 4 Table 5 Table 6	F Carlier G Putzeys F Carlier P Monteban D Putineanu W Vandesande F Carlier
15:05–15:10	Location change to lecture hall	
15:10–15:25	Tibial plateau fractures, update on classification and approach	H Hoekstra
15:25–15:40	Staged treatment of pilon fractures: the way to go?	D Putineanu
15:40–16:00	Summary and Q&A	W Vandesande
16:00–16:20	Coffee break	
16:20–17:40	Practical exercise 5 Bicondylar tibial plateau fractures. Management of a type 41C3 bicondylar tibial plateau fracture using a VA-LCP proximal tibial plate Table 1 Table 2 Table 3 Table 4 Table 5 Table 6	H Hoekstra G Putzeys T Gerich P Monteban D Putineanu W Vandesande H Hoekstra
17:40–17:50	Location change to lecture hall	
17:50–18:50	Panel discussion: lower limb	J Van Meirhaeghe
19:00	Course dinner	All faculty

Wednesday

October 13, 2021

08:00–09:30	Practical exercise 6 Management of a type 43C2.3 distal tibial fracture using an LCP distal tibial plate and an LCP one-third tubular plate	D Putineanu
	Table 1	F Carlier
	Table 2	T Gerich
	Table 3	P Rommens
	Table 4	P Monteban
	Table 5	J Van Meirhaeghe
	Table 6	D Putineanu
09:30–09:50	Coffee break	
09:50–11:05	Small group discussion 4: Fractures of the tibia, ankle, and foot Discussion Group A Discussion Group B Discussion Group C	G Putzeys, F Carlier T Gerich, P Monteban D Putineanu, W Vandesande
11:05–11:10	Location change to lecture hall	

Module 4

Moderator: F Carlier

Polytrauma, pelvis, and acetabulum

11:10–11:25	Evaluation and emergency management of pelvic ring injuries	F Carlier
10:25–11:40	Management of multiple-injured patients: current algorithms	P Monteban
11:40–11:55	Acetabular fracture treatment: classification dictates management	J Van Meirhaeghe
11:55–12:05	Summary and Q&A	F Carlier
12:05–13:00	Lunch break	
13:00–14:05	Small group discussion 5: Difficult fractures and polytrauma patients Discussion Group A Discussion Group B Discussion Group C	G Putzeys, F Carlier T Gerich, P Monteban D Putineanu, W Vandesande
14:05–14:10	Location change to lecture hall	

Module 5

Moderator: T Gerich

Special situations and problems

14:10–14:25	Making a decision in Mangled extremity	D Putineanu
14:25–14:40	Diagnosing and treating FRI: introduction	H Hoekstra
14:40–14:55	Periprosthetic fractures with stable implants: how to grasp the bone?	W Vandesande
14:55–15:05	AO and its Belgian connection	G Putzeys
15:05–15:15	Summary and Q&A	T Gerich
15:15–15:20	Closing remarks	G Putzeys

Event information

Organization

Arisa Wada
Clavadelerstrasse 8
7270 Davos | Switzerland
Phone +41 79 808 68 94
E-mail arisa.wada@aofoundation.org

Participants' contact:

Global Event Services
aoges.emea@aofoundation.org

Registration fee

EUR 350
Included in the course fee are bag with documentation, coffee breaks, lunches, course certificate.

Online registration

<https://sforce.co/3hcJXhm>

Language

English

Event organization compliance

In certain countries where AO has no office but offers educational events, the AO cooperates with third party companies to conduct local organization and logistics, as well as to communicate with participants in the local language. In these cases, the AO has put rules and guidelines in place to ensure that this cooperation has no impact on the curricula, scientific program, or faculty selection.

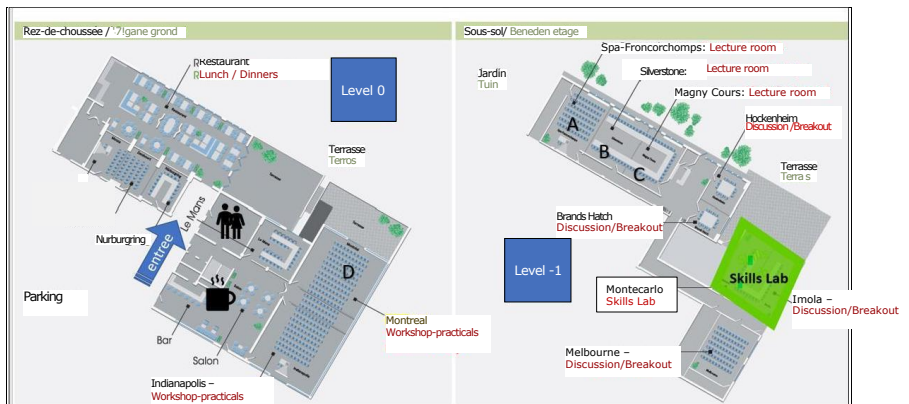
AO funding sources

Unrestricted educational grants from different sources are collected and pooled together centrally by the AO. All events are planned and scheduled by local and regional AO surgeon groups based on local needs assessments. We rely on industrial commercial partners for in-kind support to run simulations and/or skills training if educationally necessary.

Venue

Hotel Silva Spa Balmoral

Route de Balmoral 33
4900 Spa
Phone +32 87 79 32 53
www.silvahotelspabalmoral.be



General information

Evaluation guidelines

All AO Trauma events apply the same evaluation process, which includes pre- and post-event online evaluation and on-site written questionnaires. These evaluation tools help ensure that AO Traumas continues to meet your training needs.

Disclosures and conflicts of interest

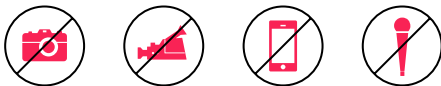
Disclosure information and potential conflicts of interest (COI) can be viewed at the event webpage.

Intellectual property

Event materials, presentations, and case studies are the intellectual property of the event faculty.

All rights are reserved. For more information, please see: www.aofoundation.org/legal.

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



The AO Foundation reserves the right to film, photograph, and audio record during its 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 the AO's marketing and other purposes, and that they may be made available to the public.

Security

There will be a security check at the entrance of the building. Wearing of a name tag is compulsory during lectures, workshops, and group discussions.

No insurance

The event organization does not take out insurance to cover any individual against accident, theft, or other risks.

Use of mobile phones

Use of mobile phones is not permitted in the lecture halls or in other rooms during educational activities. Please be considerate of others by turning off your mobile phone.

Dress code

Casual

Further Information

Any COVID-19 tests that are needed for travel etc. are at your own costs.

Hygiene guidelines for AO educational events

General protective measures must be observed throughout the event

- Routine cleaning and disinfection of frequently touched surfaces
- Face masks must be worn through the entire duration of the event
- Frequent hand hygiene (when entering and exiting rooms)
- Hand disinfectants must be provided at each door
- Physical distancing of min. 1.5 m between persons at AO events
- Respiratory etiquette (use masks, proper coughing etiquette, etc.)
- Visual reminders of proper measures and etiquette must be placed at doors

At practical-exercise stations

- Personal Protective Equipment (PPE) surgical face masks and non-sterile, latex-free examination gloves must be worn by all participants and faculty
- Surgical face masks and gloves must be stocked in sufficient numbers, and made available at the entrance of practical-exercise rooms
- All PPE must be disposed of after the end of the practical-exercise session in a dedicated place. New PPE must be used for subsequent sessions
- All instruments must be disinfected (sprayed) after the practical exercise is completed
- Participants re-use the same station for the full duration of the event
- If necessary, adapt the quantity of workstations per table to meet space requirements

Sponsor

We thank our major industry partner DePuy Synthes for providing an unrestricted educational grant for this event.



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 AO network surgeons.

All education is planned based on needs assessment data, designed and evaluated using concepts and evidence from the most current medical education research, and reflects 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, US (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 (www.advamed.org)
- Mecomed Guidelines on Interactions with Healthcare Professionals (www.mecomed.com)

3. Branding and advertising

No industry logos or advertising (apart from the AO Foundation and its clinical divisions) 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 practical sessions

In case practical sessions are chosen as an educational method to educate skills, the technologies and products used have been approved or reviewed by the AO Technical Commission—a large independent group of volunteer surgeons developing and peer-reviewing new technology on behalf of the AO Foundation.

Any technology and/or products used in the practical sessions of this event have been found suitable to serve the defined educational purposes.

This does not imply any statement about its use and performance in actual clinical scenarios.

More information on the AO Technical Commission can be found on the AO's website: www.aofoundation.org/tc.

5. Personnel

Industry staff members are not permitted to interfere with the educational content or engage in educational activities during the event.

Apply
for membership
www.aotrauma.org

Share your passion and join the **AO Trauma community**

Belong to a
unique orthopedic
trauma network



Get involved
and shape the
future of AO Trauma



Discover the
exclusive AO Trauma
content



Develop
your personal and
professional career



Share and **exchange**
your knowledge



AO Trauma is the **leading global orthopedic trauma network** with a unique culture of surgeon leadership, camaraderie, volunteerism, and mutual respect.



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