

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

April 25–28, 2022

Fredericia, Denmark

PROGRAM



Home to
trauma and
orthopedics

Mission

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

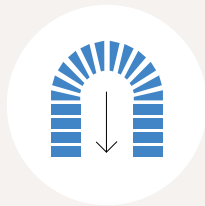
The AO principles of fracture management

1



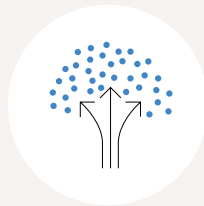
Fracture reduction and fixation to restore anatomical relationships.

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.

Content

4 Welcome

5 Course description

- Goal of the course
- Target participants
- Learning objectives

6 Chairperson and faculty

7 Monday, April 25, 2022

8 Tuesday, April 26, 2022

9 Wednesday, April 27, 2022

10 Thursday, April 28, 2022

11 Event information

- Venue

12 General information

13 Hygiene guidelines for AO educational events

- Sponsor

14 Principles of AO educational events

15 Course finder

Welcome

Dear AO Trauma course participant,

Welcome to the AO Trauma Course—Advanced 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.

Yours sincerely,



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. Before attending the course, participants are expected to complete an online module on fracture reduction.

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 an opportunity to review the important topics from the course. In order to support self-directed learning, a range of additional online resources will be offered.

Goal of the course

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

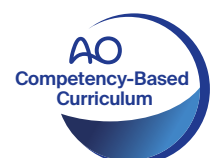
Target participants

The AO Trauma Course—Advanced Principles of Fracture Management is targeted at surgeons who are 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

At the end 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



Michael Brix

Odense Universitets-hospital,
Odense, Denmark

International faculty

Professor Hagen Schmal Freiburg, Germany

National faculty

Frank Damborg	Kolding
Peter Ivan Andersen	Kolding
Anders Jordy	Kolding
Søren Kold	Ålborg
Marianne Lind	Rigshospitalet
Søren Kring	Hvidovre
Peter Max	Hvidovre
Tobias Åsvang	Hvidovre
Jeppe Barckman	Århus
Lasse Bayer	Hillerød
Lasse Birkelund	Odense
Morten Schultz	Odense
Juozas Petruskevicius	Århus

Guest lecturer

Niels Wiesbech	Odense
Palle Bo	Odense

Monday

April 25, 2022

07:45–08:00	Registration	
08:00–08:10	Welcome and introduction	M Brix

Module 1

Moderators: M Brix, A Jordy

Review of the basic principles and new techniques

08:10–08:25	Reduction extra articular fracture	J Barckman
08:25–08:40	Reduction intra articular fracture	A Jordy
08:40–08:45	Questions	M Brix, A Jordy, J Barckman
08:45–09:00	Locking plates – use and abuse	H Schmal
09:00–09:15	Soft tissue handling in closed fracture	L Bayer
09:15–09:30	COFFEE BREAK	
09:30–10:50	Practical exercise 1 Reduction techniques Femur, Tibia-Articular Fracture-Large External Fixator: Knee-bridging Modular Frame with Multi-pin Clamps	PI Andersen, L Bayer
10:50–11:05	MIO indication and technique	M Lind
11:05–11:20	Fixation in osteoporotic bone	PI Andersen
11:20–12:35	Small group discussion 1 Basic principles Group 1 Group 2 Group 3 Group 4	Collecting cases L Birkelund A Jordy, L Birkelund H Schmal, PI Andersen M Lind, L Bayer M Brix, T Åsvang
12:35–13:30	LUNCH BREAK	

Module 2

Moderators: L Birkelund, M Brix

Injuries of the lower limb (femur)

13:30–13:45	Femoral neck fracture, golden standard and breaking news	T Åsvang
13:45–14:00	Intertrochanteric fracture – Subtrochanteric fracture – current treatment, pearls and pitfalls	L Birkelund
14:00–14:05	Questions	T Åsvang /L Birkelund /A Jordy
14:05–14:20	Distal femur fracture, current treatment and timing of operation	A Jordy
14:20–14:40	COFFEE BREAK	
14:40–16:05	Practical exercise 2 Femur Femur, distal Intraarticular fracture 33-C2. Fixation with the VA LCP Curved Condylar Plate System 4.5/5.0	A Jordy, T Åsvang
16:05–17:25	Small group discussion 2 Femur Group 1 Group 2 Group 3 Group 4	Collecting cases T Åsvang A Jordy, J Barckman PI Andersen, T Åsvang M Lind, L Bayer M Brix, H Schmal

Module 3

Moderators: F Damborg, H Schmal Injuries of the upper limb

08:00-08:15	Clavicle fracture – Who, when and how to operate	PI Andersen
08:15-08:30	Proximal humerus fracture, fix, replace or nonoperative treatment	J Barckman
08:30-09:50	Practical exercise 3 Proximal Humerus - PHILOS Proximal Humerus 11-C1. Four fragment fracture – Proximal Humerus Internal Locking System PHILOS	J Barckman, M Brix
09:50-10:05	COFFEE BREAK	
10:05-10:20	Complex humeral shaft fracture	L Bayer
10:20-10:40	Distal Humerus fracture, fix-replace or conservative treatment	F Damborg
10:40-12:00	Small group discussion 3 Upper limb Group 1 Group 2 Group 3 Group 4	Collecting cases L Bayer F Damborg, J Barckman H Schmal, PI Andersen M Lind, L Bayer M Brix, T Åsvang
12:00-13:00	LUNCH BREAK	
13:00-13:15	Fracture dislocation of the elbow	L Birkelund
13:15-13:30	Radial head fracture – fix, replace or remove	M Brix
13:30-14:50	Practical exercise 4 Distal Humerus Humerus, distal Fracture 13-C13. Fixation with VA-LCP Distal Humerus Plates 2.7/3.5 Parallel plating	F Damborg, L Birkelund
14:50-15:05	Complex forearm fracture	L Birkelund
15:05-15:20	Distal radius fracture – Golden standard and breaking news	T Åsvang
15:20-15:35	Distal radius fracture – Complications and how to avoid them	F Damborg
15:35-15:40	Questions	H Schmal, L Birkelund, T Åsvang, F Damborg
15:40-15:55	Carpal injuries you must know	M Lind
15:55-17:15	Small group discussion 4 Elbow / forearm / wrist Group 1 Group 2 Group 3 Group 4	Collecting cases F Damborg F Damborg, L Birkelund H Schmal, PI Andersen M Lind, M Brix J Barckman, T Åsvang

Fireside discussion

19:30-20:00	Future in orthopedic trauma science	H Schmal
20:00-20:30	Piracy in Africa and traumatology	P Bo
20:30-20:45	BREAK	
20:45-22:00	Worst case scenario	All faculty

Wednesday

April 27, 2022

Module 4

Moderators: L Bayer, M Schultz

Injures of the lower limb (tibia, ankle, and foot)

08:00–08:15	Tibia shaft fracture (proximal, distal, segmental)	S Kring
08:15–08:30	Complex Tibia Plateau fracture – ORIF	H Schmal
08:30–08:45	Complex Tibia Plateau fracture – ExFix	M Schultz
08:45–09:55	Practical exercise 5 Proximal tibia LCP Tibia Plateau – Bicondylar Fracture 41-C3. Fixation using a 3.5mm VA LCP Proximal Tibia Plate System	H Schmal, P Max
09:55–10:10	COFFEE BREAK	
10:10–10:25	Early and definitive treatment of Pilon fracture	J Barckman
10:25–10:40	Complex malleolar fracture	L Bayer
10:40–10:45	Question	L Bayer, J Barckman
10:45–11:00	Talus and calcaneus fracture	M Lind
11:00–11:15	Lis Franc injury, osteosynthesis or early arthrodesis	M Lind
11:15–12:30	Small group discussion 5 Tibia / foot Group 1 Group 2 Group 3 Group 4	Collecting cases M Lind M Schultz, P Max H Schmal, PI Andersen M Lind, L Bayer J Barckman, S Kring
12:30–13:30	LUNCH BREAK	
13:30–14:50	Practical exercise 6 Pilon Tibia Distal Pilon Fracture type 43 C2.3	L Bayer, S Kring

Module 5

Moderators: L Bayer, M Schultz

Injures Polytrauma, pelvis, and acetabulum

14:50–15:05	Pelvic ring 15 initial management and evaluation	M Schultz
15:05–15:20	Acetabular fracture – principles and initial management	J Barckman
15:20–15:35	Damage Control Orthopedics – why, how and when	H Schmal
15:35–15:40	Questions	M Schultz, J Barckman, H Schmal
15:40–16:40	Small group discussion 6 Polytrauma and pelvis Group 1 Group 2 Group 3 Group 4	Collecting cases J Barckman M Schultz, P Max H Schmal, PI Andersen M Brix, S Kring J Barckman, M Lind
16:40–16:55	COFFEE BREAK	

Module 6

Moderator: M Brix

Special situations and problems

16:55–17:10	Open fracture	M Brix
17:10–17:25	Periprosthetic fracture	M Schultz
17:25–17:40	Infections	P Max
17:40–17:55	Questions	M Schultz /M Brix /P Max
19:00–22:00	Course dinner	

Thursday

April 28, 2022

08:00-08:15	Pediatric fracture	N Wiesbech
08:15-12:15	Tips and tricks from instructors Rotation – 4 groups – 55 minutes at each station Group 1: Pediatric fractures Cases – operative technique Group 2: Patient positioning Alternatives and modifications that will make it easier Group 3: Intramedullary nailing Tips, pitfalls, poller screws and more Group 4: Pelvic emergency management Sling ExFix, C-Clamp	Collecting cases N Wiesbech N Wiesbech, S Kold M Brix, P Max S Kring, J Petruskevicius H Schmal, L Birkelund
12:15-13:15	LUNCH BREAK	
13:15-13:30	Violation of principles	M Brix
13:30-13:45	Non-union new evidence-based treatment	S Kold
13:45-14:00	Malunion – indication for correction	S Kold
14:00-14:05	Questions	M Brix, S Kold
14:05-15:05	Small group discussion 7 Failed osteosynthesis what can we learn Group 1 Group 2 Group 3 Group 4	Collecting cases M Brix S Kold, P Max H Schmal, PI Andersen M Brix, M Lind J Petruskevicius, S Kring
15:05-15:20	Mangled extremity management	J Petruskevicius
15:20-15:40	Closing remarks	M Brix

Event information

Organization

Malene Liechti
Clavadelerstrasse 8
7270 Davos Platz, Switzerland
E-mail malene.liechti@aofoundation.org

Participants' contact:

Phone +41 79 719 31 32
E-mail aoges.emea@aofoundation.org

Registration fee

EUR 2,370
Included in the course fee are conference bag with documentation, coffee breaks, lunches, course dinner, course certificate.

Online registration

<https://sforce.co/3nT2phO>

Language

Danish

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/skills training if educationally needed.

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.

Disclosures and conflicts of interest

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

Venue

Trinity Hotel & Conference Center

Gl. Færgevej 30,
Snoghøj, Fredericia 7000
Phone +45 82 27 17 17

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 Trauma continues to meet your training needs.

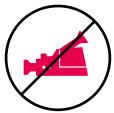
Disclosures and conflicts of interest

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 accidents, 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

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.



Find your next learning activity



Enhance your career, improve your knowledge, skills and network with the world's leading education provider to health care professionals working in the fields of trauma and musculoskeletal disorders.

Choose from over 800 events each year including face-to-face hands-on surgical skills courses, seminars, and case discussion workshop groups as well as online courses, webinars, panel discussions and more. Courses can be filtered by specialty, country, topic and level.

Create your own learning schedule and find your next learning activity with the AO course and event finder.



AO Trauma



AO Spine



AO CMF



AO Recon



AO VET



AO Sports



Transforming
Surgery—
Changing
Lives

www.aofoundation.org/our-courses-and-events/course-finder

© 2021 AO Foundation | AO Foundation, Clavadelerstrasse 8, CH-7270 Davos, Switzerland

More information at
www.aofoundation.org

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

Apply

for membership
www.aotrauma.org

Belong to a
unique orthopedic
trauma network



Get involved
and shape the
future of AO Trauma



**Global
network**



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.



AO Trauma | Clavadelstrasse 8 | 7270 Davos | Switzerland
Phone +41 81 414 21 11 | Fax +41 81 414 22 80 | info@aotrauma.org

www.aotrauma.org

**AO
TRAUMA**