AO DAVOS COURSES

AO Competency-Based Curriculum

AO Trauma Course—

Basic Principles of Fracture Management for Swiss Surgeons

November 30 – December 4, 2025
Davos, Switzerland

Lecture hall: Davos 1

EVENT PROGRAM

Event description

The AO Trauma Course—Basic Principles of Fracture Management for Swiss Surgeons is part of AO Trauma's educational program for residents and based on a specific framework of competencies and learning objectives. They feature a balanced mix of educational methods with a strong focus on interactive sessions.

Online pre-course self-assessment prepares participants for the course and allows the faculty to tailor the course to the needs of participants. Before attending the course, participants are expected to complete the online self-assessment questionnaire.

The course consists of evidence-based lectures which 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 the principles of fractures, biomechanics, 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 post-course self-assessment will provide participants with important feedback on how much they have learned.

Goal of the event

The AO Trauma Course—Basic Principles of Fracture Management for Swiss Surgeons is part of AO Trauma's educational program teaching fundamental principles and current concepts in the treatment of injuries, incorporating the latest techniques in operative fracture management. The AO Trauma Basic Principles course is the initial step along the path of lifelong learning in operative fracture management. The focus of this course is on teaching the basic principles of fracture management.

Target participants

This AO Trauma Course—Basic Principles of Fracture Management for Swiss Surgeons is targeted at first- to third-year trainees and is also open to newly certified orthopedic and trauma surgeons who are interested in furthering their knowledge and skills in operative fracture management.

All surgeons regardless of nationality but working at Swiss hospitals can participate in this course.

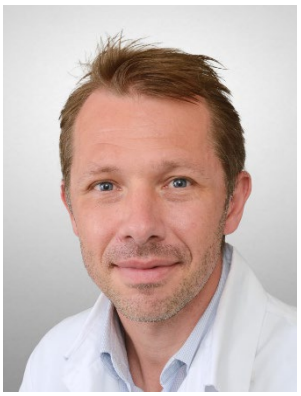
Learning objectives

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

- Outline and use AO principles in the treatment of diaphyseal and simple articular fractures
- Read and analyze x-rays of clinical cases properly and apply the AO/Orthopedic Trauma Association (AO/OTA) Fracture and Dislocation Classification Compendium
- Plan a treatment based on assessment, imaging, classification, and decision making
- Discuss concepts of stability, their influence on bone healing, and how to apply implants to achieve appropriate stability
- Apply the knowledge of soft-tissue injury in making appropriate decisions regarding treatment options and timing
- Identify and discuss the special problems related to:
    - Fractures in the immature skeleton
    - Polytraumatized patients
    - Osteoporotic fractures
    - Delayed union and/or nonunion
    - Implant associate infections

Chairpersons

Martin Riegger
Ospedale regionale Lugano
Lugano, Switzerland



Matthieu Zingg
Hôpitaux Universitaires de Genève
Geneva, Switzerland

Faculty

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Daniel	Wagner	CHUV Lausanne	Lausanne	Switzerland
Hanna	Wellauer	Kantonsspital Winterthur	Winterthur	Switzerland

Guest lecturer

Martin	Stoddart	AO Research Institute	Davos	Switzerland

Sunday

November 30, 2025

15:00	Opening of the Davos Congress Centre
15:00–17:00	Registration of participants
17:00–19:00	Opening ceremony and founders' reception

Monday

December 1, 2025

Location: Davos 1

Module 1
Moderator: F Beeres
General concepts

On completion of this module, participants will be able to:

- Describe the AO principles of fracture management
- Explain bone and fracture-healing processes
- Name the patient factors which influence fracture healing
- Describe the mechanical concepts of fracture fixation
- Define relative and absolute stability
- Select the appropriate type of stability and implant according to the AO/OTA Fracture and Dislocation Classification and associated soft-tissue injury
- Perform steps of applying screws and plates to provide absolute stability

08:00–08:10	Welcome and introduction—objectives, structure, faculty, and outlook for the week	M Riegger
08:10–08:30	Biology of bone healing	M Stoddart
08:30–08:50	Concepts of mechanical fixation—relative and absolute stability	C Michelitsch
08:55-09:15	Coffee break	
09:15-09:45	Principles of conventional plate fixation, including lag screw technique	P Ismailidis
09:45-09:50	Location change to practical exercise room	
09:50-10:30	**Practical exercise 1A** Welcome to the ”Baumarkt” How to use a power drill and a saw	L Haldemann
10:30-12:00	**Practical exercise 1B** Internal fixation with screws and plates—absolute stability	L Haldemann
12:00-13:00	Lunch break	
13:00-13:25	Principles and concepts of the locking compression plate (LCP)	M Kabelitz
13:25-13:30	Location change to practical exercise room	
13:30-15:00	**Practical exercise 1C** Principles of the internal fixator using an LCP	M Badulescu

15:00-15:15	Coffee break	

Location: Davos 1

(Two teams, red and green, run in parallel)

Green team

15:15-17:15	**AO Skills Lab** *Note: participants spend 10 minutes at each station, then rotate clockwise 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: Techniques of reduction, part 1 Station F: Techniques of reduction, part 2 Station G: Mechanics of intramedullary fixation Station H: Mechanics of plate fixation Station J: Fracture healing and plate fixation Station K: Difficult implant removal	Moderator:

Location: Davos 2

Red team (Two teams, red and green, run in parallel)

	AO Skills Lab *Note: participants spend 10 minutes at each station, then rotate clockwise 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: Techniques of reduction, part 1 Station F: Techniques of reduction, part 2 Station G: Mechanics of intramedullary fixation Station H: Mechanics of plate fixation Station J: Fracture healing and plate fixation Station K: Difficult implant removal	Moderator:
17:15–17:20	Evaluation	

Tuesday

December 2, 2025

Location: Davos 1

Module 1 (continued)

Moderator: F Beeres

General concepts

08:00–08:10	Outlook for the day (learning objectives)	M Riegger
08:10−08:25	Radiation in the operating room	A Fösel
08:25−08:45	AO/OTA Fracture and Dislocation Classification	M Arigoni
08:45−08:50	Location change to discussion group rooms	
08:50−09:40	**Small group discussion 1** General principles, classification Group 1: Group 2: Group 3: Group 4: Group 5: Group 6: Group 7: Group 8: Group 9: Group 10: Group 11: Group 12:	
09:40−09:55	Coffee break	

Module 2

Moderator: P Potocnik

Diaphyseal fractures

On completion of this module, participants will be able to:

- Describe principles of diaphyseal fracture management
- List the treatment options for femoral and tibial shaft fractures
- Perform steps for the application of a large external fixator to the tibial shaft
- Recall principles of surgical approaches

09:55-10:20	Principles of diaphyseal fracture management (incl principles of intramedullary (IM) nailing)	S Haupt
10:20-10:40	Forearm fractures-not just another shaft fracture	A Flury
10:40-11:00	Preoperative planning lecture	N Marelli

11:00-11:05	Change to tables for planning	
11:05-12:05	**Practical exercise 2** (in the lecture room) Preoperative planning for forearm shaft fracture 2R2A, 2U2C using LCPs (8- and 11-hole plates)	N Marelli
12:05-13:10	Lunch break	
13:10-13:30	Principles of external fixation	J Corbaz
13:30-14:40	**Practical exercise 3** Management of a forearm shaft fracture 2R2A, 2U2C using LCPs (8- and 11-hole plates)	A Gamulin
14:40-14:55	Coffee break	
14:55-15:15	Pediatric fractures—case based lecture	R Gremminger
15:15-15:35	Fractures of the femoral and tibial diaphysis	C Keiser
15:35-15:40	Location change to practical exercise room	
15:40-16:25	**Practical exercise 4** Tibial shaft—external fixator	F Tillmann
16:25-16:30	Location change to discussion groups	
16:30-17:45	**Small group discussion 2** Management principles for the treatment of diaphyseal fractures Group 1: Group 2: Group 3: Group 4: Group 5: Group 6: Group 7: Group 8: Group 9: Group 10: Group 11: Group 12:	
17:45-17:50	Evaluation	
17:50–20:30	**AO Davos Courses night** Davos Congress Centre	

Wednesday

December 3, 2025

Location: Davos 1

08:00–08:10	Outlook for the day (learning objectives)	M Riegger

Module 3
Moderator: T Beck
Special topics

On completion of this module, participants will be able to:

- Describe the treatment algorithms for the polytrauma patient
- Outline principles of damage-control orthopedics in the management of pelvic fractures
- Specify goals and principles of open fracture management
- Describe soft-tissue management in open fractures
- Apply steps for the application of a reamed tibial nail

08:10−08:30	Treatment algorithms for the polytrauma patient, including pelvic trauma	J Rosenkranz
08:30−08:50	Management of open fractures—skeleton and soft tissue	V Morello
08:50−09:10	Implant-associated infections after fracture treatment	V Scholz
09:10−09:25	Coffee break	
09:25−10:55	**Practical exercise 5** Reamed IM nailing of the tibia using the TN-Advanced tibial nailing system (TN-A), including distal locking (DEHST-stations)	T Müller
10:55−11:00	Location change to lecture room	

Module 4
Moderator: M Zingg
Articular fractures

On completion of this module, participants will be able to:

- Explain the management principles for articular fractures
- Outline surgical treatment of wrist fractures
- Perform steps for the fixation of an extraarticular distal radial fracture using the palmar LCP
- List indications for nonoperative and operative treatment of clavicular and proximal humeral fractures
- Explain the cerclage compression wiring principle for fractures of the olecranon and patella
- Define alternative techniques when tension band wiring is not possible
- Apply the treatment concept of cerclage compression wiring to patellar and olecranon fractures
- Describe fixation principles in proximal femoral fractures
- Recall challenges in treating the geriatric patient

11:00−11:20	Management principles for articular fractures—how do they differ from diaphyseal fractures?	BC Link
11:20-11:40	Distal radial fractures—which to fix and how to fix them?	M Dietrich
11:40-12:20	SHARD Live surgery—modified Henry approach to the distal radius and ORIF	F Beeres, BC Link
12:20-13:20	Lunch break	
13:20-14:05	**Practical exercise 6** Distal radius—intraarticular fracture fixation using the variable angle (VA)-LCP 2.4 palmar two-column distal radial plate	C Steiger
14:05-14:10	Location change to lecture room	
14:10-14:30	Proximal humeral fractures	M Stalder
14:30−14:50	Fractures of the olecranon and patella (cerclage compression wiring principles and cerclage wiring)	T Trache
14:50-15:05	Coffee break	
15:05-15:50	**Practical exercise 7** Olecranon—transverse fracture 2U1B1 managed by cerclage compression wiring	PM Sutter
15:50-15:55	Location change to lecture room	
15:55-16:15	Tibia plateau fractures	G Stückelberger
16:15-16:30	Implant removal—Why, when, and how?	L Haldemann

16:30-16:35	Location change to the discussion groups
16:35-17:35	**Small group discussion 3** Articular fractures Group 1: Group 2: Group 3: Group 4: Group 5: Group 6: Group 7: Group 8: Group 9: Group 10: Group 11: Group 12:
17:35-17:40	Evaluation

Thursday

December 4, 2025

Location: Davos 1

Module 4 (continued)

Moderator: R Gremminger

Articular fractures

08:00–08:10	Outlook for the day (learning objectives)	M Riegger
08:10–08:30	Ankle fractures—a logical approach for their fixation	A Ladurner
08:30−08:35	Location change to the practical exercise room	
08:35−09:35	**Practical exercise 8** Management of a type C malleolar fracture	D Rigling
09:35-09:50	Coffee break	
09:50-10:10	Femoral neck fractures	G Pagliazzi
10:10-10:30	Trochanteric fractures	H Wellauer
10:30-10:35	Location change to the practical exercise room	
10:35-12:05	**Practical exercise 9** Trochanteric femoral fracture—IM nailing using a proximal femoral nail antirotation (TFNA) incl. DEHST-stations	A Babians
12:05-12:50	Lunch break	
12:50-13:10	Fixation principles in osteoporotic bone—the geriatric patient	D Wagner
13:10-13:30	Treatment of nonunion	S Meili
13:30-13:50	Violation of principles and my worst case	P Potocnik
13:50-13:55	Location change to the practical exercise room and instruction of contest	
13:55-14:45	**Practical exercise contest**	M Riegger, M Zingg
14:45-14:50	Location change to the lecture room	
14:50-15:00	AO world—history and today's activities (research, teaching, country chapter): what is AO, where do we come from, what do we offer	M Riegger

15:00-15:05	Prize give-away, evaluation, closing remarks	M Riegger, M Zingg

Event organization

AO Foundation

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Registration fee

Course full fee: CHF 1750

Included in the course fee: coffee breaks, opening ceremony and AO Davos Courses night and course certificate.
Cancellation policy: 50% until 30 days before the event. No refund thereafter.

Online registration

https://bit.ly/DC25BasicSwiss

Language
English

Disclosures and conflicts of interest (COI)

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

National CME accreditation

An application has been made to SGC and Swiss Orthopaedics.

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/skills training if educationally needed.

Venue

Davos Congress Centre

Talstrasse 49A

7270 Davos Platz

Switzerland

Phone +41 81 414 62 00

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.

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 of lectures, practical exercises, case discussions, or any course materials is absolutely forbidden.

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.

Use of social media

During the AO Davos Courses 2025, you can post your experience using the #AODavosCourses2025 hashtag. While we encourage you to share your AO Davos Courses 2025 experience with your online network, it is expressly forbidden to share any images or recordings from inside the course.

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.

Mobile phone use

Mobile phone use is **not allowed** in the lecture halls and in other rooms during educational activities. Please be considerate of others by turning off your mobile phone.

Picture gallery

Check out www.aodavoscourses.org for a daily selection of pictures from the AO Davos Courses 2024, the best from last year's courses, and a selection of photographs from the first-ever AO Davos Courses.

Dress code

Warm clothes and suitable shoes are recommended.

Sponsors

We thank our major industry partners, Johnson & Johnson MedTech for their key contribution in the form of an educational grant and in-kind support (material, technical staff and logistics) and Siemens Healthineers for their key contribution in the form of an educational grant.

AO TRAUMA

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 (advamed.org)
- Mecomed Guidelines on Interactions with Healthcare Professionals (www.mecomed.org)

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 simulations
In case simulations are chosen as an educational method to educate skills, we only use technology approved by the AO Technical Commission—a large independent group of volunteer surgeons developing and peer reviewing new technology.
More information about the AO Technical Commission and its development and approval processes can be found on the AO's website: www.aofoundation.org.

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