

Course program

AOTrauma Masters Course— Foot and Ankle Reconstruction

December 4–9, 2016

Davos, Switzerland

Lecture hall: Sanada 2

Goal of the course

The AO Trauma Masters Course—Foot and Ankle Reconstruction covers the current concepts and techniques on recognizing, characterizing and treating complex injuries and deformities of the foot and ankle.

Target participants

Specialist orthopedic surgeons interested in advancing their expertise in the management of foot and ankle injuries and pathological conditions. Participants must have already completed the AOTrauma Principles Course and preferably a regional subspecialty Foot & Ankle course.

Learning objectives

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

- Identify the characteristics of complex foot and ankle fractures, dislocations, deformities and disorders
- Apply appropriate diagnostic tools to adequately assess foot and ankle injuries and deformities
- Formulate the principles for surgical techniques to treat traumatic injuries, deformities and disorders of the ankle, hindfoot, midfoot and forefoot
- Use clinical and radiographic data to formulate an individual treatment plan
- Integrate the management of soft-tissue, tendon and cartilage pathologies
- Perform critical surgical approaches, osteotomies and fixation techniques on anatomical specimens
- Prevent, identify and treat complications and recognize long-term outcomes
- Define appropriate treatment options for salvage of failed previous treatment procedures

Course description

Surgeons participating in this course will concentrate on the application of surgical planning and advanced techniques in the management of complex foot and ankle injuries and deformities.

The course is taught in a **modular format**.

- Each module starts with a concise, case-based **instructional lecture** from one of the world's leading experts
- **Case-based interactive plenary sessions** promote exchange between course participants and faculty members
- **Discussing cases** in small groups deepen participants' understanding and application of decision-making and surgical management skills
- At the anatomical specimen laboratories participants are trained in the application of different techniques and approaches.

Ample opportunities are provided to share experiences and cases with peers and the expert international faculty. It is our intention to respond to the needs of participants by accommodating their topics of interest and facilitating discussions at an expert level.

The course focuses on biomechanical and biological principles to apply in fracture treatment in rare as well as common conditions, pitfalls, clinical tricks, and means to avoid complications. For reconstruction, the course focuses on surgical techniques for managing possible pathologies—posttraumatic, systemic, and neurological.

Chairperson

Stefan Rammelt

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Co-Chairperson

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Course organization

AOTrauma

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Sunday, December 4, 2016

TIME	AGENDA ITEM	WHO
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
08:00–08:10	Welcome and introduction to the course	S Rammelt, M Sakaki
Module 1	Ankle fractures	Moderator: J Bartonicek
	At the end of this module, participants will be able to: • Correctly identify and treat ankle fractures and associated soft-tissue injuries • Conduct appropriate investigations for a preoperative plan of fracture fixation • Utilize appropriate surgical incisions • Restore ankle anatomy using adequate reduction techniques • Explain current management principles for patients with ankle fractures • Identify, prevent, and treat complications associated with ankle fractures and fracture dislocations	
08:10–08:30	Ankle fractures	M Sakaki
08:30–09:30	Discussion group 1 Group 1 – Sanada 2 Group 2 – Landwasser 13 Group 3 – Landwasser 14 Group 4 – Landwasser 15 Group 5 – Landwasser 16 Group 6 – Landwasser 17	All faculty
09:30–10:00	Plenary session: ankle fractures	J Bartonicek, M Sakaki T Mittlmeier
10:00–10:15	COFFEE BREAK	
10:15–10:35	Ankle fractures: common problems and complications	T Schepers
10:35–11:35	Discussion group 2 Group 1 – Sanada 2 Group 2 – Landwasser 13 Group 3 – Landwasser 14 Group 4 – Landwasser 15 Group 5 – Landwasser 16 Group 6 – Landwasser 17	All faculty
11:35–12:00	Plenary session: ankle fractures: common problems and complications	J Bartonicek, T Schepers S Rammelt
12:00–13:30	LUNCH BREAK	

Module 2	Ankle malunion and arthritis	Moderator: K W Chong
	At the end of this module, participants will be able to: • Recognize treatment options for ankle malunions and arthritis • Discuss indications for corrective osteotomy, fusion or total ankle replacement • Apply the adequate surgical approach with respect for correction of the deformity	
13:30–13:50	Ankle malunion and arthritis	N Espinosa
13:50–14:50	Discussion group 3 Group 1 – Sanada 2 Group 2 – Landwasser 13 Group 3 – Landwasser 14 Group 4 – Landwasser 15 Group 5 – Landwasser 16 Group 6 – Landwasser 17	All faculty
14:50–15:20	Plenary session: ankle malunion and arthritis	K W Chong, N Espinosa B Sangeorzan
15:20–15:35	COFFEE BREAK	
Module 3	Soft-tissue trauma	Moderator: A Kholeif
	At the end of this module, participants will be able to: • Manage soft-tissue defects effectively • Ensure adequate soft-tissue coverage and appropriate timing of fracture fixation • Identify compartment syndrome and prevent its sequelae • Discuss criteria and indications for salvage versus amputation	
15:35–15:55	Soft-tissue principles	K W Chong
15:55–16:55	Discussion Group 4 Group 1 – Sanada 2 Group 2 – Landwasser 13 Group 3 – Landwasser 14 Group 4 – Landwasser 15 Group 5 – Landwasser 16 Group 6 – Landwasser 17	All faculty
16:55–17:25	Plenary session: soft-tissue principles	A Kholeif, K W Chong M Sakaki
17:25–17:30	Summary, evaluation, and take-home messages	

Tuesday, December 6, 2016

TIME	AGENDA ITEM	WHO
Module 4	Hindfoot trauma	Moderator: M Swords
	At the end of this module, participants will be able to: • Correctly identify and treat talar and calcaneal fractures and associated soft-tissue injuries • Conduct appropriate investigations for a preoperative plan of fracture fixation • Utilize appropriate surgical incisions including minimally invasive approaches • Restore hindfoot anatomy using adequate reduction techniques • Explain current management principles for patients with hindfoot fractures • Identify, prevent, and treat complications associated with talar and calcaneal fractures and fracture-dislocations	
08:00–08:20	Calcaneus fractures	S Rammelt
08:20–09:20	Discussion group 5 Group 1 – Sanada 2 Group 2 – Landwasser 13 Group 3 – Landwasser 14 Group 4 – Landwasser 15 Group 5 – Landwasser 16 Group 6 – Landwasser 17	All faculty
09:20–10:00	Plenary session: calcaneus fractures	M Swords, S Rammelt T Schepers
10:00–10:15	COFFEE BREAK	
10:15–10:35	Talar fractures and dislocations	M Assal
10:35–11:35	Discussion group 6 Group 1 – Sanada 2 Group 2 – Landwasser 13 Group 3 – Landwasser 14 Group 4 – Landwasser 15 Group 5 – Landwasser 16 Group 6 – Landwasser 17	All faculty
11:35–12:00	Plenary session: talar fractures and dislocations	M Swords, M Assal J Bartonicek
12:00–13:30	LUNCH BREAK	

Module 5	Hindfoot malunion and arthritis	Moderator: T Schepers
	At the end of this module, participants will be able to: - Analyse posttraumatic deformities after talar and calcaneal fractures and reasons for the development of hindfoot arthritis including avascular necrosis - Discuss indications for osteotomies, joint salvage and fusion for hindfoot malunions - Recognize indications for surgical approaches with respect for correction of deformity	
13:30–13:50	Hindfoot malunion and arthritis	M Andoljsek
13:50–14:50	Discussion group 7 Group 1 – Sanada 2 Group 2 – Landwasser 13 Group 3 – Landwasser 14 Group 4 – Landwasser 15 Group 5 – Landwasser 16 Group 6 – Landwasser 17	All faculty
14:50–15:20	Plenary session: hindfoot malunion and arthritis	T Schepers, M Andoljsek S Rammelt
15:20–15:35	COFFEE BREAK	
Module 6	Midfoot trauma	Moderator: A K Sands
	At the end of this module, participants should be able to: - Correctly identify and treat mid-tarsal and tarsometatarsal (Chopart and Lisfranc) fractures and fracture-dislocations - Conduct appropriate investigations for a preoperative plan of fracture fixation - Utilize appropriate surgical incisions - Restore midfoot anatomy using adequate reduction techniques - Explain current management principles for patients with midfoot fractures - Identify, prevent, and treat complications associated with malunited Chopart and Lisfranc fractures and dislocations	
15:35–15:55	Midfoot fractures and dislocations	C Kabbash
15:55–16:55	Discussion group 8 Group 1 – Sanada 2 Group 2 – Landwasser 13 Group 3 – Landwasser 14 Group 4 – Landwasser 15 Group 5 – Landwasser 16 Group 6 – Landwasser 17	All faculty
16:55–17:25	Plenary session: midfoot fractures and dislocations	C Kabbash, A K Sands M Tomlinson

17:25–17:30	Summary, evaluation, and take-home messages	
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Wednesday, December 7, 2016

TIME	AGENDA ITEM	WHO
Module 7	Flatfoot	Moderator: B Sangeorzan
	At the end of this module, participants will be able to: - Identify different forms and stages of flatfoot deformity - Recognize treatment options for flexible and rigid flatfoot deformities - Discuss the principles of tendon transfers, osteotomies and corrective fusions according to the individual deformity	
08:00–08:20	Flatfoot—assessment and treatment	M Swords
08:20–09:20	Discussion group 9 Group 1 – Sanada 2 Group 2 – Landwasser 13 Group 3 – Landwasser 14 Group 4 – Landwasser 15 Group 5 – Landwasser 16 Group 6 – Landwasser 17	All faculty
09:20–10:00	Plenary session: flatfoot –assessment and treatment	B Sangeorzan, M Swords L Grujic
10:00–10:20	COFFEE BREAK	
Module 8	Cavus	Moderator: M Andoljsek
	At the end of this module, participants will be able to: - Recognize clinical features and causes of cavovarus and compensated hindfoot varus - Discuss treatment options for different cavus deformities including soft tissue and bony procedures	
10:20–10:40	Cavus assessment and treatment	C Ortiz
10:40–11:40	Discussion group 10 Group 1 – Sanada 2 Group 2 – Landwasser 13 Group 3 – Landwasser 14 Group 4 – Landwasser 15 Group 5 – Landwasser 16 Group 6 – Landwasser 17	All faculty

11:40–12:10	Plenary session: cavus assessment and treatment	M Andoljsek, C Ortiz A K Sands
12:10–13:40	LUNCH BREAK	
Module 9	Tendon injuries and transfers	Moderator: E J Yeap
	At the end of this module, participants will be able to: • Explain the principles of tendon balancing • Identify and treat missed posterior compartment syndrome • Recognize and treat neuromuscular conditions (stroke, CMT, MS, post-polio, etc.)	
13:40–14:00	Tendon injuries and reconstruction	G Khazen
14:00–15:00	Discussion group 11 Group 1 – Sanada 2 Group 2 – Landwasser 13 Group 3 – Landwasser 14 Group 4 – Landwasser 15 Group 5 – Landwasser 16 Group 6 – Landwasser 17	All faculty
15:00–15:20	COFFEE BREAK	
15:20–15:50	Plenary session: tendon injuries and reconstruction	E J Yeap, G Khazen M Assal
15:50–16:10	S T Hansen award presentation	A K Sands, S Rammelt
16:10–16:30	S T Hansen special lecture	B Sangeorzan
16:30–16:40	Summary, evaluation, and take-home messages	

Thursday, December 8, 2016

TIME	AGENDA ITEM	WHO
07:30–07:45	TRANSFER TO THE HOSPITAL Meeting point 07:30 main entrance Congress Center	
	RED TEAM	
07:45–08:00	Preparation for anatomical specimen laboratory	
08:00–12:00	Anatomical specimen laboratory Specimen 1 • Gastroc slide • Minimally invasive approach for calcaneus fractures • Sustentacular approach for calcaneus fractures • Talar neck fractures approaches • Talar dome exposure including fibular and medial malleolar osteotomies Specimen 2 • Posterolateral approach • Extensile lateral approach for calcaneal fractures and osteotomies • Medial utility approach for FDL tendon transfer for flatfoot; spring ligament exposure and repair • Compartment syndrome release – foot and leg	Moderators: S Rammelt, M Sakaki Instructors: A K Sands, B Sangeorzan, M Swords, C Ortiz, G Khazen, K W Chong, E J Yeap, A Kholeif, T Schepers, N Espinosa, M Assal, M Andoljsek, T Mittlmeier, J Bartonicek
	GREEN TEAM	
Module 10	Great toe deformities	Moderator: M Tomlinson
	At the end of this module, participants will be able to: • Recognize the features (stages) and mechanical consequences of hallux valgus and hallux rigidus • Address hallux valgus and hallux rigidus with respect to the individual severity of the deformity.	
08:00–08:20	Hallux valgus and hallux rigidus	J Gerstner
08:20–10:00	Discussion group 12 Group Group Group	All faculty
10:00–10:15	COFFEE BREAK	
Module 11	Lesser toe deformities	Moderator: C Kabbash

	At the end of this module, participants will be able to: Recognize causes, consequences and treatment options for lesser toe deformities and conditions.	
10:15–10:35	Lesser toe deformities	L Grujic
10:35–12:00	Discussion group 13 Group Group Group	All faculty
12:00–13:30	LUNCH BREAK	
	RED TEAM	
Module 10	Great toe deformities	Moderator: M Tomlinson
	At the end of this module, participants will be able to: - Recognize the features (stages) and mechanical consequences of hallux valgus and hallux rigidus - Address hallux valgus and hallux rigidus with respect to the individual severity of the deformity.	
13:30–13:50	Hallux valgus and rigidus	J Gerstner
13:50–15:30	Discussion group 12 Group Group Group	All faculty
15:30–15:45	COFFEE BREAK	
Module 11	Lesser toe deformities	Moderator: C Kabbash
	At the end of this module, participants will be able to: Recognize causes, consequences and treatment options for lesser toe deformities and conditions.	
15:45–16:05	Lesser toe deformities	L Grujic
16:05–17:30	Discussion group 13 Group Group Group	All faculty
17:30–17:40	Summary, evaluation, and take-home messages	
	GREEN TEAM	

13:15–13:30	Preparation for anatomical specimen laboratory	
13:30–17:30	Anatomical specimen laboratory Specimen 1 • Gastroc slide • Minimally invasive approach for calcaneus fractures • Sustentacular approach for calcaneus fractures • Talar neck fractures approaches • Talar dome exposure including fibular and medial malleolar osteotomies Specimen 2 • Posterolateral approach • Extensile lateral approach for calcaneal fractures and osteotomies • Medial utility approach for FDL tendon transfer for flatfoot; spring ligament exposure and repair • Compartment syndrome release – foot and leg	Moderators: S Rammelt, M Sakaki Instructors: A K Sands, B Sangeorzan, M Swords, C Ortiz, G Khazen, K W Chong, E J Yeap, A Kholeif, T Schepers, N Espinosa, M Assal, M Andolijsek, T Mittlmeier, J Bartonicek
17:30–17:40	Summary, evaluation, and take-home messages	

Friday, December 9, 2016

TIME	AGENDA ITEM	WHO
Module 12	Charcot	Moderator: M Assal
	At the end of this module, participants will be able to: • Identify charcot neuroosteoarthropathy as a distinct clinical entity at any stage • Describe the progression and understand the inherent risks of charcot foot • Discuss non-operative and operative treatment options according to the individual deformity, patient characteristic and stage of the disease • Describe the appropriate treatment of charcot midfoot, hindfoot and ankle.	
08:00–08:20	Charcot midfoot	A K Sands
08:20–09:20	Discussion group 14 Group 1 – Sanada 2 Group 2 – Landwasser 13 Group 3 – Landwasser 14 Group 4 – Landwasser 15 Group 5 – Landwasser 16 Group 6 – Landwasser 17	All Faculty
09:20–09:50	Plenary session: charcot midfoot	M Assal, A K Sands A Kholeif
09:50–10:05	COFFEE BREAK	
10:05–10:15	Charcot hindfoot and ankle	T Mittlmeier
10:15–11:15	Discussion group 15 Group 1 – Sanada 2 Group 2 – Landwasser 13 Group 3 – Landwasser 14 Group 4 – Landwasser 15 Group 5 – Landwasser 16 Group 6 – Landwasser 17	All faculty
11:15–11:45	Plenary session: charcot hindfoot and ankle	M Assal, T Mittlmeier E J Yeap
11:45–12:00	BREAK WITH SANDWICHES	
Module 13	Sports injuries	Moderator: J Gerstner

	At the end of this module, participants will be able to: • Recognize ankle instability and associated issues like osteochondral fractures and peroneal tendon dislocation • Explain options for non-operative versus operative treatment of achilles tendon ruptures • Manage acute and chronic osteochondral lesions at the talus	
12:00–12:20	Osteochondral fractures and lesions	M Tomlinson
12:20–13:20	Discussion group 16 Group 1 – Sanada 2 Group 2 – Landwasser 13 Group 3 – Landwasser 14 Group 4 – Landwasser 15 Group 5 – Landwasser 16 Group 6 – Landwasser 17	All faculty
13:20–13:50	Plenary session: osteochondral fractures and lesions	J Gerstner, M Tomlinson T Schepers
13:50–14:00	Summary, evaluation, and take-home messages	S Rammelt, M Sakaki