Discover the world of AO CMF
Welcome to AOCMF

AOCMF is a multispecialty community, established in 1974, consisting of a worldwide network of clinicians from the fields of oral and maxillofacial surgery, plastic surgery, ENT, head and neck surgery, ophthalmology, and neurosurgery.

Our key activities at a glance
Alongside its strong focus on education, AOCMF key activities lie in the areas of community development, research and development, and the TK (Technical Commission) system.

The history of AOCMF
Prior to 1958, there was no systematic investigation of the biology of bone healing or fracture repair, and knowledge in the field was sparse. Meanwhile, casting was the mainstay in fracture treatment, and serious long-bone fractures routinely resulted in permanent disability.

1958
A group of surgeons form to study bone healing in Biel, Switzerland.

1959
A research laboratory is opened in Davos, Switzerland, and the AO Principles are established with the mission to transform surgery and change lives.

1960
First AO course is held in Davos.

1974
A first course, Fractures of the Mandible, is organized in Davos, Switzerland, under the leadership of Professor Bernd Spiessl and Professor Joachim Prein.

1984
The AO Foundation is established as an official organization.

1986
Professor Spiessl publishes a book on Mandible fractures.

1987
A Classification system concerning mandible fractures is introduced.

1990s
The course program expands and becomes more comprehensive.

1990s
AOCMF distinguishes itself as a separate clinical division within the AO Foundation.

1993
CMF is recognized by AO surgeons to be a specialty area. At this time, AOCMF is not a clinical division, but an AOTruma supported initiative.

1997
CMF is recognized by AO surgeons to be a specialty area. AOCMF is officially established as a clinical division of the AO.

2008
AOCMF is officially established as a clinical division of the AO.

2012
The manual “Principles of Internal Fixation of the Craniomaxillofacial skeleton” is published and fast becomes a must have staple on the bookshelf of every CMF surgeon.

2013
A Classification system to the fractures of the skull is introduced.

2016
The AOCMF Facebook page gets over 2000 likes within the first 2 months. The open access journal CMTR Open is launched.

2017
Today, AOCMF provides more than 50 prominent fellowships each year. AOCMF offers 130 courses each year around the globe to over 7000 surgeons.
The universal spirit of the AOCMF community transcends borders and specialties, benefiting both patients and healthcare providers across the globe.

The AOCMF member community enjoys a broad recognition, with over 3,000 members coming together as an active forum that:

- **Offers** access to a dynamic global network of experts and peers who share common interests and enthusiasm in the field of CMF trauma, orthognathics and reconstruction.
- **Encourages and inspires** younger surgeons, such as residents, fellows, and early practitioners to pursue fulfilling careers and take leadership opportunities within the AOCMF governance structure.
- **Provides** a mechanism for disseminating improved patient care standards by supplying meaningful educational materials throughout a surgeon’s career.

### AOCMF Specialties

- Oral and maxillofacial surgery
- ENT
- Head and neck surgery
- Plastic surgery
- Oculoplastics
- Ophthalmology
- Neurosurgery
- General surgery

### Benefits

With AOCMF membership you benefit from a range of advantages, to keep you ahead in your field:

- Online access or a print copy of **“Journal of Craniomaxillofacial Trauma & Reconstruction”** (JCMTR)
- Online access to selected journals on [ScienceDirect](https://sciedirect.com)
- Online access to additional material on [AOCMF Surgery Reference](http://www.aocmf.org/surgery-reference)
- Ability to submit and participate in online case discussions in [CaseBase](http://www.casbase.org)
- Free article submission to the eJournal [CMTR Open](http://cmtropen.aocmf.org)
- 25% discount on AOCMF’s Manual “Principles of Internal Fixation of the Craniomaxillofacial Skeleton—Trauma and Orthognathic Surgery”
- 10% discount on all AO publications
- Online access to [AOCMF teaching videos](http://www.aocmf.org/education/teaching-videos)
- Full access to [AOCMF member directory](http://www.aocmf.org/members)

For further information, please contact [membership@aocmf.org](mailto:membership@aocmf.org)
AOCMF educational offerings are varied and numerous: while face-to-face educational events remain the most important offering, the field of online learning is advancing quickly and has become very popular.

The first AOCMF course was conducted in 1974. Since then, the number of educational events has rapidly increased to around 120 worldwide each year. Today, over 7,000 surgeons are trained in all regions by experienced AOCMF faculty members.

Our growth in numbers 2015/2016

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<thead>
<tr>
<th>Newly trained Faculty</th>
<th>Number of Participants</th>
<th>Number of Face-2-Face Educational Events</th>
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<td>+ 13%</td>
<td>+ 32%</td>
<td>+ 11%</td>
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To deliver high quality education worldwide and ensure timely, fair, and transparent planning within AOCMF, every single AOCMF educational event undergoes a series of planning steps before being realized.

AOCMF Educational Event Planning (Annual Needs Assessment)  
(Based on planning example for 2018)

<table>
<thead>
<tr>
<th>2016</th>
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The planning of educational events may start over one and half years before the events take place. During the first phase of planning, several important approval steps are taken by AOCMF. Then, after approximately twelve months of initial planning, the process evolves into a detailed organizational phase, which ends with the realization of the event.
Facts and Figures 2016

Worldwide

122 Educational Events
7,036 Participants
120 Newly trained Faculty
49 Fellows
26 Fellowship Centers

Europe (incl. South Africa)
28 Educational Events
1,290 Participants
37 Newly trained Faculty
8 Fellows

North America
12 Educational Events
843 Participants
41 Newly trained Faculty
1 Fellow

Latin America
31 Educational Events
2,109 Participants
16 Newly trained Faculty
9 Fellows

Middle East + Africa
10 Educational Events
549 Participants
4 Newly trained Faculty
6 Fellows

Asia Pacific
41 Educational Events
2,245 Participants
22 Newly trained Faculty
25 Fellows
The AOCMF fellowship program provides a gateway to the worldwide AOCMF network, offering a unique opportunity for surgeons to advance their training and gain expertise. Through the fellowship, cross-pollination and networking opportunities with other CMF specialties across AO’s global community are fostered. The training, which takes place under the guidance of AO experts, covers the entire scope of CMF surgical procedures being performed around the world.

Eligibility
- Surgeons who have either completed one certified AOCMF facial trauma course or an AOCMF advanced course are eligible to apply.
- AOCMF membership is requested.
- Due to the high demand for fellowships, spaces are limited, and not all applicants may be selected. AOCMF recommends applicants to apply 8–15 months before the requested fellowship period.

Duration
Applicants can select a fellowship program lasting between 4 to 8 weeks.

Funding
Fellows will receive funding to cover their accommodation and meals. The fellow is responsible for all travel expenses.

Organization
AOCMF places approximately 50 fellows on a yearly basis, which is handled by the AOCMF fellowship program chairman and an AOCMF employee. All applicants will receive a response. Accepted fellowship applicants will receive a confirmation by AOCMF, and be put into contact with the host clinic.

AOCMF Host Clinics
AOCMF host clinics are located around the world:
- Asia Pacific: China, India, Thailand, Taiwan
- Europe: Austria, France, Germany, Spain, Switzerland, United Kingdom
- Middle East: Iran
- Latin America: Chile, Mexico
- North America: USA

For further information, please contact fellowship@aocmf.org
Curricula

A framework for educational planning

AOCMF’s high quality approach to educational offerings contributes significantly to the AO’s goal of improving patient care. In order to achieve the highest quality, and to have the greatest educational impact, AOCMF is in the process of designing and implementing curricula to ensure we deliver competency-based educational activities.

AOCMF education applies a structured planning process to developing curricula.

Curriculum Development Education Taskforce (CDET)
The CDET is responsible for developing a new curriculum, which means building new competency based course content for a specific target audience. The CDET consists of four international program editors, AOCMF surgeons from around the world mandated by the AOCMF international board. The chairperson of each AOCMF region acts as a regional program contributor and subsequently reviews the CDET’s work to ensure the curriculum can also be implemented in their region.

Curriculum Implementation
After approval by the AOCMF international board, all resources required to implement the new program have to be defined or developed. Course and faculty support material are essential for launching the new curriculum. This may include:

- A specific course package for faculty and organizer with: implementation guide for course chairs, program templates, list of practical exercises, case library to run small group discussions, standardized lecture on the AO's History, AOCMF and AOCMF membership, faculty guides and checklists.
- Learning resources for participants: AO Surgery Reference, prerecorded webinars, webcasts, online videos, books and book chapters.

Specific faculty training programs can support a smooth implementation of the new curriculum. All parties involved in the organization of an educational event have to be informed and briefed, as their work may also be impacted by the new curriculum.

How is a new standardized program for an educational event developed?

1. Patient problems and a target audience are identified, and the competencies developed.
2. Learning objectives are defined, appropriate to the intended level of outcomes.
3. Appropriate educational methods (lectures, case discussions, practical exercises) are defined.
4. Modules are built and timings proposed.
5. The newly established program and support documents are finalized by the international program editors for review and feedback.
6. The CDET reviews existing resources and makes a recommendation for new educational resources (e.g. a new teaching video).
7. The AOCMF international board approves the new program and decides on new educational resources.
8. The new curriculum is piloted and then implemented in all regions.
Innovations

We are always looking ahead, spotting new and evolving medical technologies before they become common practice. How can tomorrow’s technologies help us to improve patient care today? This question guides our approach in all innovation initiatives we engage in.

Virtual surgical simulation—a vision of the AO
High-tech simulation tools that are used to train pilots and ensure appropriate knowledge and skills to be truly safe, are now driving innovation in surgery and medical education.

AOCMF has taken a lead in assessing virtual surgical simulation as a means of helping junior surgeons to learn complex medical procedures before they undertake them on real-life patients. AOCMF is collaboratively developing cognitive and high-fidelity surgical planning and simulator technologies.

The focus lies on
• Multipurpose virtual reality simulations for training
• Metrics development (wizard)
• Transferring simulations to various platforms

Apps for cognitive teaching—learning by doing
New technological advances offer learning outside of the traditional setting. Following the surgical mantra “the decision comes before the incision” AOCMF has participated in the development of an app that takes cognitive teaching of surgical skills to the next level. This surgery simulation app, called “Touch Surgery”, enables users to practice surgery anytime, anywhere.

In the app’s training mode, surgeons can learn operations in a step-by-step manner with 3D graphics simulating realistic surgical environments. In test mode, users can track their results and measure their progress, which can also be shared with classmates and work colleagues.

INSIGHTS CMF—a new way of getting customized information
Since its launch in September 2015, INSIGHTS CMF has fast become the go-to medical knowledge platform for CMF surgeons. Users can now get the full INSIGHTS experience on any device of their choosing. Apart from being universal, Medical Insights is now working towards an even higher degree of personalization: CMF surgeons hungering for knowledge can soon expect to get relevant information and news updates conveniently delivered to their inboxes. With INSIGHTS CMF you get personalized digests, in-depth search capabilities, evolving source base, in-app translation and addition benefits for AOCMF members. Download INSIGHTS CMF and start simplifying your professional medical life—it’s free!
Educational Resources

AOCMF is very active in producing a variety of educational resources

The AOCMF Manual
“Principles of Internal Fixation of the Craniomaxillofacial Skeleton” – The AOCMF manual was launched in September 2012. Through its pioneering approach, the manual showcases the most recent surgical advances and latest developments in CMF surgery.

Publications
The “Journal of Craniomaxillofacial Trauma & Reconstruction” (JCMTR) covers the interests of specialists working in dentistry, facial plastic surgery, neurosurgery, ophthalmology, oral and maxillofacial surgery, otolaryngology, plastic and reconstructive surgery, and trauma surgery.

NEW—CMTR Open
As companion journal to JCMTR, CMTR Open is our new open access journal publishing case reports and original articles covering all aspects of surgery of the head, face and jaw. It is targeted at specialists working in ophthalmology, oral and maxillofacial surgery, otolaryngology, plastic and reconstructive surgery, dentistry, facial plastic surgery and trauma surgery.

With ScienceDirect, AOCMF grants its members access to diverse journals, as well as current and archived issues.

AO Dialogue serves as the newsletter for the AO surgeon network, providing information from across the AO Foundation.

The TK System Innovations magazine compiles the latest AO-approved products and treatment techniques, in accordance with AO’s philosophy.

NEW—ARONJ Book
AOCMF is excited to announce the release of its latest research publication called Antiresorptive Drug-related Osteonecrosis of the Jaw (ARONJ)—a Guide to Research. Free download for AOCMF members.

CaseBase
AOCMF offers a platform for members to post and discuss clinical cases. This tool improves outcomes through knowledge sharing and communication. Together with other AOCMF colleagues, solutions to problems can be proposed.

Surgery Reference
This online reference tool is a huge repository of surgical knowledge, consisting of more than 7,000 pages, detailing hundreds of procedures and approaches, with illustrations, photos, videos, and clinical reports. It is highly popular among surgeons and the most used online educational tool.

Videos
In collaboration with the AO education and visual media team, AOCMF produces multimedia teaching and learning materials, live-webcasts, and event coverage for educational purposes worldwide.

AOCMF Classification System
The new comprehensive AOCMF classification system for fractures in the adult craniomaxillofacial skeleton is organized into anatomic modules. This allows for a systematic fracture classification following a step-by-step hierarchical approach. Using this approach, the level of complexity is adjusted according to the user’s clinical needs and a classifier software supports the clinician.

INSIGHTS CMF App
AOCMF and Medical Insights AG have teamed up to create INSIGHTS CMF, an app that keeps surgeons and clinical experts up-to-date on the latest CMF studies, scientific articles and publications, training programs, congresses and events. AOCMF members receive exclusive access to AOCMF line and full text articles. Download INSIGHTS CMF and start simplifying your professional medical life—it’s free!

For further information, please visit our homepage: www.aocmf.org or contact info@aocmf.org
Excellence in Teaching

Learn, share and grow with us

The AO Foundation is renowned for its dedication to Continuing Professional Development (CPD), offering surgeons around the world high quality courses, delivered by exceptional faculty. At AO, faculty development aims at fostering and supporting faculty to provide the best possible teaching methods based on learner’s needs.

AO Faculty Development Programs
Through the AO faculty development programs, experienced, interested surgeons and clinical experts can develop their skills and become AO faculty members, serving as teachers and educational experts for AO’s clinical CPD educational events.

Through these programs, you will receive:
• The tools and training needed to become a teacher or educational expert, able to provide learners with the best teaching experience possible
• The theoretical understanding and practical skills required to lead to an effective educational event
• Opportunities to challenge one’s self while advancing one’s career

How to become AOCMF Faculty?
To be eligible as internationally recognized AOCMF faculty, you need to:
• Be an AOCMF member
• Be experienced in teaching at AO educational events
• Submit the AOCMF faculty application form including two recommendation letters from other AOCMF members, faculty members or board members of your region

Your application is then discussed at the next AOCMF regional board meeting.
How AO’s Faculty Development Programs can benefit you

Do you wish to contribute meaningful knowledge and skills to effectively translate this into improved patient care? Depending on your level of experience and interest, one of the following faculty development programs may provide an excellent opportunity for you:

**Faculty**
Faculty members deliver high impact lectures, lead interactive discussion groups, and instruct at practical exercise tables.

**Faculty Education Program (FEP)**
5-week online precourse, 1.5-day face-to-face event, 3-week online follow-up

**Requirements**
- AOCMF Faculty
- Assigned as faculty to an AOCMF educational event within 3-6 months upon FEP completion
- Recommendation by the AOCMF board of your region
- Good working knowledge of the language the FEP is being taught in

**Chairperson**
Chairpersons adjust, lead, and manage principles, advanced and master level educational events based on educational principles and learners’ needs.

**Chairperson Education Program (CEP)**
5-week online precourse, 1.5-day face-to-face event, 3-week online follow-up

**Requirements**
- AOCMF Faculty
- Assigned to an AOCMF educational event
- Completed the FEP or equivalent
- Good English skills (spoken and written)
- Experienced faculty who have demonstrated success in teaching
- Highly motivated to take on this role
- Actively involved in national/regional education activities

**Leader**
Educational leaders are familiar with educational concepts of the AO as well as important leadership skills enabling them to lead teams effectively and manage educational projects successfully.

**Leader Education Program (LEP)**
5-week online precourse, 2-day face-to-face event (3-4 hours for the optional module), 3-week online follow-up

**Requirements**
- AOCMF Faculty
- Highly motivated
- Actively involved in regional education activities
- Completed the FEP or equivalent and the CEP/CTP/ELP
- Good English skills (spoken and written)
- Participants also have to satisfy at least one of the following criteria:
  - Assigned to an advanced level educational event
  - AOCMF board or commission member (regional or international)

**Optional module: Regional Education Team Training (RETT)**
Regional education teams plan, conduct and adjust FEPs in their regions. They monitor faculty performance and are the key quality education force within the regions.

3-4 hours following the LEP

**Requirements**
- AOCMF Faculty
- Completed the FEP, CEP/CTP/ELP or equivalent and LEP
- Excellent English skills (spoken and written)
- Strong commitment to quality education, teaching expertise, and credibility
- Nomination by the AOCMF board of the region and approved by the AOCMF international board

Kindly note that all faculty development programs are by invitation only.
If you are interested, please contact the AOCMF office faculty@aocmf.org
Research & Development

AOCMF’s Research and Development (R&D) activities aim to produce new findings and develop them into practice so that they impact the clinical care of craniomaxillofacial injuries. This is in accordance with AO’s mission to achieve more effective patient care worldwide.

AOCMF’s Strategic Research Areas
- Bone defects/healing
- Fracture treatment
- Clinical planning
- Clinical outcomes

Point of definition

1 2 3 4 5 6 7

Short-term strategy
(three years from point of definition)
- Development of a clinical outcome tool
- Outcome of mandible fracture treatment
- Translational studies related to bone healing and regeneration

Mid-term strategy
(five years from point of definition)
- Facial fracture outcome studies
- Studies related to bone inflammation
- Infection e.g. osteonecrosis

Long-term strategy
(five years plus from point of definition)
- Bone regeneration and tissue engineering
- Intraoperative bone reconstruction
- Research related enhancement of bone fracture healing
- QoL (Quality of Life) facial fractures
- Creation of a database for validated data of outcome studies

Clinical Priority Program (CPP)
The CPP focuses on identified key areas. Open calls for proposals are advertised on the AOCMF website.

A current CPP area is:
Anti-osteoclastic drugs and their impact on maxillofacial and orthopedic bone biology, disease, diagnosis, prevention, surgery, and treatment modalities (ARONJ).

CPP activities:
- ARONJ Guide to Research, has been published in 2016
- International ARONJ conference, conducted on September 12, 2016, in London (UK)

Current ARONJ projects:
- Prevention and treatment of ARONJ using blood-derived endothelial progenitor cells
- Large animal model for antiresorptive drug induced osteonecrosis of the jaw
- Prevention of bisphosphonate related osteonecrosis of the jaws using a novel tissue engineering strategy
- Bisphosphonate-related osteonecrosis of the jaw—the role of soft tissue healing
- Bisphosphonate related osteonecrosis of the jaw—treatment options

Start-up grants
AOCMF offers yearly start-up grants within trauma and reconstruction. Surgeons are invited to submit proposals for clinical studies in their area of interest.
AOTK System

In close collaboration with its industrial partners, the AO Foundation constantly develops new operation techniques, implants, and instruments under the medical guidance of independent surgeons.

The AOTK system is an organization of medical-technical committees and is responsible for the development and clinical testing of new devices as well as their educational concepts. It consists of specialty technical commissions and various expert groups in which around 120 surgeons work together with engineers on the solution of clinical problems. For AOCMF specifically, the AOTK CMF oversees expert groups working on craniofacial and facial trauma & reconstruction solutions.

Recently developed products of the AOTK CMF include: the MatrixWAVE MMF plate (an adjustable device for precise maxillomandibular fixation); patient-specific orthognathic plates; a ratcheting mechanism for CMF distractors; an injectable resorbable plate fastener system for craniofacial trauma and reconstruction; MatrixNEURO Preformed Mesh (anatomically contoured rigid mesh implant for the reconstruction of medium to large cranial defects) and SYNTHECEL Dura Repair, a dural substitute based on biosynthesized cellulose technology.

Clinically guided development with industrial partners

Identify the clinical problem, strive for solution

Created by experience

Up-to-date development process with industrial partners

Proven by evidence

Analyze first outcomes

Driven by excellence
Governance and International Structure

The AOCMF international board is responsible for overseeing and coordinating the strategy, and all the functions and activities, of the AOCMF clinical division globally.

On a regional level, the five regional boards (Asia Pacific, Middle East, Latin America, Europe, and North America) are responsible for overseeing and planning the full range of activities in the field of education. In addition, they provide regional input to the respective commissions and web editorial board for community development and research. The two AOCMF commissions and the web editorial board are responsible for establishing standards, coordinating and leveraging ideas, and ensuring best practice transfer between the regions in the fields of research and development, community development, and the TK system. The boards and commissions are composed of elected representatives and comply with the AO Foundation’s code of ethics and shared values.
Your benefits as an AOCMF Member

- **Networking**
- **Science Direct**
- **Fellowships**
- **Teaching videos**

AOCMF Directory

10% discount on AO Publications

Print copy of JCMTR

Full access to AO Surgery Reference

JCMTR online access

25% discount on AOCMF Manual

Networking

Exclusively for Membership Plus: Print copy of JCMTR

Become a member now www.aocmf.org