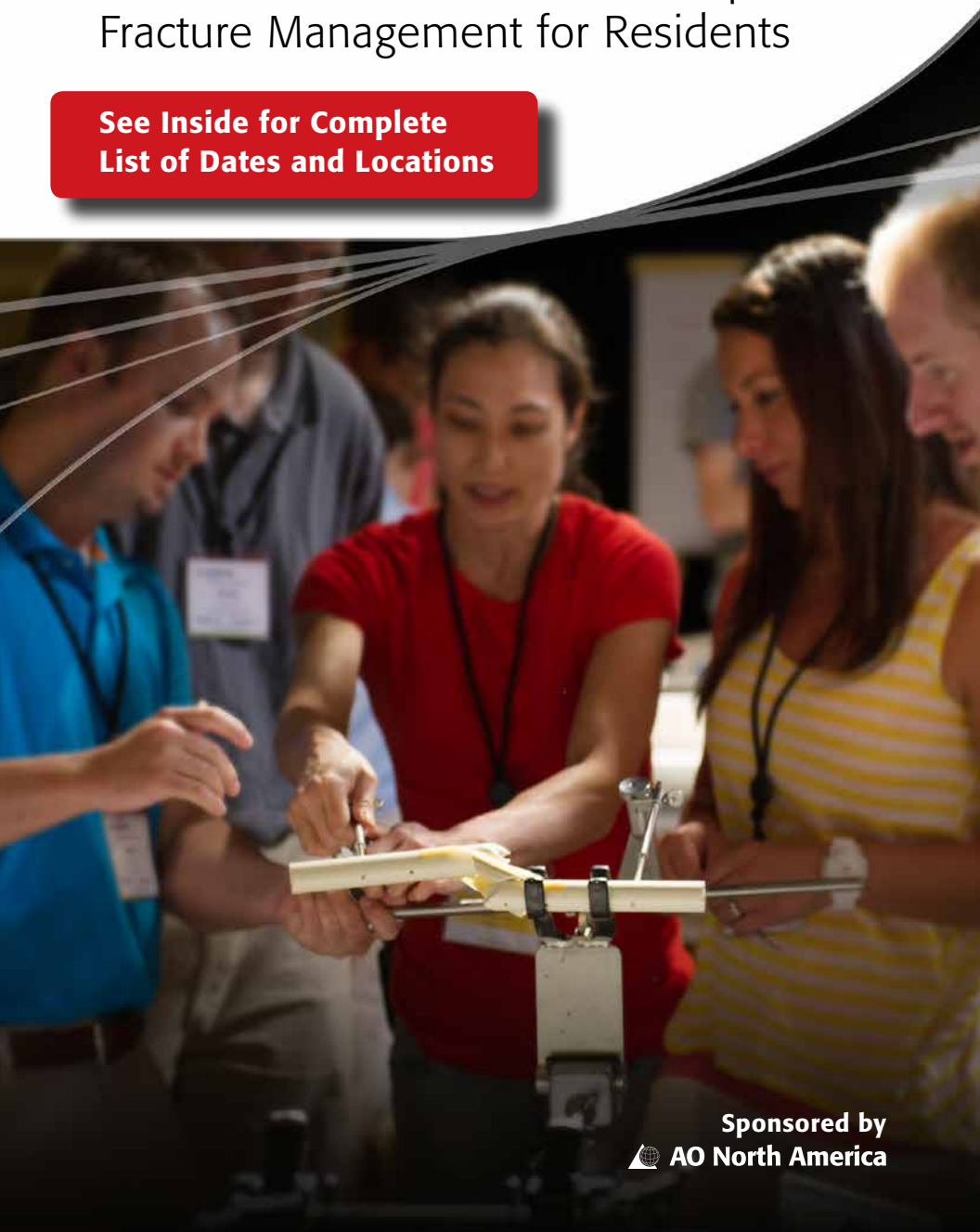
AOTRAUMA
NORTH AMERICA

AO Competency-Based Curriculum

2015 — Preliminary Program

# AOTrauma Course — Basic Principles of Fracture Management for Residents

**See Inside for Complete List of Dates and Locations**



Sponsored by
AO North America

# Table of Contents



# AOTrauma Course – Basic Principles of Fracture Management for Residents Schedule

**January 8 – 11, 2015**
Charlotte, North Carolina

**February 26 – March 1, 2015**
New Orleans, Louisiana

**April 23 – 26, 2015**
Chicago, Illinois

**August 13 – 16, 2015**
Bellevue, Washington

**September 10 – 13, 2015**
Dallas, Texas

**October 22 – 25, 2015**
Phoenix, Arizona

**November 19 – 22, 2015**
Hollywood, California

The activities have been approved for *AMA PRA Category 1 Credit*™
All courses subject to modification.

## Please visit our website: www.aona.org to register and for other course offerings.

# CME Mission Statement

The Continuing Medical Education (CME) mission of AO North America (AONA®) is to provide comprehensive multidisciplinary needs based education to surgeons, fellows, and residents in the specialties of orthopaedic, hand, craniomaxillofacial, spine, and veterinary surgery in the areas of trauma (i.e., operative reduction and fixation), degenerative disorders, deformities, tumors, and reconstruction.

Expected results of AONA's CME activities for surgeons, fellows, and residents are to:

- Increase their knowledge base and surgical skill level
- Apply and document competencies in areas of relevant advances in knowledge in the areas of trauma, degenerative disorders, deformities, tumors, and reconstructive surgical techniques into patient care resulting in improved competence
- Address practice performance gaps by improving management of all aspects of musculoskeletal injuries and disorders (i.e., pre-operative planning to post-operative care)

# Course Description

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.

The Basic Principles of Fracture Management Course is designed to provide the participant with a fundamental knowledge of operative treatment of fractures according to the AO principles.

The four guiding AO principles of fracture fixation are:
- Anatomic reduction of the fracture fragments, particularly in joint fractures
- Stable fixation to ensure proper healing of the fracture allowing surrounding tissue to move and strengthen
- Atraumatic surgical technique to preserve the blood supply to the bone fragments and soft tissue
- Early, pain-free mobilization returning the patient to function as soon as possible

The course will cover the concepts of absolute and relative stability, as applied in context, of the soft tissue injury for each limb segment's major fracture types. This course is the foundation for the AONA curriculum, which teaches the surgeon how to manage trauma and trauma reconstruction.

The goal of this course is not to advocate the treatment of all fractures by surgical fixation, but rather to help ensure that when surgery is carried out, that it is done properly based upon principles, appropriate preoperative planning, and decision making.

## BioSkills Laboratory

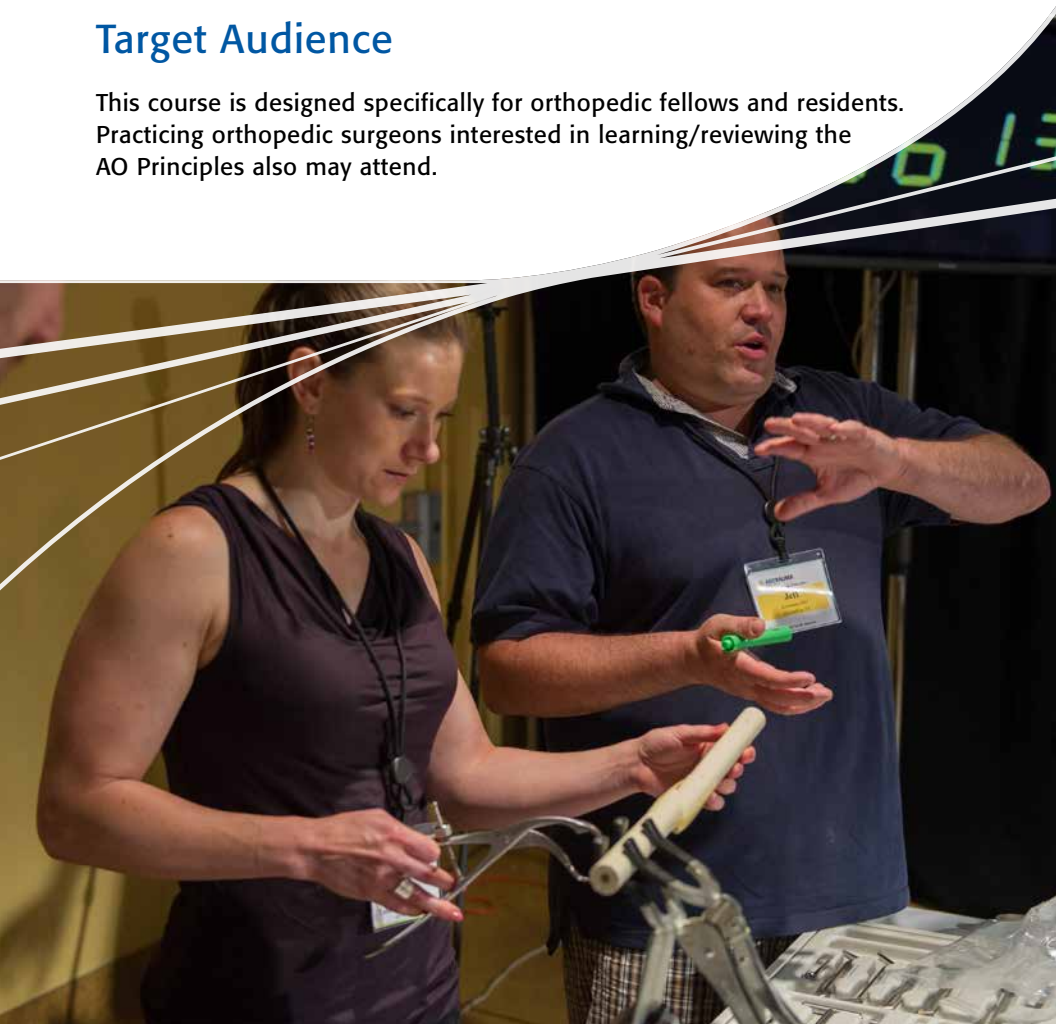
Application, patient selection and preoperative planning considerations will be presented. Participants will have the opportunity to carry out the techniques on artificial bones in a bioskills laboratory. Problems and complications, intraoperative difficulties and patient follow-up will be addressed. Concepts of polytrauma care associated with orthopedic surgery will be discussed.

## Discussion Groups

Small groups will be formed to allow a unique opportunity for both the participant and Faculty to discuss preselected cases that will complement the AO principles presented in the lectures and labs.

## Target Audience

This course is designed specifically for orthopedic fellows and residents. Practicing orthopedic surgeons interested in learning/reviewing the AO Principles also may attend.



# Learner Objectives

At the end of this course, participants will be able to:

- Discuss the concepts of stability, their influence on bone healing, and how to apply implants to achieve appropriate stability
- Plan a treatment based on assessment, imaging, classification, and decision making
- Apply reduction techniques in fracture management with attention to the importance of the soft-tissue
- Apply related psychomotor skills to the practical application of orthopedic implants to fractured bones
- Plan the initial treatment of the polytraumatized patient

# Accreditation

AO North America is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

# Designation Statement

AO North America designates this live educational activity for a maximum of 31 *AMA PRA Category 1 Credits*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

### For Canadian Based Physicians Attending AONA Courses

All live conferences or live courses held outside of Canada can be reported as accredited group learning activities under Section 1 of the MOC Program if they are developed by a university, academy, college, academic institution or physician organization.

Courses sponsored by AO North America meet the criteria of the Royal College of Physicians and Surgeons for accredited group learning activities.

# Preliminary Program – Day 1

| Time | Agenda Item |
|---|---|
| 08:00 – 08:15 | Introduction / Welcome |
| 08:15 – 08:30 | AIRS PreTest |
| **08:30 – 10:15** | **MODULE 1: PRINCIPLES OVERVIEW** |
| 08:30 – 08:45 | History of Fracture Care and Evolution of Principles |
| 08:45 – 08:55 | Unique Learning Resources of the AO Foundation |
| 08:55 – 09:10 | Bone Healing |
| 09:10 – 09:25 | Soft Tissue Injury and Compartment Syndrome |
| 09:25 – 09:40 | Bone: Fracture Classification – A Guide to Clinical Decision Making |
| 09:40 – 09:55 | Surgical Reduction Techniques: Respecting the Behavior of Bone |
| 09:55 – 10:15 | Questions / Answers and AIRS |
| **10:15 – 10:35** | **Coffee Break** |
| **10:35 – 11:40** | **MODULE 2: PRINCIPLES - ABSOLUTE STABILITY** |
| 10:35 – 10:50 | Spectrum of Stability |
| 10:50 – 11:00 | Screw Design and Function |
| 11:00 – 11:10 | Plate Design and Function |
| 11:10 – 11:20 | Tension Band Principles |
| 11:20 – 11:40 | Questions / Answers and AIRS |
| **11:40 – 12:40** | **Lunch** |
| **12:40 – 14:40** | **PRACTICAL EXERCISE I: AO SKILLS STATIONS** |
| **14:40 – 14:50** | **Travel to Lab** |
| **14:50 – 16:30** | **PRACTICAL EXERCISE II:** (Absolute Stability)<br>A. Introduction to Implants<br>B. Lag Screw<br>C. Neutralization Plate<br>D. Buttress Plate |
| **16:30 – 16:50** | **Coffee Break** |
| **16:50 – 18:30** | **PRACTICAL EXERCISE II:** (Absolute Stability-Continued)<br>E. Axial Compression with Plates<br>F. Oblique Fracture: Lag Through Plate<br>G. Olecranon Fixation |
| **18:30 – 19:30** | **Reception** |

# Preliminary Program – Day 2

| Time | Agenda Item |
|---|---|
| **08:00 – 09:10** | **MODULE 3: PRINCIPLES – RELATIVE STABILITY** |
| 08:00 – 08:10 | Relative Stability: Intramedullary Techniques |
| 08:10 – 08:20 | Relative Stability: External Fixation |
| 08:20 – 08:35 | Relative Stability: Bridge Plating with Traditional Implants and Techniques |
| 08:35 – 08:50 | Relative Stability: Locked Plating – Biology, Biomechanics, Clinical Applications |
| 08:50 – 09:10 | Questions / Answers and AIRS |
| **09:10 – 09:15** | **Travel to Lab** |
| **09:15 – 10:45** | **PRACTICAL EXERCISE III:** (Relative Stability)<br>A. External Fixation<br>B. Bridge Plating<br>C. Comparison of Locked and Unlocked Screws in Osteoporotic Bone |
| **10:45 – 11:00** | **Coffee Break and Travel to Lectures** |
| **11:00 – 11:45** | **MODULE 4: SPECIFIC FRACTURES- DIAPHYSEAL** |
| 11:00 – 11:10 | Open Fractures |
| 11:10 – 11:20 | Femur |
| 11:20 – 11:30 | Tibia |
| 11:30 – 11:45 | Questions / Answers and AIRS |
| **11:45 – 11:50** | **Travel to Discussion Group** |
| 11:50 – 13:20 | Discussion Group One (with lunch):<br>Review of Principles and Decision Making |
| **13:20 – 13:30** | **Travel to Lab** |
| **13:30 – 15:30** | **PRACTICAL EXERCISE IV:** (Intramedullary Nailing)<br>A. Femur<br>B. Tibia |
| **15:30 – 15:50** | **Coffee Break and Travel to Lectures** |
| **15:50 – 16:45** | **MODULE 5: PRINCIPLES- DECISION MAKING** |
| 15:50 – 16:05 | Preoperative Planning |
| 16:05 – 16:15 | Radiation Safety |
| 16:15 – 16:25 | Humerus |
| 16:25 – 16:35 | Radius / Ulna |
| 16:35 – 16:45 | Questions / Answers and AIRS |
| **16:45 – 16:55** | **Travel to Lab** |
| **16:55 – 18:15** | **PRACTICAL EXERCISE V:** Preoperative Planning - Forearm Model |

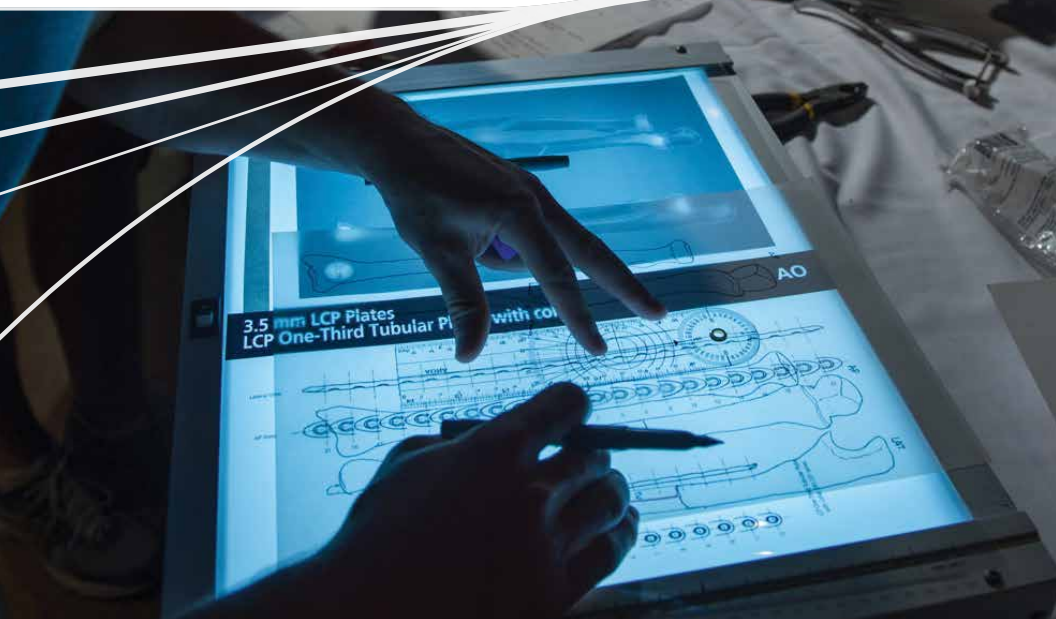
# Preliminary Program — Day 3

| Time | Agenda Item |
|---|---|
| **08:00 – 09:15** | **PRACTICAL EXERCISE VI:**<br>Fixation of Radius / Ulna |
| **09:15 – 09:30** | **Coffee Break and Travel to Lectures** |
| **09:30 – 11:15** | **MODULE 6: LOWER EXTREMITY — ARTICULAR FRACTURES** |
| 09:30 – 09:40 | Principles of Management-Articular |
| 09:40 – 09:50 | Distal Femur |
| 09:50 – 10:00 | Extracapsular Hip Fracture |
| 10:00 – 10:10 | Intracapsular Hip Fracture |
| 10:10 – 10:20 | Questions/ Answers and AIRS |
| 10:20 – 10:35 | Tibial Plateau |
| 10:35 – 10:50 | Ankle |
| 10:50 – 11:00 | Pilon Fractures |
| 11:00 – 11:15 | Questions / Answers and AIRS |
| **11:15 – 11:25** | **Travel to Lab** |
| **11:25 – 12:35** | **PRACTICAL EXERCISE VII:**<br>Ankle Fractures — Type C Malleolar |
| **12:35 – 12:45** | **Travel to Discussion Groups** |
| 12:45 – 14:15 | Discussion Group Two (with lunch): Diaphyseal Fractures |
| **14:15 – 14:25** | **Travel to Lab** |
| **14:25 – 15:40** | **PRACTICAL EXERCISE VIII:** (Fractures of the Hip)<br>A. Compression Hip Screw Fixation<br>B. Cannulated Screw Fixation |
| **15:40 – 15:50** | **Coffee Break and Travel to Lectures** |
| **15:50 – 16:50** | **MODULE 6 (Continued): UPPER EXTREMITY — ARTICULAR FRACTURES** |
| 15:50 – 16:00 | Olecranon and Patellar Fractures |
| 16:00 – 16:10 | Proximal Humerus |
| 16:10 – 16:20 | Distal Humerus |
| 16:20 – 16:35 | Distal Radius |
| 16:35 – 16:50 | Questions / Answers and AIRS |
| **16:50 – 18:05** | **MODULE 7: SPECIAL FRACTURE PROBLEMS** |
| 16:50 – 17:05 | Polytrauma |
| 17:05 – 17:15 | Radiographic Evaluation and Classification of Pelvic Ring Disruptions |
| 17:15 – 17:25 | Acute Management of Pelvic Ring Injuries |
| 17:25 – 17:40 | Questions / Answers and AIRS |
| 17:40 – 18:05 | AIRS PostTEST |

# Preliminary Program – Day 4

| Time | Agenda Item |
|---|---|
| **08:00 – 09:15** | **Discussion Group Three** (with breakfast) |
| **09:15 – 09:20** | **Travel to Lab** |
| **09:20 – 10:50** | **PRACTICAL EXERCISE IX:** (External Fixation)<br>A. Pelvic Fracture<br>B. Spanning External Fixation |
| **10:50 – 10:55** | **Travel to Lectures** |
| **10:55 – 12:10** | **MODULE 7 (Continued): SPECIAL FRACTURE PROBLEMS** |
| 10:55 – 11:10 | Infection |
| 11:10 – 11:20 | Nonunions |
| 11:20 – 11:30 | Malunions |
| 11:30 – 11:50 | Violations of AO Principles: How not to do AO |
| 11:50 – 12:00 | Questions / Answers and AIRS |
| 12:00 – 12:10 | Closing Comments (Introduce Principles II) / End of Course AIRS Questions |

*Preliminary program subject to modification.*



# Past Participants' Comments:

"Superb faculty and very well organized. Excellent course!"

"The labs were awesome!"

"Case presentations were the most helpful aspect of the course."


"The course has literally changed the way I think."

"This course was extremely beneficial to my orthopedic education. Every resident should attend this course."

# Presentation Information

### Faculty Disclosure

It is the policy of AO North America to abide by the Accreditation Council for Continuing Medical Education Standards for Commercial Support. Standard 2: "Disclosures Relevant to Potential Commercial Bias and Relevant Financial Relationships of Those with Control over CME Content," requires all planners, including course directors, chairs, and faculty, involved in the development of CME content to disclose their relevant financial relationships prior to participating in the activity. Relevant financial relationships will be disclosed to the activity audience. The intent of the disclosure is not to prevent a faculty with a relevant financial or other relationship from teaching, but to provide participants with information that might be of importance to their evaluation of content. All potential conflicts of interest have been resolved prior to the commencement of this activity.

### Conflict of Interest Resolution Statement

When individuals in a position to control or influence the development of the content have reported financial relationships with one or more commercial interests, AO North America utilizes a process to identify and resolve potential conflicts to ensure that the content presented is free of commercial bias.

### Off-Label / Experimental Discussions

Some medical devices used for teaching purposes and/or discussed in AO North America's educational activities may have been cleared by the FDA for specific uses only or may not yet be approved for any purpose. Faculty may discuss off-label, investigational, or experimental uses of products/devices in CME certified educational activities. Faculty have been advised that all recommendations involving clinical medicine in this CME activity are based on evidence that is accepted within the profession of medicine as adequate justification for their indications and contraindications in the care of patients. All scientific research referred to, reported or used in this CME activity in support or justification of a patient care recommendation conforms to the generally accepted standards of experimental design, data collection and analysis.

### Liability Statement

AO North America faculty and staff assume no personal liability for the techniques or the use of any equipment and accessories used for teaching purposes in the laboratory. The certificate provided pertains only to the participants' completion of the course and does not, in any way, attest to the proficiency of the participants' clinical experience.

### Disclaimer

AONA does not endorse nor promote the use of any product/device of commercial entities. Equipment used in this course is for teaching purposes only with the intent to enhance the learning experience.

# Tuition, Registration, Hotel and Travel

**Tuition:** Resident $1095.00 (US funds)
Attending $1495.00 (US funds)

**Tuition Includes:** Registration, laboratory materials, breakfast, lunch and break refreshments.

Registration is available online only at www.aona.org

**We encourage early registration, as seating is limited.**
Upon receipt of your registration and payment, you will receive an email confirmation of your registration in the Course, along with hotel and travel information to assist you in making your arrangements.

**PLEASE NOTE:**
Full refunds will be made only if written notice of cancellation is received by registration deadline date. Cancellations received after the deadline date will be subject to a $100 cancellation fee. No tuition refund will be issued for cancellations after 30 days prior to course.

**ADA Statement**
AO North America fully intends to comply with the legal requirements of the Americans with Disabilities Act. If any registrant is in need of accommodation, please do not hesitate to submit a written request at least one month prior to this activity.

**Hotel and Travel**
Hotel Reservations and Travel Accommodations are the responsibility of the individual registrant. Complete information regarding room rates will be available in the participant confirmation letter. Complete hotel information for individual Courses can be found on our website at www.aona.org

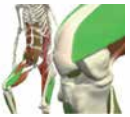
Please do not consider yourself registered in a Course until a confirmation email is received.

**For Information:**
Contact: AONA Customer Service Department
Phone: (800) 769-1391
(610) 695-2459
Fax: (610) 695-2420
Email: customerservice@aona.org

AOTRAUMA

# AOTrauma membership
## Join us and share your passion


## As a member of AOTrauma you enjoy the following benefits:



- Direct access to the AOTrauma member network
- Fellowship opportunities
- AOTrauma News & quarterly AOTrauma newsletter
- Primal Pictures 3D human anatomy

- Online journals
  – Ovid, Injury and Journal of Perioperative Practice
- Case Forum, AO Surgery Reference, AO Traumaline™, online lectures/videos
- Special member offers

www.aotrauma.org

AOTRAUMA
NORTH AMERICA

2015 Preliminary Program

# AOTrauma Course — Basic Principles of Fracture Management for Residents

AO North America
1700 Russell Road
Paoli, PA 19301

**Registration is available only online: www.aona.org**

 7/14