

Core and optional content:

# AOTrauma Seminar—Pediatric Orthopedic Conditions

Approved by the AOTrauma Education Commission July 2014  
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This document defines and documents the core/optional content to qualify as an AOTrauma Seminar—Pediatric Orthopedic Conditions. These are designed to be globally applicable and adaptable to regional differences, depending on different needs and logistical considerations without impacting the essential content to be covered.

## Introduction

The AOTrauma Course—Managing Pediatric Musculoskeletal Injuries and the two optional AOTrauma Seminars—Special Pediatric Trauma Conditions and Pediatric Orthopedic Conditions are modular face-to-face educational events that constitute part of the overall AOTrauma Pediatrics curriculum, complemented by expert modules/seminars and further modalities—self-directed learning opportunities, resources, webinars, videos, etc.

## Developed by the AOTrauma Pediatrics Education Taskforce

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### Link to AOTrauma Pediatrics Curriculum website

<https://aotrauma.aofoundation.org/Structure/education/educational-programs/pediatrics>

### Link to AOTrauma Pediatrics Faculty Support Package

<https://aotrauma.aofoundation.org/Structure/faculty-center/Pages/faculty-center.aspx> (login required)



## Competency-based curriculum

The development of this course followed a backward planning process leading to a competency-based curriculum (12 competencies and associated objectives)—please refer to the Competency Booklet PDF.

This course may be approved to carry the AO Competency-Based Curriculum stamp. See separate document for criteria and more information.

## Chairperson Guide

Also check the Chairperson Guide in the Faculty Support Package for the course goal, overall learning objectives, target participants, faculty preparation, logistics, and much more about the specifics of this course.

## Course modules

### ALL AOTrauma Pediatrics educational events/activities (eg, course)

Opening session

Closing session

### AOTrauma Course—Managing Pediatric Musculoskeletal Injuries

Topic/Module 1 Fundamentals of managing pediatric fractures

Topic/Module 2 Assessment and planning

Topic/Module 3 Decision making

Topic/Module 4 Lower limb—femoral fractures

Topic/Module 5 Lower limb—knee injuries

Topic/Module 6 Lower limb—tibial, fibula, and ankle injuries

Topic/Module 7 Entire lower limb

Topic/Module 8 Upper limb—shoulder and humerus

Topic/Module 9 Upper limb—supracondylar fractures

Topic/Module 10 Upper limb—other elbow injuries

Topic/Module 11 Upper limb—forearm and wrist fractures

Topic/Module 12 Entire upper limb

For the AOTrauma Seminars content, please refer to the separate documents:

### AOTrauma Seminar—Special Pediatric Trauma Conditions

Topic/Module 13 Managing the child and family

Topic/Module 14 Management of bone and joint infection in children

Topic/Module 15 Serious musculoskeletal injuries in children

### AOTrauma Seminar—Pediatric Orthopedic Conditions

Topic/Module 16 Slipped capital femoral epiphysis

Topic/Module 17 Deformity management

Topic/Module 18 Pathological bone (non-oncological aspects)

**In the core/optional content listing the core (mandatory) content is displayed in orange whereas optional content is displayed in gray.**

Timing for practical exercises is based on experience.

Timing for small group discussions reflects minimal suggested time.

## Core/optional content—all AOTrauma Pediatrics educational events (eg, course)

<b>Opening session</b>	Proposed timing:	Core/optional
Introduction to course <ul style="list-style-type: none"> <li>• Course objectives</li> <li>• Logistical information including remarks about educational methods/formats, expectations</li> </ul>	10'	C
<b>Closing session</b>	Proposed timing:	Core/optional
Panel discussion— <b>Closing session with all faculty</b> <ul style="list-style-type: none"> <li>• Participant-generated Q and A to be collected on paper during day OR offer reflection time before last break to generate questions in informal groups, moderator collects and bundles questions</li> </ul>	30'	C
Lecture— <b>Summary of whole course learning and closure</b> <ul style="list-style-type: none"> <li>• Can include attainment of course objectives and take-home messages, acknowledgments, regional/local outlook, evaluations</li> </ul>	10'	C

## Optional content: AOTrauma Seminar—Pediatric Orthopedic Conditions

<b>Topic/Module 16: Slipped capital femoral epiphysis</b>	Proposed timing:	Core/optional
<ul style="list-style-type: none"> <li>• Recognize when acute correction and fixation is an option vs total reconstructive/salvage procedures</li> <li>• Avoid deterioration by in-situ epiphysodesis</li> <li>• Recognize when and how to refer a SCFE case to a colleague</li> </ul>		
16.1 Plenary session— <b>Warm-up cases</b>	10'	O
16.2 Plenary discussions— <b>What the trauma surgeon needs to know about SCFE</b> <ul style="list-style-type: none"> <li>• Clinical signs and imaging: diagnosis, planning, treatment/referral—the controversy:                             <ul style="list-style-type: none"> <li>- Is Loder's classification relevant to mechanical stability?</li> </ul> </li> <li>• In situ fixation (closed treatment)—the controversies:                             <ul style="list-style-type: none"> <li>- To reduce or not to reduce (including patient positioning)</li> <li>- Physis— leave it open or close it (does the femoral neck model?)</li> <li>- Implant(s) single or multiple? The young SCFE patient—growing implants?</li> <li>- Prophylactic fixation</li> </ul> </li> <li>• Open procedures—the controversies:                             <ul style="list-style-type: none"> <li>- Preserving vascularity</li> <li>- Anatomical reduction</li> <li>- Prevention of impingement</li> </ul> </li> <li>• Mild deformity—the controversy:                             <ul style="list-style-type: none"> <li>- Arthroscopic versus open treatment of femoro-acetabular impingement</li> </ul> </li> </ul>	90'	O
16.3 Lecture— <b>Summary of module</b> including attainment of objectives and take-home messages	10'	O
16.4 Plenary session— <b>Reevaluation of warm-up cases</b>	10'	O
16.5 Practical exercise— <b>SCFE</b>	30'	O

## Topic/Module 17: Deformity management

	Proposed timing:	Core/ optional
• Plan intervention/observations of deformity as necessary following risk assessment		
17.1 Plenary session— <b>Warm-up cases</b>	10'	O
17.2 Lecture— <b>Assessment of deformity and planning of correction</b>	20'	O
17.3 Open small group discussions— <b>Causes and treatment of acquired deformity</b> <ul style="list-style-type: none"><li>• Posttraumatic—when and how: progressive/nonprogressive, potential for remodeling?</li><li>• Postinfection</li><li>• Neuromuscular</li><li>• Perthes disease</li><li>• Sequelae of SCFE</li></ul>	75'	O
17.4 Open small group discussions— <b>Causes and treatment of congenital deformity</b> <ul style="list-style-type: none"><li>• Hip dysplasia</li><li>• Femoral osteotomies</li><li>• Pelvic osteotomies</li><li>• Guided growth for correction of angular and longitudinal deformity (eg, knee including acquired deformity)</li></ul>	60'	O
17.5 Lecture— <b>Summary of module</b> including attainment of objectives and take-home messages	10'	O
17.6 Plenary session— <b>Reevaluation of warm-up cases</b>	10'	O
17.7 Practical exercise— <b>Proximal femoral varus osteotomy</b> (valgus optional)	60'	O

## Topic/Module 18: Pathological bone (non-oncological aspects)

	Proposed timing:	Core/ optional
• Recognize when it is a pathological state		
• Diagnose pathological bone (benign or malignant, progressive or nonprogressive condition)		
• Adapt treatment appropriately to diagnosis		
18.1 Plenary session— <b>Warm-up cases</b>	10'	O
18.2 Plenary expert panel— <b>How I assess and plan the management of...</b> <ul style="list-style-type: none"><li>• Simple cyst</li><li>• Simple cyst with fracture</li><li>• Pathological fracture of unknown etiology</li><li>• Fibrous dysplasia</li></ul>	40'	O
18.3 Plenary session— <b>Reevaluation of warm-up cases</b>	10'	O