

STaRT *Surgical Training and Assessment for Residents*

AO's interactive learning hub

www.aotrauma.org/STaRT



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Improve surgical skills and clinical decision-making



One of the main challenges that residents face is lack of time for learning and skills development. AOTrauma STaRT provides easy access to relevant information that:

- **Supports self-directed learning**
- Reinforces basic principles to **facilitate effective clinical decision-making**
- **Complements formal educational offerings** of certifying bodies and teaching hospitals

Self-directed learning becomes increasingly important for residents. The three main features of AOTrauma STaRT address distinct learning strategies:

- Interactive **clinical case discussions**
- **Self-assessment** opportunities for learning
- Overview of and direct **access to all AO resources** for residents

Residents have unique learning needs: AOTrauma STaRT incorporates effective educational strategies so residents can benefit from the wealth of knowledge, experience, and resources available within the AO.



AOTrauma STaRT is **free of charge** and easy to use. The clinical case discussions, self-assessment options, and extensive resources are aligned with AOTrauma's Educational Program for Residents.

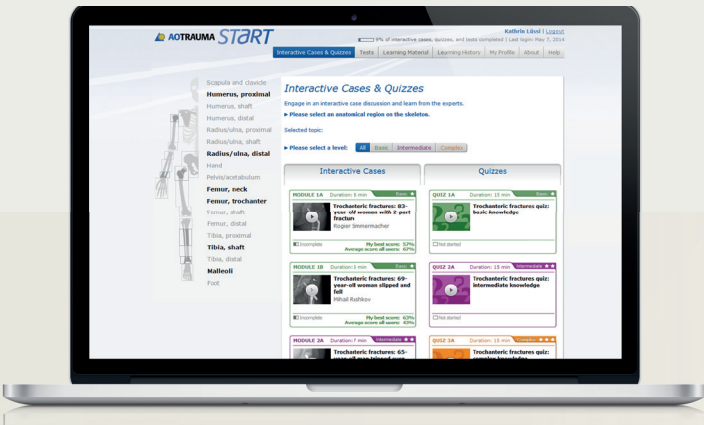
A personalized learning history helps residents keep track of activities completed and scores attained.

AOTrauma STaRT is currently available for use on PC, Mac, and iPad.

Engage in interactive case discussions

Short, focused video-based clinical case discussions delivered by experienced international surgeons:

- Interactive case discussions promote **learning based on common patient problems**
- Case discussions are **graded into the levels: basic, intermediate, or complex.**



All images can be enlarged to see details.



83-year-old woman with 2-part trochanteric fracture

First steps

- Medical assessment
- Warm up patient
- Make patient comfortable



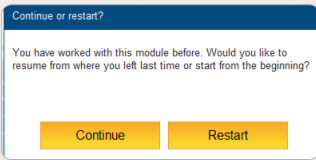
This is the correct answer

at home from a standing height and is complaining of hip pain and suffered the fracture shown. She has a history of coronary artery bypass graft and he is on Clopidogrel (Plavix) and Warfarin.

Learners receive direct feedback on their answers from the case presenter.



Take 10 minutes to work through a case discussion. Each case is presented by an experienced surgeon and you are asked a number of questions as the case progresses. The presenter provides direct feedback on your answers—you know immediately if you got it right and the rationale behind it.



Not enough time to complete the case discussion?—No problem. All of your entries will be saved so you can continue the module later.

Take home message

- Reduction and implant position are more important than the type of implant

Take-home messages reinforce important concepts

65-year-old man tripped over while shopping and fell on his left leg

Links to further learning resources and references

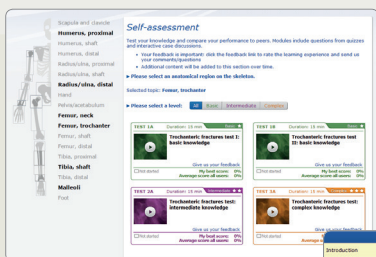
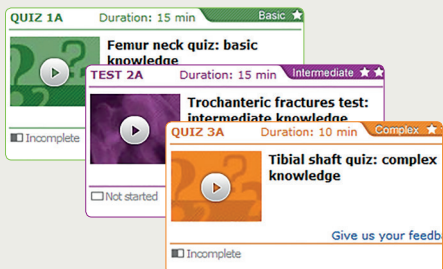
- Further learning material:
 - Step-by-step description of surgical techniques in [Surgery: Evidence-based practice](#)
 - Overview of available [AO learning resources](#)

Identify your knowledge gaps

Two different options for self-assessment based on multiple-choice questions are available in AOTrauma STaRT:

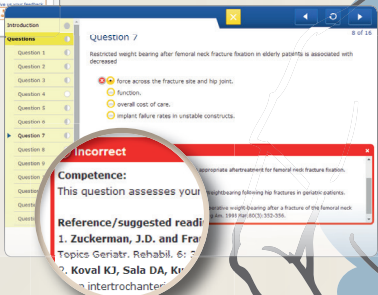
- **Quizzes:** best suited for learning. Provides immediate feedback to answers.
- **Self-assessment modules:** ideal for identifying personal knowledge gaps. Summary of results is provided only upon completion.

Quizzes and self-assessment modules are available for three different levels of complexity: basic, intermediate, and complex



Select a module with the right level of complexity for your needs

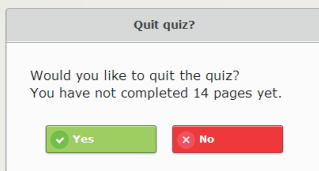
Learn from your mistakes



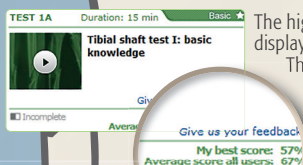
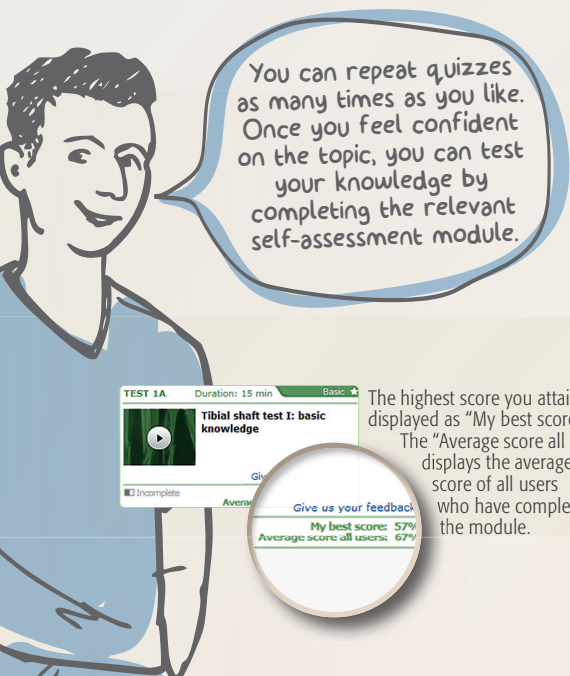


Engage in a quiz to learn about a topic: immediate feedback consists of a comprehensive rationale, references, and tips for further learning.

Complete a self-assessment module to test your knowledge and identify gaps. Select a module with questions on a single or mixed topics. Each test can be repeated up to three times.



You can exit a quiz or self-assessment module at any time and save your entries.



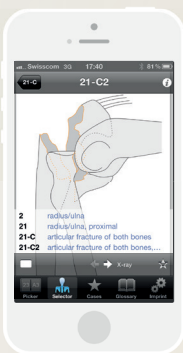
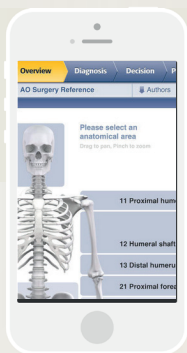
The highest score you attain is displayed as "My best score". The "Average score all users" displays the average best score of all users who have completed the module.

Fast access to AO resources

The Learning Material section of **AOTrauma StARt** provides an **overview of the vast repository of AO learning resources.**

Browse AO's learning resources to find:

- **Teaching videos**
- **eLearning modules**
- **Recorded lectures**
- **Readings**
- **Webinars**
- **Webcasts**
- **Mobile apps**
- **Checklists**
- ... and much more



Find helpful
smartphone apps

The Learning Material section provides you with resources to fill identified knowledge gaps. A clearly structured table of contents gives an overview of existing learning resources. They are labeled by level of complexity, making it easy to identify material relevant to your level.

Continually updated with new offerings, residents can access available learning material via a clearly structured table of contents with direct links.

The screenshot displays the AO Learning Material website interface. At the top, there is a navigation menu with options like 'Home', 'AO Philosophy and Evolution', 'Basic maintenance and fracture healing', 'Bone healing', 'Biomechanics of fractures and implants', 'Reduction techniques', 'Bone union disorders and malunion', 'Classification', 'Devices', 'Fracture concepts', 'Implants and equipment', 'Soft-tissue management', 'Upper extremity', 'Humeral', 'Proximal', 'Forearm, shaft', 'Humeral, shaft', and 'Shoulder and elbow'. Below the menu, there are sections for 'Available learning resources', 'Videos and eLearning modules', and 'Recorded lectures'. A search bar is located at the bottom left. A circular callout highlights a video titled 'Fracture red introduction' by Editor Eman, with a duration of 15 minutes and a basic knowledge level. Another callout shows a video titled 'Tibia Fractures - Intramedullary Expert Video (with revision)' by Matthias Hansen, dated 01/30. A third callout shows a video titled 'Preoperative assessment of soft-tissue injuries' by authors Faiz Rezaei and Reto Wettstein. A fourth callout shows a video titled 'Basic principles of assessment'.

Watch an AO teaching video

Lectures, videos, webinars, eLearning modules

Access selected book chapters

Lectures, videos, webinars, eLearning modules

Watch an AO teaching video

Preoperative assess

Authors: Faiz Rezaei, Reto Wettstein, Do

Basic principles of assessment

on of wounds, soft-tissue defects, and orthopaedic trauma is based on... be performed in a stan... laboratory, and... obtained as rapidly as possible. History and assessment must be surveyed and recorded immediately. However, emergency measures that are not directly related to the soft-tissue injury may sometimes delay assessment. For example, in a polytraumatized patient. Furthermore, the evaluation of an unconscious patient requires laboratory and radiographic support, or even deferral of the examination. The value of the assessment of injured soft tissues and the classification of their severity greatly depends on the examiner's experience (chapter 5.2). The most experienced surgeons in house should, therefore, be the one to assess the patient. If the diagnostic procedure is delegated or performed by a junior physician on call, he or she must be in close contact with the consulting specialist. A systematic examination of the patient in general and of the injury in particular will allow the surgeon to be thorough and

Assessment of soft-tissue injuries

Authors: Eric van Helder

Several systems for the classification of traumatized soft tissues are in clinical use such as the Gustilo-Anderson classification (1, 2), the AO soft-tissue classification (3), and the Hannover fracture scale (4, 5) (chapter 5.2). The following description will explain in detail some of the already mentioned general statements on the history of the injury as well as the clinical and nonclinical (ie, laboratory and radiographic) assessment.

5.1.3 Assessment of trauma history

Knowledge about the mechanism and the involved energy of an injury will help to judge the severity of the resulting lesions. It will also influence the therapeutic approach and subsequent decisions (fig. 1-1a-b). This information may roughly indicate the extent of the zone of injury (chapter 10.3.3), the potential capacity for wound healing and the possible extent of contamination. In addition, it will also supply an estimate of the risk of complications and functional damage (6). Superficial abrasions, simple cuts, and low-energy injuries that heal by secondary intention or simple primary wound closure will be classified and approached differently compared to high-energy crush injuries.

Track your learning history

Just click the Learning History tab to:

- Gain an overview of all case discussions, quizzes, and self-assessments available.
- Check your scores and the time spent on each activity.
- Identify modules you have not attempted.
- Access any module by clicking on the title.



Learning history

Kathryn Liles
AO Foundation -

Course	Status	Score	Duration (hh:mm:ss)
Tibial shaft: Wedge fracture of the tibial shaft	100%	33	00:33:38
Femur neck: ORIF of displaced femoral neck fractures (part 2)	0%	0	00:44:25
Femur neck: Avoiding and managing complications (part 2)	0%	0	00:46:12
Malleolus fractures: Closed ankle injury (motorcycle accident)	100%	80	01:34:42
Tibial shaft: Isolated fracture with good soft-tissue condition	100%	20	00:56:32
Tibial shaft: Isolated open fracture	100%	25	00:12:23
Tibial shaft: Polytrauma patient with closed tibial shaft fracture	100%	25	00:06:13
Femur neck: Emergency room evaluation of a low-energy fracture patient	100%	57	08:02:40
Trochanteric fractures: 65-year-old man tripped over and fell on his left leg	100%	40	19:12:40
Trochanteric fractures: 83-year-old woman with 2-part fracture	100%	57	00:36:12
Femur neck: Closed reduction and percutaneous fixation	100%	33	00:52:19
Femur neck: ORIF of displaced femoral neck fractures (part 1)	100%	0	00:56:26
Femur neck: Avoiding and managing complications (part 1)	100%	0	01:44:18
Trochanteric fractures: 65-year-old woman slipped and fell	100%	63	00:48:23
Trochanteric fractures: High-energy fractures in young patients	100%	40	00:30:33
Tibial shaft quiz 1: basic knowledge	100%	0	00:13:08

AOTrauma STaRT keeps track of your progress process. Your personal learning history can be printed to compare scores with peers or even as a report for your Residency Program Director or learning portfolio.



You can sort the list by completion status or score, whichever you wish, and see how much time you spent on each activity.

Tailored to the needs of residents



Structured interviews with residents, resident supervisors and directors of residency programs helped to identify **the specific needs of residents with regard to learning and learning resources**. AOTrauma STaRT content is developed by international teams of experienced surgeons who are actively involved in resident teaching and training.

AOTrauma STaRT provides a learning hub encompassing:

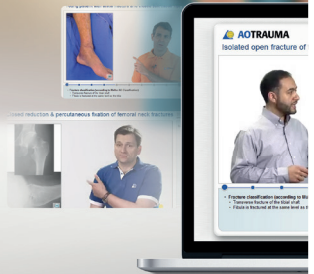
- **Easy and fast access** to well-structured, tailored learning
- Objective, **evidence-based, and up-to-date information**
- Interactive, **video-based learning tools**
- **Clinical case discussions**
- **Assessment questions** with comprehensive rationale and references for daily use
- **Tools to identify personal knowledge gaps** and compare performance with peers

All content of AOTrauma STaRT is aligned with AOTrauma's Educational Program for Residents. **New modules are added on an ongoing basis**. Your input and feedback will help us improve and expand over time.

AOTrauma STaRT: Surgical Training and Assessment for Residents

Simply register and STaRT today!

www.aotrauma.org/STaRT



System requirements:

Operating system: Windows XP, Vista, Windows 7/8, Mac OSX 10.6-10.8, iOS 5/6

Browser: Internet Explorer Version 9/10, Mozilla Firefox Version 22 or higher, Google Chrome 27 or higher, Safari iOS 6/Mac 6.5/Win 5.6

Browser settings: JavaScript activated, pop-up blocker deactivated

