

# AO Sports Advanced Course– Knee Injuries and Deformities

# **Course description**

This course aims to present a broad perspective about the knee joint, emphasizing the concept of "the knee as an organ," where the synergistic interaction between soft tissues (ligaments, menisci, and cartilage) and bone is critical to promote optimal function. The focus is to deliver a set of principles that should guide surgeons on the process of decision making while dealing with sports related knee injuries with a brief introduction to the principles of deformity correction around the knee. The state of the art in diagnosis, planning, and management of knee disorders will be addressed by a group of experienced faculty.

### **Target participants**

Participants are surgeons interested in the management of traumatic and developmental disorders of the knee. And those who are actively involved in the management of knee disorders (traumatic, developmental, or degenerative) and with experience in knee arthroscopy.

## Learning objectives

Upon completion, participants should be able to:

- Describe the surgical anatomy of the ligaments of the knee and its implication in the reconstructive procedures of those structures.
- Describe the rationale applied to the management of soft tissues injuries (menisci, ligaments, and cartilage).
- Explain the importance of lower extremity alignment while managing knee disorders based on comprehensive clinical and radiological assessment.
- Apply the principles of deformity correction to make a preoperative plan for osteotomies around the knee. Apply concepts of ligament reconstruction and deformity correction in the setting of a skills lab.

#### **Featured Lectures**

- Multiple facets of the knee and biomechanics
- Anatomy of the PLC and PMC
- Principles of preoperative planning in the coronal plane

#### **Course Modules**

- Module 1-The knee as an organ
- Module 2–Practical exercise: meniscal repair
- Module 3–Reconstruction of anatomy for superior stability
- Module 4—Practical exercise: reconstruction of the central pivor
- Module 5–Peripheral instability: corners of the knee
- Module 6–Alignment of the knee
- Module 7—Patellofemoral joint
- Module 8–Complex cases

### **Small Group Discussions**

- Knee and shoulder (operating room setup, patient positioning, principles of arthroscopy, portals, and approaches)
- Common knee inuries
- Common shoulder injuries
- Knee (treatment, rehab, return-to-play protocols, pearls, pitfalls, and complications)
- Shoulder (treatment, rehab, return-to-play protocols, pearls, pitfalls, and complications)

#### **Practical Exercises**

- Meniscal repair—horizontal tear
- Meniscal repair—vertical tear
- Meniscal repair—radial tear
- Meniscal repair—root tear
- PCL reconstruction
- ACL reconstruction
- PLC reconstruction
- PMC reconstruction
- Preoperative planning—paper based





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